The Political Economy of Japanese Financial Markets

Myths versus Reality

Dick Beason and Jason James
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The Political Economy of Japanese Financial Markets

Myths versus Reality

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<td>Private sector and quasi-government organization posts which ‘fall from heaven’ to former bureaucrats.</td>
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<td>Bakufu</td>
<td>Effectively the central government which emerged during the Edo period which kept potentially rivalrous feudal factions at bay and <em>de facto</em> usurped the authority of the emperor.</td>
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<td>Bakuhan</td>
<td>The coordinated administration of the <em>bakufu</em> or central government and the <em>han</em>, or fief. The historical antecedent of coordinated central and local government.</td>
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<td>Daimyo</td>
<td>Feudal lord.</td>
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<td>Endaka</td>
<td>Strong yen. Used to describe the secular rise in the value of the yen as well as periodic bouts of yen strength.</td>
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<td>Gaiatsu</td>
<td>Foreign pressure, such as diplomatic pressure.</td>
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<td>Gaimuin</td>
<td>Qualified or certified securities salesperson.</td>
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<td>Gensaki</td>
<td>A repurchase agreement (Repo) instrument. Essentially a free rate short-term money market instrument.</td>
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<td>Han</td>
<td>Feudal fief.</td>
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<td>Kan-eki Hoken</td>
<td>The Postal Insurance Corporation.</td>
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<td>Keiretsu</td>
<td>The form of corporate grouping prevalent in modern Japan, characterized by cross shareholdings, a main bank and usually affiliated with a trading house. Member</td>
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firms are typically from a variety of business lines. The major groups are directly descended from the pre-war zaibatsu.

**Kinyu Keiretsu**
Financial grouping, and typically just the more formal name for *keiretsu*.

**Kokumin Nenkin**
Public ‘social security’ type pension or old age support.

**Komeito**
The political party affiliated with the *Sokka Gakkai* Buddhist sect. Calls itself the ‘Clean Government Party’ in English, though its record on scandals is highly spotted.

**Kosei Nenkin**
Publicly administered pension plan.

**Mabiki**

**Maru-yu**
A type of tax-free savings account, now highly restricted but previously available to nearly anyone.

**Minshu-to**
Democratic Party. One of the newer parties to emerge or re-emerge since 1993. Traces its roots to the Democratic Party of the immediate post-war.

**Nihon keizai shinbum**
The major daily financial paper in Japan.

**Nokyo**
Generic term for agricultural cooperative. Some of these are very large and powerful.

**Sankin Kotai**
The system of friendly hostage-taking employed by the Tokugawa shogunate during the Edo period to ensure loyalty of the *daimyo* of the various *han*. The *daimyo* would have to leave key family members in the capital city of Edo (Tokyo) for specified periods of time. This acted as insurance against attack, and financially weakened the *daimyo*.

**Sarakin**
Loan shark.

**Sogo Shosha**
Trading house.

**Terakoya**
Temple school in ancient times.

**Tokkin Fund**
Short-term investment trust.

**Zaibatsu**
The pre-war Japanese equivalent of the American trusts of the early twentieth
century. These family held conglomerates typically included banks, trading houses and a variety of manufacturing and retail entities.

**Zaitech**


**ACRONYMS**

**BIS**

Bank for International Settlements. The international organization based in Basle, Switzerland and now charged with international banking regulation among member states. The principles upon which the regulation is based, essentially capital adequacy ratios, is the basis of the so-called Basle Accord. Participants typically alternate between use of the terms ‘BIS regulations’ and ‘Basle Accord’.

**BoJ**

Bank of Japan, the Japanese central bank.

**CD**

Certificate of deposit. Traditionally, these have been large denomination deposits with unregulated interest rates. The term is a holdover from the days of phased in deregulation, when markets for larger participants were deregulated first. Today, most mature economies have largely unregulated interest rate environments and CDs are no longer prevalent.

**CPI**

Consumer price index, an index with base measure of 100 which tracks how prices of a selected bundle of consumer goods have moved since the base year. This index is the most common basis for the calculation of inflation measures.

**EPS**

Earnings per share.

**FILP**

Fiscal Investment and Loan Programme. The so-called ‘second budget’ for the Ministry of Finance. Uses proceeds from the Postal Savings and invests them in a variety of projects and quasi-government programmes. Potentially a massive pool of non-performing loans.
GHQ  The General Headquarters of General MacArthur during his reign in the occupation of Japan, which ended in 1952.

JR  Japan Rail, the privatized version of Japan National Rail. Actually, JNR was broken into several regional Japan Rail companies.

KDD  The formerly public international long distance telephone carrier.

LDP  The Liberal Democratic Party of Japan, which had ruled Japan with virtual absolute majority for most of the post-war period. Has faced periods out of government, minority and coalition governments since 1993.

MMC  A money market certificate. Essentially, a deposit-like instrument where the funds under deposit were placed in the financial markets. The returns on MMCs were between market returns and regulated interest rates.

MMFs  Essentially the same as an MMC.

MoF  Ministry of Finance. Together with the Bank of Japan, it shares regulatory authority over the financial sector.

MSCI  Morgan Stanley Capital Markets Index. A market capitalization weighted stock market index and related data base.

NTT  The formerly public telephone corporation, now privatized.

PER  Price Earnings Ratio, the ratio of stock price to its current or prospective earnings.

PKO  ‘Price Keeping Operation’ a tongue-in-cheek reference to United Nations ‘peace-keeping operations’, which Japan has increasingly been invited to join since the late 1980s, and which have created something of a constitutional crisis. By contrast, this kind of PKO simply implies government support for the stock market, and the only bullets being dodged are those fired by journalists.

PPP  Purchasing Power Parity, a measure of the effective exchange rate which would equilibrate a basket of
goods representing living costs between the country under examination and some benchmark.

**PBR**
Price to Book Ratio. A measure of the price of a company measured by its outstanding equity issues and the book value of all its assets.

**ROE**
Return to equity. A measure of the return or profit relative to total value of equity issue for a company.

**SDP, SDPJ**
The Social Democratic Party of Japan, or simply the Socialist Party. For many years the major opposition party in Japan, now essentially defunct. Despite its otherwise moderate image, held very radical positions on treaty status with the United States, and praised North Korea as a workers’ paradise.

**SEC**
The Securities and Exchange Commission of the United States. The regulatory body for stock markets in the United States

**SII**
Structural Impediments Initiative. One of a series of approaches to trade disputes and market opening between the US and Japan.

**SIMEX**
Singapore Inter-market Exchange. The offshore market capitalization weighted index investment market. The TOPIX, or capitalization weighted index for the Japanese market and futures for the same market are traded on the SIMEX.

**TOPIX**
The capitalization weighted index for the Japanese stock market.

**TSL**
The Tokyo Stock Exchange. Confusing, because the Toronto Stock Exchange uses the same acronym.

**US GAAP**

**WPI**
Wholesale Price Index. An index based upon a representative basket of wholesale goods, including imported wholesale goods, designed to track movement of wholesale goods relative to some base year.
Part I

Development of the Intermediated Structure
1 Introduction

While the overt purpose of this book is to provide factual material about Japanese financial markets and to debunk myths, there are also several other purposes. The book is intended as a primer on the most relevant aspects of the economic history of Japanese financial markets, and on how markets have changed, especially over the past 20 years. Indeed, the book can serve as a primer on how markets work now, who the relevant participants are, what the role of government is and the relation between Japanese financial markets, the economy and the government. In order to deal appropriately with such a wide brief, the book will cover many topics and many time periods. In all cases, however, the analytical perspective will be that of political economy. That is, we deem relevant matters that are related to the economy and polity of Japan.

As the book is intended to address audiences with varying levels of familiarity with the Japanese economy and markets, we attempt to weave elementary material into the historical background. Institutional description is laced with theoretical concepts and empirical evaluation to weave an intellectual tapestry that is of equal interest to the old Japan hand as it is to newcomers. It is hoped that the description of the institutional nature and development of Japan’s bank-centred financial system will lead the reader to question whether the system generated its own downfall. The reader should simultaneously understand the strengths of this system during the 1950s and 1960s, the necessity of change in the latter half of the 1970s, the relationship to the so-called bubble economy of the late 1980s, the crisis of the 1990s and the necessity for further liberalization by the turn of the century. While the focus is the financial system, it should also become clear that the authors are sceptical of both the Japan euphoria of the late 1970s and early 1980s as they are of Japan-bashing in the 1980s and 1990s, as well as the extreme Japan cynics as Japan enters the twenty-first century.

The book is organized into four parts. Part I, consisting of three chapters, provides historical detail on the evolution of the modern Japanese financial system, the high degree of financial intermediation in the postwar period and the development of a more liberal financial structure. Part II considers the resulting contradictions which
emerged when a highly intermediated and previously protected structure entered a more liberal environment. Specifically, Part II examines the bursting of the so-called ‘bubble’ economy, and the resulting Heisei recession and financial crises. In Part III we deal with what might be called institutional issues. We examine the institutions themselves, the intrusion of politics and the role of public policy in influencing the functioning of markets. In Part IV we deal with measurement issues. Specifically, the issue of whether the ‘bubble’ of the 1980s can properly be called a bubble, whether the cost of capital in Japan has been lower as is often suggested, and address the sticky issue of asset valuation in Japan, given the troublesome impact of cross-shareholding.

From the title of the book, some things will already be clear. Should the reader desire a polemic describing how the Japanese economy and financial markets are unique and beyond the understanding and tools of analysis of Western-trained specialists, we suggest that the reader refer to the writings of the so-called revisionists. Those who prefer an approach based on the perspective of well-grounded economic foundations and the experience of actual market practitioners are advised to keep reading. While we do not promise simple answers to some of the most difficult questions surrounding the workings and stylized facts of Japanese financial markets, we raise serious questions about the conventional wisdom that Japanese financial markets and the economy generally somehow defy otherwise universal laws of motion. In short, we will not rely on punchy anecdotes or unverified stories to convey our message. This is a book of reasoned description and testable theory which attempts to provide a clearer understanding of a complicated but not unintelligible financial system.

Of course, our perspective is increasingly shared by a larger number of observers, expert and novice alike. The prolonged economic slowdown in Japan and ensuing financial crisis in the 1990s has essentially made the point that Japan’s economy is no less vulnerable than its trading partners’ to business fluctuations and economic weakness. Slowly, politicians and policy-makers in the West have come to understand that Japan’s years of trade surpluses simply reflected her patterns of consumption and savings, as well as a stage in the business cycle relative to her trading partners, rather than any inherent economic strength or unique character. We certainly recognize the many unique facets of Japanese financial markets and economy, but we argue that these have become less relevant as Japan emerges as a mature economy. Of course, there will always be diehards, including
Chalmers Johnson, who as recently as 1993 was publicly claiming that the Heisei recession was a hoax (Atlantic Monthly, May 1993). But clearly, such a perspective no longer has a place in the arena of reasoned debate.

SOME HISTORICAL BACKGROUND

It is not the purpose of this book to dwell on economic history, but it is necessary to provide some background to the evolution of the modern Japanese financial system. It is probably not surprising that we begin this brief review in the Meiji period (1868–1912). This choice of starting point is no accident, as most readers will no doubt recognize. The end of the Edo period and start of the Meiji period, the so-called Meiji Restoration, is one of the most fascinating periods of Japanese history – and one that cannot be dealt with adequately here. Fortunately, much scholarly work has been done on the period (see e.g. Yamamura, 1974; Yasuba, 1975) so we can focus our attention on the details of interest for our purposes. The key point is that the Meiji Restoration can be viewed as a sort of statist bourgeois democratic revolution. That is, many feudal structures were dismantled and modern capitalist institutions created in order to facilitate modern commerce and economic development.

The reality is, however, that as feudal regimes go, the period after the battle of Sekigahara in 1600 until the Meiji Restoration of 1868 was highly innovative and efficient. Referred to as the Tokugawa or Edo period, the system relied on both centralized and diffuse political management. The central authority, or bakufu, was responsible for domestic order and for facilitating inter-regional trade and contact, while the fiefs, or han (roughly 250), were responsible for organizing local production, collection of taxes (rents), provision of regional entitlements, and the like. Under the system of sankin kotai, the regional daimyo, or feudal lords, were required to maintain a residence in the capital and to keep loyal retainers, samurai and family members in these residences. This allowed the representatives of the bakufu to hold the trump card in any rebellion a particular daimyo might plan. The result of this ingenuity and efficient structure was a very long period of relative domestic tranquility. The cost, one might imagine, would presumably have come in stagnating economic conditions, as the feudal system is one of limited incentives for greater production.
There is much historical debate about how economically backward Japan was at the end of the Edo period, and even more debate about the economic nature of the Meiji Restoration. While it remains our desire to avoid detailed discourse into economic history, it will nevertheless be necessary to develop these themes somewhat. Specifically, Japan’s economic history seems to deviate somewhat from the traditional Marxist interpretation of the transition from feudalism to capitalism in terms of incentives and productivity growth. The traditional interpretation of such economic transition is that the feudal system provided no incentives for productivity growth, since economic surplus would be appropriated by the feudal lord. As a result, the peasantry had no incentive to produce a surplus, and the system economically was stagnant. Stagnation would eventually result in starvation and social unrest, and the development of more capitalistic structures.

In Japan, some would argue that the transition to more capitalistic agriculture came about differently, and evolved first in the more statist realms, where it was recognized that production would rise if output were taxed rather than simply having the peasants work the land of the lord. Rising agricultural output meant more goods to be traded for the produce of the artisans and petty commodity producers. Ultimately, the argument goes, the artisans and peasants become powerful enough as economic groups to provide support for statist groups, and eventually overtook the militaristic landed classes. Which interpretation is fully correct remains a matter of opinion. There are, however, some indications that Japanese feudalism was not characterized by economic stagnation, and that capitalistic institutions were already developing by the time of the Meiji Restoration.

It has been argued that rather than being characterized by stagnation, the Edo period was one of robust economic growth and relatively high living standards for a feudal society (Yasuba, 1987). Standards of living may have been higher than India or China, and it has been suggested that comparisons with pre-industrial Britain would be favourable. The most generous estimate of per capita income during the Meiji period is $268 (in 1970 dollars) (Yasuba, 1987), compared to incomes of $300–400 dollars for most Western European countries on the eve of their industrial revolutions. It would therefore be futile to argue that Japan was as well off as most European countries were as they began their economic take-off, but it is certainly not the case that Japan was only just emerging from a long period of severe stagnation.
This should not be surprising. Relatively statist forms of surplus extraction were introduced fairly early in feudal Japan, with the rice tax at a flat rate in proportion to the amount of land worked. Of course, this translates into a zero marginal rate of taxation, and an enormous incentive for the peasantry to increase production. The daimyo also recognized the relationship between health and productivity, and informal systems of entitlements emerged on the various han (Mosk, 1996). In addition to economic incentives and a healthy population, the role of the bakufu in developing irrigation and water networks helped agricultural output rise, as, no doubt, did the relative domestic tranquility.

While economic incentives clearly provided an important basis for improving economic conditions throughout the Edo period, they were not the only reasons for relatively high feudal living standards. Infanticide, or mabiki (culling of weeds) as it was euphemistically called, was widely practised in order to maintain relatively high living standards. The practice, while most prevalent among the poor, did occur across the social classes and seems to have been practised for largely economic reasons (Hanley and Yamamura, 1977) or to increase survivorship (Mosk, 1983). There is also evidence that the practice was principally designed to ensure male succession (Smith, 1988). Regardless of its primary motivation, there can be little doubt that the practice contributed in some measure to living standards.

While we normally associate the impact of education on productivity growth with modern economic development, it seems that a nascent education system was developing in the Edo period, and that technological developments were understood and widely diffused among the peasantry. Terakoya, or temple schools, grew in importance during this period, though it is true that beneficiaries were often from the commercial rather than agricultural classes. The importance of temple schools, indeed of the Buddhist temple generally, in various aspects of life during the period, increased, the result of the bakufus’ fear of the ‘cross followed by the sword’. In an attempt to prevent the spread of Christianity, peasants had to register with and participate in local temples – something that presumably helped to spread literacy.

We can argue that during the Tokugawa period, much of the groundwork for an orderly transition to capitalism had already been laid. The dualistic political structure of the central government, or bakufu, on the one hand, and effective regional authority through the daimyo in the han, on the other, essentially formed the basis of a
central/local government delineation of authority which was highly efficient. The well-organized bakufu helped in the provision of many public goods which allowed markets and cities to develop, as well as to enhance agricultural productivity. Taxation and rent were organized along incentive-compatible lines, and the development of the agricultural surplus helped to support growth among industries dominated by artisans and independent commodity producers. Xenophobia helped to raise the importance of the temple in daily life, giving a boost to informal education. Perhaps the only structure emerging from this system which was not well equipped to deal with the transition to capitalism was the regional provision of entitlements, as Mosk (1996) has shown. Overall, however, one must note how well Tokugawa feudalism helped prepare Japan for capitalism.

Given the level of economic development by the end of the Edo period, the well-established understanding of economic incentives and relatively statist structure for a feudal society, it is not surprising that the Meiji Restoration is not referred to as a revolution. Statism was more firmly established, necessary capitalist reforms in agriculture pursued and the military forces of individual fiefdoms demilitarized during the Meiji Restoration – but much of the groundwork for a smooth transition to capitalism had already been laid. Instead, it might be best to think of the early part of the Meiji period as one of catching up and very rapidly absorbing the former (and top-heavy) military classes into modern society. There was much experimentation during the period in an attempt to adopt very rapidly and adapt Western institutions. One of the greatest social experiments of the time, and one that continues to fuel debate to this day, was the attempt to transform the former warrior class into a commercial class. The policy, often referred to in the literature as samurai entrepreneurship, was designed to create a new commercial class from the former feudal soldiers and avoid the development of a fifth column capable of derailing reforms and re-establishing a feudal order. Furthermore, the government (probably incorrectly) felt that no capable commercial class existed, and that one had to be created. The samurai, with proven leadership abilities, seemed the ideal candidates, and keeping them busy as entrepreneurs would presumably prevent a reactionary coup de état. In practice, the government created numerous subsidy programmes to provide the necessary start-up capital to the new commercial class.

Generally speaking, the political structures that emerged during the early Meiji period can be described as those that would help to
facilitate the development of new markets, enhance the operation of existing markets, speed the adoption of modern technology and facilitate administrative efficiency. The social experiment designed to create a new commercial class and related examples below falls into the category of development of new markets. Development of infrastructure and fine-tuning of the system of taxation were designed to enhance operation of existing markets. Government factory programmes, foreign training and the contracting of Western specialists and technocrats clearly demonstrate the government’s commitment to new technology. In terms of administrative efficiency, the dualistic bakuhan (bakufu and han) system was replaced with a system of prefectural, city and town governments, with the prefectural governments representing a consolidation of the earlier fiefdoms.

While the system was essentially an experiment, things seemed to run reasonably well, though examples of unproductive or failed experiments abound. An area that Mosk (1996) argues was one of failure was in the provision of entitlements. Under feudalism, the han took responsibility for the provision of entitlements, as the benefits of such to the daimyo were apparent. That is, in times of shortage, provision of entitlements by the han was synonymous with the preservation of order. As the han disappeared and were replaced by proper local governments, the provision of entitlements became pure public goods. While emerging capitalist enterprises would clearly benefit (in terms of industrial peace) if entitlements were provided during times of scarcity, the fact that entitlements had now become pure public goods meant that they were provided in insufficient quantity.

Mosk (1996) shows that it is only over time, and after some social strife and the intervention of far-sighted bureaucrats and politicians, that entitlements were widely introduced. The focus of the Meiji regime, it seems, was on the development of market structures and a capitalist class, and the rapid adoption and adaptation of foreign technology. It is interesting to note that the notion that entitlements suddenly became inadequate at the time of the Meiji Restoration flies in the face of traditional revisionist thinking. Revisionists would have us believe that Japanese capitalism is an altogether different variety, complete with paternalistic capitalists who saw to it that entitlements provided by the state were unnecessary. Mosk shows quite clearly how the disappearance of the han left a void in terms of provision of entitlements, which newly emerging firms were not able to fill. That is, the transition to capitalism in Japan is interesting because of its rapidity and the conscious role of the
government, but not because its capitalist structures are unique and bear remnants of feudal forms.

As the role of the feudal lord was replaced by more statist structures, the warrior class became redundant. A modern conscription army was created, but a large pool of otherwise unengaged feudal warriors remained. The government replaced feudal rice rents with a land tax and decided on monetary pensions to compensate the former warrior class. By 1873 these pensions absorbed about one third of total government revenue. While the burden was obviously quite onerous, it was felt that it was necessary to prevent the development of a threatening fifth column.

The solution to this ‘fiscal crisis’ was to capitalize the value of the pensions and offer them in the form of bonds. At first, the ‘samurai bonds’ were offered on a voluntary basis over the period 1873–5. By 1876, all the stipends were mandated to be capitalized and paid as bonds to the outstanding 400,000 former samurai families. The government encouraged the recipients to pool resources and use the bonds as collateral in forming new businesses. In particular, since the government was keen on developing a financial sector based on banks, it encouraged the former samurai to charter banks. It was therefore no accident that the National Banking Act was dated in 1876, making it relatively easy for the former samurai to pool bonds and charter new banks.

Essentially, the National Banking Act provided for the chartering of banks, specified that samurai bonds could be used as initial paid-in capital for the purposes of chartering, and called for the creation of bank notes which were inconvertible to metal. The result was the formation of 151 banks by 1879, compared with only five between 1873 and 76. The Bank of Japan was established in 1882 and was fully functioning in 1886. Unlike the development of banking systems in other countries, which emerged endogenously and in response to market incentives, the Japanese system clearly developed at least in part due to incentives intentionally created by the government. Of course, market incentives eventually replaced the importance of the government in this arena, but this initial role of government in banking – probably more than any other example – has shaped the discussion and thinking of the so-called revisionists.

Having created the preconditions for a self-sufficient class of capitalists from the former warriors, the government set about ridding itself of the financial burden of having to repay the samurai bonds. Indeed, it could be said that the Meiji government did so in a fashion
which has been imitated in a similar way around the world ever since: by inflating away the value of the debt stock. The money supply grew dramatically between 1868 and 1878. Indeed, from 1868 to 1874, issuance of paper currency accounted for 20 per cent of government revenue (about 75 million yen) during the period. As a result, rapid inflation ensued, with wholesale prices rising by 40 per cent over the period 1868–72.

The above suggests that despite what would seem to be a high degree of planning and social engineering during the period, things were highly chaotic. This was indeed the case, with savings and gross domestic capital formation at a very low level. Real economic growth was moderate and respectable at an estimated 2 per cent per year over the period 1868–85. In per capita terms, due to the modest birth rate, this translated into 1.25 per cent growth in real per capita income per annum, but both figures must surely have been below potential. The national savings rate is estimated to have been about 4 per cent during the period, with capital formation averaging about 6 per cent of national income, implying that Japan was a net importer of capital during the period.

While many historians argue that samurai entrepreneurship was a great triumph, there is much evidence to suggest that the entire policy contributed to economic chaos during the period. The traditional ‘culturalist’ interpretation of Japanese economic history is that samurai entrepreneurship was not only successful, but helped to cement the power of the bureaucracy and create many of the paternalistic corporate forms still evident in modern Japan. The crudest revisionist analyses in this tradition, many of which are incidentally quite popular among some Japanese, suggest that the samurai entrepreneurs carried a tradition of loyalty, responsibility and honour with them into the boardroom. Extrapolating on this, it is argued that many corporate practices observed in modern Japan descend directly from the practices of these samurai entrepreneurs.

There are many counter-arguments to this position, including the fact, noted above, that entitlements all but disappeared with the breakdown of the bakuhansystem (Mosk, 1996). The star industry of the day, cotton spinning, was characterized by a very young female labour force with very short tenure and almost no commitment to the workplace (Saxonhouse, 1974). Employer provision of welfare to employees in cotton spinning was similarly minimal, as the employees were seen as more or less transient (Mosk, 1996). In terms of feudal origins of modern corporate practice, it is very simple to note that
‘lifetime employment’ and the bonus system as it exists today are basically postwar forms, having only modest beginnings in the interwar period. It is difficult to argue that such paternalistic practices can be traced to samurai entrepreneurship when they were largely introduced by modern postwar managers (Koike, 1988), likely as measures designed to retain high quality employees during rapid economic growth.

Before appealing to further historical examples, it is perhaps worth noting that the most unattractive feature of the revisionist logic is its complete denial of market forces. Even if samurai entrepreneurs had indeed formed the key cadre of capitalists during the Meiji period, and even if they had carried their traditions with them into the new era, can we really believe that markets would permit the wholesale transplantation of such traditions into a different economic system? Capitalism, with success in the competitive battle as the key to survival, is typically unkind to inflexible and costly norms. Is it realistic to believe that in a period of labour surplus at least one entrepreneur would not realize that relatively anonymous utilization of labour was less costly than essentially long-term contracts? Of course, we do not have to rely on theoretical arguments to debunk the revisionist myth. Business provision of entitlements during the early Meiji period was minimal, key industries in the period (such as cotton spinning) relied heavily on workers with little attachment to the firm, ‘paternalistic’ labour market practices (e.g. life-time employment and the bonus system) are recent developments with little or no historic basis in the samurai entrepreneur episode. Beyond this record is another important point: the samurai entrepreneurs may have been minor players in any event.

The historical evidence is also compelling. Professor Yasukichi Yasuba has done a careful study of samurai entrepreneurship and concluded that many samurai entrepreneurs were not successful. Of the 151 banks chartered between 1787 and 1879, only 139 survived until 1885 and only 133 until 1895. While prominent former samurai were involved in the chartering of many banks, it has been found that their involvement was often quite marginal. That is, they could be said to be ‘silent partners’ in many cases, having offered the use of their samurai bonds and status in chartering a bank in co-operation with merchant class individuals. It was clearly advantageous for anyone wishing to charter a bank to look for samurai partners: they had capital. Beyond this, having a samurai partner lent credibility to the new bank, and helped in any dealings with the government as well.
When it comes to running the banks, however, there is little evidence beyond some of the cases of ‘famous legends’ that the former samurai were closely involved. This should not be surprising, as a reasonably well-developed class of moneylenders and brokers had already emerged in the Tokugawa period who would certainly have had more expertise than former warriors.

While the period was chaotic, and the precise role of samurai in the economic transition is debatable, it is true that a transformation was achieved: a banking system evolved over a relatively short period; and the samurai, whether transformed into capitalists or not, did not become a significant fifth column. It is also likely that ‘silent’ samurai participation in helping to provide start-up capital for genuine entrepreneurs was of some significance – though it is not possible to evaluate the importance of this role precisely in any quantitative sense. What we wish to argue is that the state clearly tried to play a more ‘hands on’ role in Japan’s transition to capitalism than was the case in other countries. We agree that samurai entrepreneurship was an interesting historical episode, but we believe that there is a strong balance of evidence to suggest that few of what we might today consider to be characteristic features of Japanese capitalism had anything to do with the role of the samurai as entrepreneur.

In any event, the value of samurai bonds had been effectively deflated away by 1885, eliminating a potential fiscal crisis at the same time that former warriors were busy trying to preserve their economic status. Simultaneously, Japan’s already incentive-compatible system of feudal rents became more efficient with the abolition of feudalism and implementation of statist taxation. Feudal rice rents were eliminated and replaced by a monetary land tax. The land tax was based on the original assessed value of the land and the rate was flat, initially at 3 per cent in 1873, to be lowered to 2.5 per cent in 1876. This meant that the marginal rate of taxation was zero, producing significant supply-side incentives. Wherever one stands on the role of samurai entrepreneurship in the transition to capitalism, it is difficult to deny the rational, efficient and generally positive role of the state in promoting this transition in an orderly fashion.

What was finally necessary was monetary discipline once public finances were on an even keel. This process was begun in 1881 under the guidance of Finance Minister Matsukata, who initiated what has become known as the Matsukata deflation. Price stability was achieved by 1885, and the period of more stable economic development began. Between 1879 and 1885, circulating currency is
believed to have declined by 30 per cent. Between 1881 and 1884, wholesale prices fell by 25 per cent and consumer prices fell by about 30 per cent. One might call this the first conscious and highly successful monetarist experiment. By 1885, therefore, Japan had a modern statist government, a functioning central bank and uniform note issue, a network of specialized banks, an export-import bank, a nationwide postal savings system, and a life and marine insurance company. That is, Japan had the beginnings of a modern financial system.

TRANSITION FROM A LABOUR SURPLUS ECONOMY: 1885–1913

It is convenient to categorize the period from 1885 as one of more modern economic transition. The transition from a traditional labour surplus economy (Lewis, 1954) was nearly complete by 1890, and the Sino-Japanese war (1895–6) together with the Russo-Japanese war (1904–6) catapulted Japan into the modern machine age. Study of the development of labour markets and their related institutions during the period is clearly an area of research unto itself – one that we shall not attempt here. Suffice it to say that the military efforts of the time, together with the natural process of development, had served to absorb much of the labour surplus, and that wages among skilled workers had begun to rise. The first evidence of successful industrial action among skilled workers dates to this period. For our purposes, however, it is the rapid development of the financial system, which greatly accelerated the transition into modernity from 1885 onward, that is of interest to us here.

Probably the greatest contribution of the financial system during the period was to facilitate capital formation and saving. Net fixed capital formation is estimated to have been above 9.0 per cent for the period 1885–1913. During the same period, domestic net saving is thought to have averaged roughly 4.4 per cent of GNP, requiring moderate import of capital. By 1885, and all the more so after the war with China, Japan was thought to have been a good international credit risk. Much of the capital formation during the period was in the public sector. Initially, this was in traditional areas of infrastructure creation, such as the building of port and other transportation facilities. Later, during the two wars, much of this public investment was in armaments-related activities. Throughout the
period, construction investment, both public and private, was a major contributor within total capital formation.

The period was characterized by modest but sustained inflation. After relative price stability was achieved in the Matsukata deflation, wholesale prices advanced by about 4 per cent per year from 1895 to 1900. From 1900 to 1913, the rise was at about 2.3 per cent per year. Asset prices generally rose during the period as well, but tended to lag behind general prices, giving moderate real declines in the prices of such assets during the period. Interest rates had a definite modest downward trend during the period as well. This record was adequate to earn the respect of world financial centres, and Japan was generally accorded a status more or less on a par with the world powers, despite her earlier stage of economic development.

While the period was one of overall stability with gradual evolution and development of the financial structure, it was one of quite radical change from a more general political-economic point of view in terms of the transition from labour surplus. Specifically, with a relatively well-developed agricultural infrastructure and significant supply-side incentives in agriculture, agricultural productivity grew rapidly. This had the effect of rendering much of the agricultural population redundant, creating the preconditions for a traditional labour surplus economy. Effectively, crude manufacturing industries were able to pay below subsistence wages as all available family members were contracted out to the manufacturing sector while the household head would concentrate efforts in agriculture. Indeed, the entire cotton spinning industry was predicated upon a surplus of rural female labour (Saxonhouse, 1974). At the same time, putting-out grew in significance.

While the labour surplus economy was essential to development of manufacturing industries, it was a relatively short-lived transition. The war with China absorbed much of the surplus male population into war service directly, or into munitions production. The Japanese military machine continued to develop in the interwar years 1896–1904, so that demands on any surplus labour continued. When war with Russia broke out in 1904, the Japanese military establishment was further stretched, and the labour surplus dried up. Indeed, there are accounts of labour unrest during both conflicts, indicating that labour supply was increasingly favouring a tight market. Japan was able to complete the transition from a labour surplus economy in roughly 30 years – something that has eluded some developing countries for much of the twentieth century.
While the important economic changes were occurring, and as the capital–labour mix increasingly grew to resemble that of a fully developed economy, gradual changes in the financial system were underway. Indeed, by 1913, Japan had in place a financial structure capable of supporting economic growth through the First World War and into the 1930s. Specifically, the Bank of Japan continued to develop, and note issue by private national banks was phased out. Smaller specialized financial institutions developed in the regions, greatly facilitating deposit-taking from small savers. In the early years of the 1900s, the government established the long-term credit banks to supplement the existing short-term credit market. The long-term credit banks did not accept deposits, but issued debentures. This could be said to be the origin of the highly specialized banking structure which was to support Japanese economic development until the 1980s.

In some sense, this period was pivotal in the development of the Japanese financial market. The development of and dependence on these specialized financial institutions, as well as government fixation with the transformation of liquidity and single-minded routing of credit to industry, came to colour much of financial and industrial policy well into the second half of the twentieth century. Undoubtedly, in the absence of government guidance, particularly in the creation of long-term credit banks, markets would have developed to meet specific financial needs. With rapid economic growth after the Second World War, it became an article of faith that these government-induced institutions were partly responsible, and this made its way into standard revisionism. With the bursting of the bubble and related financial crises in the 1990s, a more healthy scepticism has emerged and with it the view that Japan may have succeeded in spite of these institutions.

In any event, developments of these institutions during this period is an undeniable feature, and there were other important developments as well. For example, the government issued war bonds during and after the conflicts of the period up to 1913. This helped to create a more liquid credit market, and finally gave rise to a domestic benchmark, though corporate debt markets failed to emerge due to competing banking arrangements. Incorporation law was developed in the period, facilitating more rapid development of the manufacturing sector. Finally, the Japanese equivalent of the trusts, the zaibatsu, emerged during the period to 1913. These large financial-industrial concerns centred on a bank and trading company came to wield significant influence, and it can be said that modern Japanese
corporate structure in the form of *keiretsu* is largely rooted in the *zaibatsu* forms that emerged in this period.

Some further discussion of the *zaibatsu* is in order. In some of the revisionist history, *zaibatsu* are sometimes linked to the samurai entrepreneurship episode. The reality is that the founding *zaibatsu* families cut across social classes – from rich peasant to commercial class to samurai. The important common factor, much like their counterparts in the American trusts, is the massive scale of economic activity typically associated with the *zaibatsu*. The fact that similar forms seem to emerge in a variety of countries at similar stages of economic development suggests that there may be some economies of scale and scope of these types of organizations in particular historic episodes. In particular, for the *zaibatsu* it is often argued that large groupings allowed for scarce managerial resources to be moved around the group in an efficient fashion, and that indivisibilities would normally have led to significant inefficiencies had the groupings not developed. The alternative explanation, that the groupings simply developed and grew due to the advantages of monopoly power, is somewhat lacking, as these groupings tended to be diversified into many activities, rather than concentrated in a single one.

We shall consider the *zaibatsu* and their postwar ancestors, the *keiretsu*, at another point in this study. For the time being, the important aspect of the *zaibatsu* is that they spawned large firms, that they allocated scarce financial and managerial resources within the group, and provided the necessary critical mass in some areas of activity. It is generally unclear that firms in such groupings were any more profitable than independent firms. In the overall scope of things, however, the *zaibatsu* contributed to the fact that Japan was poised to serve as supplier to the belligerents on the eve of the First World War.

**THE FIRST WORLD WAR TO THE 1930s**

As might be expected, Japan as a *de facto* non-belligerent experienced some benefits from the outbreak of war in Europe, though some historians suggest that there were negative effects from boycotts. Whatever negative impact there might have been in terms of non-armaments, Japan was able to act as supplier to various warring parties, and its experience in two successful wars had made it a reliable supplier of modern arms despite its status as a developing country. Exports doubled over the period 1913–18. The export share
of GNP also grew dramatically (though it did not double due to overall economic growth in the period) from 10 per cent to 15 per cent, roughly their share today. Manufacturing production expanded by 67 per cent at the same time.

Over the period 1913–21, real per capita GNP grew by 4 per cent per year. This would qualify as a near-miracle level growth on a per capita basis. Inflation was substantial, though as we can see not enough of a threat to rob real gains in living standards. Consumer prices doubled between 1913 and 1920, and nominal wages tripled. This was clearly the period in which the gains from Japan’s industrial revolution came to trickle down to the masses, and living standards began to rise perceptibly. Price stability and mild deflation were the rule from 1921 to 1929, so that Japan was able to escape the chaos of hyperinflation that dominated continental Europe. After 1929, of course, deflation was the rule as Japan followed the world down the path of depression – though depression in Japan was not nearly as severe as that in North America. Indeed, depression in Japan was largely isolated to the decline in export demand.

During the period 1914–31, gross domestic capital formation averaged about 9 per cent of GNP, while net savings were about 8.2 per cent of GNP. As a result, capital inflows over the period were modest. It is no surprise that capital formation during the period had to be largely domestically financed, as foreigners were busy financing their own war efforts. Financial development during the period simply extended existing trends. Larger surviving national banks developed into commercial banks. Smaller financial institutions continued their role of deposit taking. The long-term credit banks continued to develop alongside an expanding insurance industry.

In terms of financial market development, the period should be seen as one of maturation and consolidation. The essential framework had already been established in the first 20 years of the Meiji period. That is, the Japanese had essentially decided to follow the German model, and develop a financial system that was highly dependent on banks. As Japan was a small but highly regional country, one of the principal problems would be to collect deposits from throughout the countryside and see to it that credit was available to the major enterprises located in the Kansai and Kanto regions of the country. As such, it was felt that ‘more banks the better’, and, as we can see from the earlier discussion, the authorities were willing to charter a large number of banks. The reality is that survival quickly required regional specialization, despite these banks’ national charters. By this period a
clear pattern of regional and city specialization had emerged, with funds essentially being funnelled from the regions to the larger enterprises in the cities.

Specialization by function had also progressed during this period. The three long-term credit banks established by the government were fully functional during the interwar period. By following the German model and relying heavily on banks, the Japanese authorities had decided that specialized institutions must be available to meet corporate needs at all points in the term structure. Long-term credit banks were established to meet long-term credit needs and thereby effectively eliminate the need for direct long-term corporate finance. Presumably, the authorities feared that the credit market in Japan was too underdeveloped to accommodate direct long-term corporate finance, and that an intermediary was necessary. An additional reason would be that bureaucrats could monitor and control applications for long-term credit through the government-owned long-term credit banks, but would have less control in direct markets. In any event, this specialization by function, as well as regional specialization, had developed during this period.

FINANCIAL STRUCTURE IN THE SECOND WORLD WAR

From 1930 onwards, the characteristic nature of the economy was fundamentally altered by growth of the public sector as the country became increasingly militaristic from 1931 onward. Together with growth in government spending came deficits and public sector borrowing on a growing scale. This had an impact on non-government domestic credit creation as well. As might be expected, monetization of debt became increasingly significant, so that money supply growth and inflation became more pronounced. The otherwise prudent bureaucracy and monetary authorities found themselves increasingly controlled by the militarists. Numerous historical confrontations between bureaucrats and militarists are recorded in this period, including assassinations and harassment of bureaucrats seen as less than co-operative. Japan’s squeaky clean and independent bureaucracy temporarily came under the domination of the militarists.

Government debt grew phenomenally over the period, with a 17-fold increase between 1931 and 1941. Money in circulation nearly tripled over the same period, so that the national product deflator quadrupled. Assets of financial institutions increased eight-fold
over the period. This translates into 11.5 per cent annual inflation, 24 per cent annual growth of government debt and an 18 per cent annual growth of assets of financial institutions. As might be expected, the growth in all the figures was much more pronounced between 1941 and 1944 than in the period 1931–41, as the government saw tax and other revenues collapse. Unlike the allied countries, much government debt in Japan was sold directly to financial institutions rather than to the public. In 1931, commercial banks held about 10 per cent of government securities; in 1944 the figure had risen to about 35 per cent. This not only fuelled the growth in private sector assets, but also strengthened the pro-bank bias in development of the Japanese financial system.

It also fuelled double-digit inflation. With the bulk of the war effort debt financed there was a tremendous incentive for the government to inflate away the value of the debt. In addition to the private banking sector, the Bank of Japan held a great share of the growing government debt. This led to rapid expansion in the assets of the Bank during the period, which together with a relaxed monetary policy fuelled credit and money creation. Widespread scarcity of basic food items in the civilian sector combined with monetization of debt to create severe inflation. Inflation is probably understated in the official figures, as many and even most transactions in the private sector occurred on the black market. The figures cited above are for controlled prices, with unofficial estimates ranging to several times the official numbers.

It might be fair to argue that the period of the Pacific War was also the period when the banks solidified their position as the cornerstone of the Japanese financial system. While it is true that the number of shares listed grew throughout the period, equity was never widely considered to be an instrument of corporate finance. Indeed, the volume of shares traded was flat throughout the period, despite new listings. Debt financing grew in importance during the war so that banks were able to grow in importance. War-related industries had grown dramatically, and had done so almost entirely by utilizing debt finance. Banks grew in significance because they served as traditional intermediary not just between saver and private borrower, but between saver and the government as borrower, since most government bonds were placed with banks.

Banks facilitated the transfer of an extremely high volume of private sector savings into government and private (though typically under government contract in wartime Japan) capital
formation. Gross capital formation as a share of GNP typically averaged 30 per cent throughout the period, with net capital formation averaging 21 per cent. Total net savings averaged about 11.9 per cent of GNP over the 1932–44 period, substantially above the pre-war figures. Household savings were substantially higher at about 17 per cent for the period. Indeed, it is somewhat surprising that total net savings were so high, since rapid inflation would act as an incentive to spend rather than see the value of savings inflated away. It wasn’t just the household sector that was saving either. The share of total private savings to GNP averaged about 21 per cent during the period, while the government was a massive dissaver. We can only speculate that part of the reason for exceptionally high savings was the lack of commodities to purchase, as well as government campaigns to encourage savings.

While the pro-bank bias of the financial system became more entrenched during the period, the number of commercial banks declined during the period. Of course, this was by government design, the rationale being that a smaller number of banks would be easier to control. There were roughly 700 commercial banks in 1931; by 1944 that number had been reduced to just 72. This was a process of deliberate concentration with the result that at the end there was a smaller number of very powerful large commercial banks with large asset bases, since the reduction in number was accomplished by way of forced merger. The banking structure inherited from before the war became more ingrained, with clear distinction in terms of size and function of financial institution. Specifically, the structure of ‘city bank’ and ‘local bank’ which is so familiar today was established in the wartime period.

Asset concentration was quite phenomenal. In 1930, the four largest city banks held 37 per cent of all deposits. This had grown to 50 per cent in 1945. The role of the long-term credit banks became better defined as the financiers of heavy industry, and the government ordered firms to choose their ‘main banks’, in small part contributing to the development of the main banking system as we know it today. For the larger enterprises, the main banks were essentially the largest half dozen or so of the city banks, and the choice of main bank was quite naturally that of the largest bank within the corporate grouping to which the company belonged. At this time, the zaibatsu were still in existence, but many of the member firms in the grouping had become large enterprises in their own right. As such, it was often the main bank, and the trading company within these groupings, which became
the focal points within the zaibatsu. This general structure was to survive even after the zaibatsu were dissolved by decree. By the end of the war, many of the ingredients of the postwar financial structure were firmly in place.

AFTER THE WAR

With a huge current deficit and massive debt outstanding, largely to the banking system, the government had an obvious incentive to inflate its way out of its burden in the immediate postwar period. From 1945 to 1949, inflation ran at about 200 per cent per year measured by the CPI, and 140 per cent per year measured by the national product deflator. Government deficits continued to be very large until 1949, with much of the expenditure targeted for war compensation, the repatriation of nationals and reconstruction. Hyperinflation was over by 1949, with some resurgence of inflation in 1950 due to the bottlenecks created by the Korean War. It is interesting to note on a purely intellectual level that for the entire period 1930–53, the trend growth in prices was roughly equal to that of the money supply.

Despite serious problems, capital formation remained high in the period 1946–53 due to reconstruction. Indeed, gross domestic capital formation averaged 27 per cent of GNP during the period, with net formation running at 20 per cent. Savings remained high, but the purely personal component fell relative to the war period. Total net saving as a proportion of GNP averaged 22 per cent for the period 1946–53, while personal saving averaged 6.2 per cent of GNP. Reliance on bank loans for financing needs grew as the debt:equity ratio swung from 1:5 in the 1934–6 period to 5:1 in 1946–53. That is, despite more or less complete development of the banking system by the start of the war period, the high degree of intermediation which characterized much of the postwar period is actually a relatively recent development. Clearly, the heavy reliance on debt finance during the war and reconstruction was responsible for this result as we enter the postwar period. What is perhaps more interesting is how the high degree of intermediation and reliance on debt finance continued to be the norm well into the postwar period. This development and its consequence paves the way for discussion of the modern financial system, and is the subject of the next chapter.
From Chapter 1, we have a picture of a financial system that has evolved with at least some degree of government design. It is a system that has become heavily dependent on debt finance and financial institutions. It is a highly ‘functional’ system, in that each element of the system has evolved to have a fairly well-defined role, and indeed many of the institutions in the system were specifically created to perform a particular function that might otherwise evolve in another way in the marketplace. It is one where the parts have some degree of dependence upon one another. For example, long-term credit banks had the clearly defined role of providing long-term credit. In other markets, this is a role that might have fallen largely to fixed income markets. Furthermore, the long-term credit banks were not originally allowed to accept deposits as it was felt this would lead to a mismatch of assets and liabilities. Instead, the LTCBs were to issue medium-term maturity debentures, which in turn were to be held by the rest of the banking system. From this example, we can see most of the necessary ingredients of what we wish to show. It was intervention on the part of the government that defined the asset and liability structure of the LTCBs. They had a narrowly defined function, and that function essentially substituted for direct long-term finance. The fact that other members of the financial system, local banks for example, were obliged to hold the LTB debentures, shows how the functionality or ‘food chain’ in the system worked. Using LTCBs as an example, then, we see how the system was highly intermediated, how the role of government in defining functions was important and how various institutions fit together.

Of course, the LTCBs are just one example. By 1954, the system was quite well defined. A highly intermediated financial system was in place, with specialized institutions placed along both the maturity
spectrum and the function spectrum. Given government prejudices, this system was well matched to the goals of government policy. Local banks serve as an example. Local banks might naturally have evolved as local deposit-takers with loan activity focused on small–medium enterprises within the same locality. While this was certainly an accurate description of what local banks did to some extent from 1954–75, it is only a partially accurate description. In addition to such local activities, the regional banks were forced to hold LTCB debentures to some fraction of their asset portfolio. This implies that funds were funnelled from the regions into long-term financing for the largest manufacturing firms in the urban areas. Thus, the government’s prejudice towards long-term finance and towards large manufacturing firms was enforced through this functional separation.

From the very simple examples above, it is possible to have some basic understanding of what it means to say that the Japanese financial system was ‘functionally specialized,’ or to say that it was highly intermediated. We shall provide more detail on the evolution of the highly intermediated financial system as it developed through the period 1954–75, but we shall do so in an overall financial-historical context. We shall describe general financial trends and how they contributed to the highly structured and functional system that developed during the period. This perspective is preferred, as much of what has become to be known as the postwar Japanese financial system actually evolved over time, despite significant government intervention. Indeed, the system continues to evolve today, albeit in the direction of greater liberalization and redefinition of the role of government.

CAPITAL FORMATION, GROWTH, MONEY AND PRICES

The period 1954–75 represents the core of the high growth period in Japan. Real national product grew at nearly 10 per cent per year over the period, with real per capita national product growing by 9 per cent per year on average. Gross capital formation averaged 33 per cent of national product, ranging from 25 per cent in 1954 to 37 per cent between 1967 and 1973. Real gross capital formation grew by 14 per cent per year between 1953 and 1973. The labour force expanded by 33 per cent between 1953 and 1973 (roughly 1.5 per cent per year). As well, the quality of labour expanded considerably. Given this intensity of inputs over the period, there is absolutely no mystery about the
rapidity of Japanese growth. The mysterious revelations of the revisionists do not deepen our understanding of the Japanese miracle; more inputs give more outputs. To the extent that this does fall short, improvements in labour quality, technological innovation and the like round out the picture. Indeed, growth during the Japanese miracle is actually easier to explain in a statistical sense than in many other countries which we might consider boring examples.

Of course, this growth came at a cost. While living standards increased, the share of consumption in GNP fell. The share in the mid-1950s was roughly 66 per cent. By the early 1970s this ratio had fallen to 50 per cent – a rather perverse finding for a nearly developed economy. Nevertheless, consumption per capita managed to grow at the near miracle pace of 7 per cent per year during the period 1953–73. When growth is at levels we might consider miraculous, a virtuous circle is possible. The proportion of consumption to total output can fall as the proportion of investment to output rises without significant social strife because growth is so phenomenal that per capita consumption and family incomes continue to grow. Simply put, growth is rapid enough to permit significant increases in the standard of living at the same time that significant resources are being diverted to investment. It’s jam today and jam tomorrow.

Savings during the period were necessarily high, as capital imports were low. The gross savings ratio was 19 per cent, with personal savings remarkably high. For the period as a whole, gross private investment averaged 12 per cent, implying an excess of savings over investment since public deficits were typically quite small, except for 1974–7. As a result, the current account moved towards structural surplus during the period. Thinking about this in a rather non-technical fashion, a country that produces more than it consumes must vent this surplus of goods and services internationally – and will therefore have a surplus on current account. Put even more simply, countries that are large net savers will have a trade and current account surplus. As such, trade imbalances are always best dealt with through macroeconomic cures, not protection or trade policy. Unfortunately, many generations of policy-makers have failed to learn this lesson.

For the personal sector, the savings ratio ranged between 23 per cent and 33 per cent in gross terms over the period, and between 18 per cent and 26 per cent in net terms. These levels were substantially above pre-war and wartime rates. This helps to expose another time-honoured myth about Japanese financial markets and
the Japanese economy: that the Japanese are traditionally great savers. A very strong case can be made that many of the incentive structures that generated high savings during the high growth period and continue to work today can be traced to relatively modern institutional practices or economic structures. In any event, the history of very high Japanese savings rates as we know them is relatively short. What is most remarkable here is not that personal savings rates were high during the war and the reconstruction period, but that they persisted throughout the entire postwar period. This is an issue which requires further exploration, and we shall return to it later.

The Bank of Japan followed an easy money policy throughout the period 1953–73, with M1 growing at an annual rate of 16 per cent, while national product was growing at about 15 per cent per year in nominal terms, or roughly 10 per cent in real terms. Interestingly, the equation of exchange from the quantity theory would have implied inflation of roughly 6 per cent per year during the period under the assumption of stable velocity of money. In fact, inflation averaged roughly 4.5 per cent, quite close to the level implied by the quantity theory under stable velocity. This suggests that velocity was much more stable in Japan during this 20-year period than in many other industrialized countries. The reason for this may be relatively simple. In an essentially chequeless, consumer creditless society, velocity should indeed remain relatively stable so long as money supply growth is adequate. That is, without these lubricants of spending, and without significant financial innovations, velocity should remain essentially constant. This indeed appears to have been the case.

Money supply control was relatively simple in the highly inter-mediated structure. As the public at large did not hold an appreciable share of public debt, the Bank could alter the money supply by discounting directly to the banks, which held much of the public debt, or by altering discount borrowing from the Bank of Japan. Typically, during the high growth period, the Bank would use rationing at the discount window rather than actual changes in the ODR in order to alter the money supply and general liquidity conditions. Control of the money supply was relatively primitive, and did not depend significantly upon the market. Primitive as it may have been, it took much of the guesswork out of monetary policy. As a result, the menu of interest rates during the period changed little during the period. This has given rise to one of the greatest myths of all regarding Japanese financial markets: the myth of low and stable interest rates.
It is true that the entire menu of ‘published’ interest rates showed little variation or trend during the period, with the exception of free rates such as the overnight call rate and telephone bond yields. In a highly intermediated and structured financial system, this was the result of government control and regulation at the key points within the term structure. Obviously, the government could control the discount rate directly and overnight rate indirectly. This is not unique to Japan, nor is it a thing of the past. What was unique is that control was applied at various points along the yield curve, so that the entire term structure was regulated. In principle at least, this implies that monetary authorities in Japan during the period could exercise greater control over interest rates and the cost of capital than their counterparts in more market driven systems. Despite this regulation, we are sceptical of how effective this ‘low interest rate policy’ really was, an issue we shall return to later. First, we shall describe how the high degree of intermediation facilitated intervention.

Apart from the ODR and influence on the overnight rate, the government maintained elaborate controls on deposit rates of interest during the period. For part of the period, loan rates were directly controlled as well, and the last regulation on interest rates was not dropped until 1994. Further along the yield curve, the long-term prime rate is determined by yields on five-year debentures of the long-term credit banks, which during the period in question were either government or quasi-public institutions. The market for LTCB bonds was highly structured and largely determined by government regulation or guidance. Most bonds were held by the rest of the banking system, and can therefore be thought of as a way of funnelling funds from deposit-taking institutions on the short end to corporate borrowers on the middle of the curve.

This highly prescribed market for LTCB bonds and lack of competing finance were designed to minimize the spread between short- and long-term interest rates, as well as to divert funds from deposit-taking institutions towards longer-term corporate borrowers. Whereas a commercial bank might normally be expected to take deposits on the one hand, and hold consumer and corporate loans as assets on the other, the intermediated structure during the high-growth period was more biased towards corporate lending. Commercial banks accepted deposits from the household sector, and largely held corporate loans and bonds as assets. At the level of smaller and regional financial institutions, the share of LTCB and government bonds were even more important, so
that the institutions which might otherwise logically serve the consumer indirectly funnelled funds towards the larger members of the corporate sector.

**Table 2.1** Nature of Assets and Liabilities

<table>
<thead>
<tr>
<th>Institution</th>
<th>Assets</th>
<th>Held as</th>
<th>Liabilities</th>
<th>Held as</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wealth Holders</td>
<td>Deposits</td>
<td>Deposits at financial institutions</td>
<td>Net creditors. Home mortgage</td>
<td>Usually from employers and specialized institutions</td>
</tr>
<tr>
<td>Regional and Small Banks</td>
<td>Loans and Bonds</td>
<td>Small business loans, call loans, LTCB bonds, consumer loans</td>
<td>Deposits</td>
<td>Time and notice deposits. Business current and ‘compensating deposits’</td>
</tr>
<tr>
<td>City Banks</td>
<td>Loans</td>
<td>Loans to larger businesses, call loans, LTCB bonds, government bonds</td>
<td>Deposits</td>
<td>Standard time and notice deposits. Corporate current and ‘compensating deposits’</td>
</tr>
<tr>
<td>Long-term Credit Banks</td>
<td>Long-term loans</td>
<td>Loans to large corporations</td>
<td>Bonds</td>
<td>Medium-term bonds</td>
</tr>
<tr>
<td>Postal Savings</td>
<td>Loans and Bonds</td>
<td>Loans to government financial institutions and enterprises, government bonds</td>
<td>Deposits</td>
<td>Time and notice deposits with yields above regulated rates</td>
</tr>
<tr>
<td>Other Public and Quasi-Government Financial Institutions</td>
<td>Loans</td>
<td>To small businesses, farmers, homeowners, etc.</td>
<td>Bonds and government loans</td>
<td>Funds transferred directly from general revenue or indirectly as loans or sales of bonds to the Postal Savings</td>
</tr>
</tbody>
</table>
It seems fairly clear that the highly intermediated structure of the high-growth period did ensure that a relatively large share of available finance went to the corporate sector at the expense of the consumer. It is sometimes argued that the smaller corporate sector also suffered, though the extensive network of specialized financial institutions for smaller businesses has likely mitigated many of the possible ill effects (Beason, 1989). What is not clear is that such finance was really available at below equilibrium interest rates, as is often argued. Assuming for the moment that capital was mobile during the period (which is not clear), one would assume that intermediaries would have an incentive to invest funds abroad if higher interest rates could be found. Given that this was not the case, we must conclude that either effective interest rates within Japan were not significantly lower than in the rest of the world, or that exchange controls effectively eliminated foreign investment as an option.

While a highly regulated and intermediated system might, in principle, be capable of generating artificially low interest rates, it is not entirely clear that this was indeed the case during the high growth period in Japan. In order to address this issue, we must first define ‘artificially low interest rates’. This is typically taken to mean lower interest rates than would have prevailed in Japan during the period had the policies not been in place. Of course, this can never be tested since the policies were in place. What makes more sense is to define artificially low interest rates as being lower than prevailing world market rates. This is both testable and relevant, since (real) world rates lower than Japanese rates would immediately imply the policy was irrelevant in terms of generating lower rates, though perhaps not in terms of allocating the capital among sectors domestically.

While virtually the entire menu of published Japanese rates and implied real rates were lower than real rates throughout most of the high growth period, this does not imply that the artificial low interest rate policy was effective, nor that the cost of capital was lower in Japan during the period. We will return to the general issue of cost of capital in a later chapter, but for now we argue that lower published interest rates differed markedly from effective interest rates. Specifically, while banks were bound by direct and indirect regulation of interest rates during the period, regulators provided a convenient loophole whereby banks were able to charge market clearing rates of interest. The loophole is commonly referred to as a ‘compensating balance’ in the banking literature. Basically, banks would make a loan to corporate customers, but require them to open a current account,
which paid little or no interest. The bank would then typically specify a proportion of the original loan that had to be kept on current account. As a result, the banks were effectively able to set the interest rate they charged at a market rather than regulated rate. Specifically, the nominal effective interest rate is calculated as

\[ r_e = \left(\frac{r_{ln}}{1 - z}\right) - \left(\frac{z}{1 - z}\right)r_d, \]  

where \( r_{ln} \) is the nominal loan rate, \( z \) is the proportion required as compensating balance, and \( r_d \) is the deposit rate of interest. Taking a simple example, suppose that the proportion required as compensating balance is 50 per cent, the nominal loan rate of interest is 5 per cent, and the deposit rate of interest is 0 per cent. In this example, the effective nominal rate of interest would be 10 per cent – twice the posted rate. Beason (1989) showed that effective interest rates were much higher than posted rates, and typically close to and sometimes higher than prevailing world rates.

This result should not be surprising. The artificial low interest rate policy was supposed to work by limiting the movement of capital out of Japan on one hand, and competing demands on funds on the other. Thus, funds within the highly intermediated Japanese financial system were funnelled away from competing uses towards the corporate sector. Losers, small business and households, were to have their demands met through specialized quasi-public or public financial institutions. An equilibrium view of the world would suggest that shifting the source of funding from private to public institutions for some uses (small business and households) would not fundamentally alter the outcome. Furthermore, the same sceptical equilibrium view would suggest that limiting access to world financial markets could likely be circumvented. From this point of view, the often heralded low interest rate policy would probably not be as successful as some might suggest.

PORTFOLIO CHARACTERISTICS AND ASSET MARKETS IN THE HIGH-GROWTH PERIOD

The backdrop to portfolio characteristics in the period was the rapid growth of assets, which we have explored above. Japan was unusual among developing countries in that much of the surplus contributed to growth in asset and capital formation rather than consumption, even after the transition to modern economic growth. Here, we shall examine some of the reasons for the rapid growth in assets of
19 per cent per year in nominal terms and 14 per cent per year in real terms over the period. Obviously, this rapid growth in assets had major implications for development of the financial sector.

The highly intermediated and regulated financial structure of the high growth period contributed both to the rapid growth of assets and what might be called an underdeveloped portfolio structure prior to the end of the 1970s. Roughly, at a national level the portfolio structure was characterized by relatively low holdings of securities as assets, a high proportion of loans to businesses and small share of consumer credit including housing, together with the predominance of time and savings deposits as the primary form of wealth holding among the household sector in a chequeless, creditless society. Also notable was the low ratio of equity to liabilities, a very high debt:equity ratio and a banking sector which overwhelmingly held public debt. Debentures for the non-financial sector were under-utilized, and were concentrated in the medium term. For example, in 1977, these accounted for 5.5 per cent of all sources for financial institutions, but 67 per cent of LTCB funds. Among government financial institutions, 10 per cent of funds were raised this way. In turn, these instruments were largely held by the private banking system.

Despite a large number of private financial institutions and banks, banking was highly concentrated, with lending by large banks to large corporations more or less part of public policy. In 1970, the five largest banks held 30 per cent of all loans and other financial assets. Regional banks were large in number but typically small in size, making the banking system similar in some respects to that in the United States, despite the obviously different nature of regulation and specialization. Specialized government financial institutions were created to make up the difference to smaller enterprises and the household sector.

The personal sector, with few alternative forms of wealth holding and limited access to consumer credit, became a large net saver. Earlier we dismissed the notion that high personal savings rates were somehow a Japanese cultural trait, given that, historically, high saving was not the norm and that savings rates for the household sector have changed radically in various historical episodes. Given imperfect access to capital markets, the household sector had to save a great deal in order to make major purchases. Institutional arrangements such as employer mortgages which might appear to be a boon to the consumer actually encouraged high savings, in that employers might require a 50 per cent downpayment from the employee before making
the loan. Thus, with high Japanese land prices, the employer loan became a form of ‘golden handcuffs’. As a result, personal sector gross saving \((S/Y)\) averaged 30 per cent over the period on a gross basis and 20 per cent net. Borrowing as a proportion of disposable income therefore averaged 10 per cent, with borrowing amounting to one-third of saving. On a net basis, borrowing by the personal sector was 40 per cent of net saving.

We must be somewhat cautious, however, in interpreting data on personal sector saving. Unincorporated non-financial enterprises are included in Japanese national accounts and financial statistics, so that some part of these savings and borrowings should properly be included in the corporate sector. If anything, the real bias would lie with borrowings, where small family enterprises would be likely to hold far more debt than the average ‘pure household’. For example, we do know that during the period capital expenditure of the household sector was for personal residence and 20 per cent for consumer durables, with 30 per cent going to family enterprises. Furthermore, since most family enterprises were combined with the personal residence, part of this expense and corresponding borrowing should be included from the figures for the household sector. We might therefore approximate ‘pure’ household sector borrowing at 6 per cent of disposable income over the period.

Reliable mortgage statistics in Japan were and remain limited since so much housing finance is outside the scope of pure financial institutions, with family and employer finance continuing to be important. Among recorded transactions, however, mortgage finance has grown in importance, from 7 per cent of all consumer finance in 1965 to 35 per cent in 1977. The government accounted for 20 per cent of all outstanding mortgages in 1977. As the government did not actively create and guarantee a secondary mortgage market as in many other countries, no such market emerged during the high growth period. This made mortgages highly illiquid, so that high downpayments became the norm. The major alternative form of financing, employer loans, also required high downpayments, as discussed above, as a form of golden handcuffs. As a result, minimum downpayments for mortgages were roughly 30 per cent during the period. Together with expensive land, this created an important incentive to save.

Just as there were strong incentives to save, and alternatives to saving were limited during the period, the market for assets was quite narrow. Markets for government and private bonds were highly prescribed, typically limited to the financial sector, with most private
financing through bank loans. Loans accounted for 60 per cent of the total finance to the business sector during the period, followed by trade credit at 25 per cent, equity 8 per cent and corporate bonds 6 per cent during the period on average. Again, this is part of a pattern established during the early Meiji period, to develop a financial system centred almost exclusively on intermediation. Presumably the benefit of such a system is that it was more easily monitored by the bureaucrats, though it could just as well have been an accident which induced Meiji bureaucrats to imitate the German model.

The debt market did not have a well-developed depth along the term structure. Short-term instruments were available only from the government, with a tightly controlled market for private issues, primarily medium term. Only 33 per cent of total issues over the period were from the private sector, and of these, LTCB bonds predominated. The market was highly prescribed and regulated. The stock market contributed very little to financing needs over the period, with new issues often offered to current holders at par, rather than at market value. Most shares were held by other corporations and financial institutions. In the 1970s, only 25 per cent of shares were held by individuals, 50 per cent by financial institutions, with the remainder held by non-financial corporations. The overall sources of funds for the business sector during the second half of the 1970s are shown in Table 2.2.

Of course, this structure fits the pattern of a highly intermediated economy with the equity market subordinated to a role in defining the pattern of corporate governance, but little in terms of financing. Direct debt was also highly underutilized, primarily because a highly intermediated system is easier to regulate and administer, even though it is not clear that this was successful in reducing the cost of capital, as we have seen. Nevertheless, it is arguable that the high

<table>
<thead>
<tr>
<th>Table 2.2 Sources of Funds</th>
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<tr>
<td>Saving</td>
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<tr>
<td>Loans</td>
</tr>
<tr>
<td>Bonds</td>
</tr>
<tr>
<td>Equity</td>
</tr>
<tr>
<td>Trade credit</td>
</tr>
<tr>
<td>Other</td>
</tr>
<tr>
<td>Total</td>
</tr>
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</table>
degree of intermediation facilitated government intervention in terms of how the credit was directed.

Underutilization of equity finance, however, was not so much due to government efforts (though it probably fitted in well with government policy at the time) as it was a natural private sector response. As the old zaibatsu forms of organization were dissolved, most of the old groups reformed after 1953, but in a highly modified structure. Rather than emerging as large, family-held conglomerates, however, more loosely organized groups, characterized by inter-firm holdings and associations, were formed. These groupings are known as keitetsu, which are bound together by cross-shareholding, cross-directorates, informal co-ordination and sharing of a common main bank. Financial keiretsu can be thought of as consisting of a main bank, trading company and one or more manufacturing industries with some degree of vertical structure. The key position in a financial keiretsu is typically held by the ‘main bank’, such as Sakura (Mitsui-Taiyo Kobe), Mitsubishi, Sumitomo, Fuji (Yasuda) and Dai-ichi Kangyo. Given the market imperfections which evolved in terms of the bias towards intermediation, it is quite natural that corporate groupings might emerge in order to help facilitate the flow and economies of scale in allocation of scarce financial resources within the group. Note that this same point was made with respect to the pre-war zaibatsu form of organization. That is, rather than providing any particular advantages, membership in a keiretsu is, rather, one way of dealing with the disadvantages of a financial market which is not fully developed or which lacks certain markets.

We should not lose sight of the fact that keiretsu membership may be less important than is often believed. It is sometimes argued that as few as 18 per cent of corporations are outside this affiliate structure, but this greatly overstates the importance of keiretsu. Most small-medium firms have a ‘main bank’, but have substantial relations outside the group, making the affiliation tenuous. Even for keiretsu members, control is limited. For example, for the core corporations of any of the major groups, it would be typical that less than 30 per cent of total borrowing is from within the group. It would obviously be less significant for non-core members. Certainly, since the mid-1960s the importance of keiretsu groupings has diminished in importance, so the situation is even more diffuse today.

The major implications of the keiretsu form of affiliation are thought to affect subcontracting and purchasing behaviour, as well as corporate governance. In terms of the former, critics suggest that
group members tend to purchase from within the group and form close relationships with subcontractors to the exclusion of outsiders, particularly potential foreign suppliers. We believe this is overstated and ignores industrial structure. Large industrial firms in Japan tend to be less vertically integrated than their foreign counterparts. One of the implications of the theory of the firm is that vertical integration is a means of assuring control over the quality of inputs. With a more ‘arm’s length’ approach to procurement, some of this control is lost. Purchasing within a group, where the customer has leverage over the vendor (i.e. the purchaser owns a large bloc of the vendor’s shares) can help to alleviate these potential problems, and serves the same purpose as vertical integration.

This suggests that ‘buying within the group’ on the part of keiretsu member firms in Japan is just a way to ensure quality in firms that are not heavily integrated. In response, critics charge that foreign firms tend to be more ‘arm’s length’ than Japanese firms, not vice versa. This ignores the fact that highly vertically integrated foreign firms may purchase only small or relatively unimportant inputs on the open market, while the Japanese counterpart may purchase or subcontract for manufacture very important inputs. For example, it was only very recently that Ford Motor Company stopped producing some of its own steel. Take the extreme example where a US manufacturer produces all its steel, as well as most other major inputs in house. In this case, the market transactions which may be observed between this firm and outside suppliers may appear to be ‘arm’s length’ and dictated only by price. In reality, of course, the firm is behaving in a very exclusionary fashion as it is procuring none of its major inputs on the open market, but this fact escapes observation.

Japanese auto manufacturers, on the other hand, purchase a large proportion of their major finished inputs from outside the firm, so that quality control is essential. Reliance on arm’s length transactions, with purchase decisions based solely on price, could be disastrous. Quality control is essential when major components are procured, so that the relationship with the subcontractor may be very close and long-term. Quite naturally, it will be difficult to break into the ‘inner circle’ in such a framework, and excluded parties will naturally complain and catch the attention of the press. Attempts to ‘open the system’ to new subcontractors in this context may be very difficult, despite the best intentions of the participants. This, rather than ‘groupism’ or unique management technique, explains the heavy reliance on firms within the same keiretsu, and on techniques such as ‘just-in-time’, etc.
As we can see from this discussion, it is precisely these different approaches to outsourcing versus vertical integration that are at the heart of much recent trade acrimony. How it is that one system gravitated towards greater use of outsourcing and the other towards vertical integration is a matter of speculation, but the theory of the firm (Coase, 1937) would suggest that transactions and other costs are at the root of the matter. By way of suggestion, population density and land costs in Japan might render the mega-factory non-economic, and transportation costs from supplier to parent rather small in comparison. Cheap North American land and longer distances to travel may have favoured vertical integration. In any event, there is certainly no evidence that the outcomes were the result of conscious activity.

The primary financial role of *keiretsu* may be to prevent hostile takeover through ‘friendly holdings’. That is, the *keiretsu* form of organization has major implications for the nature of corporate governance. When a large proportion of shares is held within the group a hostile takeover becomes more difficult. Thus, while we normally think of product market competition forcing managers to behave in a risk-neutral fashion, with investors diversifying risk in their portfolio, ‘friendly holding’ of shares may allow managers to behave in a risk-averse fashion. The result is firm performance which is lower (in terms of profitability) than would otherwise be the case, but the variability of this performance is also lower. That is, the performance of *keiretsu* member firms may be more stable than their independent (or foreign) counterparts (Nakatani, 1982).

Some have suggested that this stability is responsible for the perceived ‘long-termism’ of Japanese firms. Whether Japanese firms actually are more long term-oriented is debatable, but is also not clear that such an orientation is desirable. Certainly, greater stability of management might also limit the ability to change, and insulation from takeover might open the firm to financial distress when poor managers cannot be removed. The poor response of many Japanese firms during the Heisei recession suggests that far from a strength, insulated management is probably a weakness.

Of course, it is far from clear that the cross holding of shares implicit in *keiretsu* groupings implies a lack of monitoring, or that the system necessarily generates more stability of performance. Indeed, Sheard (1991) has suggested that one of the important roles of a main bank in Japan is to provide the supervision function that is missing in the context of cross-shareholding when takeovers are difficult. It
appears that the important function of a main bank becomes clear when a firm encounters financial distress. In such a case, the bank performs many of the functions that might be expected in the event of a takeover – organizing restructuring, replacement of management, etc. There is significant evidence that the main bank system has indeed evolved to take on this monitoring function, and classic examples such as Sumitomo Bank’s repeated involvement in the affairs of Mazda serve to make the point. Still, there appear to be some weak points in this form of monitoring, as we shall argue later.

The stability issue is far from clear either, though it seems to have attained status as gospel until the troubles of the 1990s became clear. While the notion of a management that is free from the worries of takeover might be able to concentrate on long-term issues seems to have gained acceptance among revisionists, there is reason to doubt such simple arguments, as well as reasons to question the desirability of the supposed outcome. On theoretical grounds, even if it were possible for cross-holding to insulate managers from takeovers, and if other forms of monitoring (such as that by the main bank) did not emerge to perform the same function, it seems unrealistic to believe that the product market could not provide at least some of the same discipline. If keiretsu members compete in the same product markets, either domestically or internationally, with firms whose managers are subject to takeover, shouldn’t the product market competition give rise to essentially the same basic targets of management behaviour? Furthermore, even if product market competition was not adequate to undo the supposed insulation of management, would it really be desirable for managers to be divorced from current trends? The recent experience suggests otherwise.

Ultimately, of course, many of these are empirical questions. Recently, Beason (1997) has found that the performance of keiretsu firms in terms of stability is not clearly superior to or different from independent firms. Using data on a much clearer set of keiretsu member or independent firms than the Nakatani (1982) study, and using data on volatility of share prices as the index of stability, it is found that the independent and keiretsu firms do not perform in a significantly different fashion. This finding is consistent with the notion that the product market will discipline managers to behave in a similar fashion. In any event, the revisionist logic that keiretsu membership was at the heart of Japanese economic success has been called
into question with greater frequency, and the number of believers among policy-makers has fallen dramatically.

The future of the *keiretsu* form of organization is not clear. As the *Heisei* recession seems to have made clear, perhaps the groupings have outlived their usefulness. Widespread financial distress, slow progress in restructuring and a banking crisis are partly the result of rigidities of such groupings. As reliance on non-intermediated finance has grown, and ownership of bank stocks has proved to be a burden on many non-financial firms during the recession, we may expect cross-shareholding gradually to unwind in the future. Even if the ratio of cross-shareholding does not decline significantly, we can be sure that there will be fewer champions of the supposed benefits of the system.

**TRANSITION**

While the financial system has undergone dramatic change, and will continue to do so, many of the key stylized facts are slow to change. A high degree of financial intermediation is still the rule rather than the exception. The so-called ‘bubble’ of the late 1980s certainly brought more firms to the capital markets, but the bursting of the bubble has certainly slowed the process. Interest rates are essentially unregulated now, and the variability of rates over the cycle is far greater now than in the past. Furthermore, the covariance of the menu of interest rates has increased, indicating greater influence of market forces. Still, basic characteristics have been slow to change.

| Table 2.3  Breakdown of Assets |
|------------------|------------------|
| Ratio            | Proportion in 1970 | Proportion in 1983 |
| Currency/assets  | 2.5%             | 2.0%             |
| Demand deposits/assets | 10.4%         | 8.1%             |
| Time deposits/assets | 26.6%         | 32%              |
| Long bonds/assets | 4.0%             | 7.7%             |
| Equity/assets    | 4.6%             | 2.7%             |
| Loans/assets     | 76.6%            | 66.4%            |
It is nevertheless important to recall just how much Japanese financial markets have changed. Until the mid-1970s, much of the interest rate structure was regulated, and many rates showed little variation through the cycle, not even in a secular sense. Even the overnight call rate, typically the key short-term policy target of central bank open market operations, used to have little influence over the menu of published interest rates. Feldman (1986) argues that this began to change during the 1970s, with the call rate having far greater influence on the menu of interest rates. Basically, Feldman attributes this to reduced regulation, greater reliance on open market operations by the Bank of Japan and the explosion of free interest rate instruments. By implication, this process has proceeded much further since then.

While the entire menu of interest rates was fully deregulated by October 1994, there had been a long history of deregulation prior to that, so that intermediated finance was essentially ‘free’ before that. The process began with the emergence of the gensaki (or repo) market in 1969, followed by a free, large-denomination CD market in 1979. Other ‘free rate’ instruments included banker’s acceptances (1985), money market certificates (MMCs) begun in 1985 with free rates for deposits over 50 million yen and greater expansion of the Ministry of Finance bill market. While our earlier discussion of the role of compensating balances suggests that many loans were made at effective interest rates far above regulated rates, it is true that the growth of unregulated instruments, and eventual freeing of rates altogether in 1994, has eroded some of the regulatory power which we might expect in a highly intermediated financial system.

Before turning to the discussion of the emerging liberal financial structure, it is worth recapping the historical outline above by constructing something of a straw man. The reader might find this curious, as many a barb has already been aimed at the ‘revisionist’ camp for their reliance on stereotypes and simplistic images. Our straw man will, of course, serve a different purpose from that of the revisionist camp. We simply want to argue what it is that deregulation and liberalization were meant to tear down; we won’t presume to argue that the structures were intact or important to begin with. In any event, our straw man is one of a system of bank finance, with limited credit aimed beyond the corporate sector, and with few alternatives beyond mainstream bank finance. Our straw man has an able bureaucracy overseeing it, to ensure that any cracks are quickly
plugged, and that resources flow smoothly from wealth holder to corporate sector. Order is further maintained within the corporations themselves through the system of cross-shareholding, with the ever-present banks as monitors. Our straw man may therefore be disturbed by manipulating the regulatory function, or by failure of the monitoring function.
Towards a More Liberal Structure

Initially, financial market liberalization has taken the form of facilitating or recognizing new markets and instruments. In turn, most of these instruments or markets emerged in order to facilitate transactions or financing means not available under the highly intermediated structure, or to facilitate the international flow of capital. Not surprisingly, as more ‘free’ or unregulated markets and instruments emerged, the efficacy of regulation waned. Specifically, we have argued earlier that the highly intermediated structure of the high growth period was subject to successful regulation. As all institutions in the framework had highly specialized and well-defined functions, and the flow of funds from original wealth holders to end-users was clearly defined and specialized, regulation at each stage in the flow of funds was possible. This allowed regulators to separate or segment certain financial markets from one another. As a result, for example, it might be possible for monetary authorities to exert greater control over the shape and nature of the yield curve than might be the case in unregulated markets. Thus, if regulators felt that very low long-term interest rates were desirable, this segmentation of financial markets might facilitate successful regulation of long-term rates. Of course, the notion that financial regulators might influence the term structure is not new (Miron, 1995), but one might argue that it had been more successful in Japan during the high growth period than was the case in other countries and other regimes.

Feldman (1986) has suggested a very simple test of this proposition, as well as the notion that regulatory efficacy has declined as this highly functional intermediated structure has begun to change. The call market, along with the market for NTT bonds, have traditionally been the only relatively free markets in non-equity instruments in Japan during the high growth period. Feldman argues, quite reasonably, that in relatively unregulated and free financial markets, the covariance between the call rate and the menu of other interest rates should be quite high. Alternatively, when regulation is effective, and various parts of the intermediated financial structure are effectively ‘segmented’ from market rates like the call rate, then the covariance between the menu or regulated interest rates and the call rate will be low. Not
surprisingly, Feldman finds that the covariance between ‘posted’ interest rates and the call rate is effectively zero through most of the high growth period. As various financial innovations are introduced, one finds that the covariance between the call rate and the yields or implicit yields on the new instruments was in fact positive. This result is not surprising, as most of the ‘innovations’ discussed above, such as ‘gensaki’ and large denomination CDs, were essentially unregulated instruments, whose yields would be affected by arbitrage opportunities presented by international instruments or the call market.

Financial market liberalization, especially at the end of the 1970s and in the early 1980s, essentially amounted to legal recognition of many of these instruments and extending unregulated status to large-denomination deposits. It also unshackled some of the specialized institutions to participate in a greater variety of activities. As a result, the direct link between, say, smaller financial institutions and the long-term credit banks became weaker. Thus, for example, if smaller institutions could now do more than just lend locally (at controlled interest rates), participate in the call market and buy LTCB debentures (at controlled yields), and all in regulated proportions, one would expect increased arbitrage opportunities. The natural result would be greater covariance between the menu of interest rates, regulation permitting. This has indeed been the case. Of course, this was initially difficult to detect, as effective interest rates charged by institutions (which are affected by the compensating balances charged) are not published. As interest rates have been fully liberalized since 1994, however, the strong covariance between the entire menu of interest rates has become apparent.

Movement in this direction began long before the last regulated rate died in 1994, however. As we have mentioned above, the ‘foot in the door’ for expansion of unregulated instruments emerged in the 1960s with the development of the gensaki (or repo) market, and legal recognition of this market in 1976 was the first formal step towards full deregulation. Feldman (1986) has shown how the relationship between this menu of free rates and regulated rates has grown. The implication is that by the end of the high growth period, the highly specialized and regulated system had outlived its usefulness. It would be difficult to argue the opposite, as some revisionists have, that liberalization is the cause of slower growth and Japan’s subsequent difficulties. Rather, high growth had run its course, and Japan’s financial intermediaries would have to diversify and seek new opportunities in order to survive. Liberalization simply facilitated this process.
Liberalization also became apparent in terms of Bank of Japan policy. In the early high growth period, the Bank had relied exclusively on ‘window lending’ to implement monetary policy. As such, the official discount rate (ODR) and rationing of Bank of Japan discounts were the key tools of monetary policy. Liquidity of the banking system and the structure of interest rates were therefore controlled directly. While the structure described above greatly facilitated this direct control, the Bank often found itself at odds with the world’s largest savings institution, the Postal Savings, in terms of its interest rate policy. Specifically, the Postal Savings is regulated by the Ministry of Posts and Telecommunications, not the Ministry of Finance or the Bank of Japan. As such, the Postal Savings often offered deposit rates above those desired by the monetary authorities, thwarting the desired monetary policy. As a result, the Bank of Japan increasingly found that affecting its policies in the markets via open market operations was more effective than simple window lending alone. From 1966 onwards, the Bank of Japan has increasingly relied on various forms of open market operations, using call brokers as intermediaries. Like the Federal Reserve and other central banks, the Bank of Japan has targeted the overnight call rate as its policy variable.

Surprisingly, while reliance on the discount window has steadily waned since 1966, the ODR has remained the key focal point used by market participants to gauge the Bank of Japan’s stance. In other major markets, the central bank stance towards the call market is typically seen as more important than the official discount rate (thus, the importance of the Fed Funds rate in the US, or the Repo in Germany). Of course, as the two are highly correlated, choice of focal point is perhaps not relevant. This has begun to change, especially since 1995, when the Bank has held the call rate below the discount rate for significant periods of time, effectively rendering the ODR irrelevant for the most part (except perhaps as a ‘penalty rate’ for troubled institutions unable to borrow on the call market). We can now characterize Japanese monetary policy and Bank of Japan operations as ‘fully modern’, and a contributing factor to overall financial market development and liberalization.

No discussion of liberalization would be complete without some discussion of the role of the government bond market in Japan. One of the functions of the banking system under the regulated structure in the high growth period was to absorb government debt issue. This was clearly by design, that is, to keep the entire financial structure as intermediated as possible. Indeed, a liquid secondary market in government
issues was essentially prohibited for most of the period. Without active trading of government issues, and the banking system expected to absorb the entire issue, the Ministry of Finance was free to set a coupon consistent with the entire regulated structure of interest rates which they hoped to maintain. Of course, this could not be possible in an unregulated environment or a fully open capital market, and the coupon had to be set so as to provide some reward to the banking system. In the highly regulated and intermediated structure of much of the high growth period, however, most of these conditions were met. Another condition was that fiscal deficits be relatively small. If they were large, it would be difficult for the government to rely solely on the banking system to absorb issues, and crowding out would have become a serious consideration. Fortunately, fiscal deficits remained a complete non-issue for the first ten years of the high growth period.

From 1965 onward, fiscal deficits emerged, and on average grew over time. In 1965, the fiscal deficit was 0.6 per cent of GNP, growing to 5.8 per cent of GNP in 1983. As the size of government issue grew, it became apparent to the monetary authorities that the banking system could not absorb all government debt. Perhaps one should say that it became apparent, given the highly intermediated structure of the financial system, that the banking system could not be expected to absorb the entire debt issue without possibly major consequences. In order to provide liquidity to the banking system and genuine incentives for the banking system to absorb the issues, the government effectively legalized secondary markets in government bonds between financial intermediaries in 1977. By 1978, the yields in the secondary market fully reflected market rates, and by 1983 secondary sales to the general public were permitted. Since by 1983 large-denomination interest rates had been liberalized as well, and the capital market was effectively open, we can conclude that the Japanese term structure was essentially free. Any deviation in Japanese and world interest rates from this point should be thought of as reflecting differences in risk premia and expectations of inflation. Full regulatory control of interest rates was effectively gone.

TOWARDS INTERNATIONALIZATION

Before considering international integration of Japanese financial markets, it is worth examining the impact of internationalization in the abstract. We have argued that liberalization in Japan, as
elsewhere, has typically been a process of regulatory recognition of newly emerging instruments and practices. Obviously, these instruments and practices emerge because of gains in efficiency, cost reductions and ease of transactions. To some extent they are the result of full-blown technological advances, but more often than not, the origin of most new instruments or practices is beyond the scope of a country’s national boundaries. Once a new instrument or practice becomes technologically feasible in one market, and regulators eventually catch up to it and add their seal of approval, it is not long before other markets adopt and adapt the innovation. The international nature of financial transactions facilitates this transmission of technology and the borderless move towards greater liberalism. Thus, in the abstract sense, it was internationalization of financial markets which ultimately has led to the liberalization of Japanese financial markets.

So it is that deregulation and liberalization have gone hand in hand with greater international openness in Japan. After the Second World War, Japan had a dearth of foreign exchange reserves, and the authorities wanted to ensure that scarce foreign exchange was used primarily for necessary capital goods and raw materials imports. Quite naturally, these very controls which were deemed so essential immediately after the war grew to hinder development of financial markets later in the high growth period. Liberalization of foreign exchange and greater internationalization of financial markets became a necessity.

As in most countries where control of foreign exchange is deemed necessary by the monetary authorities, a variety of direct and indirect controls were imposed on foreign exchange markets in Japan immediately after the war. As might be expected, Japan’s highly intermediated structure was exploited for regulatory control, and only a handful of banks were authorized as foreign exchange banks. With only a small number of banks involved, it was possible to impose foreign exchange controls which would be considered draconian by modern standards. For all practical purposes, all purchases of foreign exchange had to be approved. Many are the stories of Japanese students abroad in the 1950s and 1960s who had difficulty obtaining funds for living expenses from their parents or supporting institutions in Japan as a result of such controls.

Just as the intermediated and regulated financial structure was used to allocate funds to favoured industries and firms, foreign exchange controls were used to control imports of raw materials and capital.
goods. The same set of priorities applied, and heavy goods industries were clearly allocated more than their fair share of foreign exchange. Imports of consumer and luxury goods were clearly discouraged. While one might argue that this targeting of foreign exchange allocation would appear to have been part of a successful industrial policy, evidence on the overall success of Japan's industrial policy does not support this contention (Beason and Weinstein, 1996). That is, it remains an open question as to whether such controls aided the allocative efficiency of Japanese industry, but it is quite clear that overall Japanese industrial policy was not consistent with picking winners. It is quite fair to say that the impact of foreign exchange controls in the high growth period is an unsettled issue.

Beneficial or otherwise, foreign exchange controls became less necessary as Japan outgrew its initial postwar shortages. Gradually through the 1960s and 1970s the controls were relaxed in a secular sense. Despite this, Japan periodically tightened or relaxed controls, depending on the foreign exchange constraint. Predictably, Japan's current account moved in response to world and domestic growth rates, and consequently foreign exchange became scarce. Foreign exchange controls during such periods were predictably tightened. Such fine-tuning was facilitated by the fact that, in principle, all foreign exchange transactions had to be approved. This allowed the authorities the ability simply to grant blanket approval in periods when the foreign exchange constraint was non-binding, and to tighten the reins when the situation deteriorated. By 1980, however, the authorities had ceded most of their control de jure as well as de facto.

Returning to the high growth period, it is not surprising that the authorities complemented direct regulation of foreign exchange with related indirect controls. Perhaps foremost among these was regulation of both inward and outward investment. Any foreign investment in either direction which was felt might put pressure on foreign exchange reserves was generally discouraged. Low-risk, highly liquid financial assets were seen as the type of investments which residents and non-residents alike would want to convert into foreign currency. As we know, such assets were relatively scarce in the highly intermediated financial structure of the high growth period, and this suited the authorities nicely. Direct investments were treated differently. Generally speaking, the Japanese authorities had an open attitude towards (inward) foreign direct investment, unless the investments required large capital imports or large salary earnings remissions to foreign expatriate staff.
As a result, several types of foreign direct investment controls were imposed. For inward investment, there were ‘validated’ investments with rights to foreign investment upon approval of the authorities. ‘Non-validated’ investments had no conversion rights, and effectively became Japanese companies. For the ‘validated’ investments, approval for conversion and remission of gains eventually became automatic (Feldman, 1986). After 1980, direct regulation of inward direct investment existed only on a limited list of industries, and only when foreign participation was above 25 per cent. By the mid-1990s, remaining regulations had effectively been scrapped, though registration with the Ministry of Finance was still typically required.

Outward foreign direct investment had been more tightly controlled in order to prevent capital outflows. In the 1950s, any such investments could be ordered to be liquidated at the discretion of the Ministry of Finance. This, of course, added huge risk to such investments, effectively rendering them impossible or illegal. By 1969, such regulation was abolished for investments under $200,000. The limit was raised to $1,000,000 in 1970, and abolished in 1971. From 1972, outward foreign direct investment has been officially encouraged.

From a modern standpoint it may seem hard to believe, but both inward and outward foreign participation in equity and fixed income markets was once highly controlled as well. In terms of participation of foreigners in Japanese equity markets, the old regulations mainly focused on the scale of investments made and repatriation of proceeds (capital gains in particular) from such participation. Other than these restrictions, however, participation by foreigners generally was not restricted, and in this sense the market was typically much more open during the high growth period than is the case today in many other Asian countries. By 1963, these restrictions were essentially abolished, though total foreign share of ownership in any one company was still limited until 1973. Foreign ownership of the shares of privatized government firms is still restricted, as is ownership of certain ‘strategic’ or ‘cultural’ firms (such as television broadcasters, etc.). Of course, such restrictions are common in most countries and often ignored by the authorities.

Outward equity and fixed income market participation, like outward foreign direct investment, was initially quite restricted. The authorities were concerned that scarce capital would flee ‘risky’ Japan during the initial postwar reconstruction phase. Until 1971, Japanese nationals participating in foreign equity and fixed income markets could be ordered to liquidate their holdings of foreign instruments at
the discretion of the Ministry of Finance. As such, foreign debt and equity instruments became more ‘risky’, and Japanese participation was therefore somewhat limited. In practice, only authorized investment trusts could actively participate in foreign equity markets prior to 1971. After 1971 the participation of Japanese nationals in foreign equity and fixed income markets became generally unrestricted with the exception of mutual funds. Japanese purchases of foreign equity were once again restricted during the oil crisis, but have generally been fully unrestricted since 1975.

Borrowing by Japanese residents abroad required a licence until 1977, but approval was essentially guaranteed. Since 1980, no approval for such borrowing has been required. Non-residents were barred from raising funds inside Japan prior to 1974. From 1974, foreign entities have been able to place equity issues in the Japanese market on essentially home country rules. While this was very attractive during the bubble years, and a number of foreign companies listed on the TSE, there has not been much foreign interest since the market crash. Foreign bond issues have been available in Japan since the 1970s, though the market was very thin and quite regulated until 1981. This market has become active, and a wide variety of foreign fixed income instruments are available in both yen and foreign currency denominations.

It is often assumed that the relatively low profile of foreign banks in Japan implies that the entry of foreign participants is highly restricted. The reality is more that simple retail banking in Japan is not very profitable, and corporate business is already highly dictated by *keiretsu* affiliation (referred to earlier). Add to this the high costs of doing business in Japan, and it is no wonder that so few foreign banks have attempted to make serious inroads into the Japanese market. For the most part, those that are active in Japan have embarked on significant downsizing in recent years. While the history of foreign banks in Japan dates at least to 1870 with the opening of the Hong Kong and Shanghai Bank, the active history realistically dates to the 1950s and 1960s with trade financing. These same banks, often with only representative office status in Japan, also made some limited loans to Japanese firms during the same period.

By the mid-1970s, overall regulation had changed to favour capital inflows, so that foreign bank lending to Japanese firms was essentially unrestricted. There had been restrictions on purchases of yen by foreign banks when the yen was felt to be too strong. As foreign banks were able to participate in the yen CD market from 1979, even these
restrictions became moot as yen were now freely available to these banks de facto. Legal recognition of this fact came in 1984 with the elimination of quotas of yen purchases to foreign banks. An interesting side-effect of regulation of foreign banks has been that they have generally been permitted much more freedom to participate outside traditional bank functions than their Japanese competitors have. While the operations have typically turned out to be unprofitable, several foreign banks have been allowed to operate effectively as universal banks, something that will not be available to Japanese banks for some time.

On the other side, Japanese banks have been able to participate abroad virtually unrestricted since 1972. Prior to that, foreign representative offices or branches focused on facilitating Japanese customers abroad, or raising foreign currency abroad. Overall, by the 1980s, regulations which had stifled internationalization of the Japanese financial markets had eroded. Japanese banks had, by this time, taken their place in international prominence. By the late 1980s, of course, most of the world’s largest banks were Japanese, though we now know this was largely a measurement result of the bloated valuations and strong yen of the period. But what has been the impact of this greater internationalization, and how does its pace compare with other countries?

In principle, internationalization and greater openness of Japanese capital markets would be necessary for full liberalization. That is, liberalization creates the legal and practical framework under which competitive markets for various financial assets can function properly. In this case, ‘function properly’ means that well-informed agents can actively participate in these markets and arbitrage all possible trades. Any reasonable financial transaction can be accommodated, and the cost of such transactions will be driven to the feasible minimum by competition. As such, it is expected that the menu of financial assets will be properly priced, and capital will ultimately cost no more and no less than elsewhere. Of course, this is where internationalization comes in. A liberalized framework is not useful unless well informed agents can work to arbitrage away any differences in capital cost or asset prices across borders.

In practice, internationalization did accompany overall liberalization, and the goal on the part of authorities has generally become one of creating an efficient financial market environment. As discussed at the outset of this section, however, this was not always the case. Much as in other countries, this liberal attitude on the part of the authorities
has largely resulted from the regulators ultimately recognizing the
direction of markets, and the reality that freer capital markets were
going to emerge with or without their co-operation. During much of
the high growth period, when many of the world’s capital markets
remained closed and information technology was in its infancy, it was
possible for the authorities to allocate the large pool of household
savings to the domestic business sector. Since the late 1970s, however,
this has largely not been the case.

As outlined above, since the 1970s there have been a number of
de jure and de facto steps towards liberalization and internationalization
of Japanese financial markets. This is seen not only in the growth of
various ‘free market’ instruments, but the greater covariance between
various returns and interest rates available on various instruments in
Japan. All of this notwithstanding, one sometimes gets the sense that
internationalization of Japanese financial markets is just another
buzzword, akin to the Japanese internationalization campaigns which
have been so evident since the mid-1980s. In fact, internationalization
of Japanese financial markets is a measurable reality.

If we measure internationalization of Japanese financial markets in
quantity rather than price terms, we are able to see just how dramatic
the change has been. In the early 1970s, foreign exchange market
transactions in Japan were equal in magnitude to about 10 per cent of
Japanese GNP. By the mid-1980s such transactions typically were
greater than 100 per cent of Japanese GNP. Of course, this reflects
the large Japanese current account surplus, and the fact that Japan
‘recycled’ this surplus in becoming a creditor nation. That is,
Japan really had no choice but to internationalize, and foreign
transactions naturally increased. Not surprisingly, it was the already
free markets which were the first to internationalize. Call market
lending by foreigners grew from about 3.3 per cent of all call loans in
1975 to roughly 5 per cent by the mid-1980s. Call borrowing
by foreigners increased from around 1 per cent in 1975 to about
12 per cent by the mid-1980s. Participation of foreigners in the short-
term bill market is similar, and foreign bank issue of CDs grew from
about 1 per cent to 15 per cent of total over the same period.

Perhaps more interesting is the internationalization of ‘non-exotic’
instruments over the period. Foreigners held 3.6 per cent of out-
standing shares in 1971. This proportion grew to 6.3 per cent in 1983,
and 10.5 per cent in 1995. Japanese fixed income instruments had
essentially a zero market share in 1971. This grew to about 11.5 per
cent in the mid-1980s. At present, there is no major discernible trend
in the share of such instruments, but demographic trends suggest that Japanese government debt issue may grow as such issues shrink in other countries. Overseas lending by Japanese banks grew dramatically from 6.5 per cent of all lending in 1973 to 20 per cent in the mid-1980s (from 12.5 per cent to 40 per cent for the Japanese city banks over the same period). Of course, a bad track record on such loans and greater prudential control from the mid-1990s suggests that such highs will never again be revisited. The 1980s were a period of rapid internationalization in quantity terms, though perhaps not in quality.

While a large increase in the quantity of international transactions would suggest that Japan’s financial markets have indeed become more international and liberal, the only real test is one of ‘price’ rather than quantity. Domestically, the entire menu of interest rates and returns has clearly become more covariant, suggesting that market forces are playing their role, and the markets have become more liberal (Feldman, 1986). Relevant tests of the degree of internationalization from the price approach are essentially the same: to what degree are Japanese interest rates and returns driven by international markets?

In a ‘small country’ with open capital markets, the ‘benchmark’ rate of interest should equal world benchmark rates, once differences in risk and expected currency appreciation or depreciation are accounted for. That is, a financial market variant of the ‘law of one price’ should hold. Specifically, if \( R \) is the prevailing rate of interest in Japan on a risk-free fixed income instrument, and \( R^* \) is that on world markets, then:

\[
R^* = R + X,
\]

where \( X \) is the expected degree of currency appreciation (depreciation if \( X \) is a negative number) over the maturity of the asset. For example, if \( R^* \) is 8 per cent and \( R \) is 10 per cent, then the currency in the home country would be expected to depreciate by 2 per cent over the period.

When the condition described above holds, it is because arbitrage has caused the effective interest rate in the two countries to equilibrate. If so, it does not matter whether one borrows (lends) in the home country or abroad. In this case, the market in question is said to be fully internationalized. Of course, the real world is seldom as frictionless as described in theory, but the condition should be met for at least some highly liquid assets for which there is a relatively free
market if indeed the market is highly internationalized. Generally speaking, once properly framed, we can test some variant of this model to determine whether the country and markets in question have integrated.

In order to test whether the law of one price applies to Japanese financial markets, one must first identify assets which are essentially comparable. For the ‘modern’ period, since the 1980s, a large variety of assets exist which appear to be comparable to assets in other markets. The bigger problem, however, is to identify from when Japanese markets have been open or international. This requires that we use a relatively long time-series to test, but internationally comparable assets were relatively scarce in the high growth period. Unfortunately, the only internationally comparable assets which were available for a significant period of time would be Japanese gensaki or repos. Indeed, it has been found that the law of one price essentially holds for this asset class.

Feldman (1986) tested for equilibrium in a variety of Japanese financial markets during the high growth period. As described earlier, Feldman’s basic finding is that the covariance in yields among various assets has increased over time, consistent with an increasingly liberal structure. For internationally traded assets, Feldman found that such transactions were consistent with equilibrium. Not surprisingly, he found that the loan market could not be described as one of equilibrium, but this was a highly controlled market for much of the period. Thus, the evidence seems to indicate that Japanese financial markets, with the exception of those dominated by the banks, were largely internationally integrated by the early 1980s. This stylized fact will become useful later on. If banking was essentially the one area that was behind the curve in terms of liberalization and international integration, then perhaps we should not be surprised that it was precisely this sector that found itself in the middle of the financial chaos of the 1990s.

**Portfolio Trends in the 1980s**

The greater liberalization and internationalization of Japanese financial markets during the 1970s, together with an end to the high growth era, naturally shaped portfolio trends in the 1980s. Of course, the latter half of the 1980s was somewhat anomalous, with rapidly appreciating asset values affecting investment behaviour and portfolio
trends in a major way. With the bursting of the bubble, and economic growth more in line with that of a typical mature economy, Japanese financial markets can finally be described as more or less mature. Most of the remainder of this book will be dedicated to an examination of Japanese financial markets in the post-bubble, or mature, phase. Before that can be done, however, we must examine portfolio trends in the 1980s.

As in most countries, greater liberalization and increased opportunity for arbitrage meant that margins in the various financial markets came to be squeezed. This, in turn, created the incentive for participants to seek out and develop new instruments and markets. The incentive was partly one of arbitraging new opportunities and partly one of expanding the base of business for existing businesses. Increasingly, as margins became thinner and costs were controlled, the way to make money was to expand volume. Often the only way this could be done would be to enter new markets and offer services in new financial instruments. As such, pressure for still greater liberalization and greater scope of operation for existing institutions mounted. If this story sounds familiar, then it should, for it is essentially the same one followed in a number of industrialized nations from the 1970s onwards.

As the pressure for new instruments mounted, the nature of portfolio trends naturally changed in response to new opportunity. For intermediaries, the fact that potential depositors now had a wider choice of instruments meant that banks’ liabilities (deposits) became more volatile and expensive. Simultaneously, growing government deficits and development of genuine secondary markets in government bonds meant that the banks had an attractive alternative to traditional loans. The pressure on the banks, as a result, was to choose between reducing loans and buying more bonds, or shifting into more short-term loans in order to complement the larger proportion of long-term bonds in the bank portfolios. Banks had to seek new business, and risk-taking behaviour increased.

On the liability side, the deposit base had become far more volatile. Deposits changed from the traditional variety to CDs and gensaki. These were competitive instruments which were highly flexible and yielded often far more than regulated interest rates. On the asset side, government bonds became increasingly attractive. While bonds were safe, technically long-term investments, the development of active secondary markets made them highly liquid as well. Against this, business loans could often be of short duration, but were risky and
illiquid. The old pattern of specialization was not necessarily serving the banks well.

Simultaneously, from roughly the mid-1970s to the mid-1980s, demand for business loans was soft, and retained earnings became the preferred form of corporate finance. Typically, banks indeed bought large quantities of bonds, as regulated interest rates on loans failed to respond to the higher cost of deposits and alternative opportunity costs. As an example, in 1982 the secondary market yield on government bonds rose to 8.5 per cent. While the long-term prime rate was allowed to rise, the short-term prime was held at 6.0 per cent. Borrowers naturally shifted to short-term loans, which they would simply roll over. The result was a bank profit squeeze. Thus, while the overall financial market environment was becoming more liberal, banking was still regulated as though the old structure were in place. The regulated structure which had served banks so well for most of the high growth period was now becoming a constraint.

The response of banks was predictable, and at least part of the story of the bubble. The old pattern had been one of funnelling funds from households to businesses. With loan demand flat, regulated interest rates and a costly deposit base, banks sought to increase lending to consumers. While some of this was done directly, remaining regulations necessitated some creative activity. Since banks came under scrutiny for the amount of direct consumer financing undertaken, subsidiaries and affiliates were used. For example, bank underwriting of department store credit cards allowed access to this segment of the market. In the late 1980s, banks tried to cash in on the booming real estate market by creating and funding housing loan companies, or juisen. These creative developments allowed the banks to profit from the growing and lucrative segments of the market. As we shall see, it also exposed them to significant risk.

As banks naturally sought to move into assets with greater yield and growth potential, they also sought to modify their deposit bases. In order to halt disintermediation, banks began to offer more flexible deposits, higher interest rates on term accounts, etc., to the extent these were permissible. This corresponded well to the demands of consumers. In a rapidly ageing society like Japan, such concerns are paramount. Quite naturally, term accounts grew in popularity. The loss of liquidity was then accommodated by the growth of consumer credit. Indeed, term accounts were and are often linked with lend-back provisions via a credit card. Oddly, the growth in consumer
credit was facilitated by regulation. Typically, before the financial structure was fully liberalized, it was required that one have term deposits of greater value than the line of credit. Banks were therefore capable of expanding consumer credit just as they were expanding their term deposit base.

LTCBs and Trust banks got in on the innovations as well. Traditionally, these institutions had performed very narrow functions, and done quite well in a highly regulated and protected framework. With liberalization, however, these specialized institutions were feeling the squeeze. LTCBs, in particular, were damaged by the soft corporate loan demand and the shift towards short-term financing. Highly problematic for the LTCBs is that they were not traditionally deposit-taking institutions and had issued debentures instead. This worked well while the highly defined and functional structure remained in place. As other intermediaries further ‘upstream’ began to find new opportunities, the LTCBs could no longer depend on them to absorb entire debenture issues and they became vulnerable as a result. The response was highly creative. So-called ‘Big and Wide’ accounts emerged in 1981 whereby regular depositors effectively became holders of LTCB debentures through a type of term account arrangement. Limited liquidity, one of the key reasons small wealth holders could not previously hold LTCB debentures, were solved through lend-back arrangements. The LTCBs effectively entered the consumer credit market as a result. Later in the 1980s, the LTCBs were able to enter the previously forbidden territory of real estate through participation in the *jusen*, housing loan companies – undoubtedly a decision that would be regretted.

Local banks established sweep accounts in an attempt to compete with such instruments. For balances over 300,000 yen, funds were automatically ‘swept’ into bond funds. Again, these accounts came with lend-back provisions, putting the local banks into the consumer credit game as well. Security houses began to offer bond funds with posted rates of interest from 1980, and equity funds became available on a similar basis. Again, lend-back provisions were a typical feature. Savers took advantage of the growth of new instruments and diversified into money market-type accounts and pension funds offered by the Trust banks, thrifts, insurance companies, brokers and banks. Many of these accounts, especially those with pension-like qualities, had significant tax advantages. Money market and trust-type accounts, while appearing to offer fixed income, provide capital gains for tax purposes, giving rise to further tax advantages.
The growth in new instruments and new savings patterns during the 1980s provided growth for nearly all types of Japanese financial intermediaries, except the Postal Savings. Given the Postal Savings tradition of subverting Ministry of Finance regulations, this was of little consequence to the monetary authorities. Overall, the trend was towards high yield and fixed-term instruments with attached lines of credit.

Throughout the 1980s, the essential portfolio trend of households was towards these newer term instruments, and greater experimentation with consumer credit. This was complemented, as we have seen, by a shift by intermediaries towards the creation of new term, deposit-type instruments on the liability side, and greater participation on consumer credit and real estate on the asset side. Consumer credit, once the domain of shady *sarakin*, or loan sharks, became legitimate virtually overnight. Between 1975 and 1982, the total balance of outstanding consumer loans grew from 10 trillion yen to 26 trillion yen. While in 1982 the average worker household held 6.5 million yen in savings against household debt of 1.7 million, in 1994 the average household held 14 million yen in savings against roughly 9 million yen in debt. Clearly, the average Japanese household had embarked on a massive experimentation with consumer credit. Of course, much of the growth in debt figures also reflects the fact that many households bought real estate at precisely the wrong time – during the bubble of 1988–90. Even with the bursting of the bubble, it is clear that consumer credit has developed beyond its highly infantile stage when only loan sharks were available. Indeed, many of these loan sharks have become ‘respectable’ consumer loan companies, and some are even listed companies.

Another portfolio trend which was evident throughout much of the 1980s has taken on less importance since the end of the decade. Various tax laws made it possible to hold up to 11 million yen in tax-free accounts. The loophole in the law was that no taxpayer identification system was in force, so that many households simply held a multitude of accounts under fictitious names. Currently, most term accounts are subject to tax withholding of interest at source, so that such tax evasion is not possible even without a taxpayer identification system. While there is no withholding for small denomination accounts, such accounts effectively pay no interest, so that evasion is a non-issue. Tax-free accounts are still available for the elderly and disabled, but the limits on the deposit denomination make evasion
unattractive. Removing this evasion distortion associated with the so-called maru-yu accounts was a major step towards making other savings and investment opportunities competitive with traditional term bank deposits.

As we shall see in what follows, the development of portfolio trends in the 1980s set the stage for tremendous change in the 1990s. Not only was the financial system becoming more open and liberal, it was becoming more mature. Naturally, this maturity did not come without cost. Given a structure that had been geared towards a highly intermediated structure with well-defined functions for various types of participants, it is only natural that some degree of chaos should ensue while the institutions and participants sort out their new role and comparative advantage. The newfound ability to participate more or less freely in consumer credit, real estate investment, the equity market and foreign investments led to some over-zealous activity. Japanese consumers, not used to credit and feeling part of a booming economy, tended to act less than prudently. Institutions, making unrealistic predictions about the future course of long-term economic growth, made unwise decisions in terms of equity and real estate market investments. To top this off, monetary policy, especially in the late 1980s, became far too easy – both as a result of external pressure and incorrect economic assessments. The result, as we shall see, was a deep plunge into financial crisis compounded by economic slowdown. Now, Japan is emerging from this crisis as a mature economy with typically liberal financial structure. Arguably, the crisis has helped accelerate a process which was sure to come in any event.

The discussion up to this point has focused upon the development of the highly intermediated financial structure in Japan and movement towards a more liberal structure. The nature of this discussion might be taken to imply that markets for direct finance (equity and bonds) are of recent origin. As we shall see in the next section, this is not the case. While it is true that markets for direct finance have become more important relatively recently in Japan, it is not the case that their history is a new one. Rather, it is a history that did not fit perfectly into the German-style financial system chosen by the Meiji period bureaucrats, and has therefore taken a back seat to the study of the banking system.
HISTORY OF THE JAPANESE STOCK AND BOND MARKETS

Equity Market

Japanese stock exchanges were established in Tokyo and Osaka in 1878, as part of the Meiji government’s plans to modernize and Westernize the economy. Initially, trading was in public sector bonds, since Western-style corporations had only just begun to exist. Trading in commodities had taken place in Osaka and other locations for some centuries before this. Stocks began to play more of a role in the market by the end of the century, but the large zaibatsu which made up most of Japanese industry in the pre-war years were privately controlled, and the equity market did not play a significant role in financing until the 1950s.

After the war, there was an attempt to Americanize the Japanese economy, focusing in particular on those features that seemed to have enabled effective power to be concentrated in a very few hands. In addition to measures such as land reform, this led to the dissolution of the zaibatsu, which were thought to have encouraged the war and certainly seemed to have profited from it. The need to disperse corporate ownership more widely, however, required an enormous deepening and democratization of the equity market, and this in turn required much more detailed regulation of the market in order to protect the hoped-for new class of relatively unsophisticated investors. The history of the Japanese equity market prior to the war, then, while fascinating, is mainly one of unrestrained speculation and little serious economic impact. The real history of the market starts in 1949, when trading began under the Securities and Exchange Law enacted in 1948.

The Securities and Exchange Law was a straightforward import of the equivalent law operating in the US. Trading under the new law began in 1949, which is also the base date for the Nikkei Index. Although a variety of financing arrangements had been used before the war, settlement under the new system was in cash only, and had to be completed within 24 hours of the trade.

After Japan became independent again, the basic features of the Securities and Exchange Law were left in place, but the Law was eased in a number of ways. The independent Securities and Exchange Commission, which had been set up in imitation of its US equivalent, was dismantled and its powers were handed over to the Ministry of Finance. The Ministry of Finance thereafter somewhat subordinated
the protection of investors to the priority of expanding the market and
benefiting corporations – but investors had few reasons to complain,
at least until the market hit trouble in the 1960s.

The debut of the new market in 1949 came at a difficult time, when
Chicago banker Joseph Dodge was putting the Japanese economy
through a dose of deflation as government spending was reined in and
tax collection was strengthened. But equities picked up strongly in the
early 1950s, when Japan’s postwar high growth period was kick-started
by the outbreak of the Korean War. Much of the necessary materiel
for the war came from Japan, and corporate profits rocketed as a
result. The democratization of the securities markets also proceeded
as smoothly as could have been envisaged, with the major Japanese
brokers channelling large amounts of individual savings into the
market in the form of investment trusts.

In the early 1960s, the market went into a long slump, causing all
sorts of difficulties for the brokers and for individual investors and
investment trust holders. Major broker Yamaichi Securities had to be
rescued from bankruptcy, while investment trust holders complained
that the value of their holdings had fallen below the par value paid.
Many trusts had been missold by salespeople making misleading or
false representations to investors. The Ministry of Finance allowed the
maturity of investment trusts (which have typically had a fixed maturity
date in Japan) to be extended to avoid trusts maturing at less than their
original value, and greatly strengthened the regulations relating to
investment trusts and to the securities industry in general. Previously
the Ministry had had to register any securities company meeting
certain basic criteria, but the amended law gave the Ministry discre-
tion over such registrations from 1965 onwards, and substantial addi-
tional powers over registered companies. The gaimuin qualification for
securities salespeople was also introduced at the same time.

Additional reporting requirements were also imposed on listed
companies in the 1960s, as the result of the MoF’s finding that over
150 of 1,000 companies examined had made false or misleading state-
ments in their publicly filed reports. Semi-annual reports were intro-
duced at this point, and civil liability was introduced for false
statements. As such, many of the rough-and-tumble characteristics of
the market had been dealt with, setting the stage for more mature
structures.

The stock market pulled out of its slump in the late 1960s as
Japan’s high economic growth continued, and although the first oil
shock (1973–4) in particular caused a severe bear market, equities
performed relatively well as an inflation hedge, and the economy showed great resilience to external shocks. The early 1980s was a period when Japan’s blue chips came into their own. The strong dollar and booming US economy gave Japan’s exporters, such as the auto companies, a lucrative market, while the rapid diffusion of video cassette recorders both at home and abroad was a boon to the electrical sector.

In the late 1980s, a strong yen and loose monetary policy combined to produce what is usually referred to as ‘the bubble’ in domestic asset prices. With loose monetary policy generating ample liquidity, but the strong yen limiting investment overseas (which boomed, nevertheless), property and equity prices rose dramatically in Japan, both driven by and fuelling the strong domestic economy. The price was, however, paid in the 1990s, when the stock market fell by over 60 per cent from its high, and the erosion of collateral resulting from falling land prices left a mountain of bad debts throughout the financial sector.

Other important milestones in the development of the Japanese equity markets included a liberalization of capital requirements for listing in 1967 and the introduction of foreign securities brokers in 1971 (although they were not allowed actual membership of any Japanese exchanges until much later). Of the foreign brokers, Merrill Lynch was the pioneer, opening a representative office in Japan in 1961, and being the first firm to receive a MoF licence to do business in Japan, in 1972. The Foreign Exchange and Foreign Trade Control Law was changed in 1980 to make it easier for foreigners to do business in Japan, with the underlying principle of the law being changed from ‘prohibition in principle’ to ‘freedom in principle’.

Government bond trading regulations were also eased in the early 1970s, when the oil shock of 1974 made it necessary for a substantial expansion of government borrowing, and other interest rates were gradually deregulated from then on, starting with CDs and gensaki (repurchase agreements), and moving forward until finally all interest rates offered by banks were completely deregulated in 1994. As documented earlier, foreign exchange transactions were liberalized in a series of steps, greatly facilitating development of the equity market in the 1970s.

Nevertheless, Japan’s securities markets are still burdened with onerous regulations and taxes compared with markets elsewhere, and this has hampered the development of some areas. The Japanese corporate bond market, for instance, has always been moribund, partly because of the large role played by bank lending in the
economy, but more specifically because the commissions and other requirements for issuing domestic bonds are prohibitively expensive. As a result, most Japanese corporate bonds have always been issued offshore on the Euromarkets, frequently in non-yen currencies. The same was initially true of convertible bonds, but this market did ultimately prosper on shore.

Despite some moves to attract business back to Tokyo, lighter regulation, taxes and commissions offshore have meant that there is an active market in Japanese shares on the SEAQ trading system in London. Nevertheless, the different time zone means that the vast majority of equity trades are still carried out on the main market in Tokyo. In the futures market, however, there is a strong competitor in the same time zone as Osaka (the leading Japanese market for futures) in the form of SIMEX in Singapore. Although the fiscal situation at the moment is very difficult, there are increasing calls for decisive action to prevent the ‘hollowing out’ of Japanese financial markets – perhaps by abolishing the marketable securities tax levied on all sales of securities.

FIXED INCOME MARKETS IN JAPAN

Until the mid-1980s it can be said that the high degree of intermediation stood in the way of significant development of other financial markets. Indeed, most of the markets along the yield curve besides that for bank debentures lacked depth, and secondary markets were not well developed. Many factors have intervened since then to push further development of Japanese fixed income markets. Here we describe some of those factors and discuss the basic institutional structure of fixed income markets in Japan. We conclude with some remarks about the future of such markets in Japan and the impact of increasing globalization on Japanese fixed income markets.

The principal fixed income markets in Japan are for public bonds, bank debentures, corporate bonds and others (including Euro-yen, Samurai and foreign). Public bonds include central government bonds and bills, municipal bonds and government organization bonds. Private bonds include bank debentures issued by the long-term credit banks and some specialized financial institutions, and corporate bonds. Foreign bonds include yen-denominated foreign bonds (Samurai bonds), foreign currency-denominated foreign bonds (Shogun bonds) and recently on-shore sales of Euro yen instruments.
Central government issues are available along the yield curve. There is a variety of short-term financing bills of 60-, 90- and 180-day maturity. The maturity is determined by the nature of the financing, with rollover financing at the 90–180 day maturity, and straight short-term financing being linked to the 60-day maturities. At mid-maturity are 2-, 3- and 4-year interest-bearing government notes and 5-year discount notes. Long-term bonds are those with 6-, 10- or 20-year maturity, with the benchmark at the 10-year maturity.

Municipal or local government bonds are issued by prefectures or cities, as well as special districts. A maturity of 10 years is typical. While officially municipal governments have the right to issue debt as their fiscal situation dictates, the reality of Japanese public finance is quite different. Tax revenue for the local governments is largely determined by the tax codes. The central government determines the income tax and inhabitant tax levy, collects the funds and distributes the revenue to the local authorities. As spending obligations are largely determined by the central government as well, the need to issue municipal bonds can be said to be determined by the central government. Perhaps the best example of this is FY 1994, when tax cuts and fiscal stimulus measures prescribed by the central government required deficit covering bonds by the local governments, quite apart from their own preferences.

Public corporations and quasi-government bodies may also float issues, guaranteed by the government. Public financial institutions and other public corporations are large issuers, though privatization has meant fewer potential players. The typical maturity of such issues is ten years. Private issues include bank debentures, which were originally partly quasi-governmental in character. The three long-term credit banks used to all be quasi-public in nature and were one of the

Chart 3.1  Value of Bonds Issued
cornerstones of the government-engineered system of highly inter-
mediated finance. The original idea was to create a highly prescribed
market capable of transforming maturity from relatively short-term
deposits to long-term loans for the corporate sector. The issuance of
debentures by the LTCBs provided a medium-term liability base for
these long-term lenders. By essentially prescribing the market so that
smaller banks were required to hold LTCB debentures, the short-term
liability base of small commercial banks was funnelled into longer-
term uses. Currently, a handful of specialized financial institutions
(like the Federation of Credit Co-operatives), in addition to the
LTCBs, issue such debentures. Interest bearing bonds are of 2-, 3-, or
5-year maturity, while discount bonds are of one-year maturity.

Corporate straight bonds are typically divided into utility bonds and
general industrial bonds. These types of issues are typically of a fixed
coupon type and come in a variety of maturities. Equity-linked issues
such as CBs or warrant bonds are also permitted and have been
popular during periods of equity market strength. In the past, all
corporate issues were in principle directly collateralized by the issuer,
and floating rate and foreign currency or dual currency issues were
not permitted. Recently, changes in bond market regulations have
permitted floating rate and other currency issues, as well as permit
collateralization by a parent firm rather than directly by the issuer.
The goal of such changes is to increase the liquidity of the market.

Foreign bonds used to consist exclusively of yen-denominated
foreign bonds (typically foreign government entities), and foreign
currency-denominated foreign bonds (Shogun bonds). Marketing of
yen-denominated foreign bonds issued outside of Japan (Euro-yen
instruments) were liberalized in January 1994. Aside from place of
original issue, these instruments are increasingly indistinguishable

Chart 3.2  Outstanding Value of Bonds
from Samurai bonds. As cost of issue continues to be cheaper in Europe, pure Samurai bonds may increasingly disappear.

The government bond market has changed dramatically over the past 30 years, and this too has had major implications for Japan’s highly intermediated structure. In the past, the banking system was expected to absorb government issues. This was until the 1960s, when issues became increasingly large. This caused bank portfolios to become illiquid, giving rise to fears of crowding out. Deregulation provided ways for institutions to obtain funds and absorb issues without decreasing liquidity. From 1965 onward, fiscal deficits have grown remarkably. Secondary markets in government bonds were allowed for from 1977, and returns were subject to arbitrage. By 1978, yields on government bonds reflected market rates, and banks have been allowed to sell issues to the public since 1983. Together with deregulation of deposit and loan rates, this move provided an entire menu of free interest rates.

Indeed, it was significant deregulation of fixed income markets and securities which ultimately spelled the end for regulated deposit rates. The reader will recall that from the mid-1980s smaller depositors were effectively able to cash in on high bond yields by opening one of the many types of bond linked deposit instruments. Since many of these accounts were also linked to a line of credit, depositors simultaneously found themselves with higher paying deposits and their first real exposure to consumer credit. As these accounts paid interest well in excess of typical controlled interest accounts, there was a flood of deposit money into them, which naturally accelerated the pace of deregulation. Ultimately, of course, these high interest term accounts became a tremendous burden on the banks, especially after the crash – but we shall explore this later.

A number of important questions about Japan’s financial structure up to the Heisei recession remain unexamined here. While we have suggested that the bubble economy was essentially the result of a combination of unrealistic growth expectations and expansionary monetary policy, we have not fully addressed the issue of whether the episode was a pure speculative bubble. Furthermore, we have not addressed the longstanding debate as to whether the cost of capital was lower in Japan during the high growth period than in other countries. These issues will be addressed in Part III. Before we do so, however, it is necessary that we see where the financial crisis and rough road to maturity have taken us.
Part II

Breakdown and Towards Maturity
4 End of the Party (but not the end of the world)

CORPORATE GOVERNANCE, MORAL HAZARD AND THE CRASH

In Part I, we traced the development of the modern Japanese financial system from its highly functional origins during the Second World War and immediate postwar period and through the high growth episode. We have a picture of a structure that was highly intermediated, with each step in the intermediary process performing a highly specialized function. The entire process was closely supervised and as each step or transaction was regulated, and alternative markets prohibited, regulation of the interest rate structure from depositor to ultimate corporate borrower was highly effective. Competition for scarce funds which might otherwise create arbitrage opportunities and black markets was limited by regulation, and consumers did not directly vie with corporations for scarce capital.

Intermediaries were crucial to the smooth functioning of this process, and as such, other sources of capital were effectively limited. So long as the market for corporate debt was underdeveloped, and the equity market was not a serious source of capital, intermediaries would remain central and regulation of interest rates and allocation of funds would be effective. The equity market during the high growth period was simply a market in legal claims on the firm, not a serious tool of finance. The central role of intermediaries in finance was duplicated in terms of corporate control, as we have argued in earlier chapters. Banks as the focal point of financial keiretsu are typically major shareholders of group members, which also happen to be customers. The equity market in this context not only loses its role as a source of finance, but also its role as a market for corporate control.

Instead, in this context, corporate control and discipline pass to the banks. This is so not because the bank is the major shareholder (typically, the main bank is simply a major shareholder, not the major shareholder). It is so because the bank is the focal point in a complicated nexus of cross-shareholding between group member firms.
(Aoki, 1984). The main bank could win any fight for control by organizing other cross-shareholding firms in the group to support it. Since the main bank can win in any shareholder battle, it need not flex its muscle publicly. When a member firm runs into trouble or embarks on plans contrary to the wishes of the main bank, the problem is quietly sorted out behind closed doors. If necessary, the bank will dictate that managers and board members be replaced. The equity market still acts as a mechanism for corporate control; the difference is that it functions indirectly through intermediaries. In this case, the intermediaries are the main banks (Sheard, 1991).

This system seemed to function well enough through the high growth period. Occasional wrinkles would appear from time to time, and banks obviously were not always successful at preventing some disasters. One troubling feature did seem to reappear at times, and that is that troubled firms often seemed to fall on hard times when they had expanded too quickly. This should not be altogether surprising. One moral hazard which arises when banks are both creditors and monitors is that firms may have incentives to put growth ahead of profitability (Weinstein and Yafeh, 1998).

In an environment of rapid economic growth and robust business environment, banks will find their profitability highly correlated with loan growth. As such, the profit-maximization rule for banks essentially resembles one of loan growth maximization. For an individual firm, the profit-maximization problem remains unchanged: to maximize the difference between revenue and cost. Note the potential conflict when corporate control is essentially in the hands of the creditors. The main bank encourages its debtor/subordinate firm members to pursue strategies of growth maximization, since this corresponds to loan growth and profit-maximization for the bank. While not a necessary outcome, this strategy may deviate from pure profit-maximization on the part of the firms.

In a more typical or ‘Western’ mode of corporate control, shareholders diversify risk through their portfolio, and are therefore risk-neutral with respect to the management of the firm. As such, managers are obliged to run the firm in a fashion that maximizes return for the shareholders. This in turn leads to a profit-maximizing outcome. In the keiretsu framework where the main bank exercises control, a moral hazard problem emerges whereby member firm managers have a potential incentive to deviate from profit-maximization and follow growth maximization instead. Indeed,
Weinstein and Yafeh (1998) find that this conflict has resulted in loan growth maximization behaviour.

Note that while we seem to emphasize the potential negative aspects of this form of corporate governance, others emphasize the potential benefits. Aoki (1984) and his followers suggest that insulation from takeover protects management of the firm from related pressures, so that the firm can essentially be managed in a risk-averse fashion. While Aoki generally stops short of labelling this result as positive, others, particularly revisionists and those in the management literature, have typically gone further in making such assessments. Specifically, the revisionist argument is that risk-averse behaviour on the part of the management allows for ‘long-termism’, whatever that means. Sheard (1991) has taken the concept of ‘long-termism’ and its supposed benefits to task, arguing first that the concept is ill-defined, and second that there is no viable reason to believe that the Japanese corporate governance system gives rise to it. Perhaps most important is Sheard’s argument that if the objective problem of the firm is to maximize its net present value, this will be done on the basis of a reasoned trade-off between long- and short-term opportunities, regardless of the corporate governance structure.

The merits and demerits of the Japanese corporate governance structure aside, the inherent problems of moral hazard did not become evident until they resulted in a crisis. While economic growth in Japan was rapid, loan growth maximization probably did not differ significantly from the profit-maximizing outcome. As such, problems with the incentive structure went undetected. Indeed, rather than being recognized as the potential source of pitfalls, what was in fact a problem of moral hazard was often credited with being one of the driving forces of rapid economic growth. In hindsight, it now seems clear that the causality went the other direction, with rapid economic growth allowing for potential problems of moral hazard to be papered over. As growth slowed, the cracks became clearer.

As the first rapid growth episode came to an end in the mid-1970s as a result of the oil shock, the financial system was still relatively regulated and insulated. While the loan growth strategy clearly generated problems, it had all been executed under the watchful eye of the monetary authorities and most loans were well collateralized. The second time growth slowed, this time at the end of the 1980s, the financial system had been liberalized to such an extent that loan growth maximization could deviate significantly from profit maximization.
maximization. As the regulatory authorities had moved away from strict prudential control towards facilitating growth of new instruments and business opportunities for banks, the full consequences of underlying problems of moral hazard emerged.

Under normal circumstances, the main banks would act as monitors and correct management deficiencies when firms experienced financial duress (Sheard, 1991). This is the natural result if the main bank exercises *de facto* financial control in a market with an underdeveloped takeover mechanism. Unfortunately, one can make a reasonable case that duress in this case was often the result of the implicit strategies of the controlling party. Simultaneously, the bank’s own strategies in terms of consumer credit development and real estate investment came under pressure as monetary tightening was enacted to cool overheated markets. In hindsight, it is often argued that monetary authorities acted too aggressively to burst the bubble of the late 1980s. What we have attempted to argue here is that Japan’s main bank system is somewhat incompatible with an otherwise liberal financial structure. That is, the control mechanism did not match market development. Without traditional supervision and control of firms by outside risk-neutral shareholders, problems of moral hazard can compound what might otherwise be a modest financial crisis. Loan growth maximization meant that far too many projects would be incapable of weathering an economic slowdown or monetary tightening. When the tightening occurred, panic ensued, loans were called, projects cancelled, etc. The result is now quite evident, as real estate and equity values more than halved, with very slow recovery.

A GENERAL DEFLATION?

We have essentially argued that a combination of unrealistic growth expectations and moral hazard resulting from the nature of corporate control in a newly deregulated financial framework was responsible for the ‘bubble’ of the late 1980s. This bubble was burst in 1989 when the Bank of Japan raised the ODR, but as the crash of 1987 suggests, the market was already vulnerable to changes in expectations. As the pattern of real estate and equity prices suggests, there was indeed a massive deflation in the value of financial assets.

As is well known, equity, land and other asset prices in Japan fell dramatically between 1989 and 1993. This large-scale nominal decline of 40–70 per cent, depending on the asset class, is typically referred to
as the ‘bursting of the bubble’. While it is far from clear whether the ‘bubble’ was in fact a purely speculative phenomenon or the result of widely held but unrealistic (in hindsight) growth expectations, it is clear that asset prices have declined significantly from their highs. This massive decline in asset prices and the related impact on the economy due to negative wealth effects is undeniable. Far less clear, however, is the popular claim that this decline in asset prices triggered a general deflation. The fact that one event occurred after the other is far from causal evidence. Indeed, the general price deflation occurring in the mid-1990s was quite typical of previous deflations in Japan, and generally unrelated to asset price deflation.

Deflation was perhaps the biggest buzzword among participants and journalistic observers of Japanese financial markets during the mid-1990s. From most of what was written and said, however, it is clear that the general level of understanding of the subject was very poor. Most of the Western business press likened the downward pressure in prices to forces present during the Great Depression in the 1930s. Sometimes asset price deflation was confused with general downward pressure on prices. Monetary policy was frequently blamed, and outrageous claims were made on the basis of little or no evidence. One famous financial guru has even claimed that the episode was the first deflationary event in the postwar history of the developed world, which is, of course, false.

While it is true that the Bank of Japan acted to tighten monetary policy during 1989–90, the Bank had clearly moved towards easing from 1991. Not only was the Official Discount Rate (ODR) cut from 6.0 per cent in 1991 to 0.5 per cent by September 1995, but growth rates of monetary aggregates had begun to accelerate noticeably from

**Chart 4.1** Money Supply Adequate
the start of 1993. Critics of monetary policy would point to the sluggish acceleration of M2 + CD growth as evidence that the Bank was not doing enough to halt deflationary pressures, but this was clearly not the relevant measure. Base money growth and M1 growth accelerated quite sharply from the start of 1993, but broader measures failed to accelerate as quickly. The explanation for this is simple – with very low interest rates, the opportunity cost of holding cash falls, so that broader measures with a large non-cash component do not grow as quickly as narrow measures. That is, monetary policy was appropriate for the economic conditions, but the Bank of Japan was effectively ‘pushing on a string’.

In fact, Japan has experienced many episodes of falling prices during the past 30 years. It is simply the fact that most of these episodes were accompanied by relatively robust economic growth, so that the business press failed to notice. During the 299 months from January 1971 to December 1995, 152 months exhibited declining wholesale prices in Japan. During the deflationary episode from April 1991 to December 1995, prices fell by 1.7 per cent on a year-on-year basis on average. This is roughly the same as the episode from November 1977 to January 1979, and also similar to the deflation of January 1983–January 1984. The deflation of the 1990s was far less severe than that of June 1985 to January 1989, when prices fell by an average 4.2 per cent each month on a year-on-year basis.

Chart 4.2 Currency and Prices
As can be seen in Chart 4.2, wholesale prices have been falling in a secular fashion since the yen began its rapid appreciation in the post-Plaza period. The influence of the currency is readily apparent from Chart 4.2. Indeed, were we to go further back in history to the early 1970s when the Bretton Woods agreement was jettisoned, we would find essentially the same pattern. The yen has been on a path of secular appreciation from its level of 360 to the dollar in the 1960s to its post-1985 range of roughly 90–140. The result, of course, has been falling wholesale prices. At times, when the appreciation of the currency has been particularly strong, this deflationary pressure has passed through to the entire menu of prices, such as the CPI and the expenditure deflator.

The influence of the currency works its way through to prices in two ways. First and most immediately, import prices are influenced by the movement in the currency. The second effect is the knock-on impact on domestic wholesale prices. As prices of imported substitutes fall, domestic prices begin to fall as well, albeit with a time lag. The reason for this is simple. If prices of domestic goods do not fall there will be greater substitution into the imported goods. This is true even if there is a quality difference, as some buyers will be less concerned with quality than others. Essentially, the price of imported substitutes is an opportunity cost. The combined and weighted response of domestic and imported goods to the currency gives the overall impact of currency appreciation on wholesale prices, as seen in Chart 4.3.

**Chart 4.3** Wholesale and Import Price Deflation
Typically, the impact of the currency on wholesale prices is the most extreme. This is because import prices have a relatively high weighting (about 13–14 per cent) in the index, and because domestic wholesale prices respond quickly to changes in import prices. Other measures of prices, like the CPI, are about 70 per cent weighted in services and food, goods whose prices have been typically stable or rising despite currency appreciation. As can be seen above, deflationary pressures are not felt as strongly at the level of CPI, and the impact comes with a significant time lag. The same is generally true of correctly weighted price measures like the consumer expenditure deflator. This pattern is quite natural, but the divergence between the CPI and WPI has resulted in wild claims that the CPI had been doctored by the authorities in order to ‘hide’ deflationary tendencies. Not surprisingly, these claims were typically attributable to foreign journalists or investors who were unfamiliar with past Japanese patterns in prices, and who mistakenly believed that this downward movement in wholesale prices was the result of a 1930s-style downward spiral.

As the yen began to stabilize in the second half of 1995, and the Japanese economy has begun its gradual recovery from the Heisei recession, there can be no doubt that deflationary pressures are over. Still, however, there remain those who would claim that the recent deflationary episode had potential to spin out of control and pull the Japanese economy into a great depression. According to this school of
thought, it was not the stabilization of the yen which put an end to deflationary pressures, but the series of expansionary monetary and fiscal policy moves. The issue is an important one. If the deflationary pressures were typically characteristic, then there was never a serious danger of Japan entering a great depression. That is, it is simply the case that the strong yen accompanied a weak economy, and this put downward pressure on prices at the same time that it harmed chances for recovery. If, on the other hand, the deflationary pressures represented a fundamental break from past patterns, then the Japanese economy may be vulnerable to a more serious economic downturn in the future, and the entire world financial system may have been at risk, as was frequently argued in 1994–5.

Fortunately, this is a testable hypothesis, and we can say at the outset that we can safely reject the notion that patterns of prices in the Heisei recession were radically uncharacteristic. Of course, a simple glance at the graphical evidence above would suggest that there was nothing very interesting about the movement of prices in the mid-1990s. If the ‘deflation theorists’ wanted to get excited, they should have done so in the period 1985–8, when wholesale prices fell sharply. Despite the far more radical ‘deflation’ during that period, there were no journal articles about the likely collapse of the Japanese and world financial systems. Furthermore, rather than fleeing Japan, foreign fund managers were pouring into the country in droves. Simple reasoning suggests that it was not deflation that sent investors fleeing in the mid-1990s, but rather a good old fashioned recession in the context of Japan making its final transition from fast grower to mature economy. They would have fled even had prices been going through the roof.

Even though the casual evidence rather clearly dismisses the hypothesis that the recent deflation was uncharacteristic, it is important to test the hypothesis. The methodology is simple. We turn to economic theory to posit a relationship that describes the evolution of prices. We then test whether this relationship became ‘uncharacteristic’ during the 1990s. That is, we test for the presence of structural breaks in the relationship. If they exist, we can say that there was indeed something uncharacteristic about the period. This by no means would suggest that Japan was indeed teetering on the edge of a great depression, but such evidence would certainly be a necessary condition before such a possibility could exist. On the other hand, if no structural breaks are found, it would essentially be impossible to argue that the economic relationship describing prices fundamentally changed during the Heisei recession. Correspondingly, it would be
impossible to argue that the recent deflation suggested that the economy was nearing a fundamental crisis.

MODELLING THE DEFLATIONARY PROCESS

We can begin our empirical test with one of the simplest and oldest relationships describing the evolution of prices: the equation of exchange.

\[ M(t)V(t) = P(t)Y(t), \quad (3) \]

where \( M \) is the money supply, \( V \) the velocity or turnover of this money stock, \( P \) the general price level and \( Y \) the level of real income or output. Obviously, equation (3) is an identity devoid of theoretical content, but we can develop it for our purposes. Assuming we are able to identify the ‘correct’ measure of the money stock in (3), and that the other variables can be measured properly as well, we can move toward an equation which describes price movements (Friedman, 1969). We begin by taking logs of (3),

\[ \ln P(t) = \ln M(t) – \ln Y(t) + \ln V(t). \quad (4) \]

Differentiating equation (4) with respect to time gives an expression describing the inflationary process:

\[ \dot{P} / P = \dot{M} / M – \dot{Y} / Y + \dot{V} / V. \quad (5) \]

In practice, implementation of equation (5) typically assumes that velocity moves according to a secular trend. A number of monetary aggregates can be used for the money growth term, and output growth can be measured using either industrial production or real GDP. It is possible to give equation (5) more theoretical structure by specifying a production function for the output term and expanding. Unfortunately, added theoretical structure does little to enhance the estimation.

While empirical implementation of (5) is relatively straightforward, the equation of exchange essentially links the real and monetary parts of the economy in a closed context. We expect the prices of traded goods to be influenced by the foreign sector in an open economy, and must therefore admit this relationship into our description of the evolution of prices. Clearly, including movements in the exchange rate is the most obvious way to proxy for the influence of the foreign sector on the evolution of prices.
For the purposes of this analysis, we therefore posit price movements as related to monetary factors, real factors and external factors. This specification is fully general, as any factors which might give rise to deflation may be classified into these three categories. At the modest cost of some efficiency and structure, we choose not to specify a functional form and instead posit a simple linear relationship.

**Empirical Implementation**

Two related hypotheses are being evaluated. The first and most simple is just that fluctuations in the value of the currency are a major cause of price movements. We accomplish this by specifying an equation describing the inflationary/deflationary process with changes in the exchange rate, as well as money supply growth and real economic growth, as arguments. The second hypothesis is that there has been no significant structural break in the process generating inflation or deflation over the past 20 years. This, of course, can be tested in a number of ways, the most obvious being a Chow test for the presence of structural breaks. Taking these two together, we test whether recent deflationary pressure was generated by the appreciation of the yen, or a significant structural economic change. Thus, we expect to reject the first null hypothesis of no relationship between currency fluctuation and inflation/deflation, but we do not expect to be able to reject the null hypothesis of no structural change in the inflationary process since the oil shock. That is, we expect to find that currency has been and continues to be a major factor in explaining the inflationary/deflationary process.

In order to test these hypotheses, we posit an estimable form of the modified quantity theory model described above. We take inflation or deflation as a function of base money growth, real output growth and changes in the exchange rate. Essentially, we posit an open economy version of (5). In (6), the constant term captures the (assumed) constant underlying trend in velocity, while money growth and real output growth are represented explicitly. We use the year-on-year change in the exchange rate to capture the open nature of the economy. For generality, lags of the independent variables, seasonal dummy variables and a time trend are included in the estimating equation.

\[
\frac{\dot{P}}{P} = \alpha + \beta_1 \left( \frac{\dot{M}}{M} + \beta_2 \text{(IP)} + \beta_3 \text{(yen)} \right) + \text{(lags)} + \text{(Time trend)} + \text{dummies} \tag{6}
\]
The model can be estimated using both monthly and quarterly data. In the benchmark model, deflation is measured using the annual percentage change in the overall WPI, and monetary growth is measured using the year-on-year change in base money (where base money is measured as the outstanding balances of currency and deposits of member banks with the Bank of Japan). Year-on-year growth in industrial production (IP) is used to proxy for real output growth, and currency fluctuation is measured as the annual rate of change in the value of the yen against the US dollar. In all specifications, a time trend is included to capture any secular trends in inflationary expectations and secular technological change. Seasonal dummy variables are included to control for non-specific seasonal noise in the unadjusted series, such as those of WPI growth, base money growth and currency fluctuations. Data cover the period from January 1970 to December 1996 in all estimates.

Before turning to the results, note that the sign implied by the quantity theory on the estimated coefficient on real output growth differs from other theoretical specifications. The logic of the quantity theory is that more goods, all else equal (as in with a fixed stock of money), the average price of goods must fall for the equality to hold. This contrasts with a modified Phillips Curve (Phelps, 1972) view of the world, which suggests that rising output will cause costs to rise (working, perhaps, through increased bargaining power of labour). Allowing the possibility of bottlenecks and cost-push inflation, we will remain agnostic about the sign of the estimated coefficient on the real output variable. For our purposes, it is most important that the process generating inflation or deflation remains constant over time.

Results

Turning first to the results of estimating the benchmark monthly specification of equation (6), we find significant evidence of second-order serial correlation. Results below are reported for the estimates of equation (6) derived using correction for second-order serial correlation by the Prais-Winsten procedure. The results of the simple monthly model are reported in Table 4.1. Among the contemporaneous variables, only movements in the currency are significant and of the correct sign. Lagged values of money growth are not significant at the usual confidence intervals. The two- and three-month lags of the industrial production variable are positive and significant, which is consistent with cost-push or demand pull type inflationary pressures –
## Table 4.1  Estimates of Equation (4) Corrected for Second-order Serial Correlation (t-statistics in parentheses)

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Base Money Monthly Specification</th>
<th>Overall WPI %y/y</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Const</td>
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<tr>
<td></td>
<td></td>
<td>(0.799)</td>
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<td></td>
<td>Ind Prod</td>
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<td></td>
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<td>Yen</td>
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<td></td>
<td></td>
<td>(8.77)</td>
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<tr>
<td></td>
<td>Money</td>
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<td></td>
<td></td>
<td>(0.134)</td>
</tr>
<tr>
<td></td>
<td>Ind Prod – 1</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>(1.24)</td>
</tr>
<tr>
<td></td>
<td>Ind Prod – 2</td>
<td>0.089</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(3.00)</td>
</tr>
<tr>
<td></td>
<td>Ind Prod – 3</td>
<td>0.069</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(2.30)</td>
</tr>
<tr>
<td></td>
<td>Ind Prod – 4</td>
<td>0.033</td>
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<td></td>
<td></td>
<td>(1.10)</td>
</tr>
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<td></td>
<td>Ind Prod – 5</td>
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<td></td>
<td></td>
<td>(1.03)</td>
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<td></td>
<td>Ind Prod – 6</td>
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<td></td>
<td></td>
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<td>Yen – 1</td>
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<td></td>
<td></td>
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<td>Yen – 2</td>
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<td></td>
<td></td>
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<td></td>
<td>Yen – 3</td>
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<td></td>
<td></td>
<td>(1.97)</td>
</tr>
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<td></td>
<td>Yen – 4</td>
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<td></td>
<td></td>
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<td></td>
<td>Yen – 5</td>
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<td>(0.56)</td>
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<tr>
<td></td>
<td>Yen – 6</td>
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<td></td>
<td></td>
<td>(0.011)</td>
</tr>
<tr>
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<td>−0.0082</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.352)</td>
</tr>
<tr>
<td></td>
<td>Money – 2</td>
<td>−0.013</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.448)</td>
</tr>
</tbody>
</table>
but not the simple quantity theory specification. Similarly, the first and third lag on the currency variable are negative and significant, consistent with our observations and comments above. Results using other monetary aggregates are nearly identical.

The test for structural breaks is simply the Chow test of the null hypothesis of continuous specification over two sub-samples. For the uninitiated, this is simply a statistical test of whether two sub-samples differ in a significant fashion from the process describing the entire sample period. For our purposes, the issue is whether the deflationary process as described by equation (4) shows evidence of significant change from the onset of the Heisei recession. In order to be generous to this possibility, we perform the Chow test at each observation throughout the 1990s. The relevant test statistic is the $F$ with 23 and 266 degrees of freedom (23 explanatory variables including all seasonal dummy variables). At each point over the 1990s, the generated statistic is below the critical value of 1.79 for the 0.01 confidence level. It is not a deficiency that this test is conducted using OLS, as a major structural break in the deflationary process would be evident even under misspecification. In any event, as no lagged dependent variables have been included in the model, estimates under OLS continue to be consistent. Simply put, there is no evidence that at any point over

### Table 4.1 (Continued)

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Base Money Monthly Specification</th>
<th>Overall WPI %y/y</th>
</tr>
</thead>
<tbody>
<tr>
<td>Money – 3</td>
<td>0.004</td>
<td>(0.149)</td>
</tr>
<tr>
<td>Money – 4</td>
<td>0.009</td>
<td>(0.317)</td>
</tr>
<tr>
<td>Money – 5</td>
<td>0.039</td>
<td>(1.59)</td>
</tr>
<tr>
<td>Money – 6</td>
<td>0.025</td>
<td>(1.49)</td>
</tr>
<tr>
<td>Mean of Dependent Variable</td>
<td>2.56</td>
<td></td>
</tr>
<tr>
<td>D-W</td>
<td>1.99</td>
<td></td>
</tr>
<tr>
<td>$R^2$</td>
<td>0.994</td>
<td></td>
</tr>
</tbody>
</table>
1990–6 did the process generating deflation differ from that which had existed since the oil shock.

To untrained observers in the financial sector and among economic journalists, the deflationary episode from 1992 to 1995 represented a dramatic anomaly resulting from the bursting of the bubble economy and ensuing recession. Much blame was also placed on the Bank of Japan for its failure to ‘re-inflate’ the economy. While it is indeed the case that the collapse of asset prices after 1989 was anomalous, we have argued that deflationary pressures at the level of wholesale and other prices at the level of the economy as a whole were not at all anomalous. Indeed, Japan has experienced many episodes of deflation since 1970 in association with periods of rapid currency appreciation. On the basis of models of the inflationary process, there is no evidence of structural breaks during the 1990s relative to other periods. Indeed, the models we have posited seem capable of explaining nearly all of the variation in observed inflation and deflation over the sample period, and currency fluctuation figures in a significant fashion in determining this process.

While it should now be obvious that the collapse of the bubble economy in 1989 did not give rise to a general deflationary spiral, there is no question that it spawned a massive asset price deflation and persistent economic slowdown. As we have argued above, the banking sector seems to have been at the centre of this crisis. We have argued that moral hazard give rise to unsound practices, which in turn give rise to collapse as soon as economic growth began to slow. The precise nature and magnitudes of the banking crisis have yet to be explored, and this is a topic to which we now turn.
5 Japan’s Financial Crisis

Whether Japan’s bubble was a bubble in the sense that it was driven by pure speculation, or only in the sense that agents had unrealistic expectations about future growth prospects, the legacy of the bubble is the same. After asset prices began to tumble after 1989, the negative wealth effects of the crash had major economic consequences. Households as equity and landholders bore massive realized and unrealized capital losses. For those who bought land at the peak, average prices had fallen by 40 per cent on average between 1989 and 1993. Equity prices fell by half from the all-time high of nearly 40,000 in 1989 to just under 15,000 at one point in 1995. Indeed, these losses, realized or otherwise, caused households and businesses alike to retrench, sending the Japanese economy into its deepest and most prolonged slowdown. As this cyclical slowdown resulting from such wealth effects coincided with major structural changes inherent in an industrial economy at Japan’s stage of maturity, the adjustments have been particularly severe. The recession was not, as Chalmers Johnson (Atlantic Monthly, 1993) has suggested, the invention of Japanophiles seeking to give Japan breathing space in trade negotiations with the US, but a very serious period of adjustment. Purely macroeconomic issues aside, the crash has drawn most attention for its impact on Japanese banks, once among the most secure in the world. The issue is one of just how severe the crisis was (or is), and how close the system came to total collapse.

In historical and international perspective, the Japanese banking crisis is not unique. North American and European banks have all had their episodes of excess financing of real estate transactions during boom times, only to have to pay up when the bubble burst. The late 1980s were a particularly noticeable time, with nearly all major industrial countries facing similar crises at roughly the same time. In hindsight, this should not be surprising, as more liberal world capital markets have made for a world market in land. When land becomes a ‘hot’ investment item in one country and prices are bid up, it is only natural for investors to move to greener pastures, bidding up prices in other countries. Thus, it is natural that the S&L crisis in the US, the ‘negative equity’ crisis in the UK and the Japanese land bubble should have all occurred at roughly the same time. The only possibly unique
facet of the Japanese crisis is that banks, which were otherwise thought to be conservative, became heavily involved in the lucrative but risky real estate sector. Of course, with land as the collateral of choice, the problem seems simple to understand in hindsight.

During the bubble period, banks extended a large amount of credit, accepting land as collateral. Furthermore, banks made significant loans for new corporate buildings, personal real estate holdings, etc. Most banks also have formal and informal affiliation with credit co-operatives and jusen, or mortgage finance corporations. Organizations such as credit co-operatives typically faced regulations from local

**Chart 5.1** Nikkei Average

![Nikkei Average Chart](image)

**Chart 5.2** Land Prices

![Land Prices Chart](image)
authorities on the proportion of real estate transactions they could finance, but creative accounting typically meant that many such organizations exceeded their limits. The *jusen* financed only real estate transactions, with the land standing as collateral. When the bubble burst, these organizations were heavily exposed to non-performing loans, and it is generally agreed that the seven *jusen* were technically insolvent by 1996.

While the problem is by no means insurmountable, it is nevertheless significant. The Ministry of Finance published data in 1997 showing total problem loans at 79 trillion yen. While this number, which was a full 13.5 per cent of outstanding loans at the time, is indeed large, it tends to overstate the magnitude of the problem. The popular press, for example, has tended to treat this entire 79 trillion yen as non-performing loans which must be written off. Even were the entire 79 trillion yen non-performing, the loans have underlying collateral attached to them which bears some residual value, which would have to be deducted from the non-performing total in calculating the total value of potential write-offs. The reality is, however, that the non-performing total appears to be far lower than the total value of ‘problem loans’.

The best estimate for actual non-performing loans for the banking sector is that they peaked at 23.5 trillion yen in September 1995 (*HSBC-James Capel, 1996*). If 16.5 trillion yen in non-performing loans of non-bank affiliates are added to this, the total of such loans at the peak would have come to 40 trillion yen – no small sum at roughly 8 per cent of GDP. It is estimated that the major banks can write down such losses to zero using period earnings by the year 2002, on average (*HSBC-James Capel, 1996*).

As dire as such figures might seem, it should be stressed that some initial speculation was that the situation was far worse. While the most dependable financial analysts generally suggested that the total magnitude of the non-performing loans was in the 30–50 trillion yen range, some publicity conscious members of the financial community suggested figures several orders of magnitude larger. The opaque nature of financial reporting in Japan, compounded by the Ministry of Finance’s unwillingness to disclose the magnitude of the crisis, actually helped to fuel some of the more unrealistic and irresponsible estimates. Fortunately, since 1995, the Ministry of Finance seems to have realized that the truth is probably better than unfounded speculation, and the magnitude of the crisis has been more or less openly revealed. While the magnitudes are not the stuff of world financial market
collapse, at 7–8 per cent of GDP, the non-performing loan situation is quite severe.

How the institutions and authorities deal with the situation depends crucially on the nature of the institutions themselves. The authorities finally came to the decision to allow the banks to write off losses over a period of time rather than all at once, with the banks bearing the losses using operating profits over time. While the decision by the authorities to allow banks to write down losses over time implies depressed earnings, the situation is manageable on average. Manageable perhaps understates the situation. Brian Waterhouse, financial analyst for HSBC-James Capel, estimated that the 21 major banks would require 6.9 years on average in 1996 to extricate themselves from non-performing loans using period earnings to cover the losses. Within these banks, however, the range is significant, with the strongest banks essentially free of non-performing loans, and the weakest (essentially bankrupt) institutions with over 20 years to see light. The reality, of course, is that the Ministry of Finance will essentially allow some of the more troubled institutions to fail in effect (though they might be acquired to avoid the publicity).

*Jusen* have effectively been wound up, and many other small bank and non-bank financial institutions will probably fail as well. For smaller deposit taking institutions which fail, the situation is quite simple. Larger institutions will assume their deposits and operations, and liquidity will be injected via the deposit insurance corporation. For non-deposit-taking institutions like the *jusen*, the situation will be far more difficult. In this case, the injection of public funds may be necessary, which is highly sensitive in a political sense, as the *jusen* débâcle has already shown. The public may understand that rescuing a small bank implies rescuing depositors, but for non-deposit-taking institutions, the situation is more difficult.

The difficulty lies in the fact that the general public do not see themselves as stakeholders. Obviously, when a deposit-taking institution fails, all depositors are at risk and the average deposit holder, even with a trouble-free institution, can appreciate the public good aspect of government intervention on behalf of troubled banks. In fact, of course, the public good effect is the same for the *jusen* and other non-deposit-taking institutions. Given that such institutions are funded by the deposit taking banks, their failure puts banks – and
therefore depositors – at risk. The public at large fails to see it this way, however, and this makes any direct bail-out for the jusen highly problematic. Instead, the banks may be forced to bear the loss, with public policy then directed towards assisting the troubled banks.

In 1997, the jusen problem was essentially being dealt with as in the thrift crisis in the US. A resolution trust public corporation has been created, and public funds have been dispensed to deal with the crisis. Unlike bank failures, which can be dealt with by liquidity injections via the deposit insurance corporation and Bank of Japan to any stronger bank which might acquire the assets of a failed bank, liquidation of non-performing loans of the jusen requires an injection of real taxpayers’ money. This is why the situation has been so problematic. In the next round, as more non-banks fail, the whole mess must be replayed, and it is not clear how the public will react.

Authorities have finally provided the means to move ahead. The capital injection of 27 trillion yen provided for in the Financial System Stabilization Law was a very good move in principle, but implementation proved impossible. The political red herring of the public funds issue, combined with simple difficulties in establishing precisely how the capital injection via the Deposit Insurance Corporation proved too difficult. In the end, squabbling between the government and the opposition has caused the entire plan, indeed the law itself, to be scrapped. Instead, in September of 1998 the government and the opposition agreed that insolvent institutions will be nationalized until their operations can be wound down or sold to competitors. Ultimately, of course, both plans amount to the use of ‘public funds’ in order to resolve the crisis, but presumably the man on the street fails to see this.

SOME BACKGROUND

Before proceeding, it may be worth shedding some light on the subject of how the crisis emerged. Part of the origin of the banking crisis can be attributed to the bubble itself, but perhaps more important is the institutional framework which supported the moral hazard out of which the financial crisis developed. This background reads much like the script for financial crises in other times and other places: a booming economy supporting a booming real estate market; banks which cannot directly invest in real estate, but which can lend to real
estate investors; insured deposits which provide incentives to the banks to take relatively high risks. Of course, this script has nearly always had an unhappy ending, as soon as the real estate prices collapse. The end of the scenario – financial crisis and reform of the banking sector – varies in severity and response, but the basic picture is nearly always the same.

As we shall see later, there are various explanations for the bubble itself, and it is far from clear whether the entire episode from 1985 to 1990 should really be called a bubble. Still, at least a few things seem clear. After the Plaza Accord, the government and Bank of Japan were concerned about the impact of the sharp appreciation of the yen on the Japanese economy. Simultaneously, US officials, with complete disregard for the overall impact of the policy, were pressuring Japan to stimulate its domestic economy in order to boost the demand for imports and reduce the current account surplus. The response in terms of monetary policy was to keep downward pressure on interest rates, even after it was clear that the economy was not tanking despite the sharp appreciation of the yen between 1985 and 1987 and the deflationary pressure on prices. Indeed, even after it was clear that the economy was starting to boom, the Bank continued to keep downward pressure on interest rates, with Governor Sumita continuing to hold rates low throughout the bubble period.

At the same time, financial deregulation was proceeding, and Japan began fully to realize its role as major supplier of capital to the world. Japanese corporations also began to realize that equity was a means of finance, not just an ownership claim. After almost complete reliance on debt finance for the entire postwar period, Japanese firms discovered equity as a nearly free form of finance during the second half of the 1980s. This simultaneous monetary stimulus and rapid development of financial markets created tremendous demand for real estate in Tokyo and Osaka. The economy boomed despite the dramatically stronger yen. To top it all off, the current account surplus began to adjust, and the yen weakened somewhat in response. The economy soared. With the benefit of hindsight, we can say that expectations about future growth prospects became highly unrealistic. The result is that the stock market hit highs that now seem completely implausible. Not surprisingly, the real estate market did the same, as returns on land followed stock returns, and growth expectations were coloured by rosy expectations.

While US pressure was certainly a factor in pushing the Bank of Japan toward this ill-timed easing stance, there was domestic pressure
as well. Booming land prices were causing government officials some concern by 1986. As a result, an anti-speculation tax in real estate was introduced in October 1987. The tax, which increased the marginal rate of taxation on commercial real estate sales for ‘speculative purposes’ (short-term holdings) from 37.5 per cent to 85.2 per cent was quite drastic. The result was the exact opposite of what the authorities had hoped for. True enough, it did reduce the number of ‘short-term holders’ of real estate, for the sellers simply hoarded their properties in order to beat the tax. The real estate market climbed to new highs. The reader will recall that ‘Black Monday’ occurred in the same month of the same year. World stock markets crashed, as did the Nikkei. The result was domestic as well as international pressure on the Bank of Japan to ease rates, which they did. The result was predictable: the real estate market continued to climb and the stock market recovered, with a massive rally until 1989.

The Bank of Japan decided that enough was enough, and delivered the first of five rate hikes in December 1989. The discount rate was increased from 2.5 per cent to 6 per cent over this period, until the anti-inflationary policy was discontinued in 1991. The real estate and stock markets collapsed as a result, roughly 60,000 companies have gone bankrupt since, leaving behind liabilities of over 30 trillion yen. The result for the banking system has been bad loans which peaked with a value of roughly 40 trillion yen, both as a result of bankruptcies and falling real estate values. At first, the authorities assumed that robust growth would return to the Japanese economy, so that the banking system could simply grow out of the problem. Indeed, in 1991, government authorities officially targeted 1996 as the end of the problem loan situation. This ‘five year plan’ was dropped in 1995, with no official target date to replace it. In addition, the authorities have begun to facilitate write-offs, recognizing that ‘outgrowing’ the problem in the context of recession and slow recovery is highly unlikely.

HOW BAD?

In terms of overall pervasiveness, it would be an exaggeration to say that the Japanese banking crisis was worse than that in the US. Uninformed business press reports during 1994 and 1995 suggested that the Japanese banking system was at the brink of disaster, and with it the entire world financial system. While there certainly was a crisis, and even some very large banks were under serious pressure,
systemic failure was never a serious possibility. In the US case, for example, over 1,500 banks were considered to be in some degree of trouble. Hundreds of savings and loan institutions actually failed or were taken over because they would otherwise fail. The thrift crisis in the US was most certainly a serious banking crisis. Still, because government action in dealing with the crisis was swift and somewhat severe, the banking sector recovered much more quickly than Japanese banks have, and their stock market performance recovered more quickly as well.

While the government and financial institutions themselves have understandably tried to understate the magnitude of bad debts, many journalists and so-called financial sector economists and analysts have been guilty of over-inflating the seriousness of the crisis. As of mid-1995, official figures for non-performing loans were approximately 12.5 trillion yen. It is frequently pointed out that this included only loans to bankrupt firms or loans where no payments had been made for over six months. It is rather unfortunate that some official estimates beyond this figure were not released, as it gave scope for more sensationalist analysts to make greatly exaggerated claims. A senior analyst for one German institution is reported to have argued that bad loans amounted to between 100 trillion yen and 500 trillion yen, depending upon whom he was talking to (that is, that

![Chart 5.3 Bankruptcies](image-url)
bad loans accounted for between 25 per cent and 125 per cent of total outstanding loans!). Clearly, the authorities were doing no favours by allowing this sort of idle speculation.

Simple bookkeeping should have clarified that the magnitude of bad loans was generally much greater than official figures until the officials started to release more comprehensive data in 1996, but far below the ‘financial meltdown’ level argued by the headline grabbing sensationalists. One could have estimated the magnitude by adding all of the 5 trillion yen plus in loans to the housing loan finance companies, or *jusen*, to the total of all restructured loans (another 10 trillion yen) plus questionable loans made by affiliated institutions of the major city banks (another 16–17 trillion yen), together with loans which the banks and authorities were willing to admit were non-performing as early as 1994. The total according to this calculation is roughly 40–50 trillion yen of loans, which could be described as non-performing loans (Waterhouse, 1996). In fact, when the authorities finally became more forthcoming in 1996, the actual figure was revealed to have been close to 40 trillion yen at its peak in FY 1995. While this figure is very large indeed – roughly 11 per cent of outstanding lending and about 8 per cent of GDP – it is far below the most extreme estimates. Furthermore, one will note that collateral has not been considered at all in the above calculations. While most of any collateral will have depreciated significantly in value, at least some recovery will have been made against any actual losses.

Even though loss reserves cannot cover the entire loan losses, they are nevertheless adequate to allow significant write-down over time. Major banks loan loss provisions in FY 1995 were at approximately 11 trillion yen, with a write off of 5.4 trillion yen of non-performing loans during that fiscal year. This left an additional 5.6 trillion yen in bad debt provisions. Unrealized securities gains were roughly 16 trillion yen for the same year for the major banks collectively (Waterhouse, 1996). Of course, banks are also very large holders of real estate as well. All the major city banks hold massive tracts of land as recreational facilities for employees – all of which was bought a very long time ago. Massive declines in real estate values notwithstanding, potential unrealized gains held by the major banks are quite large. This by no means implies that the banks will be willing to liquidate all securities and landholdings in order to write off loan losses more quickly. More realistically, the unrealized gains serve as a reminder that the major banks are still solvent. Instead, loss reserves and period earnings will be used to write off the bad loans. While
some securities gains will be realized, banks will be unwilling to sell aggressively from their portfolios, as cross-holding of shares continues to be important in Japan. If nothing else, the banks might fear that manufacturing firms would start to sell bank shares aggressively as well should banks become major sellers.

How long it will take before losses are written off and period earnings begin to contribute to the value of the banking sector is directly related to the actual magnitude of the problem. Assuming the 40 trillion yen figure is correct (with total trouble loans at double that amount), the next relevant issue is what percentage of those troubled loans become complete write-offs, and the value of the collateral recovered. This is a problem best left to bank analysts, and is essentially a micro issue. At the level of aggregate, it is estimated that it will take the major city banks until 2002 on average to dispose of troubled loans (Waterhouse, 1996). The stronger banks have already rid themselves of non-performing loans and the weaker ones are almost certainly technically insolvent. Over the coming years, the monetary authorities will probably allow engineered takeovers of these troubled institutions. Indeed, the liquidity injections provided for in the now scrapped Financial System Stabilization Law were meant to provide for this to happen. Instead, the current route is for the government to take over the operations of the troubled institutions directly.

That is, so long as the actual trouble loans are no larger than the estimated 80 trillion yen, non-performing loans no larger than the 40 trillion yen figure and the economy continues to recover, the integrity of the banking system can be preserved. Performance of share prices in the sector and for individual banks is much more complicated, and quite beyond the scope of our analysis. What is clear is that Japan’s mighty banks have been shaken, and that action on the part of monetary authorities to increase transparency and reduce moral hazard will be necessary. The authorities will also need to ensure orderly dissolution of illiquid institutions and guarantee the integrity of deposits. Beyond this, it will take time for the wounds, especially at the micro-level, to heal.

While total loan losses in the Japanese crisis are indeed very large, in some sense a very serious crisis may have been avoided. Japanese banks, under the watchful eye of government authorities, have not written down non-performing loans in one fell swoop. Rather, the banks have instead chosen to write off the loans only after some time when all other restructuring efforts have failed. This in turn has allowed the banks to write off the loans slowly over time. By using
period earnings and latent capital gains, the banks have thus been able to minimize losses in any given accounting period. This approach has not been popular with shareholders, especially foreign ones. Were it not for this approach, however, public confidence in the banking system might have collapsed, and the system would have been subject to systemic risk of failure. This is particularly true given the state of the economy while all of this was going on. In hindsight it should become increasingly clear that any other way of dealing with the losses would have been too risky.

The authorities, besides sanctioning this rationed approach to the crisis, certainly attempted to breathe life into the banks. The ODR was cut no fewer than eight times to 0.5 per cent since peaking at 6 per cent in 1991. Even with exceptionally low long bond yields, banks were able to climb a relatively steep yield curve throughout the entire crisis. The monetary authorities were able to prop up even the most crippled institutions until quite late in the game. The highly publicized failures of 1995 were all managed crises – though sometimes not managed altogether well. Still, the basic logic seems clear. The authorities were not willing to deal aggressively with the crisis when the economy was still very weak, and when the yen was inordinately strong. Once it was felt that economic recovery, while weak, was nevertheless imminent the authorities were willing to experiment with bank failures. Simply put, with the backdrop of economic weakness, Japan could not afford to deal with the crisis in the same way that the Americans had in the late 1980s.

It has been argued that the Japanese authorities had no choice but to safeguard the banking system. After all, it was the banking system that funneled the vast pool of household savings into the business sector during the high growth period. Japanese economic success was built on debt finance, highly intermediated and carefully guided by the guardians of the banking system. To allow the banks to fail would be tantamount to abandoning the cornerstone of economic prosperity. This key function of the banking system, it is argued, is the basis of concern for the monetary authorities. The result, it is asserted, is that the authorities would not and will not allow a major banking failure.

This reasoning is as outdated as it is flawed. Just as the bubble and its collapse turned the Japanese economy on its head, it also drastically altered the position and importance of banks in the scheme of things in the financial system. The old Japanese financial system was highly debt-oriented and intermediated. The bubble created incredible incentives for firms to turn to equity finance, allowing debt:equity
ratios to decline. Financial market liberalization and opening of capital markets meant that more capital was flowing out of Japan as well. Part of the rationale of the highly intermediated system disappeared in that authorities would no longer be able to regulate at each stage in the intermediated framework to keep interest rates low. Capital became cheap in Japan not because of its highly regulated banking system, but because of a boom in the equity market.

The Japanese equity market came of age during the bubble, and the outdated banking system became less important. Ironically, the bursting of the bubble meant that the Japanese equity market went from immature to mature in a very short period of time. The key point, however, is that Japanese monetary authorities have not pursued the policies they have chosen in the wake of the crisis on the basis of some outdated and romantic notions about the importance of the banking system. The banking system is clearly important, but not nearly so much as it used to be. Japanese authorities are much like their counterparts elsewhere. An occasional failure of a not too important bank is a good thing. It reduces moral hazard and helps to eliminate undue risk-taking. Failures of large and important banks may lead to general systemic risk, particularly during a time of economic weakness. This is to be avoided at the same time that credibility and enhancing the overall health of the system become priorities. The issue is, contrary to sometimes simplistic expectations, that some of these goals are not mutually compatible.

Of course, writing down bad loans quickly so that period earnings can immediately contribute to bank equity value is desirable from
the point of view of investors and bankers alike. Unfortunately, doing so means informing the general public of the reality and extent of bank losses. In a country where bank losses have been avoided or hidden at all costs in the past, the response of the average depositor cannot be taken for granted, especially during economic weakness. This is all the more true when deposit yields become so low that holding pure cash balances is a genuine alternative to bank deposits. The possibility of massive ‘cash hoarding’ à la Keynes became very real by 1995, so that boldly exposing the full extent of the banking crisis and acting aggressively to deal with it may have been a risky proposition.

Instead, the authorities chose the route of caution. First, the authorities allowed the failure of selected credit co-operatives, especially those where evidence of wrongdoing by directors was apparent. The next step was to allow the failure of banks affiliated to weak or essentially bankrupt housing mortgage companies, or jusen. Large banks, particularly healthy ones, were finally allowed to report losses. The strategy was to allow the crisis to unfold gently, and to paint a picture for the general public that bank bail-outs amount to protecting depositors. We can be sure that it was no mistake that news footage on national television showed pictures of the elderly carrying off their life savings in paper bags during bank runs. The message was clear: if the government is not allowed to use ‘public funds’ to rescue banks, depositors will suffer. By the end of 1995, this message seemed to be getting through.

Chart 5.5  Official Discount Rate
Of course, the touchy issue of using public funds was largely avoided for as long as possible. The Bank of Japan pushed call rates as low as possible. While bond yields were also low, it was possible for the banks to earn respectable yields simply by climbing the yield curve. Actual failures or public assistance will mean co-ordinated mergers or takeovers, where the co-operating institution will be compensated by an injection of funds from deposit insurance. Realistically, any unfunded injections from deposit insurance will be covered by Bank of Japan loans as provided for under Article 25 of the Bank of Japan Law. This, realistically speaking, is simply an alternative to expansionary open market operations. Simply put, it is printing money. To spell this out formally might rattle investor sentiment, especially in the bond market. As a result, the debate focuses on the issue of ‘public funds’, but in reality the exposure of public funds will be principally in relation to the non-deposit-taking institutions.

Perhaps the most important answer to the question of how bad the banking crisis had become is how banks dealt with and continue to deal with it. Whereas monitors in the US typically opted for a quick resolution of the crisis by closing insolvent institutions and forcing stronger ones to use reserves to swallow loan losses, Japanese banks and their regulators have chosen a softer path. Essentially, the banks have chosen to write down bad loans slowly, using period earnings. This has met with the approval of the authorities, for the reasons outlined above. Of course, this method presumes that period earnings will be positive, but this has been the case even during the darkest years of the Heisei recession. Monetary policy, which provided a reasonable spread along the yield curve, has been an important
factor in preserving period earnings, allowing the banks to deal slowly with the crisis.

The authorities took something similar to the US approach when it came to dealing with the insolvent *jusen*, but this is because many of these institutions had assets with non-performance ratios of 90 per cent. That is, there was really no other choice. Now that the structure is in place – essentially a Japanese version of the Resolution Trust Corporation – we can expect the same medicine to be applied to other insolvent non-banks. As of this writing, the issue was just beginning to come under consideration – but it seems reasonable to assume that since the problems are similar, the same solutions will be applied. It also seems reasonable to assume that the public will eventually grow accustomed to such solutions and recognize their public good characteristics, so that the populist outcry will diminish. Perhaps most important is whether the authorities can construct an alternative structure for the future which avoids some of the moral hazard.

This seems to fly in the face of the more aggressive stance towards bad loans taken by some of the stronger banks, as in the case of Sumitomo Bank’s 800 billion yen write-off for FY 1994. While such aggressive moves may increase in number as the economy continues to recover from the Heisei recession, it has not and will not be the norm. As unrealized capital gains and hidden reserves of banks have dwindled since the bursting of the bubble, the number of institutions capable of such write-offs has shrunk. Furthermore, as we argued above, allowing a bank like Sumitomo to report a loss can be viewed as an experiment. Had the public panicked in response to a reported loss by a strong bank like Sumitomo, how would they react to losses by weaker banks? Fortunately, the public did not seem to panic in response to the loss, paving the way for the monetary authorities to move ahead.

**Where From Here?**

Most of the key questions about how authorities will proceed have now been answered with the introduction and later repeal of the Financial System Stabilization Law in January 1998. They will not force simultaneous major write-offs by a large number of banks. On the other hand, they will not continue to move at the snail’s pace
observed until now. What path remains? The clear path is to indeed close weak smaller institutions, and merging their operations with larger institutions. The larger institutions, in turn, will continue to write off losses gradually over time. The picture will change, however. The pace of write-offs will undoubtedly accelerate. This is both because banks now realize that they can safely report losses in any given year, and because period earnings should improve as the economy strengthens. From the macroeconomic perspective, the picture will improve simply because the very weak institutions will disappear, with their operations absorbed by larger banks with no major loss to depositors. Systemic risk will be minimized.

The sticky question of non-bank failures has now largely been answered. The *jusen* model will be applied to other non-banks as well, with public funds being used and a state-sponsored resolution mechanism employed. This will, of course, remain unpopular politically, and corporate as well as political heads will continue to roll for some time. The timing, coming as it does at the dawn of financial big bang in Japan, will mean that financial institutions will come to learn that the guiding hand of big brother will not be as generous next time. Warnings will be issued; there will be no ‘too big to fail’. How this is codified into an incentive compatible structure remains to be seen.

Generally speaking, the situation will improve from a micro perspective. As write-offs accelerate and the economy improves, light at the end of the tunnel in the form of respectable earnings growth will become visible. Unlike the banking crisis in the US, however, where bank shares were trading at a discount to book value, share prices of Japanese banks have arguably been ‘too high’. That is, one could reasonably argue that an end of the banking crisis and recovery of the sector were largely discounted throughout the Heisei recession. The evidence for this proposition lies in an examination of prospective price: earnings ratios for the sector or individual shares. Clearly, investors were expecting the sector to survive and recover nicely.

To say that the situation has improved and will improve from both a macro- and micro-perspective is not to say that resolution of the situation is cost-free. The taxpayer must cover the cost of the 10 trillion yen injection of liquidity paid to the stronger banks in the form of preferred bank shares purchased by the Ministry of Finance. The taxpayer will certainly pay the cost of running the nationalized insolvent institutions. Even if part of this sum comes from Bank of Japan loans, he will pay in the form of higher future equilibrium inflation if monetary authorities print money to finance such loans. The deposit
insurance premiums will rise, and the regulatory authorities must cer-
tainly increase the number of bank examiners in the future. All of this
will come at a cost, some of it borne by the taxpayers, and some of it
shared by banks and their clients. Banks, especially larger, healthy
ones, must agree to bear some of the cost by absorbing smaller and
weaker banks and their bad loans. Injections from the DIC will be the
reward for the stronger banks’ co-operation, but uncertainty and risk
will cloud such arrangements, at some cost to the bigger banks. It will
be some time before the legacy of the banking crisis in the form of bad
loans and the incentive for moral hazard which created the crisis is
behind us. It will be even longer before bank earnings catch up to
what is discounted in share prices, and actual growth in the sector is
possible. Meanwhile, reducing the sector and increasing the average
institution size is the way of the future.

Perhaps the most important step towards resolution of the crisis is
the official move towards transparency. The Financial Systems
Research Council was established by the Ministry of Finance to study
ways of dealing with the crisis. Its active committee, the Financial
Systems Stabilization Committee, moved quickly to clarify the extent
of the crisis. Indeed, the committee first met on 4 July 1995, and
published its interim report on 27 September – rocket speed by
Japanese standards. The committee established immediate credibility
by estimating the total non-performing loans at 40 trillion yen. The
figure was very close to the most reliable private analysts’ estimates
(e.g. Waterhouse, 1995a), and over three times greater than previous
official estimates.

While recognizing the gravity of the situation, the committee was
quick to point out that at just over 10 per cent of total outstanding
loan balances, the crisis was essentially of the same magnitude as that
in the US in the late 1980s. This helped to put the crisis in an inter-
national perspective and served to discredit the exaggerated claims of
some analysts. The committee also confirmed the findings of many
private analysts by indicating that, as of 1995, the loan loss reserves of
the banking system stood at 7.3 trillion yen, and unrealized securities
gains at over 10 trillion yen. The committee suggested that loan
reserves, capital gains and period earnings could be used to dispose of
problem loans over a five-year period – again in line with the
estimates of the most credible of private analysts.

Overall, the interim report of the committee re-established govern-
ment credibility by exposing the true extent of the problem rather
than attempting to minimize it. Furthermore, the committee made
substantive recommendations for dealing with the crisis and re-establishing the credibility of the banking system itself. Specifically, the report called for more transparency and disclosure, especially among smaller institutions which are typically not subject to the same scrutiny as the larger institutions. The report also called specifically for the utilization of Deposit Insurance Corporation funds to deal with failure of the weakest institutions, in order to protect deposit integrity (and presumably as a reward to those larger banks that absorbed their operations and losses). This was widely interpreted as ‘use of public funds’ in the media and among analysts. As we have argued earlier, the ‘public funds’ issue is largely a red herring, since the actual source of funding is most likely an increase in the money supply, except in resolution of non-performing loans by the non-banks. Essentially, most of the recommendations of the committee have been incorporated into public policy.

Most of the other recommendations for disposal of trouble loans and dissolution of failed institutions of the committee have essentially been realized as discussed above. For example, the creation of something akin to the Resolution Trust Corporation in the US has become a reality in dealing with the non-banks. The main thrust of the report was that failures and resolution would have to be dealt with on a case-by-case basis, that surviving banks would have to play a role and that deposit insurance payments would be used when institutions were dissolved. The report also urged the Bank of Japan to raise insurance premiums substantially in order to strengthen the Deposit Insurance Corporation. The report also made it clear that the major banks which acted as sponsors for the failed or failing jusen should bear primary responsibility for their dissolution. That is, the committee has suggested ways of cleaning up the mess and preventing future disasters. The former have largely been implemented; the rest remains to be seen.

The concrete implementation of the committee recommendations has been quite clever in dealing with both the immediate problems related to the crisis and future potential problems relating to moral hazard and incentive compatibility. As outlined above, the first major step was to be a liquidity injection into the banking system. The Ministry of Finance would purchase preferred bank shares issued by the stronger banks, who in turn could use the proceeds to pay down non-performing loans. The idea of supporting the stronger banks is that, for the most part, they had engaged in less risky behaviour during the bubble years and have the smallest proportion
of non-performing loans. With the injection, they could move quickly to write off remaining problem loans, and any questions about the fundamental stability of the banking system will become moot. The solution is theoretically sound, but actual implementation has not proved easy, and political issues have arisen to cause the plan to fall apart.

That is, making the actual injections of liquidity has proven politically impossible, so that another solution has proven necessary. In September 1998, the opposition parties effectively forced the government to scrap the Financial System Stabilization Law, and instead to directly nationalize and wind down operations of such institutions. In reality, this will probably require a much larger dedication of public funds than the originally planned injections of 10 trillion yen plus 17 trillion yen later. On the positive side, it will probably contribute to more rapid conclusion of the crisis. Indeed, just one week after the decision to nationalize the failing banks was made, a number of important bankruptcies were announced.

Perhaps most important, however, is the fact that greater transparency will actually reduce speculation about the overall integrity of the system. Trouble loans are large, but the crisis is by no means the worst in modern history. As economic recovery is an important part of managing the crisis, it seems quite prudent with hindsight that the authorities waited until rather late in the game to become transparent.
Part III

Institutions
JAPANESE INSTITUTIONAL INVESTORS

There are several main types of institutional player in the Japanese financial markets. First, by virtue of their huge size, come the life insurance companies. Second only to these come the public funds, which are discussed in a separate chapter. Then come corporate pension funds, extremely underdeveloped by comparison with their counterparts in the West, but nevertheless players of growing importance in the markets. Next come securities investment trusts and the non-life insurance companies. Finally come banks, corporations and other entities investing on their own accounts, sometimes in the form of tokkin (‘special money trust’) funds, and sometimes directly. We shall review each of these categories of investor in turn, not only looking at their historical development, but also making some guesses as to what the future holds. We start by briefly discussing the different types of fund management company, and then look at the characteristics of the different pools of institutional money, to show what kind of assets they invest in and how they are developing.

The Fund Managers

Given the traditional segregations of the Japanese financial scene, most types of institutional fund have been managed by institutions which specialize in managing that particular fund type. As the barriers in Japanese finance fall, the distinctions are becoming less and less relevant, and fund managers in the same company (or in affiliated companies within the same corporate group) are managing various different types of institutional fund.
Insurance Companies

Life and non-life insurance companies specialize in managing their own insurance funds. Life insurance companies have a significant share in the corporate pension market as well, but most of the money they manage on behalf of pension funds is in effect invested in with-profits insurance policies. Most of the insurance companies have now set up investment advisory affiliates offering segregated pension fund management services, and some have also set up investment trust affiliates.

Trust Banks

Trust banks have traditionally managed corporate pension accounts, and they also act as custodians for many other types of fund such as tokkin funds. The growing presence in the financial markets of the public funds (discussed in a separate chapter) has given them an important new source of fund management and custody business in recent years.

Investment Advisory Companies

The group of fund managers generally known as investment advisory companies contains the genuine independent fund managers of the Japanese fund management scene. In addition, most financial institutions of any size (including foreign fund managers operating in Japan) have investment advisory affiliates. The fund management business, outside specific areas like pension funds and investment trusts, had been largely unregulated until the Investment Counsel Law was enacted in November 1986. This law established two levels of investment advisor. Investment advisors have to register with the Ministry of Finance, and around 550 companies are currently registered. Of these around 150 have an actual investment management licence, which requires minimum capital of ¥100 million and specific authorization from the Ministry of Finance. The others are technically only investment ‘advisors’ rather than managers. In theory, investment advisors merely advise in return for a fee, while investment managers are granted full discretionary management powers. In practice many firms have found a full investment management licence to be unnecessarily costly and have circumvented restrictions on mere ‘advisors’ by gaining agreement from the client for automatic consent to any ‘advice’ given.
Investment advisory companies initially specialized in managing *tokkin* funds, but have recently made great strides in the corporate pension market, which has been progressively opened to them since April 1990. They have also been allowed to manage public pension funds since 1995. Assets under management/advice by investment advisory firms exceeded ¥50 trillion in September 1996. Of this ¥9.7 trillion was in domestic pension fund management mandates, up from just ¥4.9 trillion in March 1996. Domestic pension assets now account for around 40 per cent of domestically sourced fund management contracts, whereas *tokkin* funds accounted for almost 90 per cent at the peak of the bubble. *Tokkin* now account for just 35 per cent of investment advisory company assets.

Although the investment advisory business as a whole is booming as a result of the liberalization of the pension fund market, only about half of the 147 investment advisory companies with a discretionary licence have picked up any pension business. The market is increasingly split into the successful firms which are picking up pension management contracts, and the unsuccessful firms which are left with a steadily dwindling pool of *tokkin* assets remaining from the late 1980s.

**Investment Trust Management Companies**

Investment trust companies manage only investment trusts. Originally, this business was closed to all except affiliates of securities companies, but it has recently been opened first to foreign fund managers and then to other categories of Japanese institution. The distinction between investment advisory companies and investment trust companies has become increasingly academic, and many foreign fund managers merged the two operations as soon as this was permitted. Japanese institutions moved in the same direction; Nomura Securities, for example, merged its affiliates in October 1997.

**Life Insurance Companies**

Japanese life insurance companies are the supertankers of the private sector investment scene (but individually, they pale into insignificance compared with some of the public sector financial institutions discussed in the next chapter). Total assets are in excess of ¥180 trillion. Nippon Life alone accounts for around 20 per cent of this total, making it a giant by any standard.
Segregation of Life and Non-life Business

The life and non-life (‘casualty’) insurance businesses have traditionally been segregated in Japan. As of FY 1996, life and non-life companies have been allowed into each other’s business areas through subsidiaries, but this change has had limited impact so far. There is also a small grey area between life and non-life insurance (personal accident insurance etc., which has been largely left to foreign companies operating in Japan such as AIU of the US). Japanese non-life insurance companies are discussed later in this chapter.

Mutual Ownership – a Growing Handicap

An important feature of the Japanese life insurance industry is that most (but not all) of the companies are mutually owned. Essentially this means that whenever they make an investment they are doing so with policy-holders’ money. Since it is not acceptable for policy-holders (as opposed to shareholders) to be exposed to excessive risks, mutual ownership is likely to be an increasing handicap for the life insurers as Japanese financial markets deregulate and financial companies are increasingly allowed entry into each others’ segments of the business.

Even within the life insurance business itself mutually owned companies have some disadvantages relative to joint stock companies. In the typical Japanese life insurance contract, as explained below, policy-holders are guaranteed a minimum return, but have scope to receive additional dividends if circumstances are favourable. Since circumstances for the industry have been very unfavourable in the early 1990s, policy-holders have become sceptical about the potential for such discretionary dividends and have increasingly turned to ‘zero-dividend’ policies, which have typically only been offered by joint stock companies.

In zero-dividend policies, beneficiaries forgo their chance of any additional dividends and are due only the guaranteed minimum return on their policy. Any profit resulting from e.g. better than expected investment returns accrues to the insurance company rather than to policy-holders. Since, however, the premiums are lower than on standard ‘with-dividend’ policies, the risks of undershooting the investment targets are higher.

The Ministry of Finance has apparently taken the view in the past that it is acceptable for shareholders of joint stock companies to bear this additional risk, but not acceptable for the policy-holders of
mutually owned companies. Compared to mutually owned companies, joint stock companies have an additional buffer to protect policy-holders against loss, in the form of their shareholders. The zero-dividend type of policy has been a major growth area in the 1990s for the joint stock life insurers (especially the newer ones, collectively known as the katakana insurers) such as Sony Life.

However, as zero-dividend policies began to encroach significantly on the mutual life companies’ business, the Ministry of Finance relented, and from October 1996 mutual companies have been allowed to offer zero-dividend policies; the Ministry of Finance argues that since the ‘planned returns’ are the same as on standard policies they do not involve any additional risk, but this is clearly just a rationalization for a rule change forced by competitive pressures. It looks as though the authorities will always be somewhat reluctant to allow mutually owned companies to take the same risks as joint stock companies, which have shareholders’ funds at stake as well as just policy-holders’ funds.

Quasi-Equity for the Mutuals

The mutual life insurers have moved to overcome the perceived handicap of mutuality in two ways. The first has been to raise quasi-equity in the form of subordinated loans from banks. This quasi-equity provides a similar buffer for policy-holders to that provided by shareholders for joint stock companies; if investment returns come in lower than the guaranteed minima, these subordinated loans will be at risk before policy-holders are. The move by mutual insurers to raise subordinated loan capital from the banks is an ironic reversal of the situation at the beginning of the 1990s, when problems in meeting the so-called BIS capital adequacy requirements led the banks to borrow expensive subordinated debt from the life insurers. (The banks had more than redressed the situation by the mid-1990s, since they used their superior knowledge of the pricing of such instruments to charge the life insurers unusually high rates for the loans.)

The second move which the mutual companies have made to neutralize the perceived handicap of a mutually owned structure has been to segregate their general account assets and indicate which assets belong to which class of policy-holder. In the process, some of these assets have been allocated to a company account (zensha kubun); assets in the company account are not earmarked for any particular class of policy-holder and can be used to make up any deficits that
occur as a result of investment returns undershooting guaranteed minima for any specific policy.

Despite these efforts of the mutual life companies to overcome the perceived handicaps of their ownership structure, there are some signs that a mutual structure will limit entry into other parts of the financial business. In its initial draft proposals for Japan’s so-called financial ‘big bang’, circulated in November 1996, the Ministry of Finance made reference to the ‘promotion of entry into banking, securities and insurance’, and to ‘expansion of activities in which banks and securities companies can engage’. We strongly suspect that the lopsided nature of these proposals as regards insurance is an indication that mutually owned companies will be more restricted in their business activities than joint stock companies. Similar considerations in other countries have led to a number of major de-mutualizations. Although there is no suggestion yet of this happening in Japan – except in the cases of one or two of the weaker life insurance companies, which may need an equity injection to survive – we suspect that de-mutualization will start to appear on the agenda over the next few years.

**STRUCTURE OF LIFE INSURANCE LIABILITIES**

**The General Account**

Most life insurance company assets belong to what is called the general account. Traditionally, a variety of types of liability (from individual whole life insurance to group pension policies) have been backed by the assets in the general account, and largely the same returns have been applicable to all of them. Roughly one third of general account liabilities, or ¥51 trillion (at October 1996), are group pension insurance, while the remainder are individual insurance contracts including savings-type insurance such as single premium old age policies. An important feature of the general account is that policies backed by general account assets are subject to a ‘planned return’, which is in effect a guaranteed minimum. This planned return is approved by the Ministry of Finance, and in practice all life insurance companies, until very recently, have based their premiums on identical ‘planned return’ assumptions. Although not legally guaranteed, the ‘planned return’ is specified when an insurance contract is entered into, and the return on existing policies is not changed thereafter, regardless of what happens to actual investment returns. The only exception to this is in the case of
corporate pension contracts, where the planned return only applies for one year at a time and can be altered in the following fiscal year.

Returns available to policy-holders in the general account are not limited to the planned return. Additional dividends are payable to policy-holders based on the differentials between the assumptions about costs and investment returns made when setting the premium rates, and the actual outcomes. Most of these assumptions have traditionally been cautious enough to allow additional dividends above the minimum guaranteed return to become the norm. There are four types of additional dividend available to policy-holders: (1) If the percentage of policy-holders dying (and thus collecting on their policies) is less than is assumed in the premium calculations, a ‘death difference dividend’ is payable. (2) If the insurance companies’ expenses are lower than assumed, an ‘expense difference dividend’ becomes payable. (3) If realized investment returns are higher than assumed, a ‘return dividend differential’ is payable. (4) Finally, a proportion of unrealized gains on investments may be distributed to long-term policy-holders in the form of a ‘special dividend’.

In general, the assumed death rates and expense rates have been set at levels that have allowed some scope for dividends from these components. The same was also true of the investment performance-related dividends until the 1990s. But the hubris of the late 1980s encouraged the insurers (authorized by the Ministry of Finance) to set ever higher ‘planned returns’. Their inability to achieve these returns in the 1990s has led to a slashing of dividends, a scramble to cut expenses to make up some of the investment losses and a significant running down of internal reserves. It also led to the bankruptcy of Nissan Mutual Life in April 1997. This was the first time that a Japanese life insurer had had to be liquidated since the war.

Special Accounts for Pension Funds

In addition to their general accounts, the life insurers also offer fund management through two ‘special accounts’. These are for group pension contracts only, with the No. 1 special account being a pooled pension product and the No. 2 special account offering segregated pension fund management. Unlike general account assets, the special accounts offer no guarantees; clients simply receive the actual returns earned on the assets, less a management fee. These accounts are very
much smaller than the general account, and are seen as higher-risk and higher-return accounts.

The popularity of these special accounts has grown enormously since the guaranteed minimum return on general account assets was cut from 4.5 per cent to 2.5 per cent in April 1996. The life insurers saw a net outflow of group pension assets from the general account of ¥5.8 trillion in the first half of FY 1996 alone, but they have managed to hold on to a good proportion of this money by persuading pension funds to reinvest it either in their special accounts or with their affiliated investment advisory companies.

Variable Life Insurance for Individuals

The life companies also offer similar variable insurance products to individuals; again, the returns actually earned, less fees, are passed to the customer, and there are no guarantees. After allegations of mis-selling in the late 1980s, however, this product has been de-emphasized by most insurers in the 1990s. Variable insurance policies were often linked to a bank loan in the late 1980s, the principle being that the returns earned on the insurance policies would more than cover the interest on the loan. These policies went badly wrong in the early 1990s when investment returns plummeted. Not only did investment returns fail to cover the cost of the bank loan funding the policy, causing policy-holders to fall ever deeper into debt, but most of the bank loans to policy-holders were collateralized against real estate holdings, which plummeted in value at the same time. This situation caused severe hardship for policy-holders, and even a number of suicides. Although in most cases it has been difficult to prove that these policies were mis-sold in the late 1980s – so that purchasers were not fully aware of the risks they were running – the insurers have been faced with embarrassing civil action in the courts.

LIFE INSURER ASSETS

Loans

The largest chunk of life insurer assets is managed in the form of loans, which account for around 36 per cent of total assets. Loans offer higher returns than tradeable fixed interest securities as compensation for their lack of liquidity. Since life insurance company
liabilities are generally long-term, the insurers are relatively unconcerned about liquidity. Most life insurance company loans are to large, blue chip companies, where the life company is often a major shareholder and also receives insurance or pension business.

Information about the quality of life insurance company loan portfolios is relatively limited, but these portfolios have certainly deteriorated in recent years as some apparently blue chip real estate companies proved not to be immune to the collapse in real estate values in the early 1990s. Even so, reported bad debt ratios are substantially lower than for the banks, whose lending encompasses a much wider range of small companies.

**Bonds**

The second most popular asset for the life insurers is bonds, which account for 23 per cent of assets. Bond holdings have rocketed.

**Chart 6.1** Life Insurance Company Asset Breakdown (November 1996)
from just 7 per cent of assets in 1990, finally overtaking equity holdings in mid-1995. Government bond holdings in particular have increased sharply, from a low of 3.2 per cent of assets in early 1991 to 13.2 per cent in January 1998. A number of factors appear to have contributed.

1. The collapse in the equity market in the early 1990s began to cause solvency concerns, especially among some of the smaller life insurers. This forced them to reduce their risk assets in an effort to improve their solvency margins (a measure of the health of life insurance companies which was originally introduced on an experimental basis in FY 1993, and came into force formally in FY 1996). The solvency calculation regards bonds, and particularly Japanese government bonds, as much lower risk assets than equities.

2. The Japanese government hugely increased bond issuance in the 1990s as it repeatedly enacted pump-priming measures to revive the economy. At the same time, large Japanese corporations, which have traditionally been the main borrowers from the insurers, have found it increasingly cheap and easy to access the financial markets directly by issuing bonds. Thus there has been an increasing supply of bonds, especially government bonds, at a time when loan demand from large corporate borrowers has been nugatory or even negative.

3. When the life insurers reduced the guaranteed return on corporate pension money to 2.5 per cent, a great deal of this money flooded out of their general accounts, suggesting that their liabilities might not be as long-term as they had thought. It is possible that the liquidity attractions of bonds relative to loans have become more relevant in a world where life insurer total assets can no longer be assumed to be continually increasing.

4. The rally in the bond market, which took yields from 8 per cent in late 1990 down to almost 2 per cent by early 1997, has made bonds an extremely profitable asset in recent years.

**Equities**

Life insurance companies currently have around 18 per cent of their total assets in equities, against a legal ceiling of 30 per cent. They are also able to hold equities in tokkin funds, which account for around 3 per cent of their assets, but no figures are available as to what percentage of their tokkin balance is actually invested in equities. An interesting
feature of life insurance companies, as of many institutions in Japan, is that accounts are always stated at book value. Thus, although the stated value of equity holdings is ¥32 trillion, the actual value, depending on the level of the stock market, is probably closer to ¥40 trillion. The actual equity weighting of the life insurance companies at market values is therefore around 22 per cent at the time of writing.

**Foreign Securities**

Foreign securities account for 8 per cent of life insurer assets. Foreign securities are not divided into equities and bonds in Japanese life insurer accounts, but as the Japanese insurers have become more experienced in foreign markets they have gradually diversified from US Treasuries into other government and high-grade corporate bonds, and then increasingly into equities, particularly Asian equities in recent years. We estimate that equity holdings are now around half of the total exposure to overseas assets.

The persistent strength of the yen between 1985 and 1995 caused the Japanese insurers endless headaches over their foreign securities exposures. Foreign securities purchases were stepped up substantially from 1986 onwards, but the relentless rise of the yen meant that latent losses on these holdings accumulated rapidly, and the collapse of the domestic stock market in 1990 caused an industry-wide review of these exposures. From a high of nearly 16 per cent of assets, foreign securities were painfully reduced to under 7 per cent by 1995. Anecdotal evidence suggests that around half of the remaining exposures were currency-hedged, reducing the non-yen exposure to only around 4 per cent.

With the yen weakening significantly from a high of around ¥80/$ in early 1995 to almost ¥140/$ by early 1998, the life insurers have in recent years been unwinding their currency hedges and moving back – gradually – into foreign securities. But the insurers are well aware of the danger that they are condemned eternally to buy risky assets (i.e. domestic equities, foreign currency assets, real estate) when prices are high and sell them when prices are low, and are trying to avoid a simple repetition of the mistakes of the late 1980s.

This is one reason for the life insurers’ increasing focus on foreign equities rather than bonds. There are early signs of a move to treat the equity portfolio as one large international portfolio, rather than divide it conceptually into domestic and foreign equities. Given that the life insurers are too large to shift their funds easily from one place to
another, they are trying to gain the benefits of diversification in their equity portfolios by investing more internationally. Currency exposures can be treated separately, and hedged to whatever level the insurer feels is appropriate. This logic does not work so well for bonds, since hedging the currency into yen essentially gives a yen bond return.

Cash

Cash and cash equivalents, currently around 5 per cent of assets, were over 8 per cent of assets at the beginning of 1996, a strikingly high proportion when one considers that cash was yielding just 0.5 per cent at the time. One reason for the cash build-up was that the insurers were having trouble finding attractive investments; another was that large redemptions of group pension funds were expected in FY 1996 as the guaranteed minimum return was cut from 4.5 per cent to 2.5 per cent. This duly happened, with the Pension Welfare Service Public Corporation (Nenpuku), the body entrusted with the management of part of the public pension funds, withdrawing all ¥5 trillion of its investments in life insurer general accounts at the beginning of FY 1996.

Real Estate

Real estate (5 per cent of assets) has never been a major investment category for the life insurance companies, with a substantial portion of their holdings being in buildings for their own use. They have had their share of disasters in the early 1990s, but directly owned real estate (as opposed to indirect exposures through loans collateralized against real estate) has not generally been a major problem. One reason for this is that it is always difficult to establish the market value of real estate in Japan, and the life companies have never published even estimates of the market value of their real estate. As a result both the boom in values in the late 1980s and the subsequent bust passed the life insurers by without much notice being taken. The publication in recent years of details about Japan’s leading payers of the land value tax has allowed estimates to be made of the market value of insurer’s land assets, but this has only happened since both the boom in real estate values and the subsequent bust have essentially been completed.
Tokkin

Tokkin (special money trust) holdings, which account for roughly 3 per cent of total assets, are essentially a tax strategy for the life insurers. Whenever an insurance company sells, say, an equity, the corporation tax payable on any profit earned is calculated with reference to the average cost of all the insurer’s holdings of that particular equity. Since the major life insurers have substantial portfolios of equities purchased a long time ago at prices much lower than prevailing ones, this tax treatment largely prevented life insurers from trading the market for short-term gains. Suppose a fund manager buys a share and then sells it a few months later for a 10 per cent gain. Because this gain is taxed relative to the average book cost of the whole company, the chances are that the tax payment is much larger than the gain made by this specific fund manager.

The National Tax Administration Agency issued a guideline in 1980 which allowed assets placed in tokkin funds to be segregated from other assets for taxation purposes. A tokkin fund is defined as a trust fund whereby the entruster of the fund maintains control over precisely how it should be invested, and gives the trustee (i.e. a trust bank) detailed investment directions. They were originally limited to 3 per cent of life insurer assets when they were first allowed (from 4 September 1984), partly to prevent too much leakage of tax revenue and partly to discourage excessive speculation by the insurers. But this limit was progressively eased, as a support measure for the equity market, to 5 per cent (from 1 January 1988, in the aftermath of the October 1987 global stock market crash) and to 7 per cent (from 1 October 1990, in reaction to the collapse of the Japanese market that year). However, the insurance companies have never pushed tokkin exposures much above 3 per cent for two reasons:

1. The tokkin limits were relaxed in order to support the market during times when it was weak. But the insurers were in any case not interested in buying in those periods, so they did not increase tokkin positions significantly.
2. Since latent gains on the insurers’ equity portfolios had in any case shrunk dramatically as the market dropped, the advantages of tokkin funds as a tax shield were greatly reduced by the collapse of the stock market in the 1990s.
SOLVENCY CONCERNS IN THE 1990s

The life insurers have found themselves with some serious problems as investment returns have fallen away in the 1990s. While the assumptions being made about investment returns may have seemed conservative in the late 1980s, they came to look heroic in the early 1990s, leading some insurers to become dangerously stretched in their efforts to keep their promises to their policy-holders. Also, the weak investment environment in the early 1990s brought to light the fact that assets and liabilities had been seriously mismatched. Long-term assets such as equities had come to account for an increasing proportion of assets, while liabilities had become increasingly short-term as a result of growing sales of single-premium old age policies, which typically were for 5- or 10-year maturities. This meant that when equities failed to deliver for a few years, it was not possible to wait for them to come right again; reserves had to be raided to honour guarantees.

Excessive Return Assumptions

Return assumptions became excessively high, largely because the returns actually earned through the postwar years had consistently been strong. One reason for this was that the inflation rate had been much higher in Japan’s high growth years, and had remained high during the 1970s when the economy was hit by two oil shocks. By the 1970s, the real growth rate of the economy had started to fall away, and much of the nominal return being earned by the insurers was simply a result of high inflation.

But with the insurance companies achieving returns of nearly 8 per cent on their general account assets at the time, the Ministry of Finance felt justified in allowing the planned return to be raised to 6 per cent in 1984. Even though bond yields collapsed in the mid-1980s to less than 3 per cent, reflecting Japan’s declining inflation rate, and investment returns consequently fell away, this was of little concern to the Ministry of Finance (MoF), because the booming stock market of the late 1980s meant that the insurers had an ever-growing cushion of unrealized gains on their equity portfolios which could be booked if necessary. The MoF was probably influenced in its thinking by the general belief in Japan in those days that the equity bull market was merely a reflection of the tremendous success of the Japanese economy, and that it would be sustainable in the long run.
The logic of this assumption came into question as the equity market halved in 1990 and subsequently plumbed new depths in 1992. The lower stocks went, the weaker was the position of the insurance companies and the greater the temptation to sell stocks before the market worsened. Concerns about the solvency position of the insurance companies and, even more importantly, the banks, were important in encouraging the government to take drastic action to put a floor beneath the equity market at the ¥14,000 level in August 1992 (see next chapter).

A second round of problems came with the steady decline in interest rates in the early 1990s as inflationary pressures completely evaporated in the face of the most prolonged period of economic weakness since the war. With long-term government bond yields ultimately falling to around 1 per cent by mid-1998 and call rates cut to less than 0.5 per cent in September 1995, it was clear that there was no safe way for the insurance companies to earn the returns, then averaging around 5.5 per cent, which they had pledged to their investors.

Mismatched Assets and Liabilities

The problem was not just that return assumptions were too high, but also that the average duration of liabilities had fallen sharply in the late 1980s. The easy monetary policy of the early bubble period meant
low interest rates for savers, and the high risk-free guaranteed returns offered by the life insurers attracted their attention. The life insurers saw a sharp increase in single-premium old age policies, which contain only a minimal insurance element and are essentially an alternative to long-term deposits. Although the terms of these policies were typically only 5 or 10 years (while ordinary whole life insurance contracts tend to run for 30 or 40 years), they attracted the same guaranteed high returns as all the insurers’ other policies.

This greatly increased the risks of the insurance companies. While the chance that financial markets will perform much worse than expected over any given 30–40-year period was relatively low, the chance of missing targets over a ten-year period is much higher. As a result, in the West this kind of liability is normally matched against bond holdings of equal duration, offsetting the risk of a mismatch.

Even worse, in some respects, was the growing exposure to group pension liabilities. Although one thinks of pensions as long-term investments, they are not long-term liabilities for the insurance companies, since they can be cancelled at any time. If investment returns in a given year are lower than the guaranteed minimum, the insurer has to make up the difference from reserves. But since the contract can be cancelled at any time, there is no guarantee that the insurer will have the chance to make this money back again. The one saving grace of group pension contracts was that, unlike other insurance contracts, the guaranteed minimum return only applied for one year at a time. As a result the insurers always had the option of cutting the guaranteed return on these contracts and cutting their losses. This is a major difference from the assumed investment returns on individual insurance contracts, which cannot be changed for the life of the contract.

**Eating into Reserves**

As investment returns fell below the levels guaranteed to policyholders, the insurers found themselves forced to dig into their reserves. After a few years of this, the financial strength of the insurers had been significantly weakened, and it looked increasingly likely that low investment returns would persist. The next measure taken by the insurers was therefore to cut the planned return promised to policyholders, which was lowered particularly sharply, from 5.75 per cent to 3.75 per cent, in April 1994. Unfortunately, however, this lower return applied to new contracts only, so unless investment returns picked up strongly, the insurers would just have to wait for their expensive
old liabilities to mature. Group insurance contracts were an exception, with the new lower rate of return applied immediately to these liabilities. Perhaps in recognition of this fact, and to avoid irritating powerful corporate customers, the insurers cut the return on group insurance contracts to just 4.5 per cent at this point.

As low investment returns persisted, the insurers also became increasingly aware of the mismatch between their assets and liabilities. They therefore began to offer different guaranteed returns on different types of contract, with the objective of discriminating against shorter-term liabilities by offering lower guaranteed returns on this type of contract. The crucial step here was to cut the guaranteed minimum return on group pension liabilities; the big cut came in April 1996, when the guarantee on these liabilities went down from 4.5 per cent to 2.5 per cent.

While this largely solved the problem of the group pension liabilities, the average cost of the remaining two-thirds of liabilities – individual insurance contracts – was still not much under 5 per cent in the second half of 1996, and only falling by around 20 basis points per annum. With investment returns currently at about the 3–4 per cent level, and still tending to decline as older, higher-yielding loans and bond holdings mature, the insurers are still eating into their reserves. The situation should ease rapidly in the next five years, as 10-year single premium policies taken out in the bubble years expire, but for the time being the insurers find themselves forced to book the unrealized gains on their holdings of equities and property to cover the gap. For Nissan Life, which went bankrupt in April 1997 under the weight of the expensive savings-type policies it had aggressively marketed during the bubble period, its reserves ran dry before the expensive policies matured. It may well not be the only life insurer for whom time will run out.

**Solvency Margins**

The industry’s problems are therefore not over, and reserves are still being run down. As a result some of the weaker insurance companies – which in some cases expanded particularly aggressively in the late 1980s at high planned returns – are running out of assets to sell, and there have been growing doubts about their solvency.

These concerns have not been eased by the passage of a new insurance law, which took effect from FY 1996. Whereas the previous insurance law gave the Minister of Finance the power to force a strong insurance company to merge with a weak one, if necessary, in order to
protect the latter’s policy-holders, this provision (whose constitutionality was always doubtful) has been dropped from the new insurance law. In order to avoid a situation arising whereby there is no longer any safety net protecting the policy-holders of an insolvent insurer, the life insurance industry has introduced a policy insurance fund, along the lines of the Deposit Insurance Corporation for bank deposits. A small fraction of all insurance premiums is paid into this fund, which can therefore take over if an insurer should become insolvent. However, because the new fund only became operational in FY 1996, its reserves are currently insufficient to deal with the insolvency of even a small life insurer as was demonstrated when Nissan Life went bankrupt in April 1997. Furthermore, the law only provides for maximum assistance of ¥200 billion per insolvency. It is clear that the fund is inadequate to deal with a major bankruptcy in the sector, and that any such bankruptcy would force hard decisions about whether to bail out policy-holders with public funds or force them to accept returns lower than those they were originally promised.

In recognition of the concerns about solvency in the life insurance industry, the MoF also formally introduced in FY 1996 a measure of the financial health of insurance companies called the solvency margin. Essentially this calculation takes the total reserves (including a percentage of latent gains on equities and land) of the insurer and divides them by a measure of its total risks. The solvency margins of each company are not published by the MoF, which is currently using them only as an internal early warning system to detect possible problems.

When the margin falls below a certain level, the MoF instructs insurers to take measures to improve the situation – although in practice the insurers are limited in what they can do. Generally the reaction to a low solvency margin will be to reduce expenses (e.g. by cutting the workforce) or to concentrate the investment portfolio in lower risk assets such as government bonds. Although a number of analysts have attempted to replicate the calculation in order to assess the level of solvency of each individual insurance company, it is impossible to do this accurately, since much of the necessary information is not publicly available.

SEGREGATED ACCOUNTING

Another new initiative to come out of the life insurers’ problems in the early 1990s has been the introduction of segregated accounting. It was
clear that different types of liabilities demanded to be matched against different types of liabilities, and in order to facilitate this, the life insurance companies have broken their general accounts internally into four separate accounts from FY 1996. The four accounts are as follows:

1. The General (*Ippan*) Fund
   This fund is intended to be matched against traditional long-term insurance liabilities (i.e. individual life insurance contracts). Individual pension contracts (i.e. policies with a heavy savings element and not much insurance content) are still in the general fund, but the intention is to split them out eventually into a separate fund. This fund also still contains single-premium old age policies taken out prior to October 1995.

2. The Group Pensions (*Dantai Nenkin*) Fund
   The problematic group pension contracts, with their high risk of being cancelled at short notice, are backed by the assets in this account.

3. The Single Premium Old Age (*Ichiji-barai Yoro*) Fund
   These relatively short-term liabilities – typically five or ten years – were the other main problem area. The insurers, however, have not been able to renege on the returns they promised on earlier policies, and will simply have to wait for those to mature. As a result this fund is only for new policies written since October 1995, and the older ones remain in the general fund. The guaranteed returns on this kind of liability are now set with reference to the yields on bonds of the same maturity, and were less than 1.5 per cent by the first half of 1998 – far lower than any of the returns guaranteed to policy-holders.

4. The Company (*Zensha Kubun*) Fund
   This contains all assets not matched to specific liabilities, which can therefore be used to make up shortfalls in any of the other accounts. For mutual insurance companies, all assets are owned by policy-holders by definition, but conceptually these assets are thought of as ‘orphan’ assets, whose policy-holders have long since died or cancelled their policies.

THE OUTLOOK FOR THE LIFE INSURERS

The life insurers have now put in place a system which allows them to make a much better job of matching assets and liabilities than they
have in the past. Unfortunately, they must still grit their teeth for a few years while the expensive liabilities incurred during the bubble gradually mature; some of the weaker insurance companies may not survive this phase.

In the future, the only contracts to receive guaranteed minimum returns not directly related to fixed interest yields will presumably be the very long-term ones like whole life insurance. The insurers still seem unable to make up their minds what to do about group pension assets. Since they can be cancelled at any time under current rules, the logical solution would be to link them to short-term bond yields. But not only would the guaranteed returns then be too low to interest corporate pension funds, but the value being added by the insurance companies would be questionable, since the pension funds could perfectly well invest in short-term bonds for themselves.

Ultimately the solution must be for guaranteed minimum returns to be offered on these funds only in return for the assets being locked away for a longer period. Otherwise, they will have to be managed completely at the client’s risk, through the No. 1 and No. 2 special accounts or via investment advisory subsidiaries. The latter seems the more likely outcome.

It seems likely that the pursuit of higher returns on savings-type policies will mean a larger role for variable insurance in the future – transferring the investment risk to the policy-holder rather than the insurance company. At the time of writing there is not much sign of this happening, with variable insurance still something of a pariah after the scandals of the early 1990s.

The distinction between insurance and investment looks likely to become clearer in future, although savings-type policies continue to benefit from a tax break on insurance premiums, as in other countries. The share of insurance qua insurance seems likely to decline; if the life insurers want to maintain their size in the investment market, they will have to do so by competing more as straightforward fund managers than as insurers.

What does all this mean for the financial markets? We are still in the initial stages of the whole process, where policy-holders are being gradually exposed to the realities of a low inflation, low nominal return environment. In the longer run, if policy-holders require savings rather than insurance, and if they want higher returns, they will have to accept higher risks. The implication is probably a continuing shift away from fixed interest and towards equities and overseas securities over the longer run. But whether the life insurance
companies will maintain their share of the savings market in this new environment remains to be seen. It looks more likely that the era of their dominance is over.

CORPORATE PENSION FUNDS

Corporate pension funds are the great white hope of the Japanese equity market. Japanese institutions are well aware that the growth in pension funds elsewhere in the world has been phenomenal since the war, and that equities are typically the investment medium of choice for these funds. In the UK, for instance, the percentage of the equity market owned by pension funds has risen from 6.4 per cent in 1963 to 27.8 per cent by 1994. And, in fact, the presence of pension funds in the Japanese equity market has already started to grow rapidly in recent years. The share of the equity market owned by ‘pension trusts’ (i.e. pension fund money managed by trust banks) has risen from 1.0 per cent in March 1992 to 1.8 per cent in March 1996. Given the recent boom in pension management by investment advisory companies, this figure certainly understates the presence of pension funds in the market.

TWO MAIN TYPES OF CORPORATE PENSION FUND

The total value of corporate pension funds is currently ¥60 trillion, and this figure is currently rising by around ¥4 trillion per annum. Japanese corporate pension funds fall into two categories: ‘tax-qualified pension plans’ (TQPs) and ‘employee pension funds’ (EPFs), which are established under two different laws relating to pension funds drawn up in the 1960s. ¥42 trillion of corporate pension funds is in employee pension funds, while ¥18 trillion is in tax-qualified plans.

Tax-qualified Pension Plans

Tax-qualified pension plans are actually less favourably treated for tax purposes than EPFs, being subject to special corporate taxes totalling 1.173 per cent of assets per annum. They were established under the Corporation Tax Law from 1 April 1962 and are regulated by the Ministry of Finance. Rather than being formally separated from the sponsoring company, TQPs are really just a reserve on a company’s
balance sheet, although the assets are genuine and are managed by trust banks and/or life insurance companies. There are around 92,000 such funds in existence, covering nearly 11 million beneficiaries.

**Employee Pension Funds**

Employee pension funds, introduced on 1 October 1966 under the Employee Pension Insurance Act, and regulated by the Ministry of Health and Welfare, are more like the Western model of a pension fund. Corporation tax is only levied on assets exceeding 2.7 times the required funding for payment of the substitutional component (see below). Since this limit is almost always observed by funds in practice, both contributions to and assets of the fund are effectively tax-exempt. As a result, EPFs have grown to become the standard type of Japanese corporate pension fund.

EPFs are, however, only available to companies with 500 employees or more, or to associations of smaller companies in the same industry.
As a result smaller companies still tend to use TQPs, and the number of EPFs is much smaller than that for TQPs, at some 1,900 funds. EPFs, however, cover 12 million beneficiaries, more than are covered by TQPs, and they control assets worth more than twice as much.

The schemes pay out pension benefits consisting of two components: part of the old age pension benefits of the state employees’ pension insurance (this is known as the substitutional component) and a supplementary component specific to each fund. The fact that EPFs effectively take on some of the assets and liabilities of the state pension fund has been a problem for them. Given recent problems of underfunding in pension funds, funds have found themselves responsible for the underfunding of a portion of the state fund in addition to the underfunding of their own top-up portion.

PENSION FUND ASSETS

As at March 1996 the allocation of EPFs to different categories of manager was as shown in Table 6.1 (some figures are HSBC estimates):

<table>
<thead>
<tr>
<th>(¥ trillion)</th>
<th>March 1995</th>
<th>March 1996</th>
<th>Equity held (e)</th>
</tr>
</thead>
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<tr>
<td><strong>Employee Pension Funds</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trust Banks</td>
<td>22.2</td>
<td>23.3</td>
<td>5.2</td>
</tr>
<tr>
<td>IA companies</td>
<td>1.5</td>
<td>2.2</td>
<td>0.5</td>
</tr>
<tr>
<td>Life Insurer General A/C</td>
<td>14.3</td>
<td>15.6</td>
<td>2.7</td>
</tr>
<tr>
<td>Life Insurer No. 1 Special A/C</td>
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<td>0.3</td>
<td>0.1</td>
</tr>
<tr>
<td>Life Insurer No. 2 Special A/C</td>
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<td>Internal Investment</td>
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<td>0.1</td>
<td>0.0</td>
</tr>
<tr>
<td><strong>Total Employee Pensions</strong></td>
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<td>41.8</td>
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</tr>
<tr>
<td><strong>Tax-Qualified Plans</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trust Banks</td>
<td>6.8</td>
<td>7.1</td>
<td>1.6</td>
</tr>
<tr>
<td>Life Insurer General A/Cs</td>
<td>10.0</td>
<td>10.5</td>
<td>1.9</td>
</tr>
<tr>
<td>Zenkyoren</td>
<td>0.1</td>
<td>0.2</td>
<td>0.0</td>
</tr>
<tr>
<td><strong>Total Tax-Qualified Plans</strong></td>
<td>17.0</td>
<td>17.8</td>
<td>3.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>55.4</td>
<td>59.6</td>
<td>12.0</td>
</tr>
</tbody>
</table>
It can be seen that the trust banks manage just over half (51 per cent) of the assets of Japanese pension funds. A further 44 per cent is managed through life insurer general accounts. Investment advisory companies have 4 per cent of the market, while life insurer special accounts, internal investment by EPFs themselves, and Zenkyoren (Zenkoku Kyosai Nogyo Kyodo Kumiai Rengokai – the National Federation of Agricultural Cooperatives) share the remaining 2 per cent between them.

From these market share figures we can get an idea of the asset breakdown of the Japanese pension fund industry. Based on data published in specialist pension magazine *Nenkin Joho*, we estimate that March 1996 weightings for EPFs managed by trust banks or in life insurer No. 1 Special Accounts aggregated roughly as shown in Table 6.2.

We do not know the market value weightings of other categories of fund manager, but we can estimate them from the information we have, to get an indication of the overall weightings of Japanese corporate pension funds. In addition to the market value figures in Table 6.2, we also have book value figures for life insurer assets at December 1996. Since the vast bulk of life insurer assets are in the General Account, we can use these figures as a rough estimate for General Account weightings. It seems reasonable to assume that assets in the No. 2 Special Account have broadly the same weightings as in the No. 1 Special Account. We have no figures for average weightings of assets managed by investment advisory companies, Zenkyoren, and in-house managers, so we shall simply assume that their weightings are the same as the Trust Banks.

**Table 6.2** Pension Fund Asset Allocation (March 1996, market values)

<table>
<thead>
<tr>
<th></th>
<th>Trust Banks</th>
<th>Life Insurer No. 1 Special Accounts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domestic bonds</td>
<td>36.9%</td>
<td>41.9%</td>
</tr>
<tr>
<td>Domestic equities</td>
<td>22.3%</td>
<td>26.2%</td>
</tr>
<tr>
<td>Foreign equities</td>
<td>11.2%</td>
<td>9.8%</td>
</tr>
<tr>
<td>CBs</td>
<td>8.3%</td>
<td>6.2%</td>
</tr>
<tr>
<td>Foreign bonds</td>
<td>7.7%</td>
<td>8.5%</td>
</tr>
<tr>
<td>Other (loans, cash, etc.)</td>
<td>13.5%</td>
<td>7.5%</td>
</tr>
</tbody>
</table>
We have also had to make some adjustments to the figures in Table 6.1 to reflect the differences between book and market value for Trust Bank and life insurer Special Account assets, so the figures we gave are estimates at best, but we end up with overall exposures for Japanese pension funds as shown in Table 6.3.

This way of looking at the asset structure of Japanese pension funds is, however, questionable. The reason for this is that although assets entrusted to Trust Banks and investment advisory companies effectively belong to the pension funds, these do not own the underlying assets when they invest through the general accounts of life insurance companies. Apart from the guaranteed minimum return of 2.5 per cent on these assets, any additional return, whatever happens to the value of the underlying assets, is at the discretion of the insurance company. Given the need for the insurance companies to rebuild their internal reserves after the disasters of the early 1990s, and the unwillingness of the insurance company to clarify how dividends are calculated, pension funds are increasingly counting general account assets as merely another kind of fixed interest investment. While this may be over-simplistic, it certainly has a dramatic effect on the asset structure of Japanese pension funds (see Table 6.4).

Table 6.3 Pension Fund Exposure (1)

<table>
<thead>
<tr>
<th>Asset Class</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domestic bonds (including CBs)</td>
<td>30.8%</td>
</tr>
<tr>
<td>Domestic equities</td>
<td>20.2%</td>
</tr>
<tr>
<td>Foreign securities</td>
<td>14.0%</td>
</tr>
<tr>
<td>Other (mainly loans, also cash and real estate)</td>
<td>35.0%</td>
</tr>
</tbody>
</table>

Table 6.4 Pension Fund Exposure (2)

<table>
<thead>
<tr>
<th>Asset Class</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domestic bonds</td>
<td>20.9%</td>
</tr>
<tr>
<td>Domestic equities</td>
<td>12.7%</td>
</tr>
<tr>
<td>Foreign bonds</td>
<td>4.4%</td>
</tr>
<tr>
<td>Foreign equities</td>
<td>6.3%</td>
</tr>
<tr>
<td>Convertible bonds</td>
<td>4.7%</td>
</tr>
<tr>
<td>General account investments</td>
<td>44.2%</td>
</tr>
<tr>
<td>Other (mainly loans, also cash and real estate)</td>
<td>6.9%</td>
</tr>
</tbody>
</table>
The equity proportion is strikingly low, with domestic equities accounting for only around 13 per cent of portfolios. If foreign equities are added, the total equity exposure rises to 19 per cent, and it would be slightly higher again if the equity component of CB holdings were taken into account. Although we have assumed that overall weightings of investment advisory companies are the same as at Trust Banks, there are some grounds for believing that the 3.7 per cent of assets managed by investment advisory companies are disproportionately exposed to domestic and foreign equities, so the true overall exposure to equities (including through CBs) might conceivably be as high as around 27 per cent.

Even so, this is exceptionally low by international standards. The average US pension fund has around 55 per cent of assets in equities, while the average UK fund has an exposure to equities of around 80 per cent. Conversely Japanese pension funds are highly exposed to low-risk domestic bonds and life insurance general accounts, which make up 65 per cent of total assets. The high weighting in these assets is particularly striking when one considers that the guaranteed return on general account assets is only 2.5 per cent currently, while domestic long bonds yield around the same level.

THE 5:3:3:2 RULE

One reason for the low risk profile of Japanese pension funds is that asset allocations have historically been restricted by the so-called 5:3:3:2 rule. This holds that pension funds must maintain a minimum weighting of 50 per cent in assets whose yen principal value is guaranteed, a maximum of 30 per cent in domestic equities, a maximum of 30 per cent in foreign securities and a maximum of 20 per cent in real estate. Since Japanese pension fund accounting is on a book value basis, these restrictions have been applied to the assets at book value rather than market value. Furthermore, the 5:3:3:2 rule was originally applied to each individual fund manager, rather than to the pension fund as a whole, although this restriction has been progressively eased in the 1990s.

Holdings of foreign securities and real estate by Japanese pension funds never seem to have come close to their maximum permitted weightings. But equity holdings approached 30 per cent in the late 1980s, and in terms of the 5:3:3:2 rule a surprising number of fund managers are reasonably close to the upper limit. One reason for this
is that the market value of equities has fallen sharply in the early 1990s. Thus although the figures for trust bank weightings above show equities at 22 per cent of portfolios on a market value basis, the book value weighting is significantly higher. According to the Pension Fund Association, the book value weighting of trust bank-managed EPFs was 27.3 per cent at March 1996. The Association comments that funds need to maintain a little leeway relative to the 30 per cent ceiling, and that therefore Trust Bank weightings can be thought of as essentially already at their upper limit.

A MASSIVE UNDERFUNDING PROBLEM

Although it can be said to have paid off in the early 1990s, the concentration on fixed income has increasingly become a problem for the pension fund industry. Japanese pension funds have traditionally operated on the standard actuarial assumption that management of the assets will give a return of 5.5 per cent per annum. Article 159 of the Corporate Income Tax Law specifies that this assumption must be at least a 5 per cent return, but following guidance issued by the relevant Ministries, 5.5 per cent has become standard. Given that domestic fixed income yields for top quality issuers range from 0.5 per cent to 2 per cent in early 1998, the approximately 75 per cent allocation to domestic fixed income (including life insurer general account assets) makes a 5.5 per cent annual return look exceptionally difficult to achieve. Even if funds moved to cut their domestic fixed income weighting to the permitted minimum of 50 per cent, the returns on the remainder of the fund would have to approach 10 per cent to make up for the 2.5 per cent yield on the fixed income proportion. If Japanese bond prices were to fall, the problem would be further exacerbated.

There has in fact been a consistent undershooting of the 5.5 per cent return assumption since around FY 1991. Initially, pension funds still had some excess returns earned in the 1980s, but after these were run down, the underfunding problem began to be recognized. In a sense, pension underfunding is more serious than the problems of the life insurance industry, since pension funds have not existed long enough to have built up the substantial unrealized investment gains of the insurers. Both pension funds and the life insurance industry have a ‘safety net’ insurance scheme standing behind them in case things go wrong – although in the case of the insurance industry this was
introduced as recently as FY 1996, and in neither case is it adequately funded. In practice most pension funds have ultimate recourse to the sponsoring company. In the case of TQPs the company’s responsibility for the fund is clear-cut (although pensioners are in trouble if the company goes bankrupt). In the case of EPFs the fund has a separate legal existence from its sponsoring company or companies, and it is not entirely clear who is responsible if the scheme becomes insolvent. When questioned about pension liabilities some companies have suggested that their trade union might make up some of any shortfall. But in practice any self-respecting Japanese company will be obliged to stand behind its pension fund. This has still not prevented problems in the case of certain industry funds, particularly in struggling industries with relatively old workforces, such as textiles. One or two funds have in effect gone bankrupt in the mid-1990s.

INADEQUATE BOOK VALUE RETURNS

It is quite difficult to get a clear idea of the extent of Japanese pension underfunding because of the opacity (and lack of availability) of accounting data on the funds, but we can offer a few pointers here as to its extent. The underfunding has three aspects, of which only one is officially recognized under Japanese accounting rules. Because Japanese accounting is based on the book values of assets, an underfunding is currently recognized only when book values are less than they would be if returns had accumulated at a steady 5.5 per cent per annum. Most funds are currently underfunded on this definition and a number of companies have paid special additional premiums into their pension funds to make up the deficit. Japanese rules allow such special payments to be made to cover not only the accumulated deficit to date, but also any additional shortfall anticipated over the next fiscal year.

UNREALIZED LOSSES

The second element of underfunding occurs when market values are lower than book values. This has frequently been the case for both the equity and foreign security portions of pension portfolios in the 1990s. The initial reaction of funds to the collapse of the equity market in 1990 was to ignore latent losses and continue to book gains in order to
try to maintain the 5.5 per cent book value return. But since the equity market failed to recover thereafter, this approach merely led to an accumulation of unrealized losses. At one point it was estimated that the unrealized losses of Japanese pension funds exceeded 15 per cent of their total book value.

As it became clear that the problem would not disappear quickly, most funds started to focus increasingly on the market value of their funds, paying as much attention to the overall return (sogo rimawari) earned on their funds as to the gross return (so-rimawari). A further factor which has encouraged funds to focus on market values is the fact that, after complaints that the Japanese fund accounting system constitutes a barrier to entry for foreign fund managers by restricting performance-based competition, the authorities agreed to move to a market value-based accounting system from March 1998. Any unrealized losses in pension funds at that date would immediately show up in the accounts, although the new accounting system offers a bewildering number of options for how such losses can be amortised.

The increasing focus on the market value of funds rather than their book value, combined with some recovery in the stock market, has led to a shrinkage of unrealized losses. Figures are not fully disclosed, and of course the level of losses depends on the level of the stock market at any given time, but at the end of 1996 we estimate that latent losses had declined to around 5 per cent of book value for the average fund.

OVER-OPTIMISTIC RETURN ASSUMPTIONS

The third element of pension underfunding is the most opaque of all, and relates to the question of whether the 5.5 per cent annual return assumption is appropriate. It is fairly clear that 5.5 per cent is an optimistic return target given the current asset structure of Japanese pension funds. The only objective indicator as to the real size of the underfunding is probably the notes to the accounts of those companies which publish US GAAP accounts in order to comply with SEC rules. At the time of writing there are 24 of these. The notes to their accounts (mostly for the term ending March 1996) gave their shortfalls as shown in Table 6.5.

The first column of figures gives the pension reserves required under US accounting rules, while the second column gives the shortfall in the reserves relative to that figure. The third column, which is
simply the difference between the two, is therefore the level of pension reserves which the company has. In most cases this is slightly different from the reported size of the company’s pension fund(s) under Japanese accounting rules, where available; this difference presumably results from the difference between market values (US accounting) and book values (Japanese accounting).

There is one important caveat to Table 6.5. US accounting rules only recognize pension assets that have been specifically transferred to

Table 6.5  Japanese Pension Fund Shortfalls (¥100 million)

<table>
<thead>
<tr>
<th>Company</th>
<th>Reserves needed</th>
<th>Shortfall</th>
<th>Differences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toshiba</td>
<td>11,131</td>
<td>5,276</td>
<td>5,855</td>
</tr>
<tr>
<td>Mitsubishi Electric</td>
<td>9,398</td>
<td>4,766</td>
<td>4,632</td>
</tr>
<tr>
<td>NEC</td>
<td>7,663</td>
<td>2,835</td>
<td>4,828</td>
</tr>
<tr>
<td>Honda</td>
<td>7,084</td>
<td>2,287</td>
<td>4,797</td>
</tr>
<tr>
<td>Sony</td>
<td>3,717</td>
<td>1,691</td>
<td>2,026</td>
</tr>
<tr>
<td>Sanyo Electric</td>
<td>2,846</td>
<td>1,162</td>
<td>1,684</td>
</tr>
<tr>
<td>Mitsubishi Corporation</td>
<td>2,794</td>
<td>1,162</td>
<td>1,632</td>
</tr>
<tr>
<td>Fuji Photo Film</td>
<td>2,690</td>
<td>1,152</td>
<td>1,538</td>
</tr>
<tr>
<td>Kubota</td>
<td>2,642</td>
<td>1,160</td>
<td>1,482</td>
</tr>
<tr>
<td>Canon</td>
<td>2,629</td>
<td>704</td>
<td>1,925</td>
</tr>
<tr>
<td>Ricoh</td>
<td>2,099</td>
<td>511</td>
<td>1,588</td>
</tr>
<tr>
<td>Itochu</td>
<td>2,040</td>
<td>665</td>
<td>1,375</td>
</tr>
<tr>
<td>Marubeni</td>
<td>1,655</td>
<td>677</td>
<td>978</td>
</tr>
<tr>
<td>Omron</td>
<td>1,360</td>
<td>603</td>
<td>757</td>
</tr>
<tr>
<td>TDK</td>
<td>1,324</td>
<td>480</td>
<td>844</td>
</tr>
<tr>
<td>Mitsui</td>
<td>1,312</td>
<td>644</td>
<td>668</td>
</tr>
<tr>
<td>Ito Yokado</td>
<td>1,145</td>
<td>18</td>
<td>1,127</td>
</tr>
<tr>
<td>Komatsu</td>
<td>1,143</td>
<td>625</td>
<td>518</td>
</tr>
<tr>
<td>Pioneer</td>
<td>896</td>
<td>155</td>
<td>741</td>
</tr>
<tr>
<td>Kyocera</td>
<td>874</td>
<td>250</td>
<td>624</td>
</tr>
<tr>
<td>Murata</td>
<td>563</td>
<td>247</td>
<td>316</td>
</tr>
<tr>
<td>Nippon Meat Packers</td>
<td>502</td>
<td>228</td>
<td>274</td>
</tr>
<tr>
<td>Wacoal</td>
<td>258</td>
<td>100</td>
<td>158</td>
</tr>
<tr>
<td>Makita</td>
<td>235</td>
<td>58</td>
<td>177</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>68,009</strong></td>
<td><strong>27,469</strong></td>
<td><strong>40,540</strong></td>
</tr>
</tbody>
</table>

*Note:* Figures do not sum to totals, presumably due to rounding.

*Source:* Asahi Shinbun.
investment managers. But in addition to their formal pension funds, most Japanese companies have made balance sheet provisions against future retirement costs which are not matched by any specific pension fund assets. The US treatment recognizes that since there is no specific asset tagged against these liabilities, the pension fund would face a shortfall if the sponsoring company were to go bankrupt. But since the pension fund provision have already been taken through the profit and loss account of the sponsoring company, it will not cost the company anything, in profit terms, to make up this element of its pension fund shortfall. Hitachi, for instance, transferred around ¥250 billion in cash into its pension fund in early 1997 in order to reduce its underfunding under US accounting rules. This did not result in any loss to the company, since it merely removed both the cash and the corresponding pension liability from the company’s balance sheet.

With this important caveat, we can nevertheless use the information in Table 6.5 to give an idea of the underfunding of Japanese corporate pension funds under US accounting rules. If pension funds with assets of ¥4,054 billion have an underfunding of ¥2,747 billion, then the underfunding of the total Japanese corporate pension market of ¥60 trillion would be around ¥40 trillion. Assuming that Japanese book value accounting overstates the value of the pension fund market by some 5 per cent it does not make a huge difference to the underfunding figure, reducing it to around ¥38 trillion. We can try to put this in context by assuming that about half of the pension fund market relates to listed companies, giving them an underfunding of ¥19 trillion. Since pension contributions are tax-deductible, the net cost to listed companies of rectifying this shortfall would be just under ¥10 trillion (given Japan’s 50 per cent effective corporate tax rate). This equals about 18 months of TSE First Section company profits currently. Put another way, the ¥38 trillion figure for the total shortfall in all corporate pension plans is equivalent to almost 8 per cent of GDP. However, as noted above, this figure almost certainly overestimates the real size of the problem substantially.

FILLING THE PENSION GAP

Even granted the caveat about the excessively strict US accounting treatment, it is clear that Japan has a substantial pension underfunding problem. There are various possible solutions, and all of them are being tried.
Increasing Contributions

The simplest solution is to increase pension contributions. This can be done in the form of special additional contributions when a fund becomes underfunded even under Japanese accounting rules (i.e. the first type of underfunding described above), or the 5.5 per cent assumed return could be cut, which would imply a higher level of contributions on an ongoing basis. A number of firms have already made special additional payments, and the 5.5 per cent return assumption has been partially liberalized from FY 1997. Since the law already allowed a cut in the return assumption to 5 per cent, some TQFs had made the change to this lower return (higher contribution) assumption before that date. In practice, EPFs were allowed to set their return assumption from FY 1997 from between 3 per cent and 6.5 per cent, as the directors saw fit. For TQPs it looks as though the initial step will be to cut the return assumption to 5.0 per cent. Roughly speaking this will lead to a 10 per cent increase in pension contributions required.

But increasing contributions is clearly going to be very expensive, and also comes at a bad time. Special additional contributions are generally borne wholly by the sponsoring firm, but a cut in the ongoing return assumption will mean that the employee is likely to suffer, as well as the employer. Although employers generally shoulder the whole burden of top-up contributions to EPFs, contributions used to fund the ‘substitutional component’, for which the employer takes responsibility on behalf of the state pension scheme, are shared equally between employer and employee. Yet both employees and employers are already suffering under the effects of a Pensions Bill passed in late 1994 which both reduced pensions payable under the state pension scheme, and also increased the premiums payable by both companies and their employees. Any increase in premiums for corporate schemes will represent another cost increase and may prompt some companies to wind up their pension schemes altogether. The existence of a pension scheme is by no means standard for Japanese companies.

Taking More Risk to Boost Returns

The other possible approaches to the problem are to: hold down growth in wages (to which pension benefits are linked), improve the investment returns of pension funds and move from defined benefit to
defined contribution plans (in the latter, investment risks are borne by the beneficiary rather than the company). There are some signs of a move to hold down wage growth, but whether this is a result of pension concerns, low profitability or simply low inflation is very difficult to say. While there has been discussion of defined contribution plans, which are increasingly common in the West, the authorities still prefer to shield Japanese employees from investment risks. In any case, it would not be possible for funds to renege on their existing promises; the introduction of defined contribution plans would merely prevent the problem from recurring in the future.

The more obvious initiative at the moment is an attempt to improve investment returns by increasing the risk profile of pension funds. In practice, this means reducing domestic bond and life insurer general account holdings, and increasing equities and foreign securities holdings. The move to increase weightings in risk assets is still in its infancy, but large funds are making significant changes to their weightings. The typical response of pension funds which carry out asset liability studies to see how they can most effectively invest their assets is to move to roughly a 40:30:30 structure – 40 per cent in domestic fixed interest (including life insurer general account assets), 30 per cent in domestic equities and 30 per cent in foreign equities. Although only large funds have moved so far, this means that domestic equity weightings are generally being doubled from March 1996 levels, while foreign equity weightings are tending to treble or quadruple.

DEREGULATION OF THE 5:3:3:2 RULE

Funds have, of course, been limited in their ability to increase their risks in pursuit of higher returns by the 5:3:3:2 asset allocation rule, described above. As a result, there was growing pressure to relax the rule, and it was abolished altogether in 1997.

The 5:3:3:2 rule has been removed in several stages. From FY 1995, it was applied to the total sum managed by investment advisors rather than to each individual fund manager. This opened the way for corporate pension funds to hire investment advisory companies for specialized mandates rather than just ‘balanced’ mandates covering all asset classes. From FY 1996, 5:3:3:2 was applied to the whole fund excluding the element invested in life insurer general account assets, opening the way for trust banks to be given specialist mandates as well as investment advisory firms.
At the same time, the Ministry of Health and Welfare agreed to exempt funds from the 5:3:3:2 rule on a case-by-case basis on condition that they demonstrate their fitness to make responsible asset allocation decisions on their own. The first fund to be exempted was the Pension Fund Association, the umbrella body for the EPF industry, on 1 July 1996, and a number of other large funds quickly followed suit.

From FY 1997, the application of the 5:3:3:2 rule to EPFs was eased in two important ways. First, it was applied to the whole fund including its life insurer general account investments. Since the principal value of general account investments is guaranteed, they count in the ‘5’, ‘safe assets’, category, allowing funds to increase significantly their exposure to risky assets. Secondly, the 5:3:3:2 rule is to be applied to assets on a market value rather than a book value basis. Since the market value of equities for most funds is lower than their book value, this gives funds further scope to increase equity weightings.

For TQPs, the Ministry of Finance scrapped the 5:3:3:2 rule altogether from FY 1997. Bowing to the general enthusiasm for deregulation, the Ministry of Health and Welfare decided to follow suit in FY 1998 for EPFs, so all restrictions on asset allocation have disappeared, allowing funds to change their asset profiles significantly, should they wish to do so. Funds seem likely to use their newfound freedom to make further increases in their exposure to domestic and foreign equities, in pursuit of higher returns. Only time will tell how far these strategies for boosting investment returns contribute to a solution of the pension underfunding problem. For the moment, special pension-related charges to profits look like being a recurring part of the Japanese corporate landscape.

While this all looks gloomy, the pensions cloud has an important silver lining for financial markets. Although additional contributions to make up fund deficits will hurt corporate profits – as well as individual incomes and tax revenues – the additional amounts will boost the already growing importance of pension funds in the markets. And the growing focus by these funds on maximizing their long-term returns is already becoming a significant positive for both domestic and foreign equities.

The need to boost investment returns has led some companies to undertake internal studies and led most in the direction of the pension consultants. An analysis of the historical returns and intercorrelations between asset classes is leading the consultants to tell pension funds to
concentrate on three core types of investment: domestic equities, domestic straight bonds and foreign equities (convertible bonds and foreign bonds are noticeably not core parts of the portfolios typically being recommended; neither are life insurer general account investments). The distribution between these asset classes depends on the liability profile and the risk appetite of the fund, and there is also a general feeling that it could be dangerous to change the asset mix too drastically over a short time-frame. But almost all funds are increasing weightings in both domestic and foreign equities, mainly at the expense of life insurer general account investments and convertible bonds. Domestic bond weightings are also being trimmed slightly, depending on the fund’s attitude towards risk. For funds freed from the constraints of the 5:3:3:2 rule, radical shifts in allocation are at least technically possible. The only Japanese fund we know of which is contemplating a really radical shift is Hitachi’s employee pension fund, which has reportedly said that it wants to increase its equity weighting to 70 per cent. (One or two pension funds of subsidiaries of foreign companies operating in Japan, such as IBM Japan, are talking of making the same kind of move.) But if Hitachi is really planning to shift equities straight to 70 per cent, the company is certainly an outlier in the Japanese pension market. For the market as a whole, pension funds are more likely to increase their exposures to risk assets gradually over the next several years.

The sums of money involved are quite substantial, particularly for the domestic equity market. Corporate pension funds have been growing at ¥4 trillion or so per annum in the 1990s. Stepped up contributions are likely to push this growth rate up to ¥5–6 trillion before the turn of the century, of which at least around 30 per cent, or over ¥1.5 trillion per annum, is likely to be tagged for domestic equities.

In addition, if funds make a one-off shift in their asset allocations to, say, a structure of 50 per cent domestic bonds, 30 per cent domestic equities, 15 per cent foreign equities and 5 per cent other, this shift will be worth around ¥10 trillion in demand for the domestic equity market, as well as around ¥4.5 trillion for foreign equities. Life insurers would, of course, have to sell some equities if they lost all their general account corporate pension assets, and this net sell would logically be around ¥5 trillion if life insurer weightings were left unchanged. Even on this assumption, corporate pension funds look likely to become the biggest single source of demand for Japanese equities over the next few years, and we expect them to be a growing force in Japanese financial markets for some time to come.
NON-LIFE INSURERS

Japanese non-life insurers are far smaller players in the financial markets than the life insurers, with total assets of ¥30 trillion, compared with over ¥180 trillion for the life companies. The difference mainly reflects the different nature of the two businesses; non-life insurance contracts are usually much shorter in duration than traditional life insurance contracts, so the insurer gets to invest the premiums for less time, and consequently they do not accumulate to the same extent.

One other feature of the non-life insurance business is that claims are frequently concentrated (in the event of a typhoon, etc.), so non-life insurers need to hold a greater proportion of liquid assets than life insurers, who are generally able to predict their payment claims with much greater accuracy. Non-life companies tend to have highly diversified portfolios for the same reason; they do not all want to

**Chart 6.4** Non-life Insurance Company Asset Breakdown (October 1996)
be forced to sell the same asset class at the same time in the event of a disaster.

Having said all that, their portfolio structures are not strikingly different from the life insurers. They have a much lower exposure to loans, which are a relatively illiquid asset. Conversely, they have higher weightings in cash and in foreign securities. The latter largely reflects the fact that the Japanese non-life insurance business is much more international than the life insurance business, with the insurers heavily involved in insuring the assets of Japanese companies around the world in various currencies. The higher exposure to foreign currencies is therefore a reflection of the higher weighting of foreign currencies on the liability side.

‘Other’ assets have a higher weighting for the non-life companies than for life companies. Since ‘other’ assets are basically the operating assets of the company, for example computer equipment, the higher weighting in life insurer assets largely reflects the smaller size of the total assets themselves. In absolute terms, the ‘other’ assets of the non-life companies are only around half the size of the life companies. Because of their moderate asset size, stability and high level of diversification, the non-life insurers do not tend to cause major ripples in the Japanese financial markets. In the event of major claims caused by a typhoon or similar disaster, the non-life companies have often raised money on loan rather than dump their investments suddenly.

In contrast to the life insurance companies, Japanese non-life insurance companies are joint stock companies, and the major ones are listed on the stock market. This difference is increasingly an advantage for them as the Japanese financial markets deregulate. If the non-life insurance companies move into risky parts of the financial industry such as securities, it is their shareholders’ money which they are legitimately risking. In the case of the mutual life insurers, they have moved to raise some quasi-equity in the form of subordinated bank debt, but it is still largely policy-holders’ money which is at risk in any new ventures. This fact, combined with the generally healthier financial ratios of the non-life insurers, is likely to give the non-life insurers some advantages over mutual life companies as Japan’s financial markets are opened to freer competition.

It is worth noting specifically that Japanese non-life insurers have, by law, very limited exposure to earthquake insurance. First, the availability of earthquake insurance in Japan is strictly limited and expensive. Second, almost all earthquake risk is laid off through re-insurance (although one of the key re-insurance companies is actually owned by
the Japanese non-life insurance sector itself). The reason for the limitation of earthquake insurance is of course the fear that there is simply not adequate capacity in the industry to insure the damage which could be caused by a major earthquake. As a result, the Great Hanshin earthquake, which hit Kobe in January 1995, caused barely a ripple in the non-life insurance industry. (The converse of this statement is that financially the earthquake wiped out quite a number of people living in the region.) There have been initiatives since then to allow the industry to take on more earthquake risk, but a major earthquake would still not represent a serious threat to the solvency of this industry.

Investment Trusts

Investment trusts are the main type of pooled investment vehicle available to individuals in Japan, and are an approximate equivalent of mutual funds in the US or unit trusts in the UK. The term ‘investment trust’ is used in the UK typically to describe a closed-end fund with freely tradeable (usually listed) shares, as opposed to a unit trust, which is generally open-ended and where units are issued and redeemed by the managers rather than being publicly traded. In Japan the term investment trust covers both types of fund, but in practice the latter, open-ended type is far more common than exchange-traded closed end funds.

After promising growth in the postwar period, the investment trust industry has gone through a major downturn in the 1990s, and pales into insignificance beside its healthier counterparts in the US or UK markets. The most important failing of the investment trust industry has been regulatory. When the Ministry of Finance originally ordained which types of company could compete in which segments of the financial markets, it left the investment trust market to the stock brokerage industry, and the only companies allowed to manage investment trusts were those linked to securities firms. Perhaps in those days, when the focus of the bureaucracy was on channelling savings through the banking system to those firms seen as crucial to Japan’s development, the role of the investment trust industry, and indeed of the securities industry as a whole, was seen as peripheral. As a result, investment trusts were regarded more as an additional product to be sold by stockbrokers, perhaps as a first step towards direct investment in stocks and bonds, than as a potentially important part of the savings market.
Unfortunately, the close relationships between investment trust companies and their parent brokerages represented an inherent conflict of interest. The investment trust companies were bound to feel pressure from their parents to ‘churn’ (trade excessively) their funds to generate brokerage commissions and to invest in primary issues sponsored by their parent companies which were proving difficult to place. The two factors which could have prevented this were tight regulation – for instance, forbidding investment trust companies to place trades with their parent brokerages – or stiff performance competition – which would have meant that any misbehaviour on the part of investment trust companies would be swiftly punished by investors moving to better-performing funds. In the event, neither has traditionally existed. MoF’s close ties to the securities industry led it to turn a blind eye to practices harmful to investors. While the stock market was rising, stock investment trust investors generally achieved acceptable returns, and investment trust returns generally were attractive compared with the regulated returns on bank and postal deposits (these returns were gradually deregulated from the mid-1980s onwards). But the investment trust industry has had to undergo significant soul-searching while the stock market has gone through a prolonged bear market, first in the 1960s and now in the 1990s. Ultimately it has led to disenchantment with the whole investment trust industry.

Although a form of pooled investment analagous to investment trusts existed in pre-war Japan, the modern investment trust industry formally started in 1951, with the enactment of the Securities Investment Trust Law. Two types of fund were allowed, specializing in equities and bonds respectively. One odd feature of Japanese investment trusts was that funds have traditionally had a maturity date, rather than being intended to continue indefinitely. It may be that this measure was intended to make investment trusts appear less risky, but one suspects that the brokerage industry was in favour of this measure, because it meant that a commission could be earned every time a fund matured and investors were switched into a new fund.

In the long bull market of the 1950s, the investment trust market grew rapidly. No doubt performance compared with market indices was atrocious, but the absolute returns were still strong, and investors, brokers and the Ministry of Finance were all easily satisfied. The first major hiccough came with the bear market of the early 1960s. Although of course the principal value of investment trusts was not
guaranteed, it appeared that they had been widely missold as safe investments by brokers.

When investors complained about not getting all their capital back, the MoF reacted with two major counter-measures. One was to try to prevent the problem from recurring by ordering that investment trust certificates should now state clearly on the face of the certificate (as opposed to in accompanying documentation) that principal values are not guaranteed. As an interim measure, maturity extensions were granted to the funds so that investment trusts would not mature at less than their original capital value. The purpose of the second measure was largely to ensure that the stock market would not be further depressed by large numbers of funds maturing and being liquidated into a bear market, but part of its effect was to reinforce the myth that the principal sum invested in an investment trust was safe – if held to maturity.

In the 1960s, the market recovered again in time not to tarnish the equity investment trust market’s image too badly. But the boom and bust of the late 1980s and early 1990s dealt the investment trust market a severer blow. The stock market’s decline was so steep and so prolonged that it gradually became clear that there was no hope of investors who bought at the top of the market regaining their principal. The Nikkei Average was still hovering at around half its peak levels in early 1998. Initially the authorities resorted to extending the maturity dates of funds again, but once the end of the first three-year extension periods started to approach with the funds no closer to regaining their value than they had been before, it was gradually accepted that funds would have to be allowed to expire at less than their principal value.

The scandals that rocked the securities industry at the beginning of the 1990s hardly helped. It became apparent that securities companies had illegally promised minimum returns to some favoured large clients, and were compensating them for losses suffered in the bear market. But individual investors in investment trusts were clearly not important enough to the securities companies to be compensated for their losses, despite widespread suspicions – if little proof – that equity trusts had sometimes been marketed with verbal guarantees of the principal value. What really left a sour taste in the mouth was the evident fact that investment trusts had provided relatively modest returns in the bull market because of churning and other unsavoury practices, while their investors were left exposed in the bear market.
Poor returns, combined with a poor public image, have led to a precipitous decline in the equity investment trust market in the early 1990s. After peaking at ¥45.5 trillion in December 1989, the market value of equity investment trusts had declined to just over ¥13 trillion by the end of 1996 (a substantial chunk of this decline was accounted for simply by the decline in value of the equity market, but these funds also suffered fairly consistent net redemptions throughout the first half of the 1990s). This is a decline of over 70 per cent in the value of assets under management. The value of equities held by these trusts fell from a peak of ¥22.5 trillion to just ¥8.9 trillion, or from 3.8 per cent to 2.6 per cent of the stock market’s capitalization. The total value of equity investment trusts was equivalent to 6.5 per cent of individual savings in Japan at the end of 1989; this figure was down to just 1.4 per cent by the end of 1996. Given that corporate investors hold a substantial chunk of the investment trust market, individuals probably have less than 1 per cent of their aggregate financial assets in equity investment trusts at the time of writing, making them essentially irrelevant as a savings instrument. It goes without saying that this is a sad contrast with the US equity mutual fund industry, which has been booming over the whole period of this sharp decline in its Japanese counterpart.

Chart 6.5  Japanese Equity Investment Trusts, Market Value (¥ trillion)
The decline in the overall investment trust market has, however, been slowed by the relatively healthy performance of bond funds. Noting the development of money market accounts in the US, brokers successfully lobbied to be allowed to introduce a similar product, known as a Money Management Fund, which was launched in May 1992. The timing was fortuitous. With the banking industry widening its spreads in the early 1990s in an attempt to recoup the mountain of loan losses caused by the collapse of the real estate market, the brokers were able to introduce a competitive product, which rapidly rose in size to over the ¥10 trillion mark. Other types of bond funds have also offered relatively strong returns in the 1990s bond bull market, and the resilience of bond investment trusts has stemmed the decline in the overall investment trust market.

As a result, the overall value of the investment trust market in the 1990s has been relatively limited. After peaking at ¥58.6 trillion at the end of 1989, the market value of all investment trusts outstanding declined below ¥40 trillion temporarily twice, when the stock market hit its 1992 and 1995 lows. But the overall value of the market has been reasonably stable around ¥45 trillion for most of the period. Investment trusts have still lost ground as a vehicle for individual investment, but when bond funds are included they have declined

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**Chart 6.6** Japanese Bond Investment Trusts, Market Value (¥ trillion)
from 6.5 per cent of individual financial assets in 1989 to 2.8 per cent in early 1998.

The prolonged depression in the equity investment trust market, in particular, has taught both the authorities and the investment trust companies a number of lessons. The root problem was that investors in Japanese investment trusts were getting a bad deal, because fund performance was negatively affected by the desire of the brokers to use investment trusts to generate commission, and an absence of performance competition to prevent this from happening. The most sensible answer was to introduce competition and to push towards wider disclosure of information, allowing investors to compare one fund’s performance with another. This is precisely what the authorities have done.

As is so often the case in Japan, the changes began with foreign pressure. Foreign fund management companies had been pressing to be allowed into the market from the mid-1980s, and five of them had been licensed in the early 1990s subsequent to MoF’s revised ‘Guidelines for Licensing Investment Trust Management Companies’ in December 1989. The 1989 guidelines were basically drafted to allow limited foreign entry into the market without removing the barriers between different parts of the financial business in the domestic market. But the Guidelines were revised again in 1992 to allow bank-sponsored investment advisory companies to establish investment trust affiliates, and a more drastic revision took effect in FY 1995 which has enabled a number of new investment trust management companies to be established, including an affiliate of Nippon Life Insurance.

As well as opening the field to new fund managers who do not have inherent conflicts of interest, this liberalization has also enabled investment advisory and investment trust firms to merge their businesses, achieving considerable economies of scale in the case of the foreign firms. Foreign fund managers had found themselves having to set up separately capitalized and staffed entities to operate in the investment trust and investment advisory markets in Japan. (So had Japanese fund managers, but the rules struck foreigners in particular as strange and unnecessary, since they had no problems doing both types of business in one company in their home country.) Once investment advisory companies were allowed into the investment trust market, many foreign groups were quick to merge their two Japanese entities into one, so achieving a significant cost saving. There have been few such mergers among the Japanese fund managers, presumably because their
operations are each large enough to achieve the necessary economies of scale on their own. But the merger of Nomura Securities’ investment advisory and investment trust affiliates in October 1996 started a new trend in this respect. The entry of new competition may well revitalize the market over the longer term. Certainly some of the new entrants with strong brand names, like Nissay Investment Trust (the Nippon Life affiliate), have made a significant impact, although as yet they have not caused an expansion in the total size of the market.

The major competitive problem remains distribution. With only brokers currently allowed to sell investment trusts, other fund managers have had problems breaking into the market. This is particularly true for foreign fund managers, whose brand names are generally not strong in Japan, and who have often had to pay very high sales commissions to Japanese brokers to have their funds distributed. Domestic banks and insurers have found it easier to make headway, partly because several of them effectively control their own brokerage firms. If the banks are allowed to market investment trusts through their branch networks, they could develop into formidable competitors for the established companies.

One other change which the Ministry of Finance has made has been to ease the rules about the types of fund which can be offered. In particular, the rules on use of derivatives have been eased, allowing the introduction of ‘bull’ and ‘bear’ funds which allow investors to make geared bets on the performance of markets. (Since one side or the other is likely to make large losses, Daiwa Investment Trust’s aggressive marketing of these funds could prove a two-edged sword.)

All of this new competition is having a salutary effect on the existing broker-linked stock investment trust companies. They are almost all trying to distance themselves from their parent companies, and the larger ones are setting up their own sales companies in order to bypass their dependence on brokers and develop new channels. (An interesting footnote to this move is that this is not the first time such companies have been set up. Several of the medium-sized brokerage companies like Kokusai Securities began life as specialist investment trust sales companies in the early 1980s. But the easy money days of the late 1980s gave them ambitions to become full-service brokerages, and they did.)

It looks likely that the market will now develop towards the US or UK model, whereby unitized funds do most of their own marketing, in major newspapers and specialist magazines, and investors either buy units directly or through specialist intermediaries, not through
stockbrokers as such. But one precondition is a cyclical upturn in the market.

The steady outflow from equity investment trusts has lessened, and periods of inflow are becoming more frequent. The biggest single factor which has boosted the unitized fund market in other countries has been low interest rates, which discourage investors from holding bank deposits and cause them to look for higher-yielding, if riskier, alternatives. Interest rates in Japan have come down steadily in the 1990s, but by 1995–6 they were starting to cause a significant build-up in liquid savings as depositors shied away from locking up their savings in low-yielding time deposits. By the end of 1996 the best rate available on a one-year bank deposit was a meagre 0.27 per cent, so it is hardly surprising that investors are hoping for something better. After years of regulation aimed more at protecting the brokers than their customers, it is about time the investment trust industry finally dragged itself into the modern age. It still has a long way to go.

Stock investment trusts have typically been very conservative in their investments. The average equity weighting in stock investment trusts is currently 63.9 per cent, while such funds overseas are typically more like 95 per cent invested in equities. The average equity weighting in equity investment trusts has risen from 49.5 per cent at the end of the 1980s, but the main reason for this increase seems to be growth in indexed funds (which are 100 per cent invested in equities almost by definition). If indexed funds are excluded, average equity weightings among actively managed funds probably remain low. There are no legal restrictions on weightings except in the case of pension investment trusts, which are subject to the same restrictions as pension funds. The average equity weighting in unit-type trusts (the type typically marketed to individuals) is only 56 per cent. This conservative investment style on the part of the investment trust industry is largely the result of the way investment trusts are structured. Unlike mutual funds elsewhere in the world, Japanese investment trusts typically have a maturity date when the trust is to be wound up. The existence of a maturity date, plus a long history of rising stock markets, is taken by individuals to imply that, if they hold their fund until maturity, they will at least get their money back.

The first time this assumption was challenged was in the 1960s, when the long malaise in the stock market first caused stock investment trusts to start maturing below their ‘par value’ of ¥10,000 per unit. Regulation of the sales of financial products in Japan has often been imperfect, and there was clear evidence that stockbrokers
marketing investment trusts had in many cases promised that the principal at least was guaranteed – although this was not in fact the case. The bear market of the 1960s resulted in the first big tightening of the regulations surrounding investment trusts. In order to avoid selling pressure on the stock market when the funds were wound up at a loss, the Ministry of Finance allowed maturity dates to be extended so that investors who held on until the new maturity date did in fact at least recover their original capital. At the same time, though, the law was changed so that not only did investment trust documentation have to state that the principal is not guaranteed, but this statement had to be carried on the face of the investment trust certificate itself.

Nevertheless, the fact that no funds were allowed to mature below par value, combined with the fact that maturity dates continued to be set on investment trusts at all, continued to give investors the impression that their principal is implicitly guaranteed. The fact that Japanese investment trusts have maturity dates appears to be explained largely by the structure of the investment trust market, in a way which does not put the Ministry of Finance’s investor protection role in a very flattering light. The Ministry of Finance, like other Japanese government ministries, has an interest in promoting the industries it regulates, which can act to the detriment of consumers of the relevant products. In this case, the Securities Bureau of the Ministry of Finance has an interest in helping the securities companies, partly because they provide lucrative jobs for its ex-bureaucrats on their retirement. Two oddities have grown out of this set of priorities when it comes to the investment trust industry. The first is that, with the exception of a few foreign companies, all investment trust management companies have been subsidiaries of securities companies. Whereas it might be in the interest of the fund management company not to set a maturity date on its funds (since a pre-set maturity increases the likelihood that these funds will no longer be invested with it when the fund is wound up), it is in the interest of the parent company, which is in the business of selling investment trust units to investors, that funds should be constantly expiring and new ones being set up. Every time a fund expires and the securities company persuades its investors to buy a fund, a commission is earned by the broker.

In fact, Japanese investment trusts typically have a ‘closed period’ of two years or so during which investors are not allowed to cancel their units, and it is not unusual for large numbers of investors to be persuaded to switch funds as soon as the closed period has come to an end. This practice has been a great irritation to foreign fund managers
managing investment trusts in the Japanese market marketed through local securities companies; they find they have to set up a new fund to match the ending of the closed period on the existing fund. Investors are then persuaded by securities salesmen to switch into the new fund, although in reality it is identical to the old one and in many cases the fund managers do not even bother to sell and buy back their holdings, merely transferring them into the new fund. A further result of the dependence by investment trust companies on their parent securities companies has been widespread accusations of ‘churning’, which means excessive trading activities intended to generate commissions for the parent brokerages rather than to boost returns for the investor.

Investment trusts boomed once again in the bull market of the late 1980s, and by the early 1990s the problem of sub-par maturities was starting to loom again. This time, there was less excuse for investors to claim they had been misled as to the guarantee of the principal value, but again the Ministry of Finance was concerned that investors in funds which matured at a loss would withdraw their funds from the equity market rather than switch into a new fund, and again the investment trust companies were allowed to extend the maturities of investment trusts for a period of three years beyond the original deadline. This time, however, a further problem arose. For most funds which were extended by three years in 1992 (when the first loss-making funds started to mature), the market had not recovered adequately by 1995 to erase their losses. Since substantial quantities of these funds had in any case been cancelled before maturity, the threat of further heavy selling pressure from maturing funds in 1995 was relatively limited, and the Ministry of Finance decided to throw in the towel and set a healthy precedent by finally allowing funds to mature at a loss. Following this decision, Nomura Investment Trust (the largest of the investment trust companies, affiliated to Nomura Securities) decided to go a stage further and cease extending any investment trusts even once beyond their original maturity date.

At the same time, a major change has been made which gives investment trusts more freedom to hedge, and indeed to speculate, using futures and options. Nikko Investment Trust has even introduced a ‘bear’ investment trust which uses futures so that its value rises as the market falls, while other companies are planning investment trusts of the type popular in recent years in other countries, where the fund does in fact guarantee the investors’ principal by investing the bulk of it in a fixed interest instrument which matures at par at the same date as the fund, while investing the remainder in
derivatives such that the fund captures a set proportion of any rise in the equity market over the contract period.

The ability to offer a wider range of funds can certainly not do the investment trust industry any harm, but it seems, in the interests of the long-term health of the industry, and the investors who put their money with it, that the relationship between the investment trust companies and their parent brokers must be weakened. The Ministry of Finance has already tried to weaken the links by limiting the percentage of brokerage business (how much) which investment trust companies can place with their parent brokerage, but the key requirement is probably for investment trusts to be forced to compete more on the basis of performance (for instance, by publishing comparable performance figures on a regular basis to allow investors to see which firms have a good record), and for investment trust companies to become less dependent on their parents for sales of their funds.

The same arguments were rehearsed to some extent during the early 1980s, and the big four brokers all tried to separate their investment trust sales business from their standard securities business by setting up separate securities firms to specialize in marketing investment trusts. It proved difficult, however, for these firms to make a living from selling investment trusts alone, and each investment trust sales firm saw little reason why it should be excluded from other securities-related activities. Perhaps the big four brokers were too eager to allow their investment trust sales arms into the rest of the equity market, hoping that it would result in a rise in their overall share of the market as a group, but the four investment trust sales companies became largely indistinguishable from the other second-tier brokers during the late 1980s. Kokusai Securities, which had started life as the investment trust sales subsidiary of Nomura Securities, founded its own investment trust subsidiary and maintained a strength in investment trusts, as well as developing a strong reputation in the bond market, where it was reported to maintain close links with its original parent. Kokusai even had ambitions to overtake Yamaichi and join the Big Four at one time.

Of the investment trust companies, it is Nomura Investment Trust which appears to be taking a lead in studying market practices in other countries and trying to maintain its independence from its parent. Nomura IT is now rebuilding direct sales of its investment trusts, although most of its business still comes through brokers.
The 1980s trend towards reducing the government’s role in the economy by privatizing nationalized companies has been used in some countries, notably the UK, to try to broaden share ownership among the general population. There is some debate about how far this has succeeded, other than just producing a large number of people who own small quantities of shares in privatized companies, but the privatization process was never viewed by the Japanese authorities in this way. The Ministry of Finance, which maintained control of the privatization throughout, has always aimed to maximize the revenues from privatizations. This fact has combined with the mistaken belief of many Japanese individuals that they were unlikely to lose money by buying a part of Japan Inc. being sold by the government to produce a great deal of disappointment for investors, as well as embarrassment for the government and for the privatized companies.

The first privatization issue was NTT, of which the first tranche was sold to the public at a price of 1,197,000 yen per share ($7125) per share, putting the company on a PER of 126x, which many foreigners found astonishing. Their cynicism turned out initially to be misplaced, however, as the shares rocketed to a peak of 3,180,000 yen. The factor which many outsiders had missed was the role of cross-holdings in the Japanese market. Once NTT stock became available to the public, many companies who were suppliers to NTT felt that they had better get hold of some at any price, since a failure to do so was perceived as putting them at a disadvantage in receiving lucrative orders from the company. Since the stock placed in the original offering was sold in small lots, companies with business relationships with NTT were forced to bid for the stock in the market at prices well above any ‘real value’ based on an evaluation of the company’s earnings prospects.

The second tranche of NTT was sold in 1987 at 2,550,000 yen, but by then the gravy train was starting to come to halt, since corporations had largely built up the perceived necessary positions. By the time the third tranche was sold, at 1,900,000 yen in 1988, it had become a very hard sell indeed. It was difficult to argue that the shares were good value based on earnings, since the PER was still 129 and the earnings were starting to come under pressure from competition newly introduced into the telecommunications market. The argument that one could not lose money buying a piece of Japan Inc. from the government had been
disproved by experience, and the underwriters were reduced to arguing that NTT was a bargain compared with the net asset value per share of its underlying assets – which are indeed substantial.

After NTT followed JR East, sold to the public in October 1993. Again there was the problem that suppliers to the company would want to buy stock regardless of the price, but this was less of a problem than before (many corporations having been taken aback by substantial valuation losses on their NTT holdings – and also finding that the privatized NTT was much more eager to cut procurement costs than its public sector predecessor had been). In order to try to set a reasonable price for the stock, the government held an auction, and in fact this appeared to set quite a reasonable level. The JR East issue was widely touted by brokers as the way for individuals to make some money and therefore be attracted back to the equity market, but the overhyping of the issue led to results, in the end, which were just as unhelpful as they had been in the case of NTT. Huge speculative interest in the shares when they were first listed resulted in an imbalance between buyers and sellers which pushed the bid price up to ¥600,000 per share before any actual trading took place. At that point, the government sold a large additional bloc of stock into the secondary market, triggering a general collapse. When there is an imbalance between buy and sell orders in the secondary market, those orders which can be filled are filled at the close on a proportional basis. In order to receive a better proportional allocation, the brokers were all bidding for far more JR East stock than they actually had customer orders for, since they only expected to be able to fill a small amount of these orders. When the government appeared as a massive seller, the brokers, to their horror, found all of their bids filled, and had to sell other equity holdings, and the JR East for which they did not have customer orders, to pay for their transactions. Not only did the overall market fall sharply in the aftermath of this disaster, but JR East fell particularly sharply, hurting the many individuals who had been bidding on the basis that at last the government was presenting them with a surefire way to make money.

The final straw in individuals’ experience of privatization issues was the listing of Japan Tobacco in October 1994. In order to try to establish a fair price for the fixed price offering, the government held an auction on a larger scale than before, opening it to individual investors as well (with the intention that they should not be forced to buy at higher prices once secondary trading started). Unfortunately individuals, for want of other valuation yardsticks, took the view that the
experiences of NTT and JR East proved one thing; while buying privatization stocks after listing was a risky business, nobody had ever lost money by buying a stock on the primary market in its initial offering to the public. Regardless of price, therefore, individuals bid actively for stock in the initial auction, and since they bid at levels substantially above the price which the institutions considered to be fair value, they ended up with most of the stock sold in the auction. Negative press comment on the valuation of the stock after the auction led many to conclude that the offering at the fixed price set by the auction result was overpriced, and a poor performance by Japan Telecom (which was listed on the second section a month before Japan Tobacco, and coincidentally shared the same initials) helped individuals to make up their minds. Many individuals who had originally applied to receive stock in the fixed price offering cancelled their bids in the event, and the issue was widely undersubscribed. Since the government had not bothered to underwrite the bid, it was merely left holding the unsold stock. Meanwhile the price of Japan Tobacco dived, again inflicting heavy losses on individual investors.

Of course, it is a first principle of investment that anyone buying stocks does so at their own risk. By systematically underpricing privatization issues, though, the Thatcher government in the UK effectively used taxpayers’ money to encourage broader share ownership – which was thought to have various economic benefits. In highly regulated Japan, individuals were particularly prone to assume that anything sold to them by the government must be a no-lose proposition, while the Ministry of Finance in fact maintained a single-minded approach in aiming to extract the maximum possible revenue from each issue. The result is that individuals in Japan have been taught a healthy, if expensive, lesson about the risks of stock investment. On the other hand, the series of over-priced privatization issues has perhaps pushed the lesson too far, leaving individuals to draw the conclusion that stock investment is exclusively for mugs. As a result, individual interest in the stock market has been further reduced by the privatization issues of the last decade, and investors are relatively uninterested in the stock market even in the indirect form of stock investment trusts.

LIBERALIZATION OF INTEREST RATES

Another important reason why individuals have not been greatly attracted to the equity market over the last decade or so has been the
gradual deregulation of interest rates, which has greatly improved the returns available on risk-free products such as bank deposits. While record low interest rates in the US caused a massive inflow of individual cash into equity mutual funds as savers sought to boost their returns, even at the expense of taking greater risks, it appears that the deregulation and increasing competition in the banking sector prevented this from happening in the banking sector. Thus, despite the fact that call rates throughout 1994 were at levels even lower than they had been in the Great Depression of the 1930s, the low returns failed to drive people into the stock market. In cyclical terms, the best chance for that to happen seems to have passed, at the time of writing.

There is much debate in the financial community in Tokyo as to how best to attract individuals back into the stock market, but it is not a priority as far as government policy is concerned. The extremely low levels of individual activity are hurting the smaller brokers badly, since they depend on individual equity trading for the bulk of their business, and this is of legitimate concern to both the stock exchanges of which they are members and to the Securities Bureau of the Ministry of Finance. The experience of other countries, however, suggests that individuals are never again likely to recover to the 70 per cent share of total trading value which they accounted for in the early 1980s – which had fallen to 22 per cent by 1994. Rather, the route back into the stock market for individuals has to be through investment trusts, through variable insurance products and through corporate pension funds. Of these, the investment trust industry gives investors the most choice in the exposures they want to different investment categories, and allows them to invest or withdraw funds whenever they want. We therefore believe that a more competitive, more independent investment trust industry will be the key to a greater individual engagement with the stock market in future years.

In the meantime, the securities industry frets about the taxation of securities trading and about the high cost of a single unit of stock – and reducing this certainly would be helpful – to no great avail. Individuals are not likely to become the key players in the Japanese equity markets ever again. Having said that, the sheer volume of individual savings keeps stockbrokers’ mouths watering. Individual savings excluding marketable securities already total over ¥900 trillion ($9 trillion), and if marketable securities are included, the amount exceeds ¥1,000 trillion. Savings excluding marketable securities are currently growing at around ¥45 trillion per annum, so it can easily be seen that a relatively small shift into the equity market would have a
substantial impact. If individuals were merely to keep their exposure to equities steady as a percentage of their total financial assets, they would be buying roughly ¥3.5 trillion per annum, which would certainly make them one of the largest demand categories in the market.

There are, however, a couple of growth areas in individual investment. The first is employee stock-ownership plans, whereby employees invest a proportion of their income each month in their own company's stock. Although these funds are not yet showing up as major shareholders to the extent that they do for some companies in the West, they have nevertheless been a major source of demand for companies, like NTT, which have a large number of employees and whose shares have been out of favour. Indeed, at one point, sellers of NTT apparently used to wait regularly for the 20th of the month, when demand for the stock was ensured by the regular monthly purchase of the employee stock ownership fund. (The fund has since spread its buying more carefully through the month.)

A second growth area has been individual investment through what are known as ruito or cumulative stock investment plans. These have been set up by brokers to get around the problem of the high cost of buying a single trading unit of a stock. Individual investors specify which stock or stocks they want to invest in, and can invest from as little as ¥10,000 ($100) a month. Their funds are pooled with other investors buying the same stock through the same broker, and as and when they have built up a minimum trading unit of the stock they can move it to their usual brokerage account and sell it, if they want, in the normal way.

The average ruito account is said to be investing around ¥15,000 per month, and around a million accounts were in existence as of the end of 1994. It follows that these are generating demand of around ¥15 billion a year – still rather small, but every bit helps.

CO-OPERATIVE INSURANCE

Co-operative insurance (Kyosai) funds had total assets of ¥41.2 trillion as at March 1995. These funds basically offer insurance against illness, casualty, death and loss of assets by natural disaster. As such they bridge the great divide in the Japanese insurance market between life and non-life insurance, but this insurance is not available to the general public, only to members of the specific associations which offer
it. The largest of these funds is the Mutual Insurance Federation of Agricultural Co-operatives (Nokyo), with total assets of ¥28.9 trillion (December 1996). The bulk of assets are invested in bonds and loans, with a marginal exposure to the equity market in the form of tokkin funds. The other main funds are the National Workers Mutual Insurance Federation, and the various Prefectural Mutual Insurance funds.

**SUMMARY**

In common with equity markets the world over, the Tokyo market has undergone a process of institutionalization in recent years. That is to say, the percentage of equity held, and of trading activity, accounted for by individuals has steadily declined, while the ownership of financial institutions has risen.
This process in Japan has perhaps not been directly parallel with that observed in other countries. The logic behind the worldwide trend towards institutionalization is that individuals are better off hiring professional managers to manage their equity investments than controlling their portfolios directly, something for which they may have neither the time nor the specialist knowledge. A second advantage of pooling funds with professional managers is that individuals are thus able to achieve better diversification of their portfolios than they could do investing on their own. This is particularly true in the Japanese equity market, where the minimum trading unit in stocks has traditionally been 1,000 shares. With the average share price at around ¥1,000, the minimum sum which can be invested in a single stock, at around ¥1 million ($10,000), is a substantial investment for most individuals and represents a barrier to effective diversification. A further reason for the institutionalization of equity markets the world over has been that tax incentives make it preferable for individuals to save through insurance policies and pension plans, which are typically managed by professionals, rather than by simply investing in the stock market on their own initiative. While certain tax advantages are available to insurance and pension funds, there are not the same tax incentives for individual pensions and other investments as are available in the US (e.g. 401k plans) or in the UK (e.g. PEPs).

The odd feature of the institutionalization of Japanese equities is that a growing proportion of the stock has come to be owned by corporate entities at their own risk, rather than simply by entities managing the pooled savings of individuals at the risk of the individuals. Typically, banks and business corporations have held equity stakes in each other in Japan for historical and business reasons, and to protect against the unwelcome attentions of predators. These holdings increased substantially in the 1980s, both in absolute terms and as a proportion of the market’s total capitalization. The increase appears to have been driven partly by concerns relating to the M&A boom happening in the West at the time – and indeed various stocks in Japan were targeted for either takeover or ‘greenmail’ (whereby a predator threatening to take over a company hopes to be bought off either by the company or other members of its corporate group) – but largely by the simple belief among Japanese corporations that the value of equities would continue to rise, making them a profitable home for any spare cash which could be raised on the booming markets for new equity and equity-derivative issues which characterized the period.
Even among the other institutional players in the Japanese equity market, the majority are investing in equities at their own risk rather than at the risk of the individuals whose savings they invest. Life insurance contracts are subject to variable dividends to policy-holders, depending on the performance of the investments made by the life insurance company, but most contracts are based on a ‘planned return’ on invested funds which is in effect guaranteed to policy-holders. As a result, most investments managed by life insurance companies involve the insurer taking on a large part of the risk of the investment instead of the ultimate beneficiary. (The fact that most life insurance companies are mutually owned – that is, owned in theory by their investors – does not in practice make much difference to this assertion.)

The two types of institutional investor which have increasingly come to dominate financial markets in the West, namely corporate pension funds and pooled retail funds (usually called mutual funds in the US and unit trusts in the UK, but known as investment trusts in Japan) are both relatively undeveloped in the Japanese market. Despite the enormous capitalization of the stock market – which is the second biggest in the world after the US, this is a market where savers remain risk-averse and overwhelmingly exposed to fixed interest rather than equity instruments. And even the savings instruments with an equity component tend to dampen down their risks by a relatively high cushion of fixed interest investments by comparison with their counterparts in the West.
Domestic politics have had a relatively limited impact on financial markets over the postwar years, although, of course, politicians have enacted the necessary legislation for the steady deregulation which has been taking place since the 1970s. One of the main reasons for the limited impact of politics has been that with the Liberal Democratic Party (LDP) continuously in power from 1955 to 1993, abrupt shifts in policy have been extremely rare.

A second reason for the limited impact of politics *per se* on Japanese financial markets is the relatively limited role traditionally played by Japanese politicians in actually determining policy. Politicians have generally concerned themselves only with the broadest outline of policy issues, leaving the details to be filled in by the bureaucracy. Such a division between the polity and bureaucracy is by no means unique, and is indeed the norm in parliamentary systems – though this fact seems to have eluded many North American political observers.

The main examples of political impact on the market until the 1990s have come either from changes in overseas policies towards Japan – for instance the ‘Nixon shock’ in 1971 – or from changes in economic policy in reaction to the normal ups and downs of the economic cycle – for instance, the introduction of emergency economic stimulus packages at times of recession.

Having said that, the stock and bond markets have tended to prefer the LDP to perform strongly in elections for two reasons. First, continued LDP government has traditionally been regarded by the markets as good for the economy and for corporate profits. Since the opposition parties never had a chance to govern, it was difficult to be sure that this assumption was true, but the generally strong performance of the economy over the period of LDP rule tended to support it. Second, as has been shown in the early 1990s, a weak mandate for the government tends to reduce its ability to deal effectively with problems as they arise. The traditional emphasis on consensus in Japan tends to mean that the smaller the government’s majority, the lengthier will be the process of consultation with the opposition. A reduced majority
thus reduces the government’s ability to deal with emergencies which require rapid response.

The Japanese political environment has, however, entered a period of momentous change, and the impact of the politicians on government policy, and hence on financial markets, seems likely to grow steadily as a new political order emerges. In this section we sketch briefly the recent political changes in Japan, suggest how the political debate is likely to develop and offer some thoughts on the likely impact on financial markets.

MOMENTOUS CHANGES IN THE 1990s

The political map changed irrevocably in 1993, when the LDP convincingly lost its majority and was forced into opposition in the House of Representatives (the ‘Lower House’ which is the more powerful one in the Japanese bicameral system). What happened was not so much that the LDP had lost power – many of the prime movers in the subsequent government were ex-LDP politicians – as that ideological differences within the LDP eventually caused a chunk of it to split off. The issue which finally tore the LDP in two, and produced several new parties, was that of political reform.

The Urge to Reform

The easy money period of the late 1980s produced an increasing number of political scandals in which companies were seen to have paid off politicians for various favours. The most famous of these was the Recruit scandal (1988–9) which marked the zenith of the opposition Socialist Party (JSP). It is not clear whether unethical behaviour actually increased during the period, or whether the media merely became more active in reporting it. But it seems likely that there was a genuine deterioration in political integrity, given the increased opportunities offered by the ‘bubble’ for massive gains for those who could put property projects together quickly by fair means or foul. The bubble in asset prices also, however, had the effect of increasing the divergence between ‘haves’ and ‘have-nots’ in Japan’s famously egalitarian society, leading to increasing concerns about unfairness reflected in the media.
These scandals were by no means limited to the LDP. All the major political parties were tainted to some extent, with the exception of the Japan Communist Party, which always refused to co-operate with the existing system. The third biggest party, the Komeito (‘Clean Government Party’), which is the political arm of powerful lay Buddhist organization Soka Gakkai, actually acquired such a reputation for corruption that its backers were excommunicated in 1991 by the Buddhist sect from which they sprang. But the LDP was in government, and was therefore the party expected to do something to improve the situation. But each time a scandal emerged, the LDP promised contrition, and set in motion a review which never actually led to any significant change. Although some new rules were introduced limiting such conveniently Japanese customs as the giving of cash gifts to constituents at weddings and funerals, the flow of money through Japanese politics continued largely unabated, and scandals continued to emerge with monotonous regularity.

Politicians paid their voters in a variety of indirect ways, raising the necessary cash by receiving donations from companies, who were recompensed by special access to permits (for which politicians could lean on the bureaucracy) or profitable public works contracts. The losers were taxpayers, who were overcharged for public works projects, and found their environment deteriorating unnecessarily rapidly because of circumvention of various regulations. No golf course was left undeveloped for lack of a permit, and no polluting lorry taken off the roads, provided that the requisite political donation had been paid.

The increasing excesses of this system in the booming 1980s, and the subsequent bursting of the so-called ‘bubble’, led to a growing backlash. In the early 1990s some of the companies which had made large contributions to politicians went bankrupt, raising inevitable questions about the murky areas in their accounts. It also became clear to all concerned that the large quantities of cash needed to fund the whole system were not so readily available in the newly frugal environment. Possibly a further contributory factor was that the bureaucrats, who had previously maintained a reputation for incorruptibility and had played a role in preventing corruption from getting out of hand, increasingly started to demand a cut for themselves. Given their relatively poor pay, and the rocketing costs of housing in Tokyo, this was perhaps understandable. But once the probity of even the bureaucracy came into question, the scope was there for new parties to spring up to capitalize on the growing anger of ordinary people.
A Missed Opportunity for the Socialists

There had always been an alternative to the LDP in the form of the main opposition party, the Socialist Party of Japan or JSP (now called the Social Democratic Party or SDP). But the Socialists never came close to toppling the LDP, and were in fact the biggest losers when new opposition parties started to spring up. Why could the Socialists not capitalize on growing public dissatisfaction with the LDP in the early 1990s? The problem was twofold. The JSP did not adequately differentiate itself from the LDP on the issue of corruption; it was in fact seen by the general public as almost as bad. And on the issues where it did clearly differentiate itself, the JSP appeared out of touch with reality and not credible as a potential governing party.

The Socialist Party primarily differentiated itself from the LDP by being both pacifist and pro-consumer. Pacifism has deep roots in Japan as a result of the disasters which befell the country on its lurch into militarism in the 1930s, and the experience of the atomic bombs dropped in 1945. Pacifism is also written into Japan’s constitution, as a result of which there is little doubt that its army and navy are unconstitutional – although this is a subject for interminable learned debate among Japanese scholars. But the Socialist Party went much further than merely renouncing war, maintaining cordial relations with the nearby ‘communist’ dictatorship in North Korea, and objecting to the Japanese flag and national anthem, both of which are perfectly acceptable to the vast majority of the population.

The pro-consumer bias of the Socialists also contained unrealistic elements. Being pro-consumer for the Socialists did not mean being anti-producer, and was in fact combined with quite a protectionist attitude to imports. It merely meant that the JSP wanted prices of essentials such as food and housing reduced, with the government presumably paying the difference.

This philosophy was combined with demands to reduce the burden of taxes on ordinary workers. The Socialist Party campaigned aggressively against the introduction of Japan’s 3 per cent consumption tax in the late 1980s, without suggesting any alternative revenue source. Although the party papered over the resulting logical gap by suggesting that there was scope for increased efficiency in existing government expenditures (military?), it never came up with any significant specific proposals. The only plausible outcome would have been a massive rise in government borrowing, but because the JSP was never close to forming a government, it was never forced to flesh
out its ideas in detail. On the other hand, it was partly because it never presented coherent alternatives that ordinary voters did not regard it as a credible potential government.

As a result, the Socialist Party became primarily a receptacle for token protest votes against the LDP, which voters knew would continue to govern in any case. Not only did many of those who voted for it not want to see the Socialist Party in power, but even many of the party’s own workers cheerfully admitted that a Socialist government was undesirable. A further difficulty for the Socialists was that just as their big chance came in the early 1990s, capitalism was in the ascendant over socialism world-wide with the collapse of communist governments in the Eastern bloc. Although voters were ready for an alternative to the LDP, the SDPJ just looked out of touch with the modern world.

The changes in the party’s name in recent years are a good example of its inability to reform itself quickly enough. In response to the collapse of communism, the party’s English name was changed in 1991 from the Socialist Party of Japan to the Social Democratic Party of Japan. The name in Japanese remained unchanged (translating as the Japan Socialist Party), so the change seems to have been more intended to improve the party’s international image than to change the perception of Japanese voters. By the time the party changed its Japanese name to the Social Democratic Party in early 1996 its strength in the Lower House had already halved and it looks firmly set on the road to oblivion.

NEW STANDARD-BEARERS OF REFORM

As corruption scandals multiplied in the late 1980s, and repeated contrition from the politicians failed to lead to significant change, the idea increasingly took root that the Japanese electoral system itself was inherently to blame for the prevalence of corruption. In particular, since Lower House constituencies contained multiple seats (as many as eight), politicians of the same party frequently found themselves competing against each other. Since it was not possible for these politicians to differentiate themselves along party lines, elections deteriorated into a competition as to who would be able to recycle greater benefits to the local electorate, either in the form of pork barrel spending, or, at the extreme end of the spectrum, as straightforward cash bribes for votes.
Given the low credibility of all the major political parties as anti-corruption crusaders, any party offering to clean up Japanese politics had both to present itself as clean (i.e. new), and also to promise to change the electoral system. But since no outside force was likely to be able to gather enough power to change the system without first being absorbed into it, reform had to be backed by a large number of beneficiaries from the old system to have a chance of succeeding. When the Japan New Party, led by the rich and aristocratic Morihiko Hosokawa, emerged in 1992, it began to attract significant support for its promises to clean up Japanese politics. But it was only when chunks of the LDP split off and joined forces with it that the LDP finally lost control of the government (in July 1993). The Socialists not only failed to benefit from this election; they actually lost half their seats. It was the first time the voters had been offered a credible alternative to the LDP. An Electoral Reform Bill was duly pushed through the Diet in late 1994.

THE 1994 LOWER HOUSE ELECTORAL SYSTEM

The new system for the House of Representatives somewhat resembles the existing system for the House of Councillors, which is a hybrid between geographical constituencies (the 47 Prefectures) and a nationwide proportional representation vote. In the new Lower House system the proportional representation part of the vote is divided into eight regional blocs, but the main difference is that the constituencies in the new system are single-seat, while the Upper House system retains a multi-member structure. This difference is likely to have a major practical impact. In a single-seat constituency the winner takes all. As a result, the smaller parties which have maintained representation in the Diet by taking the third or fourth seat in multi-member constituencies are likely to be severely squeezed in the new system.

It was this logic that caused most of the main opposition parties to merge, for Lower House purposes, into a new party called the NFP, or New Frontier Party. Some of the more idealistic opposition politicians now find themselves caught between a rock and a hard place. NFP leader Ichiro Ozawa has unified the opposition because the new electoral system requires it, but not all of the diverse elements of the NFP are happy under his leadership. Many of them left the LDP because of a genuine feeling that the political system needed to be cleaned up, but Ozawa in many ways represents the aspects of the old
system which they most objected to. A protégé of previous LDP kingmakers Kakuei Tanaka and Shin Kanemaru, he is by no means free of scandal himself. Now that the electoral reform issue which originally unified the opposition has been dealt with, many of them are tempted to break off and form a third force, or even to return to the LDP. The NFP has already seen something of a split as a result of the emergence of the Democratic Party (Minshu-to). Furthermore, some of its membership has drifted back to the LDP.

The NFP has had two big problems as the main opposition party. First, the LDP has adopted a ‘triangulation’ policy similar to that of the US Democratic Party. The LDP has shifted markedly to the centre, adopting deregulation and reform of the bureaucracy as its own issues. Its traditional supporters (farmers, small shopkeepers, self-employed professionals, small business, etc.) have nowhere else to turn, but the party’s shift to the centre has largely co-opted the NFP’s policies. This has made it increasingly difficult for the NFP to differentiate itself. When it attempted to do so by opposing the April 1997 consumption tax hike and suggesting ¥10 trillion in income tax cuts, the electorate saw this proposal as unappealingly radical. There were also strong suspicions that the NFP was being politically opportunistic, given its stated intention to raise the consumption tax eventually to 10 per cent.

The second problem of the NFP has been the ‘political fixer’ image and domineering style of Ichiro Ozawa himself. He is popular neither with the electorate in general nor with many of the politicians in his camp. While his political management skills are no doubt strong, it seems unlikely that he is the figure ultimately capable of uniting the opposition.

The Socialists are in an even worse quandary. Forced to align themselves with one side or the other, they joined forces with their old enemies, the LDP, in a coalition government in 1994. But this only alienated their remaining voters, who were in the habit of voting Socialist as a protest vote against the LDP. The Socialists will try to muster a left-leaning, pacifist third force, perhaps with the smaller Sakigake Party and some of the NFP dissidents. The only alternative, ironically, is probably absorption into the LDP. Either way, the party is probably headed for oblivion. The Socialists have tried to muster a left-leaning, pacifist third force.

The situation remains fluid, but the broad outlines of a US- or UK-style system with two major parties are starting to emerge. Furthermore, an ideological divide between the two sides is starting to
become apparent. The Japanese system does not look as though it is splitting into left and right in the traditional UK sense, or even in the US sense. Rather, the division is between town and country, and between opening fully to the world and maintaining Japanese social traditions.

THE DEVELOPING IDEOLOGICAL DIVIDE

The new political structure will require much more in the way of policies from the political parties than has hitherto been the case. Traditionally, the LDP has concentrated on getting elected, leaving most policy issues to the bureaucrats, but occasionally bending the priorities in order to benefit a constituent or financial supporter. This is not to say that the LDP was uninterested in policy issues, but since a large number of its politicians were ex-bureaucrats in any case, it was hardly surprising that they were happy to leave policy to their ex-colleagues, or that they agreed with the broad thrust of what was being done.

The new electoral system implies that the main parties will need to compete more on the basis of policies than they have in the past. Politicians in single-member seats may well continue to compete on the basis of bribes and pork barrel politics, but there is much more scope for competition on the basis of policies than before, given that they are no longer competing against members of their own parties. Voters in the regional PR seats will be voting for a party rather than for an individual candidate, and will therefore have to focus on policies rather than personalities.

Since the LDP’s policies are implicitly those endorsed by the current bureaucracy, the onus is on the NFP to demonstrate that it is different. The original difference was that the NFP’s predecessors marked themselves out as pro-reform from 1993 onwards. The other decisive factor affecting which side of the line parties stand is the personality of Ichiro Ozawa, the abrasive and controversial ex-LDP politician who engineered the merger of most of the major opposition parties into the NFP. Many senior figures in the political world object to Ozawa and his methods, and this has been a significant factor in the decision whether or not to join up with this party. Now that electoral reform has been achieved, the NFP is starting to differentiate itself on other issues. As the policy debate between the two main political parties accelerates, one inevitable result appears to be that the
politicians will increasingly wrest back control of policy from the bureaucracy, particularly as and when the NFP side is in power.

Speculations as to how the future might develop are clearly hostage to fortune in Japan’s shifting political sands at the moment. But it does seem possible to make a stab at how the political situation will eventually settle down, and what the implications are. Our starting point is that we do not believe the new electoral system will allow smaller parties to flourish. The Social Democratic Party therefore seems headed for well-deserved extinction. Its only hope is to team up with some of the left-leaning elements of the NFP, and perhaps with the Sakigake, but we still do not expect a viable third force to develop. The two main parties will therefore be the LDP and the NFP, and the rest will become increasingly irrelevant.

The frustrating point about the LDP and the NFP at the moment is how similar they look in terms of policy. This is hardly surprising, since many NFP politicians started in the LDP. They left the party over the issue of electoral reform, but now that that has been dealt with, not many differences remain. But an increasingly two-party system will force the parties to differentiate themselves somehow, and the outlines of that division are already becoming clear.

The clearest indicator so far was the 1995 Upper House election. Although the urban areas are multi-member constituencies in the Upper House electoral system, so that up to four candidates won seats in each Prefecture, the NFP came first in every single urban constituency. Given the first-past-the-post nature of the new Lower House system, this result implies that the NFP will pick up an overwhelming majority of urban seats in Lower House elections. It is clear that the urban areas are where the NFP’s powerbase lies, and the challenge is to strengthen the party’s appeal to these voters. By appropriating ‘administrative reform’ as its own issue, the LDP has effectively neutralized the threat from the NFP so far, but recent backsliding on deregulation may give the NFP some opening to present itself again as the party of serious changes which would benefit urban voters. And with the population continuing to shift gradually from rural to (sub-)urban areas, the advantages of urban support are set to increase further from here. The NFP can therefore be expected to stress policies which will benefit the urban electorate, while the LDP is likely to be identified as the party of rural areas. This may sound like a losing proposition for the LDP, but this is not necessarily so. The LDP is already seen as the champion of the Japanese farmer in an unfriendly world, and that support will prove difficult to
shake. If the LDP can get its act together, it should prove easier for it to regain ground among the urban electorate than for the NFP to break into the rural heartlands.

There is one technical reason for the strength of the NFP in urban areas. Apathy about politics is widespread in Japan, and this is all the truer in urban areas, where the weekends (when elections are held) are the only chance to escape from the office to resorts in the country or simply to go shopping. Voter apathy works in favour of the NFP in urban areas because of the extremely strong organization of the former Komeito, whose religious links have made it extremely effective in turning out its supporters at the polls. Now that the Komeito has been incorporated into the NFP this organizational advantage is proving very important. One risk here, however, is that the Komeito is increasingly distancing itself from the NFP as its prospects of power recede. The Komeito would be likely to throw its weight behind any convincing opposition movement to emerge, but it is not wholeheartedly committed to the NFP under its current leadership.

The more fundamental reason for the urban support of the NFP is that the party is capitalizing on years of discontent amongst urban voters. With more than two-thirds of government tax revenues coming from income taxes, salaried employees have found it very difficult to avoid their tax burdens compared with farmers and other self-employed people. The desire to make tax avoidance by self-employed workers less effective was one of the reasons why the consumption tax was introduced in 1989.

The existing structure in Japan has also discriminated against urban voters in many other ways. A hugely disproportionate share of public works spending has traditionally gone to rural areas, exacerbating Tokyo’s traffic jams at the expense of ‘jobs for the boys’ in LDP strongholds like Yamanashi and Niigata Prefectures. Japan’s highly protectionist approach to agriculture has supported rural incomes at the expense of urban consumers, who have for years had to pay several times the international price for staple items such as rice. The tax-breaks available to farmers have also been one reason why urban residents in Japan live in such tiny houses – there is simply not enough land for housing, given the prevalence of agricultural zones even in otherwise heavily built-up areas. So there was a gap for a party to champion the interests of urban residents against rural areas, and this gap looks as though it will increasingly be filled by the NFP.

There is also a related difference beginning to open up on the issue of deregulation. Consumers, and particularly urban consumers, are
some of the biggest losers from Japan’s forest of regulations. True, many of these regulations ostensibly protect consumers, but the need to comply with them (or bribe someone to avoid compliance) inevitably results in higher prices. While both sides pay lip-service to the importance of deregulation, experience has shown that the LDP is extremely reluctant to move forward rapidly on this issue. It is true that most deregulatory moves in the last several decades have emanated from the LDP, but the LDP has only appeared to be the party of free markets because the Socialist Party has been even less so. Many of the key regulations – such as those making it difficult to open large retail outlets – protect natural LDP supporters such as small shopkeepers.

The NFP is assumed to be more genuine in its desire to deregulate, partly because deregulation is a major theme of Ichiro Ozawa’s political manifesto *Blueprint for a New Japan*. But given the political dangers, it is too early to be sure that the NFP will push ahead aggressively. The benefits of deregulation are not only widely but also very thinly spread, while the disadvantages are heavily concentrated. To push ahead aggressively will mean upsetting some very vocal lobbies, while the benefits may take a little time to become apparent. At this stage it remains to be seen whether the NFP will put its money where its mouth is, but the direction looks clear.

We therefore expect the political scene eventually to shake down into a system with two main parties which will polarize into a ‘conservative’ supporter of tradition and rural areas against a more ‘Thatcherite’ modernizing and deregulating party. Neither party will be very left-wing, but it seems likely that the left/right division will become increasingly more contentious.

Major questions remain to be resolved, especially within the NFP, on the question of defence and possible revision of Japan’s anti-war constitution. These issues are likely to become ever more important as the US expects Japan to pay for more of its own defence burden, and as the military strength of China grows, along with its economy.

The growing financial burden of Japan’s ageing population is also likely to be an important issue. The choice is between making the elderly pay more of their own costs, raising taxes or expanding government borrowing. It is too early to say which party will be on which side in these issues. Our guess would be that, perhaps surprisingly, the LDP will find itself on the left-wing side of the ageing issue (i.e. it would rather raise taxes than make the elderly pay more). It also seems possible that an eventual absorption of the left-leaning
Socialists, *Sakigake*, etc. into the LDP will turn them into the doves on defence issues against the NFP hawks. So we could end up with a US-style left/right divide eventually. But the process looks likely to be a very slow one.

In conclusion, Japan is in the early stages of developing a mainly two-party system like those seen in the US or UK. But while the LDP has a clearly established power base, the opposition is struggling to pull together a common set of policies and find a leader capable of enthusing the electorate. The two main policy strands in the opposition are an urge to deregulate the economy and a leaning towards pacifism. Given that in other countries the former is usually associated with the right-wing and the latter with the left, it is not going to be a straightforward matter for the opposition to get its act together. In the absence of a united and electable opposition, the LDP will continue more or less to dominate Japanese politics for the time being.

IMPACT OF THE NEW SYSTEM ON FINANCIAL MARKETS

It remains to be seen which of the two alternative parties will be preferred by the voters or by the financial markets. We expect that, ultimately, the financial markets will come to prefer the deregulation bias of the NFP, given that many existing regulations protect parts of the economy which are not well represented in the stock market (e.g. farmers or small shopkeepers). But it should be borne in mind that the dismantling of the current Japanese system, with its emphasis on heavy protection of consumers by the government, and on lifetime employment, will not be painless, either for workers or for those sectors which have been most regulated and are thus least used to real competition.

Deregulation will hurt, and is already hurting, certain sectors of the stock market including food and beverages, utilities, trucking, oil refiners. The financial sector in particular is likely to continue to change rapidly under the impact of deregulation.

On the other hand, some existing sectors will be able to expand more rapidly as barriers to their growth are removed. Probably the most obvious example is retailing, where protection of small shopkeepers has hindered the growth of larger and more efficient retail chains. Deregulation is also likely to weaken the yen, since it will make import penetration into the economy easier and bring forward the date when Japan will start running consistent trade deficits.
This will give some much needed respite to the manufacturing sector. A stock market theme of the 1990s has been that if Japan is going to refuse to import agricultural and certain other products, it is going to be forced – by an ever-appreciating yen if necessary – to import more manufactured goods to bring down its unsustainable trade surplus. Faster deregulation will therefore be very good news for the stock market as a whole, given its heavy weighting to heavy manufacturing sectors.

A further conceivable result of the sea-change in Japanese politics is that the bond market may ultimately be the big loser. Although Japanese government borrowing has from time to time got beyond the Ministry of Finance’s control (notably at the time of the first oil shock in the early 1970s and during the early 1990s recession), the absence of serious political competition has reduced the political need for the LDP to engage in reckless expansions of government spending. Given the traditionally close ties between the MoF and the LDP, pork barrel spending has been closely targeted where it was politically necessary, while the overall level of public sector indebtedness has been kept (more or less) under control. A new period of competition between parties for electoral popularity could well mean that the urge for incumbent governments to spend money to boost the economy, and the feel-good factor, before elections will grow. The traditional rebuttal of this suggestion is to point to the MoF’s reputation for omnipotence – many observers would cite the MoF as the ultimate location of real power in Japan. But this will change. Once politicians are faced with competition at last, they will have to start getting involved in policy and the MoF will find itself increasingly overruled. This has already started to happen, and the MoF has weakened its hand further by its clear failure to regulate the financial system effectively. The MoF’s power will be on the wane from here on, and the politicians will fill the gap. This change can only be welcomed, given that the driving motivation of the politicians is an increasing need to satisfy their voters. But stronger democracy in Japan is likely to be accompanied by higher public borrowing, as it has been in most other countries.

The combination of the new political environment with the ageing population and the high level of government indebtedness at the end of the early 1990s recession could result in serious growth in the government deficit. In that case, Japan’s low interest rates and firm currency may prove difficult to sustain in the years ahead.
In Japan, prices in financial markets have not normally been directly targeted by government policy, but there have been some exceptions to this general rule. The authorities in principle object to excessive volatility in financial markets. Excessive volatility is seen as likely to reduce the attractions of financial assets to investors, and thus raise the cost of capital over the longer term. Given its role in setting various interest rates, unjustified moves in the bond market in particular are capable of leading to inappropriate interest rates in the real economy, and therefore the authorities try at the very least to let the markets know when they believe that price moves are unjustified by fundamental factors.

The authorities have frequently made reassuring statements at times of volatility in the stock market too, but it is noticeable that in practice these statements are usually made at times of sharp falls, such as in October 1987, rather than sharp rises. In other words, although the objection in theory is to unnecessary volatility, in practice this seems to mean an objection to unnecessarily sharp falls, while sharp rises are usually taken as indicating market approval of government initiatives.

Intervention by the authorities in the financial markets certainly goes beyond words. Regulatory changes have frequently been timed with the intention of affecting asset prices, and in extreme cases the authorities have been known to use funds at their disposal to buy in the financial markets with the explicit objective of supporting prices.

OFFICIAL INTERVENTION IN THE BOND MARKET

The Japanese government is in an unusually strong position to influence prices in the bond market, since 42 per cent of the total outstanding stock of government bonds is actually held by government institutions, of which the biggest is the postal savings system. The
Bank of Japan itself owns 8 per cent of the total stock of government bonds. In general, however, we believe that purchases and sales by these institutions have not been used to attempt to influence bond prices. The only qualification to this statement is in the behaviour of the Bank of Japan in recent years.

The Bank of Japan’s operations in the bond market are primarily in the form of bond purchases with resale agreements attached. Since in this case the Bank is only really borrowing the bonds for a short period, these operations seem unlikely to have much impact on prices except in the very short term, and they do not seem to be intended to influence long-term interest rates – being aimed instead, as is normal with central bank operations, at the level of short rates.

The Bank of Japan also, however, carries out outright bond purchase operations from time to time. These are known as rinban operations. Inasmuch as the Bank of Japan holds government debt with no plan to resell it into the market, this debt has been ‘monetized’ – in other words, that portion of the government debt has been financed simply by ‘printing money’. This is essentially inflationary, but may well be appropriate in a generally disinflationary environment like that which prevailed for a while in the early 1990s. The BoJ, concerned about deflationary pressures in the economy, did in fact increase the pace of its rinban operations from about ¥200 billion a month to around ¥600 billion for a period in 1995.

It is debatable whether rinban operations affect bond prices, or whether they are intended to. But a case can certainly be made that this increase in rinban operations had the effect of boosting bond prices beyond what they would otherwise have been. It was noticeable that bond yields only rose slightly in late 1995 and early 1996, despite a major improvement in the prospects for the economy. Back in 1994 the bond market weakened much more sharply when the improvement in the economy was much less marked, and high bond yields may have played a part in choking off the incipient economic recovery. It would therefore be unsurprising if the BoJ was happy to see bond yields remain low, but we believe that this was more a by-product of the expanded rinban operations than the main objective of them.

OFFICIAL INTERVENTION IN THE EQUITY MARKET

Where the government has attempted to influence the stock market, there have been two objectives. The first has been to dampen down
excessively speculative movements in the market. This form of intervention accepts that to alter the level of the market other than in the short term will be either impossible or extremely expensive, and limits the government’s role to smoothing out fluctuations. In practice, this type of intervention has generally been either verbal, or in the form of adjustments to margin requirements, discussed below.

The second type of intervention aims to boost prices at times when weakness in the stock market is seen as being a threat to the financial system or to the economy. The need for this kind of intervention has really grown in the 1990s because of the introduction of the so-called BIS capital adequacy guidelines for banks engaged in international business. These rules hold that banks must back their risk-adjusted assets by a minimum of 8 per cent in equity capital. Under these guidelines as they are applied to Japanese banks, a fixed percentage of unrealized gains on equities can be counted towards equity capital. On the other hand, unrealized losses must be booked to the profit and loss account under Japanese accounting rules. This means that a rising stock market boosts bank capital and therefore the lending capacity of the economy, while a falling stock market can rapidly erode capital and require banks to reduce their loan assets. In order to avoid a
credit crunch in the economy when the stock market was weak in the early 1990s, the authorities therefore engaged in their most explicit market manipulation to date.

What we describe as strategic intervention, aimed at supporting the market, can take place in two ways. One is to change regulations affecting the stock market. Changes may either reduce restrictions on equity purchase by some classes of investor, or they may make equity investments more attractive by changing accounting or tax rules relating to them, or they may reduce the supply of equity by limiting new issues. The second, and more extreme, form of strategic intervention is for the government to use funds which it controls to buy equities directly.

In practice, the distinction between these two types of intervention is extremely blurred, because the interventions intended to minimize fluctuations in practice almost always come when the market is weak, rather than when it is strong. As a result they are difficult to differentiate in practice from interventions aimed at supporting the market above its ‘natural’ level in order to minimize damage from low stock prices in the real economy.

TACTICAL INTERVENTIONS IN THE STOCK MARKET

Tactical interventions in the stock market, aimed at smoothing out volatility, may in their weakest form merely involve statements of support. The other main method of tactical intervention has been to change the rules governing margin requirements to make it cheaper, or more expensive, for investors to buy securities on margin. Although the aim of this kind of intervention is in theory to smooth fluctuations, in reality intervention has been more common in weak markets than in strong ones, and the resulting progressive loosening of margin requirements has made this weapon increasingly ineffective.

Margin buying in the 1980s accounted for about 20 per cent of total equity buying activity, and has often been the favoured way for individuals to take part in the market because the minimum unit for trading in Japanese stocks is so large. (Typically, the minimum trading unit for Japanese stocks is 1,000 shares. Since the average stock price is around ¥1,000, this means that to buy the minimum tradeable unit of a stock generally costs around ¥1 million, or $10,000. Borrowing a proportion of the funds by buying on margin reduces the minimum amount of cash required by an individual investor, with the result that buying on
margin has been popular among retail investors, particularly when stock prices were near their peak in the late 1980s.) There are two constraints which can be altered by the Ministry of Finance to encourage or discourage the stock market: the margin requirement, which is the minimum cash or security percentage required to collateralize a broker loan; and the substitution rate, which is the percentage value at which securities are accepted as collateral for margin loans in lieu of cash. Both of these have commonly been altered in order to smooth short-term fluctuations in the market. In addition to making additional margin finance available to investors, these changes may also have an announcement effect; by indicating that the Ministry of Finance believes the market to be oversold or overbought in the short term, they give a buy or a sell signal to investors.

Some examples illustrate how changes in margin policy have operated in recent periods of margin weakness. On Tuesday, 20 October 1987 (the day when the so-called ‘Black Monday’ global stock market crash reached Japan), the Ministry of Finance lowered margin requirements from 70 per cent to 50 per cent and increased the substitution rate from 60 per cent to 70 per cent. This unleashed a wave of margin buying from individuals which was the main support during the week of the crash and which absorbed heavy foreign selling. The fact that the market recovered its pre-crash levels within six months and continued to rise thereafter justified the view that the crash had in fact been an irrational fluctuation within a continuing uptrend.

This experience probably encouraged both individual investors and the MoF in their view that, given the fundamental trend of the Japanese economy, the stock market trend should be steadily upward. This belief further justified intervention only into market weakness, and not market strength. Presumably the MoF felt that it was difficult to identify when upward fluctuations were overdone, given that the overall trend was in an upwards direction. But sharp downward moves could be seen to be clear aberrations.

As such, the decline in the market in early 1990 appeared to be largely speculatively driven and to offer another excellent opportunity for stabilization through margin policy and other measures. In fact, margin policy was brought into play at a very early stage, because the MoF could already see possible problems looming when it ordered the liquidation of eigyo tokkin (tokkin funds illicitly operated directly by brokers rather than by licensed fund managers) on 26 December 1989. These funds were thought to own ¥3–4 trillion in equities, and buyers therefore needed to be mobilized to soak up the equity released by their
dissolution. The substitute rate for margin financing was raised from 50 per cent to 60 per cent on 11 January 1990, when the market was only 5 per cent below its record high, in a clear indication that the MoF could see potential problems ahead for the supply–demand balance. On 21 February the MoF lowered margin requirements from 60 per cent to 50 per cent, and, as the market continued to fall, margin requirements were lowered to 40 per cent and the substitute rate further increased to 70 per cent on 27 February. Unfortunately, if the MoF felt that the collapse of the market in early 1990 was just a correction within a continuing uptrend, it was wrong. The market continued to fall sharply as bond yields rose, and the additional positions bought by individuals on margin in February and March as a result of the MoF’s encouragement had largely to be liquidated at much lower prices later in the year, adding to downward pressure on the market.

This misunderstanding on the part of the MoF had a longer term impact in that individuals thereafter became much more sceptical of MoF-generated buy and sell signals for the market. The scepticism can only have been increased by the problems surrounding the listings of JR East (October 1993) and Japan Tobacco (October 1994). In the case of the first issue, individuals who were allocated stock in the initial offering made handsome profits, but the many who bought on the first day of secondary market trading were badly burnt. In the case of Japan Tobacco, speculative bidding by individuals at the time of the original auction of stock resulted in the offering being priced substantially too high; this meant that the fixed price offering was very poorly subscribed, and any investors who bought the issue immediately found themselves sitting on losses.

The failure of tactical market intervention by the MoF, through an apparent misunderstanding of the underlying fundamentals, made the Ministry less eager to engage in tactical intervention in future, and also less able to do so, since individuals and indeed institutions had become more sceptical of MoF direction. The continuing plunge of the market in 1992, however, reached the stage where the MoF felt that a more fundamental type of intervention was called for.

STRATEGIC INTERVENTION

A second measure which was taken during the crash period by the Ministry of Finance was an increase in the maximum percentage of
insurance funds which could be invested in tokkin funds from 3 per cent to 5 per cent. It is not clear to what extent this actually caused insurance companies to buy equities through tokkin funds at the time, but the announcement effect was certainly encouraging to the market.

Since downward fluctuations have been accompanied by a progressive loosening of the rules governing, for instance, the percentage of insurance funds which can be invested in special money trusts, or tokkin, the Ministry of Finance’s ability to intervene by easing the rules in this way becomes progressively weaker as fewer relevant rules remain.

Strategic intervention in the stock market by the authorities is much rarer than tactical intervention, only occurring when the stock market is thought to be low enough to pose a threat to the continued stability of the financial system, and thus to the real economy. The two main occasions when the authorities have intervened in this way were in the 1960s, when the prolonged weakness in the stock market threatened at least one of the major securities firms with bankruptcy, and in 1992, when again the sinking stock market appeared to pose a threat to the financial system.

As the Nikkei Index sank towards the ¥14,000 level in 1992, concern grew that the financial system would disintegrate under the weight of bad debts incurred during the bubble years unless the stock market was at a higher level, thus boosting banks’ Tier II capital under the Cooke Committee capital adequacy guidelines, and allowing bad debt write-offs to be offset with profits booked on sales of securities.

Under these circumstances, the MoF organized support for the market by directly allocating additional resources to public funds to buy equities. Given that the total size of the public funds at the time exceeded the entire capitalization of the stock market, it was not difficult to convince the market that the resources were available to prevent further declines if necessary. The reality, of course, is that ‘public funds’ come in various forms and are not used solely for strategic intervention. To help understand the complex nature of these funds, we have provided clarification below.

THE PUBLIC FUNDS

The public funds in Japan come in various forms, the most famous of which are the Postal Savings (Yubin Chokin) and Postal Insurance (Kan-eki Hoken), which are the responsibility of the Ministry of Posts
and Telecommunications. Perhaps the best way to understand the funds, however, is to understand the overall relation to the FILP (Fiscal Investment and Loan Programme) budget. Such an analysis, both in terms of ‘inputs’ and ‘outputs’ follows, together with general discussion of the public funds and planned reform.

THE FILP ‘INPUTS’

There are three types of fund in Japan collectively known as the ‘public funds’. These are, in order of size, the postal savings (¥223 trillion), the public pensions (¥119 trillion as at March 1996) and the postal insurance (¥96 trillion as of November 1996).

Postal Savings

The postal savings system is essentially a public sector bank, operating through post office branches. Its original rationale was to serve rural communities where private sector banking services were not readily available, but it has grown well beyond that. It is now approximately three times the size of the largest bank in Japan (and in the world), Bank of Tokyo-Mitsubishi (8315), which had total assets of ¥73 trillion as at September 1996.

Its most popular product, which accounts for roughly 90 per cent of total deposits, is teigaku chokin (postal savings certificates). This product offers a fixed interest rate compounded semi-annually. Deposits are made for periods of up to ten years, and withdrawals can be made at any time after the first six months. But the interest rate paid rises with the time for which the deposit is made. This has proved a very attractive arrangement for consumers, since if rates rise they can always withdraw their funds and reinvest them at the higher rate, while if rates fall they can leave their money invested for ten years at the earlier, higher rates.

Public Pensions

The public pension system consists of the investment assets accumulated from the difference between public pension premiums and payments each year. It is important to realize that the term ‘public pension’ here does not refer to a pension system for state employees; this is the state pension which is available to all, and indeed compulsory
for most salaried employees. It roughly corresponds to national insurance in the UK, but with the important difference that national insurance revenues are subsumed into tax revenues in the UK, while state pensions are paid out of current tax revenues, not surpluses built up through investments. Japan, in contrast, has a funded state pension scheme with genuine invested assets. Unfortunately the rate of ageing of the Japanese population is extreme, with one third of the population expected to be 65 or older by the year 2050. As a result, the public pension system is recognized to have an underfunding problem over the longer term.

The main type of state pension is that for employees (Kosei Nenkin), which has invested assets of ¥112 trillion (March 1996). The state pension for the self-employed (kokumin nenkin) is optional, and has assets of only ¥7 trillion (March 1996).

Postal Insurance

The postal insurance system, colloquially known as the kanpo, is essentially a public sector life insurer with the same original purpose as the postal savings system – to provide services in areas not well served by the private sector. Again, it has expanded beyond that objective, and currently has total assets of ¥96 trillion (November 1996), making it roughly 2.5 times the size of Nippon Life, the largest private sector life insurer. It offers standard life insurance products, such as whole life insurance and term insurance, as well as more savings-type products, such as old age insurance, tuition insurance and pension insurance.

The MoF Trust Fund Bureau

One oddity which all three of these public funds have in common is that they make deposits with the Ministry of Finance’s Trust Fund Bureau. The postal insurance system is relatively independent, with only around 4 per cent of assets deposited with the TFB as at last November. But the postal savings and public pension systems automatically deposit all incoming funds with the Trust Fund Bureau. The Trust Fund Bureau’s role is to invest these funds and other government surpluses, such as tax revenues collected but not yet spent. In practice, most of the funds available through the Trust Fund Bureau are used by the Fiscal Investment and Loan Programme (FILP), Japan’s so-called ‘second budget’. Seventy-five per cent of the TFB’s
assets, or ¥290 trillion, are in loans to government-related organizations, local government, or various government budget accounts. The remainder is invested in bonds and bills of the government and government-related organizations. Chart 8.2 shows how the money flows from the ‘inputs’ on the left, through the Trust Fund Bureau, to the ‘outputs’ on the right.

Under the current system, the investment returns earned on both the postal savings and the public pensions are essentially the Trust Fund Bureau deposit rate. This rate is generally the same as the so-called FILP rate, the rate at which the MoF makes loans from the Trust Fund Bureau. The interest rate paid by the MoF is in principle based on the coupon on the most recent long bond issue, although there is room for a certain amount of flexibility. In recent years the MoF has been paying a 20 basis point premium over the long bond coupon, in consideration of the need to maintain public pension fund returns, in particular, at as high a level as possible. Generally speaking, deposits with, and loans from, the FILP are made for fixed terms of seven years, so the actual rate of return earned on the public funds reflects a weighted average of the TFB deposit rate over the preceding seven years.

In practice, this means that the public funds have benefited from higher, and much more stable, returns than those earned by private sector funds in recent years. Returns on the public pension funds,
for instance, shown in Table 8.1, were still around 5 per cent in FY 1995. Market value returns (i.e. including unrealized gains and losses) earned by trust banks on employee pension funds were lower than the returns achieved by public pension funds in every year in the 1990s excluding FY 1995 (see Table 8.2). The level of returns achieved by the postal savings assets was broadly similar, since the funds were invested at the same interest rates as the public pensions. And the public funds have been able to earn these relatively high returns at zero risk. Nevertheless, the gradual decline in public pension returns is a concern, since public pension contributions are calculated on the assumption that investment returns will be 5.5 per cent per annum.

THE FILP ‘OUTPUTS’

The distinction between the FILP and Japan’s main budget is that, in principle, the FILP only makes loans, which are repayable with interest at the FILP interest rate. Among the major entities funded by the FILP are the JNR Settlement Corporation (the entity charged with winding up the affairs of the pre-privatization public railway system), the Japan Highway Public Corporation (which builds toll roads) and the Housing and Urban Development Corporation (which builds public housing both for sale and rent). There are also a number of financial institutions funded by the FILP which lend money on to
other borrowers. These include the Housing Loan Corporation, the Small Business Finance Corporation, and the Hokkaido-Tohoku Development Corporation.

While the public funds have benefited from the high rates offered by the MoF, the entities borrowing these funds from the MoF at the FILP interest rate have faced higher funding costs than they could have obtained elsewhere in the market. Those entities which borrow FILP funds simply to on-lend to other borrowers have found their competitiveness waning rapidly in recent years. Both the Housing Loan Corporation and Small Business Finance Corporation have seen their borrowers tending to repay loans and refinance them elsewhere. For the JNR Settlement Corporation, which is believed to have a negative net worth of around ¥22 trillion, the high funding cost of over 5 per cent per annum on its ¥16.4 trillion in borrowings from the FILP accounts for the overwhelming bulk of its ¥1 trillion per annum interest costs. The losses being run up by some of the FILP entities in

<table>
<thead>
<tr>
<th>Yen bn, %</th>
<th>Employee Fund</th>
<th>Self-employed Fund</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY</td>
<td>Return</td>
<td>Year-end reserves</td>
</tr>
<tr>
<td>81</td>
<td>2,108.5</td>
<td>32,279.6</td>
</tr>
<tr>
<td>82</td>
<td>2,399.7</td>
<td>36,562.9</td>
</tr>
<tr>
<td>83</td>
<td>2,692.4</td>
<td>40,941.6</td>
</tr>
<tr>
<td>84</td>
<td>2,992.1</td>
<td>45,484.3</td>
</tr>
<tr>
<td>85</td>
<td>3,329.4</td>
<td>50,782.8</td>
</tr>
<tr>
<td>86</td>
<td>3,641.0</td>
<td>55,281.3</td>
</tr>
<tr>
<td>87</td>
<td>3,787.7</td>
<td>59,963.8</td>
</tr>
<tr>
<td>88</td>
<td>3,826.8</td>
<td>65,612.6</td>
</tr>
<tr>
<td>89</td>
<td>3,915.9</td>
<td>70,217.5</td>
</tr>
<tr>
<td>90</td>
<td>4,215.2</td>
<td>76,860.5</td>
</tr>
<tr>
<td>91</td>
<td>4,665.2</td>
<td>83,997.0</td>
</tr>
<tr>
<td>92</td>
<td>4,955.4</td>
<td>91,134.0</td>
</tr>
<tr>
<td>93</td>
<td>5,077.2</td>
<td>97,870.5</td>
</tr>
<tr>
<td>94</td>
<td>5,262.1</td>
<td>104,531.8</td>
</tr>
<tr>
<td>95</td>
<td>5,526.8</td>
<td>111,811.1</td>
</tr>
</tbody>
</table>
recent years have been a major factor leading to political pressure to reform the whole system.

THE NENPUKU AND POLIAWC

To complicate things further, a certain amount of FILP money is lent back to agencies controlled by the Ministries originally supplying the funds. The Ministry of Posts borrows back some of the postal savings money from the FILP to invest through an agency called the Post Office Life Insurance and Annuities Welfare Corporation (POLIAWC). (The POLIAWC also manages a portion of the postal insurance money, but this money is directly deposited from the Post Office Life Insurance Special Account rather than being routed through the Trust Fund Bureau.) The Ministry of Health and Welfare

Table 8.2  Employee Pension Fund Returns, FY 1990–5

<table>
<thead>
<tr>
<th>FY, %</th>
<th>Trust Banks</th>
<th>Life Insurers</th>
<th>Investment Advisers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>Realized return 6.45</td>
<td>7.60</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Market value return 1.14</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1991</td>
<td>Realized return 5.37</td>
<td>6.31</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Market value return –0.51</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1992</td>
<td>Realized return 3.34</td>
<td>5.48</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Market value return 5.06</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1993</td>
<td>Realized return 3.53</td>
<td>5.49</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Market value return 5.08</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1994</td>
<td>Realized return 2.44</td>
<td>4.36</td>
<td>3.33</td>
</tr>
<tr>
<td></td>
<td>Market value return –1.71</td>
<td>–3.17</td>
<td>–3.44</td>
</tr>
<tr>
<td>1995</td>
<td>Realized return 2.74</td>
<td>4.54</td>
<td>3.77</td>
</tr>
<tr>
<td></td>
<td>Market value return 14.59</td>
<td>13.49</td>
<td>12.53</td>
</tr>
</tbody>
</table>

Notes: FY92 figures exclude returns achieved on newly incoming contributions. Figures for investment advisers and market value returns of insurers only available from FY 94, but overall life insurer market returns will be close to realized returns, since the two figures are the same for general account assets. Life insurer market value returns from FY 94 are No. 1 Special Account only.
borrows public pension money back from the Trust Fund Bureau to invest through the Pension Welfare Service Public Corporation (generally known as the Nenpuku).

The Nenpuku and the POLIAWC have also been hit by the high FILP interest rate. Both entities manage their funds in a variety of financial markets, and both have struggled with losses in recent years as a result of their high borrowing costs from the FILP. The rationale for the investments of the two entities is slightly different. The Nenpuku was founded in 1961, but its role expanded significantly in the late 1980s with the perception that simply depositing the public pension funds with the MoF might not provide the best return on them. Public pension surpluses were swelling rapidly at the time, and the MoF was starting to find it difficult to lend out all the money through the standard FILP system. And it was during the 1980s that the rapid ageing of Japanese society first caught public attention and started to influence policy. The rationale for the Nenpuku's financial market investment activities is therefore to provide a higher return than the Trust Fund Deposit rate, thus easing the pain of paying for next century's pensioners.

In the case of the postal savings system, the Ministry of Posts felt threatened by the deregulation of the financial system in the 1980s, when bank deposit interest rates were progressively deregulated. The MPT argued that in a deregulated environment, the postal savings needed greater control over their own assets in order to be able to compete effectively. (This is ironic in the light of later developments; the banks have been screaming throughout the 1990s that the postal savings, backed by the full faith of the government, are too effective a competitor and must be reined in.) Although both the Nenpuku and the POLIAWC made steady investment profits during the 1980s, they rapidly gave all of these back in the stock market crash of the 1990s.

The Nenpuku

The situation for the Nenpuku has been much the worse of the two for several reasons. First, it ventured not only into investment in the financial markets, but also into other investments intended to recycle some of its investment gains for the benefit of the general public. Of its ¥32 trillion of assets as at March 1996, only ¥23 trillion were in financial markets, with the remaining ¥9 trillion in housing loans to public pension contributors (these have proved relatively harmless) and in resort development projects intended to rejuvenate rural areas.
These 13 resort projects, managed under the brand name ‘Green Pier’, ran up losses of ¥374 million in FY 1995, a relatively small amount. The real problem is that the decline in land prices since the 1990s, combined with the fact that they are unprofitable, means that these resort projects can only be sold at a significant loss.

The Nenpuku startled the public with the revelation that it had run up investment losses of ¥1,011 billion as at March 1996. In total contrast to its stated aim of easing the burden of Japan’s ageing population, it has actually started to add to it. To make matters worse, the Nenpuku is rumoured to have lost at least another ¥1 trillion in the fiscal year. It should be emphasized that the Nenpuku’s losses stem more than anything from its high funding costs. Although the FILP rate is currently 2.9 per cent, the Nenpuku has heavy outstanding borrowings at earlier higher rates. As a result its weighted average funding cost in the fiscal year remains at 5.44 per cent, so it needs to earn about ¥1.7 trillion in investment returns merely to pay its interest costs.

**The POLIAWC**

The situation at the POLIAWC is much less serious. It had accumulated losses of ¥353.8 billion at the end of March 1996, of which ¥324.8 billion were related to postal savings and ¥29.0 billion to postal insurance. One reason for the POLIAWC’s lower losses is that it managed to persuade the MoF to cut the rates being charged by the Trust Fund Bureau to 1.3 per cent from FY 1994. (This rate, however, only applies to borrowings since then, and the POLIAWC is still paying much higher rates on its earlier funding.) The logic presumably is that the postal savings are increasingly being managed like a private sector bank, and there is no reason why the cost of funds should be as high as the FILP rates if the POLIAWC were merely obtaining funding in the market. This logic, unfortunately, does not apply to the Nenpuku, since its whole purpose is that it should be able to reduce the burden of public pensions over the long term by beating the FILP rate.

Since the postal insurance money managed by the POLIAWC (which totalled ¥10 trillion at March 1996) does not pass through the MoF Trust Fund Bureau, it does not face the same high funding costs. The postal insurance system currently charges a rate of just 1 per cent; this rate is supposed to make equity investment relatively easy by approximating to the dividend yield on TOPIX. The cumulative loss at
March 1996 was ¥29 billion, an insignificant sum in the context of the total postal insurance assets of ¥96 trillion. In FY 1995, the POLIAWC even made a profit of ¥24.7 billion on its postal insurance investments, although this was not enough to wipe out its total accumulated losses at that date.

WHO WANTS WHAT CHANGES?

As part of the government’s ‘Administrative Reform’ proposals to reduce the role of the bureaucracy and the public sector in the economy, the 88 Special Corporations funded by the FILP are due to be substantially pruned. The Nenpuku, in particular, is due to be abolished in 1999, while a number of other Special Corporations are expected to be merged or abolished over the next few years.

But it is proving difficult to revamp the ‘output’ side of the FILP without at least considering the ‘input’ side. Because only a small proportion of postal insurance funds is deposited with the Trust Fund Bureau, the postal insurance system is not a major focus of the current debate. But there are growing pressures to change the system as it affects the two major inputs – the postal savings and public pension funds. We attempt in the section following to indicate who the main parties in the debate are, and what their views and motivations are.

The Politicians

The LDP as a party likes the FILP system as it is. The plethora of public sector agencies funded by the FILP have been a great source of amakudari (‘descent from heaven’) jobs for retired bureaucrats, and they have been amenable to political pressure to provide loans which the private sector might not have made. Indeed, it could reasonably be argued that the function of these agencies is precisely to make politically motivated loans which the private sector would not take on.

The rank and file of the LDP is not particularly interested in the debate about the FILP, but would prefer on balance to maintain the status quo. This is particularly true when it comes to the issue of privatizing the postal savings system. The Ministry of Posts remains politically powerful because the nation’s post offices act as major political support bases, particularly in rural areas. The Ministry of
Health and Welfare has no such political support, and is in fact in a very difficult position currently because it has been at the centre of a number of scandals recently. First the MHW was shown to have been at best seriously negligent in allowing untreated blood products to continue to be used in Japan well after the dangers of AIDS were recognized. More recently, the Ministry’s top bureaucrat was forced to resign amid accusations of accepting bribes in return for government subsidies to an operator of nursing homes.

While the status quo has its attractions for the LDP, it is not merely fear which is pushing the party in the direction of reform. Slimming the FILP need not be achieved merely by reducing the activities of the various institutions involved in it. The government is also attracted by the possibility of privatizing the profitable parts of the FILP system, which would bring in a handy chunk of revenue. The LDP is well aware of the UK government’s success in the late 1980s in using privatizations to reduce tax burdens and boost its popularity. A Keio University study recently estimated that selling off the post office’s three lines of business and nine other government-affiliated special corporations could raise about ¥23.7 trillion. This figure, interestingly, would approximately offset the estimated deficit in the JNR Settlement Corporation.

### Table 8.3 Estimated Privatization Proceeds (¥ billion)

<table>
<thead>
<tr>
<th>Institution</th>
<th>Proceeds (¥ billion)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Post office – postal business</td>
<td>1,242</td>
</tr>
<tr>
<td>Postal insurance</td>
<td>515</td>
</tr>
<tr>
<td>Postal savings</td>
<td>9,006</td>
</tr>
<tr>
<td>Japan Development Bank</td>
<td>2,279</td>
</tr>
<tr>
<td>Export–Import Bank of Japan</td>
<td>684</td>
</tr>
<tr>
<td>Shoko Chukin Bank</td>
<td>1,222</td>
</tr>
<tr>
<td>Japan Highway Public Corporation</td>
<td>3,533</td>
</tr>
<tr>
<td>Housing and Urban Development Corporation</td>
<td>3,966</td>
</tr>
<tr>
<td>Metropolitan Expressway Public Corporation</td>
<td>353</td>
</tr>
<tr>
<td>Hanshin Expressway Public Corporation</td>
<td>177</td>
</tr>
<tr>
<td>Metropolitan Subway Co.</td>
<td>421</td>
</tr>
<tr>
<td>Electric Power Development Co.</td>
<td>280</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>23,678</strong></td>
</tr>
</tbody>
</table>

*Source: Keio University estimates.*
Prime Minister Hashimoto

Despite the LDP’s overall lack of enthusiasm for changing the current system, the fact is that Prime Minister Hashimoto made ‘administrative reform’ his main priority. Since ‘administrative reform’, in practical terms, means reducing the role of bureaucrats and the public sector in the Japanese economy, the FILP is obviously a prime target. In addition to the administrative reform angle, the ballooning government deficit has forced an increasing consciousness of the direct cost to the government budget of the FILP system. The massive losses run up by the JNR Settlement Corporation have become increasingly difficult to ignore, and losses being run up by other similar bodies such as the Forestry Agency are increasingly attracting media attention.

In a sense, the prime minister was instrumental in widening the scope of the debate. He was directly in charge of the administrative reform programme, and specifically instructed that not only should the various bodies funded by the FILP be slimmed down, but that the debate be extended to look at the ‘input’ side as well – i.e. the system whereby public pension premiums and postal savings deposits are automatically handed over to the MoF.

It is quite likely that this instruction reflects the prime minister’s genuine desire to revamp Japan’s economic structure from top to bottom. In any case, it is not really possible to reform the output side without touching on the inputs as well. If the outputs are to be shrunk, the MoF will have trouble finding a home for all the money coming into the Trust Fund Bureau. The obvious solution would be to expand the amounts being lent back to the Nenpuku and the POLIAWC, but the Nenpuku, in particular, is not happy to expand its borrowings substantially at the expensive FILP lending rate. The POLIAWC gets a lower funding rate than the FILP rate, as described above, but the difference between the two represents a straightforward loss to the MoF, which cannot be eager to expand loans to the POLIAWC on these terms. The logical next stage of this debate is for not all the funds to be handed over to the FILP in the first place.

Prime Minister Hashimoto might perhaps be expected to protect the Ministry of Health and Welfare in particular, since he belongs to the ‘tribe’ of politicians whose support derives mainly from the constituents of this Ministry (as did his father before him). But the necessity for administrative reform, combined with the scandals surrounding the Ministry, appear to have made him distance himself from the MHW. Probably the main reason for this is that Hashimoto
at this stage has his eye on the history books; re-engineering the
Japanese economy will be more important in the long run than
protecting a narrow political support base. But the links of the MHW
to the prime minister certainly suggest that the damage to this
Ministry will be contained to some extent.

**Health and Welfare Ministry**

One politician in particular has an axe to grind about the FILP system
and is in a very good seat from which to grind it. That politician is
Junichiro Koizumi, the Minister of Health and Welfare. His particular
bugbear is the postal savings system, which, he argues, represents
unfair competition to the private sector banks. He therefore supports
privatization of the postal savings, and indeed ran on that platform
against Prime Minister Hashimoto for the presidency of the LDP. He
was briefly the Minister of Posts, and caused a major stir by calling
for privatization of the postal savings, in opposition to the policies of
his own bureaucrats. As Minister of Health and Welfare he is in a
good position to continue to push the debate further.

Indeed, he is actively doing so at the moment. The latest bone of
contention is the Ministry of Finance’s proposal to cut the FILP
deposit rate from the current 2.9 per cent to 2.6 per cent. The latter
rate is the most recent long bond coupon, which is supposed to be
used as a basis for setting the FILP deposit rate. In fact, the MoF has
been paying a 20 basis point premium over this rate in recent years, in
recognition of the pressures placed on the public pension system by
the continuing decline in interest rates, and hence in investment
returns. The FILP rate is traditionally negotiated between the three
relevant Ministries (MoF, MHW and MPT) and is then confirmed by
cabinet order. Koizumi has indeed actively stirred up debate about the
FILP, and particularly the postal savings system, on several occasions.
He has, for instance, raised objections in recent years when the MoF
has wanted to cut the FILP deposit rate in line with declines in market
interest rates, arguing that the public pension system cannot afford
lower investment returns. His stance, while not wholly logical, has
emphasized the essential absurdity of the current system, whereby
some parts of the government are lending to other parts, at rates only
loosely connected to the market, and decided by the cabinet. This
system allow some ministries to earn artificial profits at the expense
of others, and divert attention from the fact the ultimately all the
liabilities will have to be swallowed by the same government.
Koizumi may well have concerns for the health of the public pension system in his role as Health and Welfare Minister. But his current confrontational attitude is probably intended just to be the thin end of the wedge. His move raises the question of whether it is appropriate for the MoF to pay the same interest rates to both the public pensions and the postal savings, despite the very different nature of their liabilities and their financial situations. Koizumi supports withdrawing the public pension funds from the FILP altogether and investing them wholly in financial markets like private sector pension funds. Since he also supports privatization of the postal savings system, he is essentially calling for the dismantling of the whole FILP and the return of its activities to the private sector. While his views are probably the most extreme of any of the key players in this reform debate, the wind is increasingly blowing in his direction.

The Ministry of Finance

The Ministry of Finance’s primary objective is reining in the government deficit. The Ministry used to worry less about the government’s so-called ‘hidden debts’ (e.g. the negative net worth of the JNR Settlement Corporation) in the 1980s, perhaps because during the bubble rising land prices could apparently be relied upon to solve all ills eventually. But now the MoF sees the FILP system for the expensive white elephant that it is, and is generally in favour of trying to slim it down as much as possible.

The official figures showed that bad debts at government-related financial institutions totalled ¥869 billion at March 1996, and of course these pale into insignificance compared with the irrecoverable losses accumulated at the JNR Settlement Corporation, which are expected to exceed ¥20 trillion. To put this in context, the total tax revenues of the central government this fiscal year are estimated at ¥51 trillion. The FILP also interferes with the market economy by providing public-sector sponsored competition in several sectors of the economy.

Since slimming down the FILP will inevitably mean handing more of the public funds back to the MHW and MPT, the MoF is not opposed to doing this, but it appears to be unsure of the best way to maintain control of the situation. The underlying problem is that if the funds are ineffectively managed by their sponsoring Ministries, the MoF will end up having to cover any losses with tax revenues or increased government borrowing.
In the context of the MoF it is worth mentioning that the Bank of Japan has been one of the main opponents of the current postal savings system. When postal savings deposit rates were being set with only loose reference to market interest rates in the early 1990s, the Bank of Japan found it very difficult to operate an effective monetary policy. When the BoJ cut rates to help the economy and the banks, the post office did not necessarily follow. As a result the BoJ found itself in the perverse position where cutting rates too far or too fast merely led depositors to transfer their funds out of the private sector and into the post office. This not only made life very difficult for the banks, but since postal savings deposits are only recycled into the economy via the FILP (i.e. the public sector) the anomalous position of the postal savings led to concerns that liquidity in the private sector was perversely being reduced as the BoJ cut rates. Now that postal savings deposit rates have been ‘deregulated’ (i.e. linked to market rates), the Bank of Japan is much less worried about this problem than it used to be.

Nevertheless the MoF seems broadly happy for the current system to be significantly changed. It suggested at a fairly early stage that some of the FILP entities be allowed to cut their costs by issuing bonds on the capital markets rather than borrowing from the Trust Fund Bureau. More recently, it has suggested that the FILP might be funded partly by the Ministry of Finance issuing FILP bonds directly and on-lending the proceeds to the FILP borrowers. This would presumably be more cost-effective than having each special corporation issue its own bonds. In short, the MoF seems prepared to accept anything which will cut costs without introducing unacceptable risks.

The Ministry of Posts and Telecommunications

The Ministry of Posts and Telecommunications is happy with the current system. The crucial importance of the postal savings system to this Ministry can perhaps be seen by considering the other activities which the Ministry oversees. Its telecommunications side regulates NTT (9432), KDD (9431), and now the growing number of new entrants into the international, long-distance and mobile telephone businesses. Its postal side controls three main businesses – mail, postal savings and postal insurance. The danger for the MPT is that all these businesses are increasingly being privatized and deregulated, leaving it
with less and less to do. NTT has already been privatized and is now
going to be, in a sense, broken up. Japan is one of the parties to an
agreement to liberalize basic telecommunications services fully
by January 1998. Meanwhile, the postal business faces increasing
pressure on its monopoly position from private delivery services, and
all three of the post office’s businesses are on the government’s list of
potential privatization targets.

Control of the postal savings system is the MPT’s ace in the hole –
and it has every intention of using its political power fully to protect its
current position. And the postal savings system is currently a very
profitable business. The ‘deregulation’ of postal savings rates means
that, in practice, deposit rates are based on those offered by private
sector institutions. This has worked out marvellously for the post
office, since it is now able to offer the same low rates as the banks –
which have had to keep deposit rates as low as possible in order to
earn the profits to write off their bad debts – while unlike the banks, it
is not only able but forced to invest all its funds at the above-market
rates offered by the MoF Trust Fund Bureau.

While the private sector banks have had to use whatever profits they
have to write off bad debts, the post office has no bad debts, because
all its assets are deposited at zero risk with the Trust Fund Bureau.
And the inability to offer higher deposit rates has not prevented the
post office from continuing to gain market share in the deposits
market, because of the widespread concerns about solvency in the
banking system. The post office has been doing particularly well in the
Osaka area, where the bankruptcy of several financial institutions has
helped to focus depositors’ attention on the risk-free nature of postal
deposits.

As a result of this very favourable set of circumstances, the postal
savings system is thought to be sitting on accumulated gains of around
¥4 trillion currently. True, the existing system presents some problems
for the POLIAWC, which has to borrow its funds from the Trust Fund
Bureau just as the Nenpuku does. But as described above, the MPT
has been able to cut a deal with the MoF to bring the POLIAWC’s
funding cost down to 1.3 per cent, and as a result its borrowing costs
will decline steadily to this level over the next few years. In any case,
the ¥325 billion in losses accumulated by the POLIAWC pales into
insignificance compared with the ¥4 trillion gains on the postal
savings as a whole. The MPT can therefore be expected to use its
considerable political clout to try to minimize any changes to the
postal savings system.
The Ministry of Health and Welfare

The Ministry of Health and Welfare finds itself in a rather different position. Public pension fund contributions are calculated on the assumption that the funds return 5.5 per cent per annum. Returns in recent years have just started to drop below this level. Public pension liabilities are defined in relation to inflation, so it is not disastrous if investment returns drop below the assumed level, provided that inflation does so too (the inflation assumption built into premiums is 2 per cent). But the Ministry of Health and Welfare is well aware that what is not adequately built into public pension premiums is the rapid ageing of the population, and it is therefore necessary to keep investment returns as high as possible.

The public pension system is formally reviewed every five years and adjustments made to premium rates as necessary. In the most recent review, in 1994, it was decided that premiums for employees – the overwhelming majority of participants – would be raised by 2.5 percentage points of salary every five years for the next 30 years. The current rate is 17.35 per cent, and this is expected to reach a painful 29.8 per cent of salary by FY 2025. (This burden is shared equally between employer and employee.) Whether the economy can plausibly sustain such a heavy burden of pension contributions remains to be seen; it is certainly clear that it is urgent for public pension investments to return as much as possible in order to minimize the problem. In fact, since the 1994 review, the research institute affiliated to the Ministry of Health and Welfare, whose estimates are used as the basis for its projections, has suggested that the ageing of the population may be even more severe than previously thought, implying that the 1999 review of the public pension system may have to allow for premiums to be pushed up to around 34 per cent of salary.

Although the MHW benefits from the above-market interest rates paid by the MoF, these are still inadequate to its needs. In order to maximize its returns over the long-term it has expanded investments through the Nenpuku, but in the short term these investments have done worse than leaving the money with the MoF would have done. And although the Nenpuku has been earning positive returns on its investments, its position is made politically difficult by the current structure, which deducts its high funding costs from its returns and leaves it sitting with large accumulated losses in the newspaper headlines. These losses are in a sense illusory, since the interest charges being paid by the Nenpuku are being passed through the Trust Fund.
Bureau back to the National Pensions Special Account in the government’s accounts.

What the MHW would like best, therefore, would be for the Nenpuku not to be charged, or to be charged a great deal less, for its funds, and for it to be allowed to expand significantly. The best way to achieve a reduction in the Nenpuku’s costs would be for it to receive money directly from the Welfare Insurance Special Account for investment purposes, cutting the Trust Fund Bureau out. Ideally, from the MHW’s point of view, all ¥119 trillion of public pension monies would be managed by the Nenpuku directly. This may seem at odds with recent evidence that the MHW has given up on the Nenpuku as a lost cause and is prepared to have it abolished. But given the Ministry’s traditional ties to the prime minister, the abolition of the Nenpuku may well be just a tactical retreat. The plan is to have it replaced with something broadly similar, but much bigger, which will invest the public funds in financial markets. The Ministry of Health and Welfare’s proposals appear by and large to have logic on their side; the question is more whether it has the political clout to push its proposals through. The main potential opponent is the MoF, but even the MoF has admitted the logic of investing the public pension reserves more conventionally in financial markets. It may be that the debate ultimately is more about who controls the funds than what happens to them.

WHAT IS LIKELY TO HAPPEN TO THE FILP?

We have attempted to explain above how the existing system works and what the main players in the FILP system feel about the prospect of change. While change to the system has been initiated, powerful vested interests have succeeded in slowing it down. We discuss how the FILP system is being changed in the following section.

Slimming the Outputs

We do not know how rapidly the FILP system will change, but we are reasonably confident about the direction. First, the FILP outputs will be slimmed down. In fact, this has already started to happen in the budget draft for next fiscal year; FILP outlays are forecast to decline by 2.8 per cent from this fiscal year’s level.

It seems highly likely that a number of the FILP output agencies will be merged, abolished or privatized, with the lending institutions
being the prime targets at the moment. There are currently 88 ‘special corporations’ being funded by the FILP, and the government has already announced that it plans to reduce this number by 20 per cent. As a first step, the government plans to merge or shrink or abolish several agencies, to include the Employment Promotion Projects Corporation, the Nenpuku and the Forest Development Corporation.

Perhaps in the hope of escaping abolition or merger, some FILP entities have already started to announce a significant scaling back of their activities. It has been announced, for instance, that the Housing and Urban Development Corporation is going to pull out of new housing development activities. We expect to hear of other FILP entities shrinking, but this will not prevent the abolition or merger of several more of them.

The next stage will be for the Ministry of Finance to introduce further market discipline to the FILP by funding at least part of it by issuing bonds on the capital markets. This might conceivably be done directly by the various FILP agencies, but the funding would be cheaper if it were done centrally by the MoF and then on-lent to the various agencies, so we believe that this is likely to be the main funding innovation.

We believe that there will be a significant reduction, probably phased in over several years, in both the number of corporations being funded by the FILP and the total amount of their funding. Over time it is quite possible that the FILP will be phased out altogether. It would be perfectly feasible for the government to encourage desirable investments which the private sector was unwilling to undertake either by subsidizing them directly from the general account budget, or by offering tax incentives.

**The Postal Savings**

The really interesting questions relate to the ‘input’ side. Privatization of the postal savings system would certainly raise substantial revenues; on the other hand, this proposal would face severe political opposition. The main opponents of the current postal savings system are Health and Welfare Minister Koizumi, the MoF and the Bank of Japan. That hardly adds up to an overwhelming force for change.

Privatization of the postal savings system would not be wholly welcomed by the private sector either. At the moment, maximum deposits in the postal savings system are at least theoretically limited
to ¥10 million per account-holder. If the postal savings system were allowed to compete as a fully private sector entity, it would be a formidable opponent for the existing banks. Apart from being by far the largest bank in the world, it has no bad debts at all and a very powerful market position.

A privatized postal savings system would be a particular threat to the regional banks, since the postal savings already hold a dominant share of deposits in many rural regions. The main weakness of a privatized postal savings bank – and it is a significant one – would be that it has no experience of lending to anyone other than the Ministry of Finance. Although it would start with the advantage of a clean sheet as regards bad debts, it would have difficulty competing with the accumulated credit knowledge of the private sector banks on the lending side. But regional banks are much less active in lending, their function being rather to collect excess deposits in rural areas and lend them via the wholesale money markets to the city banks, who have the dominant relationships with corporate borrowers in major urban areas. This is a game which the postal savings should prove to be very good at, given its inevitable AAA credit rating.

Given the political opposition and the misgivings of even the private sector players, we doubt that the postal savings are going to be privatized soon. It is perhaps more likely that the MoF will be given the power to set the interest rates directly on postal savings deposits, so that it could adjust inflows and outflows of funds according to the actual funding needs of the Fiscal Investment and Loan Programme. This proposal would meet fierce resistance from the MPT, but would be much more acceptable to the private sector banks.

Either way, the implications for the stock market are relatively limited. Since the postal savings has liabilities which are basically fixed interest deposits, it would not be logical for it to invest significantly in equities. The only caveat to this view is that if the postal savings were ultimately to be privatized, it is not difficult in a Japanese context to imagine the postal savings bank trying to build a whole new keiretsu of its own by building up large equity stakes in companies and putting pressure on them to borrow from it. A similar expansionary zeal has been seen, for instance, in the case of some of the German Landesbanks. While this would clearly be a major shot in the arm for the stock market, it would certainly not be desirable. But although it is worth keeping this scenario at the back of one's mind, it looks a long shot. On balance, the question of what happens to the postal savings looks like the less important one for the stock market.
The Public Pensions

More interesting is the question of what will happen to the ¥119 trillion of public pension money. The MHW would like to withdraw this money from the FILP altogether and focus on investing it for the best available long-term returns. This proposal has the support of Health Minister Koizumi, and even the MoF seems prepared to grant the need to step up investments of public pension funds in financial markets in order to boost returns over the longer term.

The Nenpuku itself looks doomed, with even the MHW offering to get rid of it – but only to replace it with something similar but better. The funding structure of the Nenpuku means that it is perceived, rightly or wrongly, to have failed in its mission and to have run up huge losses. Its forays into resort development, from which it is currently trying to extract itself, may have been typical of the late 1980s, but they look like the final nail in the coffin.

Nevertheless, we expect a stronger Nenpuku, in some shape or form, to rise like a phoenix from the ashes. It is not clear whether the new entity will be controlled by the MHW or the MoF, but our current guess is that the entity will be attached to the MHW but with an element of MoF supervision. Of course, all the Ministries are due to be shuffled and have their roles reviewed anyway over the next few years under the government’s administrative reform plans. The likelihood is that public pension funds will be directly entrusted to the new entity, rather than lent to it, and that it will invest them in financial markets in a way aimed at maximizing its assets by about the year 2025, when the strains on the public pension system will be peaking.

It seems unlikely that the ¥87 trillion of public pension funds currently lent from the FILP to entities other than the Nenpuku will be all withdrawn in a rush and replaced by the MoF’s FILP bond issues. But over a period of perhaps ten years, we expect this money to be all turned over to the new fund management entity, along with the ¥9 trillion (or what is left of it) which the Nenpuku has invested in assets like housing loans and resort development projects.

If this scenario is right, it will be very positive for the equity market. If we assume that roughly 30 per cent of those assets end up invested in stocks, the net investment in the stock market over a ten-year period might approach ¥30 trillion, equivalent to nearly 10 per cent of the current market capitalization. Nothing is likely to be formally decided until 1999, and even then it may take several years before significant sums of money start to be invested by Nenpuku’s successor.
But with amounts of money at stake as large at that, it is worth thinking ahead a bit. The ongoing debate about the restructuring of the FILP could have huge positive implications for the stock market over the longer term.

The public funds have continued to play an important role in the market since the early 1990s, but there are differences of opinion as to how far their role should be viewed as government intervention. Sceptics regard any public sector buying of equities as intervention by definition, but we would prefer to point out that the equity weightings of these funds remain substantially lower than their private sector counterparts in all instances, so one is justified in drawing the conclusion that they would have substantially higher equity weightings than they actually do if they were influenced primarily by market rather than political considerations.

The fact is, though, that they are influenced by political considerations, and the ‘self-managed’ portions of these funds remain subject to negotiations between the Ministry of Finance and the two sponsoring Ministries. Rather than the Ministry of Finance, which would be the Ministry with a natural interest in stock market support operations, it tends to be the other two Ministries which are constantly stressing the need to expand equity investments (which would entail more funds coming under their direct control). It also remains the case that one of the major arguments put forward by the MPT and MHW in favour of increased equity investments is that the nature and liabilities of the public funds suggest that a larger equity component is appropriate to boost returns. Having said that, at the time of writing there are early signs of a weakening of the commitment to the equity market by the sponsoring Ministries, given that returns have been subdued even after the great collapse came to an end in 1992.

Broadly speaking, we think it is correct to characterize the increasing involvement of public sector funds in the stock market as being the outcome of a tug-of-war between the Ministry of Finance (opposed to equity investment) and the two sponsoring Ministries (in favour, partly because it gives them more direct control over the money). The Ministry of Finance has wavered in its objection to equity investment by public funds as a result of the weak stock market of the 1990s, and was worried enough about the financial system in 1992 to allow a substantial irregular allocation of funds to equity investment, with the explicit objective of supporting the market.

The public funds, rather than individuals buying on margin, have increasingly become used for such tactical intervention as the Ministry
of Finance now carries out. It should be remembered that the objective of tactical intervention is to smooth excessive fluctuations in the market, and if the Ministry of Finance is successful in telling public fund managers to buy when the market is oversold, and sell when it is overbought, it should be thanked by the taxpayer for boosting the overall return of the funds. The MoF, however, has been chastened by the experiences of the early 1990s to the extent that it generally leaves the public fund managers to make their own buying and selling decisions, confining itself to offering the odd gentle hint about timing.

Public fund managers themselves strenuously deny that the Ministry of Finance ever telephones them to tell them when to buy, while the Japanese press frequently suggests that this sort of intervention is going on. The reality is probably somewhere between the two – the Japanese stock market community is notoriously fond of conspiracy theories, and is probably jumping to the conclusion that the Ministry of Finance is behind public fund buying on almost every occasion on which it is seen in the market. The fund managers themselves, on the other hand, are in frequent contact with officials from both the Ministry and Finance and the other two Ministries whose funds they manage, and it seems likely that the occasional hint is dropped as to when the market is thought by officials to have fallen to a buying level, even if these hints are not necessarily intended to be taken as binding instructions. A fairly clear example of such a hint being given was in the run-up to the Japan Tobacco listing in October 1994. The market was drifting downwards amidst widespread pessimism about the impact of the large new listing, but the public funds dug their heels in at ¥19,500 on the Nikkei Index, apparently because of instructions from on high. The market was allowed to drift below ¥19,000 after the listing was over, so the implication is that the Ministry of Finance hoped to improve the take-up of the JT listing by its intervention at that point. This kind of intervention from the Ministry of Finance, like any other, has an ‘announcement effect’ (even though the intervention is not formally announced), but it is difficult to believe that it has much impact in the medium term. Unless additional allocations of funds are made to them, any buying carried out by the public funds today merely means that they have less cash with which to buy tomorrow.

Foreigners may argue that such a heavy public involvement in the stock market is unhealthy, and they are possibly right. But the problem begins at an earlier stage. Since the public funds exist, they have to be invested somewhere, and a comparison with their private sector counterparts suggest that they are underexposed to equities.
The more fundamental question, which is increasingly being voiced by reform-minded Japanese politicians, is whether the public sector ought to be playing such a large role in the savings market in the first case, particularly in the case of the postal savings. There may be some moral hazard involved in the investment of public pension funds (since any investment losses will ultimately have to be made good by the state, one could argue that there are incentives towards an overly risky approach, although this is more than compensated for by the Ministry of Finance’s strict regulation of those funds, in our opinion). Nevertheless, the situation in Japan seems preferable to the totally unfunded nature of public pensions in most other countries, for many of whom growing public pension liabilities are reaching crisis proportions. The fact remains that the public funds are likely to remain an important factor in the stock market for the foreseeable future, and investors need to have some understanding of how and why they work, rather than simply jumping to the conclusion that all public sector purchases of equities represent a programme of artificial support for an overpriced market.

BIG BANG?

In the last chapter, we considered the key institutions of the Japanese financial system, and in this chapter the role of government institutions and intervention in the market. It only seems fitting that the chapter should end with discussion of how the government plans to limit its future involvement and allow for new instruments and services to evolve. Specifically, we shall briefly outline and consider the set of measures and deregulatory steps collectively referred to as ‘Big Bang’. We should note at the outset, however, that many steps towards liberalization, and specifically many of those noted in the last chapter, are in fact part of ‘Big Bang’. As such, as many of these measures have been on the drawing boards for as long as ten or more years, they don’t seem innovative or radical enough to be referred to as part of a major package of measures. In sum, one wonders whether it is fair to use the term ‘Big Bang’ at all.

The scepticism is both warranted and yet somewhat excessive. Indeed, the collective measures do not measure up to the real ‘Big Bang’ in financial services in the UK at the start of the 1980s. Furthermore, it is true that many of the measures have been under consideration for a very long time, and therefore lack the suddenness
of the UK experience. It is also the case that the measures will not be fully implemented until 2001. On the other hand, with full cross-entry across the financial services, virtually no restrictions on new products and services, the creation of universal banks and the like, the system will certainly be more liberal than that in the US and many other industrialized nations. Japan will certainly enter the club of countries with essentially free financial markets.

The term ‘Big Bang’ emerged from Prime Minister Hashimoto’s speech of November 1996, when he outlined his vision for financial services. When the actual set of proposals was announced 13 June 1997, the media immediately dubbed the package as the outline of Japanese style ‘Big Bang’. Hence, the term was born. While the proposals and the timing of their implementation is more like a slow-burning fire than an explosion, it is clear that it is not all fog and smoke. These are genuine proposals for a more liberal and dynamic market.

Glass-Stegal-type prohibitions against cross-entry of financial service providers across markets will be lifted, with the banks having first crack over the 1997–8 period. By the turn of the century, essentially all providers will be able to cross-enter. There will be fewer restrictions on the types of activities which banks can finance, and they will ultimately be unrestricted in terms of the types of products and services they can offer. Brokerage commissions will be fully deregulated by 1999, and insurance companies will ultimately be able to compete openly with deregulated commissions by 2001. With deregulated commissions, foreign insurance providers will be on equal competitive footing. The foreign exchange law will be repealed as well. While foreign exchange transactions have essentially been free since the late 1970s, repeal of the law will mean that a broader spectrum of financial service providers will be able to engage in such transactions. Financial service providers will be subject to international accounting standards by 1998, so that BIS-type capital adequacy standards can be easily verified.

These steps are by no means trivial, and we can expect a scramble as well-capitalized firms attempt to add capacity in areas of financial services which are seen as growth opportunities. This was certainly the case with the ‘Big Bang’ experience in the UK. Like the UK experience, we can also expect foreign institutions to exploit the new regulatory environment and make acquisitions and enter into alliances in potential growth areas in the Japanese market. Foreign financial service providers with expertise in areas of limited knowledge to Japanese competitors will likely do well in the new environment, and one can expect Japanese firms to seek out such partners.
While new opportunities will certainly emerge, it should be made clear that the essence of these reforms is to reduce transactions costs and to breathe life into Japanese banks. World-wide experience has shown us that it is essentially the inherent slow growth in the banking sector which gives rise to undue risk-taking in order to boost growth. The thrift crisis in the US, the Swedish banking crisis, its Mexican counterpart and that in Japan all had similar root causes. Had the banks had access to other growth opportunities, it is quite likely that they may never have ventured so far into other risky activities. Japanese Big Bang is an attempt to increase growth opportunities in financial services, but in a transparent and well-monitored environment. Whether Tokyo is transformed into a world-class competitor in financial services is another matter. The impact of ‘Big Bang’ reforms on the key financial sectors is outlined below.

**Banks**

Banks will be able to determine their own loan and deposit maturities, implying that they can arrange to transform their own term structure without reference to regulation or seeking MoF approval. They will be able to introduce virtually any type of financial product they wish without MoF approval, at least in principle. The emphasis on electronic banking and restructuring in banking will continue. As in other countries, deregulation will push banks towards greater reliance upon fees rather than interest income.

Greater competition in the sector will force mergers between smaller, weaker players and stronger ones. Many smaller banks will likely fail if they cannot find suitable partners. This would be consistent with MoF desires, and has essentially been in the works for some time. Unfortunately, the pattern has been for the strongest among the small to merge with the strong among the big, so that the weak remain fully exposed. This implies that the government will ultimately have its hands full managing losers. In any event, cross-entry will only be possible with a large capital base, and cross-entry will be necessary to compete effectively. Large institutions will become the rule.

**Brokers**

Trends towards consolidation among brokers are already in place. Complete deregulation of commissions will simply accelerate this process, since *de facto* commissions for large transactions in the
wholesale market are already informally negotiated. Cost reductions in the sector will lead to the development and introduction of more efficient trading and compliance systems. The already dramatic growth in proprietary trading will continue as commission revenue shrinks. Greater flexibility among employees in the sector will be required to facilitate these changes.

The research function, which had traditionally been one of the activities carried out by brokers as one of their services for commissions earned, will likely fall increasingly to the investor. Specifically, institutional investors will increasingly take research activity in house, so that the location of this activity will shift from brokers to asset managers. This trend has already been in place internationally, and Big Bang in Japan will accelerate it. This means that brokers can be expected to specialize in execution and custody activities for the much smaller commissions they will earn.

**Insurance Industry**

The insurance industry will be immune from cross-entry pressure until 2001. It is no mistake that this sector will remain closed until the end of the period, as firms in the industry are particularly weak. Furthermore, the sector will not only be immune to cross-entry pressure, but premiums will also remain regulated until 2001. Regulated premiums stand as the major obstacle to foreign entry, as Japanese consumers obviously prefer to insure with the large Japanese firms with which they are familiar, so long as the insurance premiums are the same. Foreign firms stand to do very well in the insurance industry with lower cost structures and presumably lower premiums. As such, this sector will see intense competition both in terms of cross-entry, foreign entry and lower premiums from 2001.

We cannot neglect cross-entry of insurers out of insurance and into other financial services. It is natural that insurers would wish to enter into direct asset management for individuals or other funds. The insurance market itself is saturated, and increased competition will only make matters worse. If the insurers can begin professionally managing their own assets and raise performance, this could serve as the best form of advertising if they are to enter the pension or mutual fund business. This, of course, will require development of a corps of truly professional fund managers and research capability – which has been lacking to date.
Foreign Institutions

Reading between the lines, it should be increasingly clear that foreign institutions have much to gain and little to lose in the competitive battle which will emerge with Big Bang. Many financial institutions in other countries already have a great deal of experience in an environment which permits cross-entry and the introduction of new products. Indeed, many have already weathered the ‘real’ Big Bang, and have a great deal of experience with a rapidly changing environment. Perhaps most important, most foreign institutions have well-trained and professional staff in the various areas of expertise necessary to compete in a less regulated environment. The Japanese training system, with its emphasis upon building firm-specific generalists, does not generate the type of human capital necessary to compete effectively.

This lack of necessary skills is nowhere more apparent than in fund management. As the typical fund manager in a Japanese institution has no professional training in the field, all the necessary experience must be gained in the few short years he or she will be managing money before moving on to another post. As such, poor performance will simply become somebody else’s problem. With private pensions and mutual funds shaping up to be two of the battlefields of the Big Bang future, this situation cannot persist. Japanese institutions will and indeed are actively seeking foreign partnerships where the necessary expertise can be found. Foreign firms are similarly shopping around for potential acquisitions and partnerships. Well-capitalized foreign firms stand to do well after Big Bang.

Problems

There will, of course, be problems associated with Big Bang. One problem which has already emerged is that of expectations. Foreigners especially seem to hold the UK experience in their minds as a benchmark, and this is simply not the case. Another major problem will be that of monitoring. It must be stressed that regulation and monitoring are two different kettles of fish. A highly deregulated environment will require vigilant monitoring – though transparency will make matters simpler. It must be borne in mind that many of the problems faced by the Japanese banks today would never have emerged with proper monitoring and reporting. It remains to be seen whether the Ministry of Finance will be able to establish an independent monitoring organization with proper staffing.
Related to the issue of monitoring is that of systems and infrastructure. Typically, the monitoring and systems necessary to support a deregulated financial structure are the responsibility of industry groups with quasi-government status. This is indeed the case in Japan as well, but the reluctance of the Ministry of Finance to relinquish direct control has meant they have not been able to fully develop. For example, the archaic paper trade entry requirements of the Ministry of Finance has stunted development of more efficient trading systems. When very limited trading of options was permitted from the summer of 1997, the system was simply unable to handle more than very thin volumes. What will happen when the entire system becomes a free for all?

Perhaps the biggest problem, at least in a political sense, will be that of managing losers. During the recent banking crisis, the authorities had difficulties determining who should fail and when. A simplistic observation might suggest that the authorities will simply be unable to manage the situation should the competitive battle generate significant losers. While it is quite likely that there will be many losers in this process, the authorities will face a situation much different from that of the recent banking crisis. During the recent economic and financial fragility, it would have been foolish for the authorities to allow a large number of financial institutions to fail. Instead, they have chosen to manage the situation, and to announce failures at a gradual pace. Allowing weak competitors to fail in a generally strong financial climate is a completely different situation. If anything, the ability of the authorities to hold things together during the 1992–6 period suggests that they are quite capable of managing losers.
Part IV

Some Sticky Questions
9 The Cost of Capital in Japan and Semantics of the Bubble

THE COST OF CAPITAL

One issue which has arisen from time to time in this study is that of the relative cost of capital in Japan. A very lengthy debate exists as to whether the cost of capital in Japan is or has been lower than in other countries. The traditional Japanologists have simply taken it for granted that government policy was aimed at achieving low interest rates and cheap cost of capital during the high growth period. More important than this, the typical Japanologist view is that such policies were successful in attaining their goals. Somewhat interestingly, however, is the fact that most of these Japanologists argue that the cost of capital was low in Japan during the high growth period, but then assign the role of capital a subordinate role in their explanations for rapid growth (Johnson, 1982). Typically, some vaguely defined industrial policy and exotic blend of cultural factors are argued to have been of central importance by such ‘scholars’.

Many economists have also taken it for granted that the cost of capital was lower in Japan during the high growth period. Given the highly regulated status of most of the world’s capital markets prior to the end of the 1970s, it is certainly possible that the cost of capital was lower in Japan. This might be particularly true in the Japanese case, with a very tightly regulated financial market, large household savings and a relatively strong government fiscal position during much of the period 1955–75. Still, a lower cost of capital is a hypothesis to be tested rather than a fact to be taken for granted.

Certainly we must be sceptical about a lower cost of capital in Japan by, say, the late 1970s or early 1980s. By that time, most of the most draconian financial regulations in Japan had been lifted, and internationalization of Japanese markets was proceeding at a good pace, as we have seen earlier. Most of the other major financial centres had experienced something of a ‘big bang’ by the mid-1980s at the latest. Capital, like any other resource, has a way of seeking out its greatest
return, and freer markets permitted gains from arbitrage. As a result, it seems highly unlikely that the cost of capital could diverge significantly between countries (adjusted for risk and exchange movements, of course) in the new environment.

Of course, a reasonable case can be made that the cost of capital should converge internationally, even if financial markets are tightly regulated. It is the conclusion of the famous Stolper-Samuelson theorem that factor prices will equilibrate even without factor mobility, so long as goods are freely traded. While free trade certainly did not prevail worldwide during most of the high growth period, trade was quite liberal at least among GATT signatories (with the exception of trade in agricultural products). Japan became a GATT signatory in 1964, and very rapidly brought her tariff levels to below those of most of her trading partners. While factor price equalization was dismissed for decades by left-wing development theorists, it is now being treated as a serious threat by leftists in the rich countries, as free trade between rich and poor countries becomes a reality.

Theoretical concerns aside, we know that the profit motive is often strong enough to allow regulation to be circumvented. If interest rates and capital cost were significantly lower in Japan than in the rest of the industrial world, there would have been an incentive for capital to flow out of Japan and capital costs to rise. While regulation was in place to prevent this, it is worth asking whether this regulation was indeed effective. The next question, of course, is whether capital costs in Japan have remained low once markets became more liberal. If indeed they have, then we have a very difficult anomaly to explain.

CAPITAL COSTS IN THE HIGH GROWTH PERIOD

The usual casual evidence presented to support the claim that capital costs were lower in Japan are published interest rates prevailing during the high growth period. Of course, this is the least compelling evidence. Published interest rates were highly regulated during most of the period. If actual interest charges were due to black markets, fees or extraneous charges, then the published rates would have little relevance. This is indeed the case, at least for borrowers (depositors had to make due with the regulated deposit rate of interest). Elsewhere we have mentioned so-called ‘compensating balances’. While not legally sanctioned, loan agreements included a clause requiring the borrower to keep some portion of the loan on deposit with the bank, typically at a
near zero rate of deposit interest. The result of such an arrangement, of course, would be to cause the effective interest to rise.

For example, suppose a company wanted to borrow 100 million yen, and that the regulated loan rate was 5 per cent. In the final loan agreement, suppose the bank arranged for the company to borrow 200 million yen, but that 100 million of the total must be kept on deposit at the bank with no interest for the duration of the loan. The company would make interest payments on the entire 200 million yen principal, but would only be able to use 100 million yen of the total. In this example, the effective rate of interest would be 10 per cent, twice the regulated rate. Such arrangements were typical. The actual size of the compensating balance and effective interest rate would be related to the risk and creditworthiness of the borrower.

There are two key points here. The first is that published interest rates cannot be used as evidence that the cost of capital was lower in Japan during the high growth period. More sophisticated tests will be necessary. The second point is that, in principle, it would be possible for banks to charge the equilibrium or market clearing rate of interest using compensating balances, even under a highly regulated and rationed regime. We are not trying to argue that this was in fact the case. What we are trying to argue is that those who would suggest that Japanese interest rates could not have been market clearing during the high growth period are wrong. It is completely possible that the interest rates were fully compatible with prevailing international rates during the same period.

Indeed, Beason (1989) has found evidence suggesting that Japanese interest rates were not at all low during much of the high growth period. While not the central focus of the paper, it was found that business loans during much of the high growth period were made at rates of interest comparable in international levels, and sometimes higher, once the compensating differential was accounted for. Of course, there is evidence to support the hypothesis that Japanese cost of capital was lower, and this evidence, together with discussion of the entire issue, will be discussed in greater detail below. The key point here is that what has generally been accepted as gospel, that Japan has generally benefited from a lower cost of capital than her trading partners, is an empirical issue rather than indisputable fact.

Of course, the key issue in the debate on cost of capital seems to revolve around the issue of how liberal were or are Japanese financial markets. In principle, it is possible for regulators to have significant influence on the cost of capital, even in the long run, if financial markets are closed. If capital markets are open, however, it becomes
difficult to understand how regulators manage to control interest rates in the long run against a tide of international capital flow. Since this is at the heart of the matter, it is to this issue that we now turn.

HOW LIBERAL?

While it was no big bang, we have argued that financial market innovations, liberalization and deregulation resulted in a reasonably liberal structure by the end of the 1970s. Certainly by that time, most of the major impediments to capital flows into and out of Japan had ceased to be binding. Various innovations resulted in what amounted in market-determined interest rates on large denomination deposits. Authorities recognized the natural forces and generally accommodated, rather than inhibited, their progress.

By the early 1980s, a fully functioning secondary market in government securities had emerged, and the banking system was largely freed from its previously highly prescribed role in the uptake of government paper. The result, together with other moves towards a more liberal structure, was a well-recognized risk-free market which could serve as a functioning benchmark for markets in private debt. By the early to mid-1980s, the only remaining relevant restrictions in Japanese financial markets centred on various regulated interest rates. Financial innovations rendered most of these moot by the late 1980s, during which time most individual wealth holders had entered the equity or fixed income markets directly, or indirectly through money market funds (MMFs) or the various bond-related deposit instruments (like sweep accounts, Big and Wide accounts, etc.). By 1995, there were no longer regulations affecting interest rates, and Japanese financial markets could be declared fully deregulated, at least on the investment side of the equation (fund management and the insurance sector are a different kettle of fish).

Most economists would be prepared to argue that a financial market will in fact be driven by international forces and most regulation irrelevant as soon as the international flow of capital is free and unhindered. Reconsideration of the historical section of this book reveals that this condition was essentially met by the early 1970s, with some brief re-visititation after the oil shock. Thus, one wedded to an equilibrium perspective would argue that effective large denomination real interest rates and cost of capital should have effectively converged to world rates by that time. Generally speaking, this and
other tests of ‘market equilibrium’ should reveal an increasingly market-driven structure. Certainly from the mid-1980s one should find it difficult to reject equilibrium outcomes in Japan.

Essentially, if one reads the themes in this book carefully, it can be seen that an underlying, essentially liberal financial structure has been assumed from the start of the 1980s. Implicitly, we have argued that the crisis in the financial structure can be traced to the new pressures generated by an essentially liberal structure in a previously regulated environment with a somewhat unique corporate governance structure. This structure of corporate governance, one with banks serving as monitors within the nexus of cross-shareholding, can easily be imagined to give rise to the potential for significant moral hazard. Specifically, the bank serves client firms which are also monitored by the bank. The banks will have some incentive to use their leverage as monitor to encourage firms within the group to avail themselves of financial services provided by the banks. In the absence of proper safeguards, the banks may even pressure these clients to avail themselves of a more than optimal level of such services.

As we have argued before, in a highly regulated environment in the context of rapid economic growth, loan growth maximization for the banks might correspond reasonably closely to profit-maximization for firms. In this context, the moral hazard is not apparent. When the growth engine slows significantly, and the regulatory safeguards have been relaxed, loan growth maximization by the banks may diverge from desired behaviour by firms. To the extent that firms then undertake an undesirable level of risky investment as a result, financial fragility becomes a possibility. This situation is exacerbated when risky behaviour by the lending institution is essentially insured by society in the form of deposit insurance.

In other chapters we have dealt with the systemic risk inherent in this form of corporate governance structure in a context with deposit insurance. What we have not adequately dealt with is how liberal the regulatory structure had become. We have maintained as an underlying hypothesis that the structure had become more liberal, and we have provided historical evidence to suggest this. We have not considered the empirical literature on the subject. Besides solidifying our arguments, there is another reason to consider the empirical evidence. It has been widely accepted that Japanese financial markets remained essentially closed, and that Japan has enjoyed a lower cost of capital, until the collapse of the bubble. These are empirical questions which should be dealt with in like manner.
Any test of market openness or the degree of liberality of the market must, by necessity, be a comparative one. Generally, such empirical tests are organized as a test of the null hypothesis of some variant of what might be called the law of one price. That is, a market of any type is thought to be open or liberal if resources and agents can freely move into or out of the market in order to arbitrage any potential gains in that or another market. If all markets for all products, assets and services in all nations are open and liberal in this sense, all potentially arbitrated opportunities in any market in any country will quickly be taken advantage of. The result will be that all tradeable or mobile products, services or assets will be priced equally in any location, excepting any differential attributable to transportation costs, etc.

We can see how a test of the degree of liberality of Japanese financial markets might proceed. We might take as our null hypothesis that the Japanese market in some particular type of financial asset is, in fact, essentially liberal and open. We would then test whether the asset is priced equivalently in Japan and some other market that is thought to be open and liberal. If we find that the assets are priced equivalently, then we cannot reject the null hypothesis and we would say that the evidence supports the hypothesis that the market for the asset in question in Japan is essentially open and liberal. If we are able to reject the hypothesis, then we would argue that the evidence does not support the hypothesis that the market for that asset is liberal in Japan.

In undertaking such tests for the Japanese financial market, we encounter various issues we must sort through. In earlier chapters, we argued that most binding foreign exchange controls were essentially eliminated by the mid-1970s. This might imply that we would want to focus our attention on tests of market openness using data from the mid-1970s. On the other hand, we might be interested to see whether markets behaved as though they were essentially open despite the controls. Another issue concerns choice of asset for the relevant test. Even if capital flows are essentially open between countries, in order to conduct the type of test described, there must be very similar asset classes between countries. This presents a potentially bigger problem, since only a limited number of asset prices could be said to be relatively free of regulation in Japan prior to 1979. Thus, in considering the question of openness and liberality of Japanese financial markets, the issues of time frame and asset will be crucial in any test we may wish to consider.

From earlier discussion, we know that among short-term financial assets, the *gensaki* or repo market has been essentially unregulated
since its emergence in 1969. Call rates have also been relatively free from direct regulations, but Bank of Japan operations in an otherwise closed market could have strong influence on the movement of such rates. At the long end, well-functioning bond markets did not emerge until the early 1980s, due to the lack of a proper secondary market in government paper until then. This discussion suggests that we might wish to concentrate on tests which use data on the *gensaki* or call market on the short end, covering perhaps the period before and after significant foreign exchange controls. On the long end, tests using the JGB might be relevant, but clearly only from the 1980s onward.

Starting with the short end, we immediately confront one of the problems facing tests such as these. When we say we are testing the equivalence of asset prices internationally, we are actually testing the equivalence of implied interest rates. Regarding the equivalence of interest rates internationally, the law of one price actually states that

\[ r^* = r + x \]  

(7)

where \( r^* \) is the foreign interest rate, \( r \) the domestic interest rate, and \( x \) the degree of expected exchange rate appreciation or depreciation. When the condition described by (7) holds, we say that arbitrage has been active across borders, so that the market is internationalized.

Now, suppose that we believe that *gensaki* in Japan and the repo market in the US are similar enough to compare the interest rates in these two markets for the purposes of our test. From the above discussion we see that we now confront a hurdle. What model of exchange rate expectations shall we use? Will we take the long-run or short-run interest rate implied by such a model? In any model of the exchange rate, to which equilibrium do we assume it will converge? As specialists in international finance still quarrel about these issues, we certainly do not pretend to do them justice here. We can, however, outline the alternative candidates, then outline the results of such a test using the most preferred alternative.

Generally, tests such as these assume that the currency should appreciate or depreciate towards an equilibrium implied by either of three alternatives: the PPP (purchasing power parity) rate, the rate at which the current account would balance or the covered parity rate. The PPP rate is the exchange rate which would render the average cost of goods and services equal between two countries. The second alternative is self-explanatory. The third rate is the one at which buying a foreign currency forward and holding in a local currency deposit until delivery would yield the same as holding the foreign
currency deposit outright. In practice, tests like these are usually conducted using the rate which yields covered parity, since PPP is nearly impossible to derive in practice, and the rate which would balance the current account is typically a moving target.

Using differences from covered parity to calculate the expected currency movement, Feldman (1986) finds that he must reject equivalence in interest rates between markets like gensaki and the US repo prior to 1980. After 1980, however, he generally finds that he cannot reject the null hypothesis of equivalence. This is an interesting result, in that it is from this period onward that foreign exchange controls are fully non-binding and that Japanese financial market liberalization begins in earnest. If this result can be generalized to other markets for financial assets in Japan, it would indeed suggest that our underlying maintained hypothesis of an essentially liberal financial structure by the mid-1980s is correct.

Alternative tests of the liberality of financial market structure might focus upon comparative cost of capital, comparative risk-free rates, tests of market rationality or comparative market valuation. We might also consider tests which are ‘inward-looking’, that is, tests which consider whether interest rates are determined by an equilibrium without reference to interest rates in other countries. Some of these tests have been dealt with implicitly or explicitly elsewhere in this book, but it is nevertheless worth repeating some of the key results here.

Considering the comparative tests first, we have already seen that the issue of cost of capital is a sticky one. The simplest arguments – that published interest rates in Japan have often been below those of other countries – are the easiest to dismiss. It has often been argued that during the high growth period, and well into the 1980s, the cost of capital was lower in Japan and that this was demonstrated in lower published interest rates. Of course, we know that nominal interest rates for loans denominated in various currencies will bear different interest rates depending upon the prevailing rate of inflation for the various countries represented by the various currencies. Also, as we have seen, during the period of regulated interest rates, which has slowly died through the 1980s and up to the mid-1990s, compensating balances could be used by banks to raise effective interest rates above posted ones. Indeed, Beason (1992) has found that these effective interest rates were often above those for the US over much of the high growth period. This raises serious questions about the hypothesis that the cost of capital in Japan has supposedly been lower than other countries for significant periods of time.
All discussion of cost of capital implicitly assumes that the cost of capital is ultimately driven by the underlying equilibrium rate of return to capital. Indeed, it is this assumption and the argument that Japanese capital markets became essentially open to foreign exchange transactions from the mid-1970s which generates scepticism about the argument that Japan’s capital cost environment was more favourable than that of other countries. Ando and Auerbach (1987) nevertheless find that for the period 1967–83 the average after-tax rate of return on capital for the US was roughly 8 per cent, while that for Japan was roughly 5 per cent. Before tax, the average return for the US was 15 per cent, while that for Japan was about 9 per cent. Even adjusted for the obvious differences in accounting standards and the like, these differences appear to persist.

The word ‘appear’ is key. Simple adjustments for accounting differences do not adjust for major differences in allocating items between the cost and revenue side of the balance sheet in many cases. For example, funds diverted to employee welfare items, like company housing, are treated as a cost. In fact, the firm is choosing to purchase real estate assets, which increase the overall market value of the firm, when things like company housing are purchased. Properly counted, items like company housing or the profit-sharing element of bonus payments should not be deducted as an expense from corporate revenues. Were such items included in the numerator of the return to capital measure, it is highly likely that these ratios would be much more similar between Japan and other countries than in the results reported by Ando and Auerbach. Other factors are involved as well. Until the ‘bubble’ period, the debt/equity ratio in Japan was very high. Since debt finance requires interest expense, the value of the numerator in the return on capital ratio is further reduced. Finally, simple measures of return on capital do not account for differences in risk – so there is no reason to believe that unadjusted ratios will be the same between any two countries in any event.

This brings us to the next type of test of financial market openness in Japan. Kester and Luerman (1989) recognize that simple comparison of posted interest rates, or unadjusted return on capital ratios, will not be adequate to discern whether the Japanese financial market is essentially liberal and open. They suggest that comparison of the real return of risk-free assets between Japan and the US is a better test. In principle, the suggestion is a good one. Comparison of two risk-free rates avoids the apples and oranges comparison of other measures. Unfortunately, we should expect that the test would reject
the openness hypothesis *a priori*, since there was really no active secondary market on Japanese government securities until the early 1980s. Still, such a test is useful, since we might expect the data to cause us to reject the null hypothesis prior to, say, 1980, but to accept it thereafter. Indeed, the authors find that the risk-free rates between the US and Japan do differ during the period 1976–85. The interesting part of the result, however, is that the differential seems to favour the US as often as Japan, and of roughly equal magnitude. For the sample period as a whole, therefore, they find that the difference in risk-free rates is not statistically different from zero. This is actually a strong result, and suggests that in a period of fully functioning secondary markets, the risk-free real rate of return in Japan is likely not different from that in other open financial markets.

Changing the focus of the analysis a bit, many analysts are interested in whether Japanese financial markets are mature enough to be characterized as rational. We might define a market as rational if potentially arbitraged gains are in fact quickly arbitraged away, and no unexplained ‘anomalies’ in asset pricing persist in the long run. Of course, we know that even mature markets may appear to fail some tests of rationality, such as the famous test due to Shiller (1989). In this test, observed equity prices should be more smooth than a constructed *ex-post* rational price constructed using actual earnings data rather than forecasts of earnings data. In practice, the opposite is observed – though we now know that this test is prone to failure due to its statistical specification. Alternative tests can be constructed, however, which are not subject to this statistical misspecification. One such test is due to Hoshi (1987), who applies it to Japanese data on the Tokyo Stock Exchange. His test consists of two parts, and essentially tests the same hypothesis that forecast equity prices should be smoother than observed ones. The Japanese data pass one part of his test, and only weakly fail the other, suggesting that the Japanese equity market probably demonstrates rationality on the whole.

Another way of viewing maturity of the market is to consider whether it is properly valued relative to other equity markets. We consider this issue in great detail elsewhere in this book, so we shall not dwell on it too much here. The basic issue is whether the very high price:earnings ratios exhibited in the Japanese equity market are anomalous, at least for a mature market. High price:earnings ratios are reasonable in an immature market where growth expectations are high – but some analysts have suggested that the very high ratios exhibited in a mature market like Japan suggest some degree of irrationality. Of course, the
high degree of cross-holding in the Japanese equity market essentially creates a situation of double counting. As we show elsewhere, once this issue is dealt with, the Japanese market appears only slightly over-valued – and the discrepancy is not difficult to explain.

This leaves only ‘inward-looking’ tests of market openness or liberality. Feldman (1986) recognizes that prior to liberalization of interest rates, rates on loans may not be consistent with equilibrium. Still, as we have seen, there has been increasing movement towards open and liberal financial markets from the 1970s onward. Feldman, therefore, tests between the alternative representations of the loan market as being characterized by equilibrium, a credit rationing model, a posted rate model and a hybrid. Not surprisingly, the nature of the loan market varies with the time period, but essentially behaves like a posted rate or fully regulated market prior to 1981. Other financial markets, like those for securities, reserves and foreign assets, seem well described by equilibrium, even prior to 1981.

THE IMPLICATIONS

Where does all this discussion leave us? Essentially, where we started. That is, in our discussion of the causes and nature of the financial crisis, it was assumed that an increasingly liberal and unregulated environment created new opportunities for financial players, but that the same structure of corporate governance, the *kinyu keiretsu*, persisted. The combination permitted for a degree of moral hazard, which when combined with a sudden downshift in the growth path created the circumstances for financial chaos. In order for this scenario to be credible, it was necessary for us to show that one of our imbedded hypotheses was correct: the Japanese financial system has indeed become more liberal.

We have summarized the relevant discussion on this issue, and believe that the evidence generally suggests that Japanese financial markets can be characterized as open and liberal, and that they are more open and liberal than they had been prior to the 1980s. These findings are certainly consistent with the institutional facts. Specifically, we know that significant deregulatory and liberalization measures have been undertaken in Japanese financial markets up to 1980 and beyond. It is only natural that we should find that some of the measures have been effective.

This discussion has implications beyond those for the financial crisis, however. So much discussion about Japan in terms of policy, or
in terms of understanding Japanese postwar economic success, has
been framed by the assumptions of illiberal structures and govern-
ment intervention. We have tried to argue here that to the extent that
such assumptions bear any resemblance to reality, it is only if they are
understood to apply to a Japan that existed perhaps until the oil
shock. This book is not the place to argue that Japanese industrial
policy and administrative guidance was ineffective (see Beason and
Weinstein, 1996), but it is meant to contribute to a clearer under-
standing of the Japanese economy. Part of that understanding is to
clarify how Japan has become much more like other mature
economies since the 1980s. Another part of that understanding is to
question carefully assumptions such as the common one that financial
market regulation has permitted significantly lower cost of capital in
Japan, and therefore more rapid capital accumulation and economic
growth. If we have been successful, we have at least cast some doubt
on the Japan Inc. model of the economy and financial markets.

WAS THE BUBBLE A BUBBLE?

It may sound somewhat odd even to consider the issue of whether the
so-called ‘bubble economy’ of late 1980s Japan was indeed a bubble.
Prices of most assets rose dramatically over the period, with doubling
not uncommon. Growth in the period was very strong, inflation
modest and the current account in strong surplus – but relative to the
high growth period, the record could not be called miraculous. As the
sudden appreciation of asset prices seemed somewhat unjustified to
many observers, the tendency has become to assume that the period
represented a ‘bubble’. The fact that the bubble burst in the early
1990s has been taken as proof that it was a bubble.

We must be careful here. Most observers seem to equate the term
‘bubble’ with the very rapid appreciation of asset prices in the
late 1980s. If this is in fact the definition used, and it is widely under-
stood as such, then the term is harmless enough. Indeed, we have
used the term as such throughout this book for convenience, since
this is the way the period is described in the popular press and in
casual observation. If, however, we use the term ‘bubble’ in its
more formal meaning – that is to say, that the period represented a
speculative bubble – then it is another matter altogether.

A speculative bubble is one that has no basis in economic foundation
at the macroeconomic level. It is one where, on the basis of observa-
tion of current macroeconomic trends and most reasonable forecasts, it is not possible that the increase in asset prices can be sustained. Speculators continue to buy and sell the asset in the hope of making a profit before the macroeconomic reality becomes binding and the price of the asset stabilizes and eventually declines. In this case, speculators rationally exploit some anomaly which allows the price to rise temporarily, fully realizing that the process cannot continue and that there are significant risks involved in their behaviour. It is clear that such a case represents a bubble, since it is known a priori that it must burst. It is sometimes the case that some uninformed parties trade in a market when a speculative bubble develops, but well-informed parties know in advance that the scheme cannot last forever.

In this sense, the late 1980s boom in Japanese asset prices was clearly not a bubble – and it is probably the case that most similar examples in other countries were not either. If the situation was not a speculative bubble, then what was it? Asset prices can be expected to rise in a situation where growth is expected to be rapid, where inflation is expected to be significant or where interest rates are low. This can be shown by simple examples. Suppose the asset in question is an equity share of an underlying productive asset, such as a manufacturing plant. If the economy is expected to grow rapidly in the future, and the manufacturing plant will benefit from this growth and implicit growth in demand, then the value of the plant and the equity shares it supports will increase. Similarly, if inflation is expected to be high in the future, the nominal price of the plant’s output can be expected to rise as well, so that the nominal value of the plant and the equity shares in it rise as well.

The impact of lower interest rates on asset prices can work in several ways, but the easiest example might be a simple housing market. As most homeowners know, lower interest rates stimulate the housing market, allowing house prices to rise. The markets in other assets work similarly, so that a long-run, stable and low interest rate will favour rising asset prices. A sudden increase in interest rates will often choke off investment in many asset types, causing their prices to fall. An alternative way of looking at the impact on asset prices might be to consider the question of whether to invest in assets like land or equities, versus fixed income instruments like bonds. When interest rates are low, bond prices are high, and investors may worry about the potential for capital losses if they buy bonds. In such a situation they may prefer equities or land instead. On the other hand, when interest rates rise and bond prices fall, the potential for capital gains in bonds
arises – and investors may switch into bonds. Either way one likes to look at it, high interest rates tend to choke off any boom in land or equity markets, and lower interest rates fuel a boom.

In more theoretical terms, and at a more microeconomic level, the discussion above can be framed in terms of the market valuation model. According to this model, an asset price should equal the present discounted value of its earnings stream. The mathematical representation of this model, presented in equation (8), essentially contains all of the ingredients discussed above. If the discount factor $\delta$ is essentially the reciprocal of the prevailing risk-free interest rate, the price of the asset will rise as the interest rate falls. We can also see that as the nominal earnings stream $\chi_t$ rises, either due to inflation or growth, the price of the asset will rise. As equation (8) describes the evolution of asset prices in equilibrium, or the absence of speculative or disequilibrium factors, it is not possible to simply assert that rapidly rising asset prices reflect the influence of a speculative bubble. The increase could be due to underlying economic factors.

$$P_t = \sum_{\tau=0}^{\infty} \delta_t (E_{t-1} \mid \pi_t),$$

(8)

Looked at this way, we begin to understand how there might have been a high degree of macroeconomic rationality in Japan’s bubble. Inflation was quite modest before and during the period, and Japan’s track record on inflation was certainly much better than most of her trading partners. Growth, on the other hand, was very strong during the 1990s, and interest rates were modest. Forecasts for growth and interest rates also favoured the view that asset prices could continue to rise. A number of factors intervened to interrupt this otherwise rosy picture, but most of the forecasts prevailing at the time would have favoured the view that the growth in asset prices was rooted in sound economic factors rather than in speculation. As such, it is not at all clear that the late 1980s represented a bubble in the speculative sense.

BACKGROUND AND RELATION TO TRADE FRICTION

In order to back this case, that the ‘bubble’ was not a speculative phenomenon, we must argue that an otherwise reasonable growth and interest rate outlook was suddenly derailed. To make this case, we must consider the background of the early to mid-1980s. During this
period, Japan’s current account surplus was swelling just as the US was experiencing a massive current account deficit. Currency swings might normally have allowed this situation to adjust, but massive fiscal deficits in the US necessitated large-scale borrowing. This boosted interest rates on Treasuries, and there was a large scale flow of foreign capital into dollar-denominated assets. The result was a strong dollar despite the situation in the current account.

This situation culminated in a widespread consensus among world policy-makers that the dollar was overvalued and that the yen was undervalued. In late 1985, the world’s central bankers and finance ministers met, and the so-called Plaza Accord was concluded. Here it was agreed that the various monetary authorities should intervene in a collective fashion to allow the dollar to depreciate. In fact, markets had largely already come to the same conclusion, but the Accord gave the move an added push. The rest is history, but the dollar began its long-term decline and the yen appreciated massively.

There were significant fears of a negative ‘yen shock’ in Japan, and there were indeed some negative repercussions in 1986–7. The Bank of Japan began an easy money policy at this time, and this was encouraged actively by the Americans. Obviously, monetary easing would help to take some of the macroeconomic bite out of the stronger yen, and therefore the easing stance was deemed justifiable on domestic policy grounds. At the same time, the Americans wanted to see a two-pronged attack on the massive Japanese current account surplus. While the stronger yen could be expected to help bring the surplus down in the medium term, strong domestic demand within Japan would imply healthy consumer spending and import growth. American policy-makers therefore pressured Japan into stimulative macroeconomic measures, including easy monetary policy.

Moving through 1986–7, it became increasingly apparent that the economy was not going to collapse as a result of the currency strength. The current account surplus did indeed begin to adjust, but at a relatively slow pace due to continued strengthening of the yen and the implied J-curve effects. The Americans continued to pressure for monetary easing. From a purely domestic standpoint, it was clear by 1987 that further monetary easing was no longer necessary to help the economy past its adjustment phase in response to the strong yen. Still, inflationary pressures were very modest, largely as a result of the strong yen itself and the impact this had on wholesale prices, and the overall menu of prices. Given the modest inflationary background, the Bank continued its stance towards easing.
While the strong yen prevented the loose monetary stance from causing general price inflation, prices of assets began to rise dramatically. In hindsight, this makes perfect sense from two separate perspectives. First, many of these assets, like land, are non-traded goods. As such, rapid growth in the money supply will lead to an increase in their nominal value, since there is no cheap imported substitute to help moderate the inflation. That is, we might say that falling import prices caused the monetary-induced inflation to ‘leak’ into fixed non-traded assets. The second way of considering the issue is through our market valuation model discussed above. Monetary easing implies a lower rate of interest, which gives higher asset prices in the model, all else equal. Either way one wishes to look at the problem, asset prices began to accelerate rapidly from 1986 onward.

Given downward pressure on prices resulting from falling import prices, one can easily argue that the Bank of Japan failed to monitor the right signals in setting monetary policy. Rapidly rising asset prices could have been interpreted as a signal of overheating, and the Bank could have put the brakes on its bias to easing by 1987–8. In fact, the economic environment was harder to read, and the international environment made such a move difficult. As the economy continued to improve, it could be argued that significant money growth was necessary, so long as inflationary pressures were not apparent. To the extent that rising asset prices were reflecting expectations about future economic growth, there was equally no reason for the Bank to find the buoyant asset markets troublesome. Add to this the international pressure to stimulate the economy, and one can easily understand why the Bank failed to act for so long. Of course, the world stock market crashes of Black Monday in 1987 gave the Bank added incentive to maintain the course to easing.

While the course of action is understandable, rapidly rising asset prices and rapid economic growth should have raised some questions. For Japan to have grown as rapidly as it did during the period 1955–75 is not very surprising. For any mature economy to perform beyond 4 per cent real growth for any significant period, is rare. For it to do so with virtually no unemployment and with no inflationary pressures seems all but impossible. Alas, what seems impossible often is. With the benefit of hindsight, we can accurately say that all that was lacking in order to break the delicate balance was a catalyst of some sort.

The Iraqi invasion of Kuwait was just that catalyst. Potential disruptions in oil supply, discussions of a possible financial role in the war for Japan and fears of overheating all came together with the Gulf
War. The bond market sold off wildly, and the equity market responded unfavourably as well. The first disruption began in 1989 and was somewhat short-lived, but the decision of the Bank to hike interest rates and pursue a course of tightening ensured that the crash ultimately continued and coincided with the events of the Gulf War. The nature of the Bank’s action is a hotly debated issue. Many observers feel that the Bank moved too aggressively to hike rates, and that the sell-off in the bond market and resulting higher long-term interest rates might have accomplished the same desired result (of cooling the economy) in a gentler fashion. Others argue that the Bank had to act aggressively in order to regain lost credibility. With the benefit of hindsight, either argument can be made credibly.

For our purposes here, however, the fact that the market crashed when it did and why it did essentially proves our point – that the ‘bubble’ was not a speculative bubble, but rather a rational response on the part of economic agents to the relevant set of signals. That is, agents observed the signals of rapid economic growth and low interest rates. As we have argued, these are precisely the ingredients necessary for rising asset prices. In this environment, no speculation was necessary to give rise to a bull market. Once expectations of continued rapid economic growth were called into question, and once interest rates began to rise, the ingredients for rising asset prices were no longer available. Markets crashed and the economy entered a period of adjustment.

Why the Issue Matters

One might argue that the issue of whether the observed ‘bubble’ in asset prices was speculative or otherwise is simply one of semantics. In fact, it is not. There are serious policy implications in the various cases and there are broader economic implications in each case as well. If the bubble was purely speculative, the relevant policy measures would relate to preventing speculation. In fact, policy-makers have essentially made this assumption, and ‘preventive’ measures, such as the land transactions tax, have indeed been enacted. Of course, with the time lags involved, such measures had no beneficial impact during the bubble period, and instead have served to prevent transactions after the crash. The relevant factors were in fact related to the macroeconomic policy mix.

As we have argued elsewhere, the strong yen has sometimes confused the macroeconomic environment. An overheating economy
does not show itself in rapidly rising prices in such an environment. Monetary authorities must carefully dissect aggregate prices for underlying signs that economic growth cannot be sustained, or that the monetary and fiscal policy mix is not appropriate in the circumstances. Otherwise, overheating may become apparent when it is already too late to correct. Fortunately, with several significant bouts of yen appreciation under their belts, it is highly likely that Japanese monetary authorities will be far less likely in the future to follow such an inappropriate policy mix.

There are more fundamental reasons why the nature of the bubble is more than a semantic debate. If we can argue that the nature of Japan’s corporate governance structure exposes the economy to systemic risk due to moral hazard during times of rapid economic growth, then we have a fundamental insight into the depth of the recent economic adjustment. As we have argued elsewhere, the main bank system and *keiretsu* structure of cross-shareholding removes at least some of the discipline normally imposed upon managers in well functioning equity markets. Of course, much of this role is taken up in this context by the main banks themselves, so it is not fully correct to argue that managers are fully insulated from monitoring and free to run the firms in accordance with their own utility maximizing choices.

Unfortunately, this monitoring on the part of the banks, we have argued, may result in moral hazard which is potentially destabilizing. For the banks, in a context of rapid growth where deposit insurance is present, profit maximization may essentially correspond to maximization of loan growth. The ingredient of deposit insurance, especially deposit insurance which is effectively without limit, is crucial here. In the absence of deposit insurance and in a context where capital requirements are present (such as BIS requirements), the profit-maximization problem for banks becomes more complex than simple loan growth maximization, as risk weighting and cost of default must enter the equation. As Japan entered the 1980s, and especially the mid-1980s, however, deposit insurance was assumed to be without limit, and risk weightings were effectively not binding. As such, the banks effectively viewed their profit maximization problem as one of loan growth maximization.

Enter the moral hazard problem. In a context where the banks themselves are at the centre of the nexus of cross-shareholding arrangements, they are in a position to exercise effective control over many if not most of the member firms in their *keiretsu*. As economic
growth accelerated from 1987, combining with low interest rates to
give the overheating commonly referred to as the bubble, there was
undoubtedly pressure from the banks for member firms to expand
rapidly and increase borrowing. Thus, simultaneous with the accelera-
tion of asset prices, firms engaged in an orgy of capital expenditure,
justifiable only if the environment of rapid growth and low interest
rates were to persist.

Unfortunately, as interest rates rose and asset prices began to fall,
firms and households experienced negative wealth effects and began
to entrench. Demand slumped, growth decelerated and the entire
virtuous circle which the banks depended upon became a vicious circle
instead. Loan growth maximization as profit-maximization for the
banks works well enough so long as economic growth is significantly
rapid. As demand collapsed, however, the contradiction between what
was good for the monitor (the banks) and what was good for the firms
themselves became apparent. Specifically, the moral hazard problem
has become transparent.

As the economy undergoes its structural adjustment, and recovery
gives way to a once again vibrant economy, one wonders if it might
happen again. What has changed? In terms of the fundamental basis
of the moral hazard problem, precious little. Member firms are
painfully aware of the role of their main banks, and also openly
complain of being stuck with so many bank shares upon which they
may never recoup their investments. Surely, these firms will wish to rid
themselves of their cross-holdings as soon as equity prices recover.
One might speculate that over time cross-shareholdings will unwind,
and the *keiretsu* framework of cross-holding and bank control will
slowly crumble. This may in fact come to pass, but the key word here
is slowly.

One cannot forget that cross-shareholdings were built up signifi-
cantly in the late 1980s, when equity prices were at their peak. Even
with robust economic performance and low interest rates, it will take
some time before Japanese equity prices recover to their previous
highs. Until then, the main bank system will remain quite firmly in
place. Fortunately, monetary authorities have clearly recognized one
of the other key ingredients to the disaster: deposit insurance. Deposit
insurance is clearly necessary for the well functioning and confidence
in the financial system. Still, limits on the extent of insurance are
necessary in order to avoid the problems of moral hazard detailed
above. While the Japanese system did have limits on the extent of
deposit insurance before the bursting of the bubble, it was widely
assumed that the authorities would not allow any significant bank to fail – essentially amounting to unlimited deposit insurance.

How reforms will ultimately play out is not fully known. What is certain is that banks will be forced to pay a greater share of the burden of deposit insurance, and limits will be more strictly enforced. This will certainly help to clarify that banks can no longer assume that they can loan without risk. Thus, while the basis of the moral hazard problem, bank monitoring of firms, has not ended – the other key ingredient is being modified.
10 Japanese Equity Market Valuation

INTRODUCTION

Valuations in the Japanese equity market have been persistently puzzling to outsiders, and to many insiders too, over the last decade. The most common rule-of-thumb valuation measure used by investors around the world is the price:earnings ratio (PER). This simply divides the price of a stock by its earnings per share, indicating how many years of earnings it will take for a holder to earn back his original investment. In the case of a whole market rather than an individual stock, this calculation becomes the total market capitalization divided by the aggregate net profits of the market – in other words, the number of years it would take the total market to earn back the cost to an investor of buying the entire market. Japanese PERs were relatively high by international standards in the early 1980s, but foreign investors were generally comfortable that this could be explained by the higher growth rates of Japanese earnings. By the mid-1980s, however, the PERs were becoming so extremely high by comparison with other markets that this explanation was straining credibility. And PER levels have remained comparatively high in the early 1990s.

Various explanations for the high level of Japanese PERs have been advanced over this period. Among these the main ones have been: valuations in Japan are based on asset values (‘Q’ ratios) rather than earnings; earnings figures in Japan are depressed by conservative accounting techniques; the extent of cross-holdings between Japanese companies makes the PER look higher than it is; PERs in Japan are high because interest rates (the discount rate applied to earnings) are low; and finally, PERs are high because the market is egregiously overvalued. We believe that several of these assertions are at least partly true, but that the most important reason for high PERs in Japan is simply the persistently low rate of inflation, and hence interest rates, over the past decade. It can conversely be observed that PERs tend to be relatively low in markets where inflation is
persistently high, but a cross-border discussion of valuations is beyond the scope of the present discussion.

The current discussion of valuations in the Japanese stock market divides into four sections. First, we perform some simple statistical tests on some of the measures most commonly used to assess whether the stock market is under- or overvalued. The two most popular are the earnings yield gap and the earnings yield ratio, both of which assess the market’s value as a function of the relationship between its earnings and the long bond yield. We also look at valuation measures based on dividends or cash earnings instead of earnings, measures using book value, and measures using short-term interest rates as the base for comparison rather than long-term rates. These tests indicate which measures work relatively well and what their weaknesses are. The best performer is one of the first tested, the earnings yield ratio, but its main weakness is its instability over time. We briefly list some reasons why this might be so.

The second section goes back to the basics of market valuations and discusses how investors should value equities in theory. We show in

Chart 10.1  Japanese Equity PER (Parent, Prospective)
this discussion how the earnings yield ratio and yield gap are derived. The difference between the two derives from the debate as to whether the risk premium demanded by equity investors should be in the form of an additional return or a multiplier of the return available from risk-free investments. We come down in favour of a multiple-based approach, which leads to the earnings yield ratio. We also consider the impact of changes in inflation and of taxation. The latter of these is an important factor when trying to apply the textbook theories of valuation in practice.

In the third and fourth sections, we attempt to apply the theory to the Japanese equity market. One of the largest of the valuation distortions in the Japanese equity market is the cross-holding system. The third section considers what cross-holdings are and why they affect valuations. We then attempt to quantify the effect on Japanese valuations, and finally consider the outlook for the cross-holding system in future and the implications for valuations. The fourth section focuses upon other factors which need to be taken into account in arriving at a ‘fair value’ of the Japanese market. These include the impact of tax and regulatory changes (such as the introduction of tokkin funds in the late 1980s). We also consider some factors which will affect the underlying long-term growth rate of Japanese earnings and note the distorting effects of unusually depressed earnings in the early 1990s.

Statistical Testing of Valuation Models

Before getting involved in the theoretical issues, our first step here is to perform some simple statistical tests on some of the main valuation models used in the Japanese market. We found that most models based on a combination of interest rates and either earnings, dividends or cash flow do a reasonably good job of predicting the market over time. Having said that, the earnings yield gap (defined as the difference in percentage points between the long bond yield and the prospective equity earnings yield), which is probably the most commonly used rule of thumb for assessing valuation, scored relatively poorly in the tests we performed. The two models that had the best explanatory power for the Japanese market were the earnings yield ratio (the ratio between the long bond yield and the prospective equity earnings yield), and the cash earnings yield gap (the difference in percentage points between the long bond yield and the equity cash earnings yield).
General Methodology

In all, we evaluated six market valuation models which looked as though they might work in predicting the value of TOPIX. In each case, we posited a simple model which generated a hypothetical value of TOPIX by assuming that the valuation measure remained constant at its mean level over the period for which we have data. Some of the models tested required certain values to be excluded, and we have noted these in the discussion below. In each case we then did a correlation analysis and a regression analysis for the fit between the hypothetical levels of TOPIX generated by the model and the actual historical level.

There are various other ways in which we could have tested the valuation models. Rather than their merely testing their explanatory power on a continuous basis, it might be more useful to investors in the market to test their ability to predict turning points. This is, however, more difficult to test statistically, in that it requires further decisions – about what to test for exactly, the definition of a turning point in the market and of a buy/sell signal in the indicator.

Below, we have charted each variable which we considered testing as a valuation model. Since the use of these measures in a model implies that the measure should be expected to revert to some ‘normal’ or mean value, our interest in charting them was to see whether they showed any signs of having a normal value to which they revert. In some cases, the charts strayed for such long periods from their mean values that it did not seem worth testing the predictive value of a model based on them, but for the ones we decided to test, we then charted the implied hypothetical value of the TOPIX based on each model together with the index itself. We have also included the correlation coefficients between the hypothetical TOPIX measures and the actual TOPIX values. It is important to note that large outliers have been excluded from the charts (although not from the statistical analysis). Meaningless values have been omitted altogether from the analysis. It is assumed that where a model generates a meaningless value for the TOPIX level, an investor using that model will simply assume it to be useless for the time being. Specifically, all the ‘gap’ measures will be undefined for certain values of interest rates. This in itself is an argument against the usefulness of such measures. In order to allow for evaluation, however, we have isolated our attention to observations where the valuation measure has meaning.
Interpreting the Results

It is not surprising to find that in a broad sense, all the hypothetical measures of TOPIX do a good job of explaining the actual index. That is, the hypothetical measures are influenced by market EPS, interest rates, etc. These are precisely the things which one would expect to influence the market. In a sense, all the models tested in this section are variations on the standard model of stock market behaviour.

The correlation coefficients shown in Table 10.1 are relatively unimportant in judging the effectiveness of each model. They merely provide a measure of how well the actual TOPIX line and the hypothetical TOPIX line track each other, but they do not say anything about the extent to which variations in one explain the variations in the other. Table 10.2 shows the results of a more detailed regression analysis.

The results can be judged in two key ways. We can evaluate the models on the basis of their $R^2$s (a measure of how much of the movement in TOPIX can be accounted for by the regression) and the magnitude and significance of the estimated coefficients. In fact, all the regressions had a very high $R^2$, so that there was not much to choose between them on this measure.

The relative magnitudes and significance of the estimated coefficients on the various market measures do, however, provide some useful information. Generally, we should hope to see the coefficients for the hypothetical TOPIX and/or its lags as high as possible. All other things being equal, this will mean that the other element of the model equation, namely the constant, will be relatively low. In this case, the implication would be that most of the actual movement in the market is explained by changes in the model factors (with or without a time lag). A high constant would imply that relatively more of the model’s explanatory power is simply coming

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<td>Yield gap</td>
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<td>Dividend yield gap</td>
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<td>Price/cash flow ratio</td>
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<td>Price/cash flow gap</td>
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<tr>
<td>Short-term yield ratio</td>
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from the fact that both the model and TOPIX trend upward together over time. Secondly, the higher the t-ratio, the higher the statistical significance of the figures. Any number above 2 is a reasonable result, but the higher the better.

One other point to watch for is the t-ratio on the constant. A couple of models scored very well in other respects, but the low t-ratio on their constant implied that the constant was not significant. This suggests that, while these models do a good job of calling the ups and downs of the market, the level of the relevant valuation measure may not itself be stable over time. Clearly, unless we can explain why this should be so, this would make the valuation measure difficult to use to assess a correct level of the market. But if we can find and quantify the reasons why the valuation measure is not stable that would make the measure much more useful.

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<td>(2.80)</td>
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<td>R²</td>
<td>0.989</td>
<td>0.990</td>
<td>0.986</td>
<td>0.960</td>
<td>0.961</td>
<td>0.981</td>
</tr>
<tr>
<td>DW</td>
<td>1.75</td>
<td>1.91</td>
<td>1.87</td>
<td>1.88</td>
<td>1.98</td>
<td>1.83</td>
</tr>
</tbody>
</table>

Table 10.2   Regression Analysis
To anticipate the results of the tests on the various models slightly, we found that the cash flow yield gap measure shows a very large and significant coefficient on the contemporaneous hypothetical TOPIX measure as an explanatory variable for the actual TOPIX. The coefficients and significance of the lags, however, are far lower. The implication would be that, in a sense, this model is so good that it will rarely give the opportunity to make money. Because TOPIX will usually be very close to the predicted level, there is not generally much opportunity to arbitrage the difference.

The short-term earnings yield ratio (i.e. the ratio between the earnings yield and short-term interest rates), on the other hand, is notable in that the estimated coefficients on the hypothetical TOPIX measure lack explanatory power, despite the fact that the hypothetical measure as a whole seems to be well correlated with the index (as shown by the high correlation coefficient, p. 234 above). The long-term earnings yield ratio (the ratio between the earnings yield and long-term interest rates) model, by contrast, exhibits a high correlation coefficient with the actual TOPIX, and the estimated coefficients on the hypothetical TOPIX measure are relatively large and highly significant. Unfortunately, as we might expect from the observed instability of the measure, the estimated coefficient on the intercept term is statistically insignificant, meaning that there is no single ‘normal’ historical value of the measure. That means that we have to look further for explanations as to why this measure varies over time. The second section of this chapter is primarily devoted to a discussion of this issue.

Using the estimated coefficients on the long-term earnings yield ratio, we can make some preliminary statements about inference. Suppose the hypothetical TOPIX implied by the earnings yield ratio rises by 2 per cent in each of the four lagged periods up to the present, and that the contemporaneous value also rises by 2 per cent for a cumulative increase of 10 per cent. In this case, on the basis of the estimated coefficients from the regression, we would expect TOPIX to rise by 1.4 per cent. If, on the other hand, the contemporaneous TOPIX level rose by 10 per cent but the lagged periods had seen no change in the level, we would expect the index itself to rise by roughly 3 per cent on the basis of the estimated coefficients. This may not seem surprising, but it must be kept in mind that this result is based upon the entire sample, during which time there appear to have been clear structural breaks.
Earnings-based Approaches

Perhaps the most popular valuation measure is the earnings yield gap, or ‘yield spread’. In testing it, we have made a few adjustments. We have regarded the period 1972–3, when the yield gap was lower than in subsequent years, as abnormal. A fundamental justification for this might be that the secondary market in long-dated government bonds was not really liberalized until the first oil shock, when the government needed to expand issuance substantially. Over the period from 1974 to the present, the average level of the yield gap has been 3.3 points; in other words, the earnings yield of the market has typically been 3.3 points lower than the long bond yield.

One problem with this model, as with all models based on a subtraction rather than a division, is that when long bond yields are lower than 3.3 per cent the model gives negative values for TOPIX. We have excluded these values from our statistical analysis, assuming that proponents of the yield gap will agree that it breaks down at very low bond yields. In practice, this only caused the exclusion of two values, since interest rates were rarely this low over the test period.

In order to make Chart 10.3 legible, we have excluded some extreme outlying values, although these have been included in the
statistical analysis. Interestingly, the analysis shows that the TOPIX level generated by the yield gap model, for all its popularity, has a much lower correlation coefficient with the actual TOPIX level (of just 0.149) than any of the other valuation approaches. This low correlation reflects the fact that the measure generates some fairly wild outlying values, particularly at low interest rates. The correlation coefficient, however, is a relatively unsophisticated measure. The model proved to be statistically significant in predicting both the current level of TOPIX and the levels three or four months out. Unfortunately, though, the actual coefficients for each of these lags are relatively small, meaning that most of the work in predicting the level of TOPIX is actually being done by the constant (which was itself of dubious statistical significance). Overall, then, this analysis was not very encouraging for supporters of the earnings yield gap – although, like almost all of the measures discussed, it did prove capable of picking some of the big turning points such as the 1987 crash.

The second model we tested was the earnings yield ratio. As Chart 10.4 suggests, there are obvious problems of continuity in this ratio, which appears to have made structural moves up or down once or twice over the last 20 years. For the moment, though, we simply tested a model assuming the average level over the whole time period on the
chart, including the 1972–3 period. The average level over this period was 2.09\(x\) – in other words, the market has typically been priced such that the earnings yield ratio is 48 per cent of the bond yield.

Despite the obvious discontinuities of the yield ratio model, it came out of statistical testing well. The TOPIX level generated by assuming a

---

**Chart 10.4**  Earnings Yield Ratio (Long Bond Yield ÷ Prospective Equity Earnings Yield)

---

**Chart 10.5**  Earnings Yield Ratio Model
constant yield ratio of 2.09x had the highest correlation with the actual level of TOPIX at any given time (0.955). The model also had marginally the highest $R^2$ of any of the group tested, and the actual coefficients attached to the current value of TOPIX and each of its lagged values were relatively high, although the significance of these figures deteriorated after the first month or so of lag. The implication of these high coefficients is that relatively more of the index movement is being explained by changes in the yield ratio than merely by the constant.

It is the constant itself which is the big weakness for the earnings yield ratio. Not only is it low, which is a positive point because it means that it has a relatively small impact on the predicted index level, but its statistical significance (t-ratio) is also rather low. Intuitively, this makes a lot of sense from Chart 10.5. We know that moves up and down in the yield ratio are important indicators for the market, but it is very difficult to suggest from the chart what the ‘correct’ level of the ratio actually is. We discuss the likely reasons for this at length in the second main section of this chapter.

**Dividend-based Approaches**

After looking at models based on earnings, we also checked on models based on dividends, which are common outside Japan, but we failed to find anything of much significance. The dividend yield ratio,

![Chart 10.6 Dividend Yield Ratio (Long Bond Yield ÷ Dividend Yield)](image)
shown in Chart 10.6, varied so markedly over the last 20 years that it seemed pointless to test it. The dividend yield gap (Chart 10.7) promised more potential, so we ran the tests on it on the assumption that the average level would predict TOPIX. Unfortunately, since the average level was 5.3, long bond yields below that level render the model inoperative. In practical terms, of course, that makes the model useless over certain quite prolonged periods. But we tested it anyway, excluding periods when the bond yield was less than 5.3 per cent.

The correlation coefficient was not one of the worst we found, at 0.542 (although this is not particularly good either). But the results of the more sophisticated statistical tests were somewhat weird. It was particularly strange to find a negative coefficient for the current value of hypothetical TOPIX, but the model did better on predicting the lagged values of the market. Although it did so at high levels of statistical significance, the coefficients themselves were small, with quite a large amount of the model’s predictive value contained in the constant. Given the problem that this model has with quite normal levels of bond yields, we decided not to pursue it further.

The relatively poor explanatory power of dividend yield-based models is not that surprising, particularly in Japan, where investors have traditionally regarded dividends as almost irrelevant. Although a stock’s (or stock market’s) value must ultimately derive from the expected cash flows to be derived by investors – of which dividends are generally the most important – the decision by a company to pay more or less dividend today equally means that it has less (or more)
ability to pay out in future. One would not expect dividend policy to be the prime determinant in a company’s (or market’s) valuation; much more important is the ability to pay dividends over time – i.e. the expected earnings stream.

**Cash Flow-based Approaches**

We then went on to look at models based on Price/Cash Flow, which gained in popularity during the early 1990s bear market. Two problems here were that our data only goes back to 1984, and that it is not particularly reliable (it comes from MSCI, and is based on a small sample of the overall market).

The price/cash flow ratio itself, like the dividend yield ratio, looks as though it does not yield any useful suggestions for a model. We therefore decided to test cash flow models incorporating bond yields, using the same calculations as for the earnings yield gap and earnings yield gap model, but replacing earnings with cash earnings.

Of the two, the gap worked better than the ratio. The average cash yield ratio was 0.66x, while the average gap was –3.3. Because the average gap was negative, there were no theoretical problems with low bond yields – since we were adding the average gap back to the bond
yield rather than subtracting it, we never ended up with a negative number. Neither valuation model had a particularly high correlation coefficient with the actual level of the market, but the gap was better, at 0.508. When it came to the more detailed statistical tests, the cash yield gap turned out to be impressive in terms of explaining the current level of the market. Both the coefficient and its statistical significance were very high.

One interesting feature of the cash earnings yield gap model was that, like the earnings yield ratio model, it featured a low constant with a low
statistical significance. A low constant should be seen as a plus because it means that more of the predictive value resides in the changes in the yield gap itself. But the low statistical significance of the constant reflects the fact that although moves up and down in the market’s value as calculated by the model are reflected in moves up and down in the market itself, it is difficult to say what the ‘correct’ level of the gap is because it is not stable over time. Nevertheless, the results for the cash yield gap model were encouraging, and this model might prove useful as a predictor of the market if we can build in sensible reasons to explain the fluctuations in the constant. In practice, these reasons are likely to be much the same as the ones which affect the standard earnings yield ratio – which are discussed at length in the following section.

**Book-value Based Approaches**

Although the Price/Book Value (PBR) is often referred to in the context of valuation, we decided not to test it because Chart 10.13 failed to suggest that the average level would be suitable as a model. One likely reason for this is that book values in Japanese accounting are widely recognized to be wildly different from the actual present value of a company’s assets. This is particularly the case when it comes to property assets. For many major companies, these have not been revalued in the
accounts since the 1950s, but the value has multiplied several-fold since then. Neither the surge in real estate prices in the late 1980s nor the subsequent bust, both of which had a significant impact on equity prices, were properly reflected in the stated book value of the market.

**Approaches Using Short-term Interest Rates**

One final model we tested was the earnings yield ratio based on short-term interest rates rather than long bond yields. Although textbooks
generally hold that the correct interest rate with which to compare equities is the long-term rate, since equities should be seen as a long-term investment, there is a growing school of thought which believes that short rates have the bigger influence on stock markets. In the US, in particular, the growing influence in the market of equity mutual funds in recent years appears to have been partly the results of unusually low short-term interest rates encouraging bank depositors to look for alternative investments. We tested the short earnings yield ratio using 3-month Euro-yen rates since 1980.

In the event, though, the predictive powers of the short earnings yield ratio look limited on the statistical tests. Although the correlation coefficient was impressive, being the second highest among the models tested, the results turned out to have very low statistical significance both for the current value of TOPIX, for all the lag periods, and for the constant. The implication appears to be that this model is not as attractive as it superficially appears.

**Why are the Constants Unstable?**

For both the two models that worked well on the statistical tests, namely the earnings yield ratio and the cash flow yield gap, we found...
that the actual levels of the indicators varied substantially over time. Various plausible explanations for this could be offered:

1. The most obvious reason for structural breaks in valuation measures would be some kind of legal or regulatory change which would alter the balance of risks or rewards between asset classes. For instance, a change in the taxation of dividends or capital gains, or the introduction of a new type of fund (e.g. tokkin funds), or a change in the regulations concerning asset allocation for insurance companies or pension funds, might cause a structural change in valuations. The change in the law which allowed the introduction of tokkin funds has been suggested as one possible reason for the upward shift in various valuation models in the late 1980s.

2. The valuation measure itself may trend over time.
   (a) If the valuation measure trend is up, the most likely fundamental explanation would appear to be that investors' preference for equities relative to bonds increases over the long term. Typically, the wealthier individuals become, the more risk they are prepared to take with their savings in the pursuit of higher returns. Since a given percentage loss will be less likely to leave a wealthy individual without the basic necessities of life than a poor one, wealthy individuals can afford to take higher risks. A plausible extension of this
argument would be that as world economic growth lifts an increasing percentage of the population out of absolute poverty over time, the risk appetite of the world’s savings is steadily increasing. While this argument certainly seems to make sense, the main question mark would be over the time frame. Could world growth over the last 20 years really have been strong enough to cause a marked shift in the preference of investors for Japanese equities over Japanese bonds?

(b) If the valuation measure trend is down, a likely explanation is that as the economy matures, the market is assuming a lower future growth in EPS. This would mean that, all other factors being equal, mature markets would be on lower PERs than those in fast-growing economies. Generally speaking, fast-growing economies also have much higher interest rates – a factor that tends to depress the PERs of their stock markets. But a measure which adjusts for interest rates, such as a yield ratio or yield gap, might well trend downwards as the earnings growth rate decelerates.

3. Another possibility would be that, at extreme levels of earnings, the market tends to assume a reversion to trend to some extent. The high level of the earnings yield ratio after 1992, for instance, was partly related to the fact that Japanese EPS at the bottom of the post-bubble recession were extremely depressed. Conversely, if EPS are recognizably far above trend, or distorted by special factors, one might expect the yield ratio to be relatively low. This would lead to some tendency in the yield ratio to vary over economic cycles, particularly if the deviations from trend are extreme.

4. It has been noted that Japanese PERs are distorted by the cross-holding arrangements within the market. This causes a double-counting of a substantial portion of the market capitalization, thus inflating the quoted PER (and depressing the quoted earnings yield). It follows from this argument that if cross-holdings are increasing as a percentage of the overall market, valuation measures affected by this should tend to rise, while if cross-holdings are unwinding, valuations should tend to fall. There was a material increase in cross-holdings during the late 1980s, and this may well have helped to inflate stated valuations. Conversely, the unwinding of cross-holdings during the 1990s should be tending to bring valuations back down again.
5. A further possibility is that valuations are affected by some other factor, such as land asset values, which are not reflected in earnings (or dividends/cash flow, etc.) Theoretically, this argument is a little doubtful, since ultimately an asset is only worth the discounted value of the cash flows which can be generated from it. Nevertheless, if the market seriously miscalculates these cash flows, as it may have done in the late 1980s, it could over-estimate the value of the assets and thus the companies which own them.

All these explanations for unstable valuations seem possible. Several of them would be difficult to test for statistically, given an absence of reliable data. In relation to the earnings yield ratio, which scored the best on the statistical tests and is our preferred valuation measure, many of these issues are discussed in detail in the following section which looks at equity valuation from a theoretical point of view.

**Brief Notes on Statistical Terms**

R² can be thought of as a measure of overall explanatory power of the estimate. All of the above models would be considered highly significant. What is more interesting is to look at the composition of the various equations.

Where the constant is high, the implication is that most of the movement in TOPIX is simply being explained by the time trend. Where the constant is relatively low and the coefficients for the hypothetical level of TOPIX and its lags are high, the time trend has a smaller influence and more of the explanation is found in the movement of interest rates and the other factors in the model.

The figures in brackets give the t-ratio (a measure of statistical significance) for each element in the equation. The statistical significance is not high if the figure is much below 2.0. (The 95 per cent confidence level for the t-ratio is 1.96.)

DW (Durbin-Watson statistic) is a specification error measurement, capturing the degree of serial correlation. When data are highly serially correlated, apparent correlation among various data will exist, but in fact this will be spurious. A level between around 1.6 and 2.1 implies that this is not a serious problem. None of the above models was flawed by its DW statistic. This is because we have already corrected for serial correlation in the estimates.
The Theoretical Derivation of Commonly Used Valuation Measures

In this section, we go back to the basics of equity valuation. Investment theory suggests that valuations have to be considered in relation to the risk-free returns available. The implication of this (and this is widely accepted by international investors) is that the biggest single reason for high PERs in the Japanese market is simply that yen interest rates are structurally low. We then show how the popular earnings yield ratio and earnings yield gap are derived. The difference between the two depends on whether the equity risk premium is regarded as an addition to or a multiple of the risk-free return. We make the case for regarding the risk premium as a multiplication, and consider also the impact of changes in inflation on the yield gap and yield ratio.

RoE – How Much Should Investors Require?

The simplest starting point in valuing equities is to say that the expected long-run (after-tax) earnings yield on equities should be higher than the (after-tax) risk-free rate of return. The reason for this, of course, is that it expects investors to require a risk premium when buying an equity in order to compensate them for the volatility of equity returns. The long government bond yield is generally taken as a suitable measure of the risk-free rate of return, given that equities are typically regarded as a long-term investment. (The reason why this is so is that it can be shown that while equity returns are volatile in the short term, the volatility is generally less when taken over a long time period. This implies that equities are of more value to long-term investors than to short-term punters.)

The statement in the first sentence of the preceding paragraph can be rephrased in terms of return on equity, which measures the internal growth rate of equity. The return on equity is the annualized return made by a company (or market) on its shareholders’ equity; in other words, it is the rate of growth in shareholders’ equity achieved by the company. In RoE terms, we can say that if equity is priced at its book value (in other words, if investors have the ability to buy into the shareholders’ equity at its balance sheet value) there is no point in buying it unless the long-run RoE expectation (after taxes) is higher than the bond yield (after taxes).

Leaving taxes out of the discussion for the moment, let us start by stating the initial assumption as an equation:
where $k$ is the long bond yield, and PBR is the Price to Book Value. This equation builds in the adjustment that is needed if equities are not bought at book value. If equity is bought at twice book value, the RoE accruing to the buyer is only half as much as a percentage of his investment than it would have been if he had paid book value. He will therefore require double the RoE to make it worth his while, all other things being equal.

Since

$$\text{RoE} = \frac{e}{B},$$

where $e$ is earnings and $B$ is book value, and

$$\text{PBR} = \frac{P}{B},$$

with $P$ being price,

it follows that:

$$k < \frac{(e/B)}{(P/B)}, \text{ so}$$

$$k < \frac{e}{P} \quad (10)$$

In other words, the risk-free rate must be less than the earnings yield. This simply puts us back where we started, but it shows where the RoE fits into the argument. Management has little control over the price to book value of its stock, which is set by the stock market, but management is able to affect the RoE. From the point of view of investors, generating as high an RoE as possible is in fact the main job of corporate management, and investors, even in Japan, pay a great deal of attention to this measure.

We stated at the beginning that the $e/P$ in question here is theoretically not the current level of earnings, but the expected long-run earnings yield. Similarly, the RoE is the expected long-run RoE rather than necessarily the current figure. It is also sometimes argued that the bond yield ($k$) should be the expected long-run bond yield rather than the actual bond yield at any given time, but this adjustment is unnecessary. The current level of the bond yield, provided that the maturity of the bond chosen is long enough, is in fact the market’s expected long-run level of bond yields by definition. Furthermore, the returns on equities are being compared with the risk-free rate of return in the market. Investors may feel that the risk-free rate is too high or too low, but if they want to buy or sell a
risk-free asset they have no choice but to accept the rate prevailing in the market, so this is the risk-free rate against which equities should be compared.

Another way to explain why the RoE used in investors’ calculations should be the assumed long-term average, while the bond yield should be the current level, is as follows. If bond yields subsequently rise, investors in bonds will make a capital loss, even though bonds will become more attractive in the process. For equities, on the other hand, if the RoE increases through the cycle the benefits will accrue to existing holders. We come back to the point that the current bond yield is the market’s best estimate of future bond yields, while the current RoE is generally not the best estimate of future RoE.

The Normalized RoE

Normalizing the RoE is difficult because the calculation enabling one to do so will vary at different points in the cycle, and indeed will vary between cycles if there are special factors which are likely to persist. In a way, what we need here is the normalized real (inflation-adjusted) RoE. If our estimate of RoE turns out to be too low simply because inflation boosts earnings, there will be a corresponding negative impact on the bond market, so the net effect on equities may not necessarily be positive. (We discuss the impact of changes in inflation later in this and the following sections.) We can either simply assume a normalized level of RoE which seems plausible (and there is no really objective way to arrive at one), or we can just use the current level of the RoE and make a qualitative mental allowance for where earnings are relative to ‘normal’ levels. One possible way to start doing this is simply to strip out extraordinaries or abnormally high tax rates from the latest term’s earnings (we shall try this approach later on). On its own, that is not enough to normalize earnings, but it is a useful starting point.

In assessing the normalized level of RoE one has to consider not only where we are in the earnings cycle at the time, but also any long-term trends which might affect the earnings power of the market. These trends could include (i) a slowing or accelerating trend in the economy from which most of the earnings are derived, or in the world economy, (ii) a rising or falling dependence of earnings on particular economies or markets, (iii) social changes which will tend to increase or reduce the profit share in the economy, or (iv) corporate governance changes which will tend to increase or decrease the
profitability of listed companies. We discuss the factors which we believe are affecting the trend level of Japanese equity earnings in a later section.

A linked issue which might be mentioned here is the ‘option value’ inherent in stock valuations. This will be a particularly important factor for those companies with persistently poor returns. It will increasingly be a factor in investors’ thinking that these companies have the potential to improve returns substantially, and that that potential must ultimately be realized as Japan becomes a more competitive capital market. In fact, this recognition of ‘implicit earnings power’ is already an important factor in the Japanese stock market. How else does one explain the fact that Ito-Yokado, a supermarket whose management is widely recognized to do an excellent job for its shareholders, is persistently given a consolidated PER in the 20s, while its competitor Daiei, whose net margins have averaged 0.1 per cent over the last eight fiscal years, tends to trade on a PER nearer 100x? The market recognizes that Daiei has the potential to do better and expects that it will do at some point, because the management will either improve of its own accord or be forced to by outside pressure. (A more charitable view of Daiei’s management might be that it is playing a very long game, building up a dominant market share initially from which it will then squeeze a high level of profits.)

How Do We Calculate what RoE Current Market Levels Imply?

It can be seen from the discussion above that it is difficult to assess what a ‘normalized’ level of RoE will be. But we can work backwards to attempt to estimate what level of normalized RoE is implicit in valuations at any given time. If we take the assumption at the beginning of this section, that if equity is purchased at book value the RoE must be at least as good as the risk-free rate, we can see what level RoE needs to be to justify current levels of the market. We can take as a starting point the level of RoE earned by Japanese companies in FY 1995, which we estimate at 2.1 per cent. Given benchmark ten-year government bond yields of approximately 3 per cent, one would have to pay no more than 0.64x consolidated book value to make it worth buying Japanese stocks for that level of earnings. On that basis, the market remains overvalued. We estimate the consolidated PBR of the market at the time of writing to be 2.36x. This calculation suggests that, for investors who expect FY 1995 RoEs to be maintained over the long term, the stock market is overvalued by a
minimum of 269 per cent \(((2.36/0.64) - 1)\). To put it another way, one
needs to believe that normalized market RoE is around 8 per cent
\((2.1 \times 2.36/0.64 = 7.74)\) to make it worthwhile investing in Japanese
stocks at current levels, at the time of writing.

This calculation, however, excludes the impact of taxes. Incorporating
taxes into the equation is complicated, since different types of
investor are subject to different levels of tax, but it is very important in
this kind of calculation to remain aware that one is comparing an
after-tax RoE with a pre-tax risk-free interest rate. If we assume that
an investor is corporate, the corporation taxes charged on interest
income will halve the effective bond yield, while the RoE, even if dis-
tributed as dividends, is untaxed (corporation tax has already been
paid by the time we get to the net level). These assumptions would
imply that, based on last term’s RoE, Japanese stocks are worth a
maximum of 1.28x book value (which would give an equity risk
premium of zero). Normalized RoE would have to be at least 84 per
cent higher than last term, or 3.9 per cent, to justify current levels of
the market, even with no risk premium. There are still one or two
other complicating factors which we have left out at this stage, but the
basic calculation method is correct.

**Putting the Risk Premium into the Equation**

All the calculations above have given us answers in the form ‘The RoE
needs to be at least x’. This is because our original equations started
by saying that the return available to equity investors must be at least
as high as the return in bonds, to compensate equity holders for the
higher variability of equity earnings. But how much compensation do
investors actually require for the variability of equity returns? What,
in other words, is an appropriate ‘risk premium’? Let us return to
equation (10), bearing in mind that it excludes the impact of taxes:

\[
k < e/P.
\] (10)

The inequality sign in the equation, remember, is standing for the risk
premium. We can take it out if we put the risk premium into the equa-
tion explicitly. On the other hand, we will still have to assess what the
correct level of the risk premium is. In practice, this is a matter of
investor utility rather than mathematics, and the only way to assess
the correct level of the risk premium is to consider what investors
have required in the past.
Is the Risk Premium Additive or Multiplicative?

The standard textbook restatement of equation (10) to incorporate the risk premium looks like this:

\[
e/P = k + r,
\]

where \( r \) is the risk premium. In other words, the earnings yield on equities must exceed the risk-free rate by the amount of the risk premium which investors require to compensate them for volatility in the equity earnings yield. Although textbooks have typically assumed that the risk premium is an additional return which investors require above the bond yield, we believe there is a good case, to which many market practitioners implicitly adhere, that investors require the risk premium in the form of a multiple of the bond yield.

If this view is right, equation (11) would be restated as:

\[
e/P = kr.
\]

Since the risk premium is a matter of investors’ preference for risk, there is no way of assessing what a normal level of the risk premium is, or whether the premium demanded is an addition or a subtraction, except by observation. Let us assume that the risk premium is an addition, and that the required premium over the risk free rate is 1 per cent. We would require a 4 per cent return on equities if interest rates were 3 per cent; does it follow that we require a 301 per cent return when interest rates are 300 per cent? There is no theoretical way to prove the answer, but it seems, intuitively, that one would demand a higher risk premium in absolute terms in the higher interest rate environment.

With the exception of the standard textbook version of the risk premium, simple additions are relatively rare in the investment world. Consider, for instance, the impact of inflation on investment calculations. Although inflation is sometimes thought of as being something that one adds to the nominal return in order to calculate the real return, it is by nature a multiplier. If the price of carrots is 100 in a 10 per cent inflation environment, one would expect the price at the end of one year to be 100 + 10 = 110. But after two years the price would not be 100 + 10 + 10 = 120. It would be \( 100 \times (1.1)^2 = 121 \). It seems an obvious point, but it is worth bearing in mind that inflation is a multiplication and not an addition.

Table 10.3 gives an example of how inflation is accounted for in the case of investments. If inflation is 1 per cent and the real return is
2 per cent, the nominal return is \( (1.01 \times 1.02) - 1 = 0.0302 \), or 3.02 per cent. At low inflation levels this calculation is very similar to the one produced by simply adding the inflation rate and the real return together (which would give 3 per cent exactly). But if inflation is 100 per cent and the real return is 2 per cent, the nominal return will be \( (2 \times 1.02) - 1 = 1.04 \), or 104 per cent. (The 2 in the equation comes from the inflation rate, which doubles the nominal value of an asset every year.) If one thinks about starting with an asset worth 100 pesos in a 100 per cent inflation environment, it will be worth 200 in a year’s time. If we assume, as annual return calculations typically do, that the coupon, or dividend, is paid on the final day of the year, the nominal payment would have to be 4 pesos to represent a real return of 2 per cent.

A parallel calculation which is very common in the investment world is the calculation of investment performance against a benchmark or index, to see what value has been added by the fund manager. Outperformance of an index is not calculated by subtracting the index performance from the actual performance. The sum is a division. If a portfolio returns 20 per cent while the market returns 10 per cent, the outperformance is \( (1.2/1.1) - 1 = 0.0909 \) or 9.09 per cent, not 10 per cent. The parallel with the inflation calculation is exact. So what about the risk premium? Would one not intuitively expect equity investors to demand a degree of outperformance of the risk-free alternative which would compound up over time? It has to be admitted that this possibility is at least as plausible as the addition calculation which is commonly used. The fact is that multiplications and divisions are more common than additions and subtractions in the investment world.

<table>
<thead>
<tr>
<th>Table 10.3</th>
<th>Converting between Nominal and Real Returns</th>
</tr>
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<tr>
<td></td>
<td>Case 1</td>
</tr>
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<td>Starting asset value</td>
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<tr>
<td>Inflation</td>
<td>1%</td>
</tr>
<tr>
<td>Year-end asset value</td>
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</tr>
<tr>
<td>Real return required</td>
<td>2%</td>
</tr>
<tr>
<td>Nominal coupon at year-end</td>
<td>3.02</td>
</tr>
</tbody>
</table>
Thinking back to the first section where we tested various valuation models statistically, the assumption that the risk premium is an addition leads to the earnings yield gap model, while the assumption that it is a multiplication yields to a yield ratio approach.

**Deriving the Yield Gap and Yield Ratio**

Let us then go back to our two versions of equation (11), which were as follows:

\[
e/P = k + r \quad \text{(where the risk premium is added, and must be greater than zero), or} \tag{11a}
\]

\[
e/P = kr \quad \text{(where the risk premium is taken as a multiple, and must be greater than 1).} \tag{11b}
\]

These equations lead to the following definitions of the risk premium:

\[
r = e/P - k, \quad \text{or} \quad -r = k - e/P \quad \tag{12a}
\]

\[
r = (e/P)/k, \quad \text{or} \quad 1/r = k/(e/P). \tag{12b}
\]

In these equations $r$, the risk premium, is assumed to be a constant which can be established by observation, and 12a and 12b are in fact the standard earnings yield gap and earnings yield ratio models respectively. 12a states that the risk premium is the difference between the bond yield and the equity earnings yield, while 12b states that it is the one divided by the other. Investors frequently use either the yield gap or the yield ratio (or both) to assess whether the market is cheap or expensive; if they stray a long way from normal levels the implication is that the risk premium is unusually high (or low) – which may mean that the market is unusually expensive (or cheap). It should be noted that in the sense used in these equations the higher the risk premium is, the better. A high level of $r$ does not mean that the risk in the market is unusually high; it means that the compensation being given to investors for assuming risk is unusually high. Investors generally use the second form of each equation given above; in other words they tend to look at the inverse of the risk premium rather than at the risk premium itself. In this case the higher the number generated, the more expensive the market is.

Both the earnings yield gap and the earnings yield ratio approach can be theoretically derived as shown above; it is impossible to prove theoretically whether the risk premium is an addition or a multiplication; this is merely a matter of investor preference. But in making the
choice of which measure to use, it is clearly relevant that the yield ratio came out much better than the yield gap from the statistical testing in the first section of this chapter. This does not constitute a proof that the risk premium demanded by investors is a multiplier, but it offers strong evidence for that assertion.

Is the Risk Premium Really a Constant?

It is typically assumed that the appropriate level of the risk premium is constant and does not trend over time, and this is probably a safe assumption over most normal time frames. But the possibility has to be borne in mind that investors’ appetite for risk may trend over time. This trend has to be distinguished from mere fluctuations in the risk premium, which can be seen as buy or sell signals for the equity market (on the basis that it is offering unusually high or low compensation for assuming risk). Why should the risk premium trend? We mentioned this at the end of the previous section, but it is possible that as rising wealth lifts savers and investors increasingly above the level where they barely have enough income to meet their basic needs, they have an increasing appetite for taking risks with their savings. If this is the case, it may be that over the very long term the risk premium will trend gradually downwards – although there is probably no justification for expecting it to disappear altogether. But over relatively shorter time periods, the appropriate level of the risk premium can probably be treated as a constant. And since this constant can only be established by observation and not by theorizing, there is not much need in practice to strip out the effect of taxes or any other factors which should theoretically be separated from the yield ratio. So long as these factors remain unchanged over time, investors can safely bundle them all into the constant along with the risk premium. This is why users of yield gap or yield ratio models generally calculate the mean value of r over time and regard the market as a buy or sell if r deviates too far from its historical mean.

The Impact of Changes in Inflation

If the normalized growth rate of earnings, or the RoE, declines, this should logically cause a decline in market valuations, all other factors being equal. But there is an active debate in the market about the role inflation plays in the equation. If the real growth rate of earnings remains unchanged, but the nominal growth rate declines because of a
decline in inflation, how should investor preferences between equities and bonds be affected? At a time when inflationary expectations are lower than they have been for decades, and when inflationary pressures in Japan in particular are extremely low, this is an important issue for investors to consider. The impact of inflation on valuations is different for believers in the yield ratio and yield gap. For believers in the yield ratio approach, a lower inflation rate makes no difference to market valuations.

A lower inflation rate should mean a lower interest rate \( k \), but it should also logically mean that the return on equity, and therefore the earnings yield \( e/P \) will also be lower. It should not be possible to generate the same nominal return on equity in a low inflation environment as in a high inflation environment. But the ratio between the interest rate and the earnings yield should theoretically remain constant in different inflation scenarios. This can be shown by expressing both the earnings \( e \) and the risk-free rate \( k \) as compounds of a real earnings \( E \), or real risk-free rate \( K \), and inflation \( i \). (Remember that inflation is something to be multiplied, not added. Technically \( i \) here is one plus the inflation rate – i.e. a 10 per cent inflation rate is expressed as 1.1.) We can state these as:

\[
e = Ei, \text{ and} \\
k = Ki.
\]

The earnings yield ratio would then become:

\[
r = (Ei/P)/Ki, \text{ or } 1/r = Ki/(Ei/P).
\]

(13a)

It can be seen that the inflation element \( i \) simply cancels out, leaving one with the same equation as 12a whatever happens to the inflation rate.

The inflation element, unfortunately, does not cancel so neatly out for believers in the yield gap, which would become:

\[
r = Ei/P – Ki, \text{ or } -r = Ki – Ei/P
\]

(13b)

\[
r/i = E/P – K, \text{ or } -r/i = K – E/P
\]

Either way, inflation fails to cancel out, implying that the earnings yield gap should vary for different levels of inflation. This would by no means render it useless, but certainly makes it much more complicated. The implication is that the yield gap should rise along with inflation – assuming that the risk premium is positive in the first place.
Putting the Theory into Practice: Do Investors Welcome Risk?

This is an important point. It will be noted that the risk premium $r$ in the yield ratio model (11a) must be more than 1; otherwise investors are not in practice being offered any premium for the assumption of risk. This would in turn imply that the commonly used earnings yield ratio $1/r$ should be less than one; whereas in fact, as can be seen from the chart of the earnings yield ratio in the first section, this is not the case. The average level of the earnings yield ratio in Japan is more like 2 for the last 25 years, which on the face of it would imply that investors are being offered only half the returns in equities, and are prepared to pay for the privilege of accepting risk.

There is a similar problem with the yield gap: $r$, the risk premium, must be positive in the yield gap approach, but in actual fact it has generally been negative (in other words $-r$, the commonly used earnings yield gap, has generally, although not always, been positive). In fact, the earnings yield ratio is generally higher than 1 in other markets as well; the average in the US and UK markets over the last five years has been around 1.4x, while some other markets, such as Italy, have had persistently higher figures. We think the most probable explanation for this is that one is typically comparing a post-tax earnings yield with a pre-tax bond yield; whereas the original theory holds that the returns should be considered on a post-tax basis. Given that corporate investors typically pay a 50 per cent tax on bond interest income, the post-tax level of the Japanese yield ratio, for corporate investors, does in fact work out at close to 1 over the last 25 years. If we go back to the period prior to the ‘bubble’ of the late 1980s, the yield ratio was typically around 1.75x, which would work out to about 0.88x on a post-tax basis. This in turn would imply that investors were typically receiving a 14 per cent premium over fixed interest returns for taking the risk of investing in the stock market.

There are other possible explanations for the risk premium being apparently negative. One, of course, might be that investors actually welcome risk. This should not be confused with the fact that the volatility of equity returns tends to decline the longer the holding period becomes. Although this is true, and means that equities are much less ‘risky’ a holding in the long term than in the short term, they are still ‘riskier’ than bonds. We can see little in the behaviour of Japanese investors to suggest that they welcome risk. Rather, they appear to have become excessively risk-averse in the stock market collapse of the early 1990s.
A further possible explanation for risk premiums being less than 1 (or negative in the case of the yield gap model) is to do with inflation expectations. In our discussion of inflation above we have left this vague, but the inflation being referred to in the \( i \) term of our equations should really be the long-run expected level of inflation, just as \( E \) should refer not to the current level of earnings but to the normalized level of earnings which can be earned from a given equity base. But in fact the yield ratio commonly used refers to the expected level of earnings this year as the best guess as to the earnings capacity. Evidently, if this level of earnings is cyclically depressed, or if indeed inflation is going to pick up sharply in future, this figure for \( E \) is a substantial underestimate.

Bond yields, on the other hand, already incorporate the market’s best guess at the long-term inflation outlook. In other words, when we argued that inflation should have no impact on the yield ratio, this is not necessarily true in practice, because the \( i \) being used in the bond part of the equation in practice is an estimate of long-run inflation, while the \( i \) in the earnings part of the equation refers to current year inflation. In this case the two will not necessarily cancel out. It is noticeable that it is heavily indebted countries like Italy and Canada that tend to have high earnings yield ratios. As of the mid-1990s the five-year average for Canada is 3.2x, and the five-year average for Italy is 10.5x. The chances are that the bond markets in these countries tend to assume an increase in inflation in the future as the government effectively devalues its debt. The inflation component in the bond yield will therefore not neatly cancel out with the inflation component in the equity earnings yield.

Few commentators see a likelihood that Japanese inflation is about to pick up strongly, and such a possibility is not implied by Japanese bond yields. But the Japanese fiscal deficit has in fact swollen to become one of the largest in the world over recent years. The markets currently assume that tax increases and a recovering economy will relieve the deficit problem over coming years, and indeed this view is reasonable. Given the unusual length and severity of the early 1990s recession, also, there is enough spare capacity in the economy to allay any fears about inflationary pressures for the time being. But if the economy expands smoothly for the next several years, and if the onset of real political competition in Japan, combined with the rapid ageing of the population, leads the MoF gradually to lose of control of the government finances (see Chapter 7), the markets might not be able to remain so sanguine. If Japan’s deficit does not start to come under
control over the next few years, there is a danger that many investors will be wrong-footed by the resulting rise in the level of the earnings yield ratio.

This result that the earnings yield ratio is typically over 1 is by no means unique to Japan. It is mirrored in almost all markets around the world. The five-year average earnings yield ratio in the US is 1.5, while it is 1.4 in the UK, 1.9 in Germany, and as high as 3.5 in Canada and 7.7 in Italy. The fact that investors require a risk premium multiplier of less than 1 (that is, they are happy to take more risk for the privilege of being in equities rather than bonds) could be the result of a variety of things. The most obvious candidate is the impact of taxation.

Factoring in Taxation

Equities are typically favoured over fixed interest investments by taxation codes, which generally treat capital gains more favourably than interest income. This is not, by the way, an inequality in the tax codes. It simply reflects the fact that the net earnings we use to calculate RoE are already struck after corporation tax and various other taxes. Since corporations have already paid this tax, it is unfair to ask their owners to pay again on capital gains or dividends received from their investments (although a degree of double taxation on dividends occurs in many countries). In this sense, as we pointed out right at the start, one needs to compare the post-tax return on fixed interest investments with the RoE figure.

This is not as easy as it sounds, since different categories of investor are subject to different levels of taxation. Logically, it is the taxation of the marginal investor which counts. Again logically, the marginal investor ought, in theory to be the investor to whom the investment is worth most. In Japan, this would appear to be corporate entities rather than individuals. Since individual interest income in Japan is taxed at a flat 20 per cent, while corporate interest income is taxed along with other corporate income at an effective rate of 50 per cent, equity investments are more attractive relative to bonds to corporate investors than they are to individuals. This implies that corporate investors are the marginal players who set the level of equity prices. If their post-tax return on a bond is half their pre-tax return, then the tax effect would justify a yield ratio of up to a maximum of 2x. As an aside, this might help to explain the relatively low yield ratio in Switzerland. If the marginal buyers in Switzerland are actually
foreigners, which is plausible, their tax-exempt status as bond investors would explain why bonds are relatively highly rated against equities by world standards.

**Other Factors Affecting Yield Ratios**

However, some yield ratios are higher than can be explained by tax differentials. The very high yield ratios in Canada and Italy presumably reflect investors’ perceptions that those countries’ debt levels are dangerously high. This perception would logically raise the level of bond yields relative to equity yields. If these countries were then to deflate their way out of their problems, the pick-up in inflation which is already being implicitly anticipated in the high bond yields would be reflected in higher RoEs, and the yield ratio would come down to some extent.

Another possible reason for high yield ratios (or risk multipliers of less than 1) might be cross-holdings, which are of course an important factor in Japan. Where listed companies own each other, this artificially inflates the market capitalization, in the sense that to buy the whole market would not cost as much as the capitalization implies, since by buying 100 per cent of one company one would end up owning stakes in others. Double-counting of (parent) earnings, on the other hand, is limited to the dividends paid between listed companies – and given the low level of the dividend yield in Japan, the impact of this is relatively small. Since the PER is calculated from the market capitalization, an inflated capitalization means an inflated PER and an artificially low RoE and yield ratio figure.

In any case, the purpose of this discussion is merely to point out that the assumption we made at the beginning in equation (1) has to be adjusted for taxation and other distorting factors, not just in Japan but in other markets too. The earnings yield ratio on equities in most markets around the world is typically a multiplier of less than 1, but this does not mean that investors actually prefer risky income streams to risk-free ones. We need to adjust for this type of factor to come to a sensible conclusion about Japanese valuations.

This is slightly easier than it sounds, because we do not need to isolate each separate factor and calculate a theoretical yield ratio level. Since there is no way to calculate a theoretical yield ratio level because there is no way to calculate a theoretical risk premium level, we can lump all of these imponderables together in the yield ratio constant \( r \). But we do have to keep an eye out if any of the variables
changes, because they will cause the yield ratio to change. By looking at past levels of the earnings yield ratio, and making some adjustments for relevant factors which may have changed over time, we can arrive at some ball-park estimates of how much earnings really need to recover to justify current market levels.

JAPAN’S CROSS-HOLDING SYSTEM

The section below looks at the impact which the Japanese system of cross-shareholdings has on valuations. The Japanese structure whereby a large percentage of the market is owned through interlocking shareholdings is often cited as an important reason for the high level of Japanese valuations. We believe that the reasoning behind this assertion is fundamentally sound. In the section below, we discuss first what cross-holdings are and why they affect valuations. We then make some estimates of their real effect on Japanese valuations in recent years, and consider the outlook for the cross-holding system in future. Our analysis suggests that increasing cross-holdings do not on their own explain the rise in Japanese equity valuations during the ‘bubble’ period. Nevertheless, the increase in valuations was much less marked if adjustment is made for the cross-holdings factor.

What are Cross-holdings?

A typical cross-holding arrangement is one in which two companies agree to cement a business relationship by holding each other’s shares. As well as symbolically tying the fortunes of companies more closely together, cross-holdings also have the advantage for management that they make hostile takeovers more difficult, and indeed such bids are exceptionally rare in Japan.

There is no universally accepted definition of a cross-holding, and there is little accurate information available as to how prevalent cross-holdings are in the Japanese market. One common definition is simply a long-term holding by a friendly company which is unlikely to be available to a bidder in the event of a takeover attempt.

On the grounds that such holdings are not available to be purchased by other investors, there was an attempt in some quarters in the late 1980s to argue that they should be excluded from the market capitalization when calculating PERs or other measures of equity.
value. But this approach to justifying Japanese valuations was built on shaky logical foundations. Although it is true to say that shares owned by stable shareholders are not available to ordinary investors, neither are the dividends or earnings on those shares. Thus in calculating the PER on such a share (PER = Market Capitalization ÷ Net Profits), if the stable shareholdings are to be excluded from the market capitalization, so too should be the percentage of net profits accruing to those shareholdings. Making this adjustment would leave the PER precisely unchanged, so this approach does not add up to a serious argument in favour of higher valuations.

In essence, all one is left with from this argument is the possibility that the shortage of stock available in cross-held companies creates a scarcity premium. Given, however, that investors have plenty of alternative investment options, the premium they are willing to pay is not generally likely to be large. The scarcity premium argument works best in cases where there are few or no alternatives available in an investment area seen as desirable. In the Japanese market, the only listed advertising agency Asatsu has sometimes been awarded a premium for this reason. Even in this case it is possible to find alternatives, since the listed television stations are equally geared to growth in advertising spending. We do not believe that scarcity premiums can be all that significant, particularly when one is trying to apply them to a market whose total capitalization is over $US 3 trillion.

A narrower definition of a cross-holding is a long-term equity holding reciprocated between two companies. Cross-holdings in this sense do not include shares held for trading or short-term cash management holdings. Shareholdings by life insurance companies cannot generally be counted as cross-holdings in this sense, since most of the Japanese life insurers are mutually owned. As a result there can be no reciprocation of shareholdings owned by life insurance companies, except in the somewhat fuzzier sense of becoming a policy-holder. Some observers nevertheless view some life company holdings as cross-holdings given that life companies have strategic investments held for other reasons than the expectation of investment gains.

How did Cross-shareholdings Come About?

Cross-holding arrangements were set up initially among Japan’s zaibatsu groups in 1947 to circumvent the rules introduced by General MacArthur’s GHQ against holding companies. A new stimulus was
given to cross-holding arrangements by the liberalization of the capital markets in 1964 to allow foreign participation. Companies rushed again to strengthen cross-holding arrangements, afraid that they would be taken over by more powerful foreign rivals.

The emergence of powerful speculative groups in the late 1980s gave a further boost to cross-holdings. The fact that most companies had made large gains on their stock-holdings over the past few decades helped to reduce the perception of the risks involved in stock-ownership, but the main factor was the fear of speculative raids such as those suffered by Janome, Minebea and several small supermarket chains. Thus although the original motivation for cross-holdings was to maintain zaibatsu structures in the limited way allowed by the rules imposed by the occupation authorities after the war, the reason for their later increase was to reduce the threat of hostile takeovers. The codeword used in the Japanese market is ‘stable shareholders’, which sounds eminently desirable. But the real meaning of ‘stable shareholders’ is ‘shareholders who will protect the incumbent management if necessary’.

In practice, the main type of cross-holding specific to Japan is between banks and industrial companies. Banks are not allowed to own more than 5 per cent of industrial companies under Japanese law, so this kind of stake is relatively small, and is never consolidated into the banks’ earnings. (The importance of this fact will become apparent later.) But when several banks own stakes in a company, as is generally the case, the combined effect is to make it very difficult for a hostile bidder to gain control. The banks have traditionally been more interested in their relationships as lenders to companies than as shareholders, and see the shares merely as a way to create an obligation which cements the relationship and creates a captive customer. They generally expect these customers to hold their shares in return.

Given that there are many fewer major banks in Japan than major industrial companies, the result is that bank shares in particular are heavily cross-held. As at March 1995, 48 per cent of all bank equity outstanding was owned by business corporations. It follows that the impact of cross-holdings on valuation, discussed below, is larger for bank stocks than for any other section of the market. Their stock portfolios account for a larger proportion of banks’ market capitalization than is the case for industrial companies, and the unwinding of cross-holdings should be expected to have a conversely greater effect on their stock prices.
The other main type of cross-shareholding is when companies own shares in their subsidiaries and affiliates. When those subsidiaries become large they can account for a significant percentage of the value of the parent company, as with Ito-Yokado’s holding in Seven-Eleven Japan. But there is nothing unusual about these kind of holdings, which are just as common in other markets. One slight oddity about these holdings is that it is not uncommon for the subsidiary to own a stake in the parent as well as vice versa. This is particularly true if the parent company is seen as vulnerable to takeover. The case of Toyoda Automatic Loom Works is an interesting example of this. The company is the original parent of auto giant Toyota, but only has a 5 per cent stake currently (although this still makes it the top shareholder). But Toyota has a 23 per cent stake in Toyoda AutoLoom, partly because it bought stock from a raider during a greenmail attempt in the late 1980s. (A similar attempt to greenmail Toyota by buying up shares in Koito Manufacturing, another affiliate, came to nothing. The company did not perhaps have the same sentimental value to Toyota as Toyoda AutoLoom, and in any case the bidder ultimately failed to gain control.)

By the end of the 1980s it was estimated that some 35–50 per cent of the Japanese stock market was cross-held, depending on the definition. Probably around 35 per cent of total stock is held as part of a narrowly defined ‘cross-holding’ arrangement, while if all stock beneficially held by listed companies is counted (including stock held for short-term purposes and in tokkin), the total may be as high as 50 per cent.

**Why do Cross-holdings Affect the Market Valuation?**

Given that we have largely rejected the argument made above that cross-holdings boost PERs by reducing the stock available for investors, why should cross-holdings have an impact on valuations? The reason is that the cross-holding system contributes to a double-counting which artificially inflates the market PER. The PER for the market, as for an individual stock, is correctly calculated by dividing the total market capitalization by the total net earnings. But that market capitalization is artificially inflated by cross-holdings.

The market capitalization is simply the sum of the capitalizations of all the individual stocks (i.e. their share price multiplied by shares outstanding). This process generates a number in the region of
¥350 trillion for the whole market at the time of writing. But it would not actually cost ¥350 trillion to buy the whole market. This is because, in buying Ito-Yokado, you would already own 51 per cent of Seven-Eleven. In buying Matsushita Electric Industrial, you would already own 58 per cent of Matsushita Kotobuki. And so on. In fact, if 50 per cent of all shares are held by listed companies rather than external entities, it would only cost around ¥175 trillion to buy the whole market.

To some extent the net profits of the market are also double-counted in the process of simply summing the net profits of each individual listed company. The extent of the double-counting varies depending on whether consolidated or parent-only net profits are used. (In most developed countries, little attention is paid to parent-only accounts, but in Japan consolidated accounts are not mandatory for all companies, and parent figures are commonly quoted in aggregations. The ‘official’ figures for aggregate or industry PERs quoted by the Tokyo Stock Exchange, for example, are typically on a parent-only basis, as are the figures quoted in the Nihon Keizai Shinbun, Japan’s leading business daily.) When parent net profits are summed, the double-counting of earnings is relatively small. The only double-counted earnings in parent aggregations will be dividends paid to listed companies by other listed companies. These will be counted towards earnings at both companies.

For consolidated figures the double-counting of earnings becomes more significant. In addition to dividends paid between companies, there is double-counting of the earnings of listed subsidiaries and affiliates of the company in question. When more than 50 per cent of a company is owned, it is generally regarded as a subsidiary for consolidated accounting purposes. This means that all profits of that company are counted towards the consolidated earnings of its parent, although at the net level the percentage attributable to other shareholders (assuming that the subsidiary is not 100 per cent-owned) are stripped out as ‘minorities’. A company is normally regarded as an affiliate if the parent company owns between 20 per cent and 50 per cent of the stock. Affiliates are not fully consolidated like subsidiaries, but are ‘equity-accounted’. This means that a percentage of the affiliate’s net profits in line with the percentage of that company’s equity owned is counted towards net profits. The result of this accounting treatment is that at the net level, the profits of listed subsidiaries and affiliates are double-counted in proportion with the parent company’s ownership in them. Since the market capitalization
which is the numerator of the PER calculation is double-counted to the same extent, there is no distortion of consolidated PERs as far as listed subsidiaries and affiliates are concerned.

The problem of counting market capitalization in the numerator which is not counted in the divisor therefore only relates, at the consolidated level, to intra-market holdings where dividends are paid between companies (and therefore double-counted) but the holding in that company is too small for it to be counted as an affiliate – i.e. it occurs when the holding is less than 20 per cent. Unfortunately such holdings are extremely common in the Japanese market. It is therefore clear that at both the consolidated and parent levels, double-counting of market earnings is less than double-counting of market capitalization, so the cross-holding system tends to inflate market PERs. We will consider the actual extent of the distortion later in this chapter, but for the moment we are just explaining the mechanism.

**Double-counting – a Simplified Example**

In a sense, cross-held shares do not really exist, and that is why they distort calculations of value in the stock market. A simple example will show what we mean by this. Imagine two identical companies A & B, both with 1,000,000 shares in issue with a market price of ¥1,000. Both companies therefore have a market capitalization of ¥1 billion, and if these two companies constitute the entire stock market, the total market capitalization is ¥2 billion (\( \Sigma M \)). Each company has no assets except for ¥1 billion in cash, earning ¥100 million in interest income. Let us assume that neither company pays a dividend, simply reinvesting all earnings, and that there are no additional complications such as taxation. The earnings per share are ¥100 in each case, giving a PER of 10 times. Furthermore the total market earnings are ¥200 million (\( \Sigma E \)), so the market’s PER works out at 10x (\( \Sigma M / \Sigma E \)). This is clearly what the market’s PER ought to be. There are no cross-holdings, so there are no distorting factors.

If company A issues a further 1,000,000 shares to company B, receiving ¥1,000 cash for each of them, what happens? Company A now has ¥2 billion in cash, which should be earning ¥200 million in interest income. However, there are twice as many shares outstanding, so if the company is still valued on a PER of 10x, the share price will be unchanged at ¥1,000. The market capitalization of A is therefore ¥2 billion. B, on the other hand, has no cash. Its only asset is ¥1 billion worth of shares in A. Although these shares are generating
¥100 million worth of earnings, A is paying no dividends, so on a parent basis B has no earnings. On a consolidated basis, A will be a subsidiary, so B’s consolidated earnings will be ¥100 million. Even though B has no parent earnings, the market is likely to value it by reference to its stake in A, which is worth ¥1,000 a share to B. B’s shares should thus be worth ¥1,000 each, capitalizing the company at ¥1 billion. In this simple model, the capitalization of the market has risen to ¥3 billion despite the fact that the total assets in the market are still only worth ¥2 billion. Half of A is being double-counted.

When the PER is calculated, the picture will be very different depending on whether consolidated or parent earnings are used. On a parent basis, company B has no earnings, while company A has ¥200 million. The aggregate earnings of the market are therefore ¥200 million, as indeed they should be, given that the overall market only has ¥2 billion worth of assets earning a 10 per cent interest return. But the parent PER in this case will be quoted as 15x, since it is calculated as:

\[
s_{\text{market}} \div s_{\text{market}} = 15x
\]

Aggregate of market capitalizations (¥3 billion) $\div$ Aggregate of earnings (¥200 million) = 15x. Because the market capitalization is being double-counted while the earnings are not, the PER is upwardly distorted from its ‘real’ level of 10x.
But on a consolidated basis, company B’s earnings will include 50 per cent of company A’s, since company B owns 50 per cent of the shares. As a result, company B’s consolidated earnings are ¥100 million and the market’s consolidated PER becomes:

 Aggregate of market capitalizations (¥3 billion) ÷ Aggregate of earnings (¥300 million) = 10x

Pursuing the argument a step further, suppose that B now issues 1,000,000 shares to A, taking ¥1 billion in cash for them. Both companies are now back where they started with ¥1 billion in cash, but each now owns half of the other as well. What is the value of A? A has ¥1 billion in cash and owns half of B. B has ¥1 billion in cash and owns half of A. Since both companies have identical assets they must be worth the same. In other words, A’s value is ¥1 billion in cash + half of its own value, or

\[ A = ¥1 \text{ billion} + 0.5A. \]

Therefore \( 0.5A = ¥1 \text{ billion} \), and \( A = ¥2 \text{ billion} \).

Both companies are now worth an identical ¥2 billion in market capitalization, giving a total market capitalization for the two companies of ¥4 billion, despite the fact that there remains only ¥2 billion of actual cash in the market. The real market value remains, of course, ¥2 billion, and in a sense the newly issued shares are fictitious as far as

**Table 10.5  Double-counting: a Simple Example – Case II**

<table>
<thead>
<tr>
<th></th>
<th>Company A</th>
<th>Company B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shares outstanding</td>
<td>2 million</td>
<td>1 million</td>
</tr>
<tr>
<td>Market capitalization</td>
<td>¥2 billion</td>
<td>¥1 billion</td>
</tr>
<tr>
<td>Assets</td>
<td>¥2 billion cash</td>
<td>¥1 billion shares in A</td>
</tr>
<tr>
<td>Earnings (Parent)</td>
<td>¥200 million</td>
<td>Zero</td>
</tr>
<tr>
<td>Earnings (Consolidated)</td>
<td>¥200 million</td>
<td>¥100 million</td>
</tr>
<tr>
<td>Earnings per share (Parent)</td>
<td>¥100</td>
<td>Zero</td>
</tr>
<tr>
<td>Earnings per share (Consolidated)</td>
<td>¥100</td>
<td>¥100</td>
</tr>
<tr>
<td>PER</td>
<td>10x</td>
<td>10x</td>
</tr>
<tr>
<td>Total market capitalization (ΣM)</td>
<td>¥3 billion</td>
<td></td>
</tr>
<tr>
<td>Total market parent earnings (ΣE)</td>
<td>¥200 million</td>
<td></td>
</tr>
<tr>
<td>Total market parent PER (=ΣM / ΣE)</td>
<td>15x</td>
<td></td>
</tr>
<tr>
<td>Total market consolidated earnings (ΣE)</td>
<td>¥300 million</td>
<td></td>
</tr>
<tr>
<td>Total market consolidated PER (=ΣM / ΣE)</td>
<td>10x</td>
<td></td>
</tr>
</tbody>
</table>
the market is concerned, since no external cash has been subscribed for them. If the shares were simply cancelled it would make no difference to either company, but if they are instead sold to an unlisted entity, genuine cash has to be put up and the genuine value of the market will increase. The PER of our two-company market will still be 10x on a consolidated basis, but it has now risen to 20x on a parent basis. It can be seen that this process of issuing ‘fictitious’ shares can be continued *ad infinitum*, pushing up the market’s capitalization and its parent PER indefinitely. In the example we have given there is no distortion to consolidated PERs, but if the stake held between the companies were less than 20 per cent, distortions would start to creep in on a consolidated basis too.

It can be seen from the example above that, on a consolidated basis, the distortion introduced by double-counting the market capitalization is automatically adjusted if holdings between companies are consolidated or equity-accounted, since in either case the earnings will equally be double-counted. The problem of distortion arises when holdings are less than 20 per cent, so that they are not consolidated. As mentioned above, the main type of cross-shareholding is between a bank and an industrial company. Since banks are not allowed to own more than 5 per cent of industrial companies, and industrial companies never own as much as 20 per cent of a Japanese bank, the typical cross-holding is not consolidated, and therefore a valuation distortion is introduced into the market. This distortion is also necessarily introduced when non-consolidated numbers are used, as they commonly are in Japan. But the distortion of PERs will still be reduced by any dividends paid between two listed companies, since these will be double-counted, even on a parent basis. Where both market capitalizations and the earnings are double-counted, two wrongs make a right.

**Effect of Cross-holdings on Capital-weighted Equity Indices**

It should be noted that the cross-holding system also introduces a distortion into capital-weighted stock indices. If a global index weights markets by their aggregate capitalizations, as most do, then the weighting of a market within that index will be inflated by any cross-holdings within the market. If more stock is cross-held in Japan than in other markets, then the weighting of Japan within many global indices used by investors will be inflated.

Some investors explicitly try to adjust their benchmarks for this kind of problem, and indeed some indices also try to adjust for the
distortion. But given the shortage of reliable data on the precise extent of cross-holdings, this involves estimates which are subjective to some extent, and as a result, the weighting of the Japanese market in many global stock market indices remains exaggerated. Since, as we stated above, cross-held shares do not really exist – that is, the market as a whole has not issued any additional shares to external investors or taken in any additional capital when cross-holdings are set up – overstating the benchmark in this way makes it literally impossible for the average investor to be overweight in Japanese equities. Most investors are happy to live with this situation, given that they have doubts about Japanese valuations anyway. But if investors worldwide were to try to neutralize their weightings in the Japanese market, the market would have to rise until either some investors were prepared to accept an underweight position because the valuation looked unattractive, or until the high level of stock prices persuaded all owners of cross-holdings to sell their shares to external investors, bringing the cross-holding system itself to an end.

Valuing Japanese Stocks by Reference to their Equity Portfolios

It can be seen that although the value of cross-shareholdings is fictitious in an overall sense, they have some value to the owning company. Thus, in the first stage of our simple example above, when only one share issue has yet been made between the two companies, B has no parent earnings, so the value of its shares on an earnings basis would be zero. But the market would be making a mistake if it ignored the value of the shareholding in A. At an individual company level, the value of cross-shareholdings is that they can be sold to external parties when necessary, generating cash. If the share prices of both the companies in our example doubled, the companies could also generate significant profits by selling them. That is precisely what many Japanese companies have started to do in the early 1990s. There can be significant latent value in cross-holdings. This complicates the valuation of individual Japanese equities, since many of them have an ‘investment trust’ value as well as the value inherent in their own earnings. Listed investment trusts are generally valued by reference to their net asset values rather than their earnings, and the value of some Japanese stocks resides more in their holdings of other stocks than in their own earnings stream.

A well-known example in the late 1980s was Nichiboshin, a textile company whose basic business is past its best, but whose portfolio of
bank shareholdings came to account for a substantial proportion of its market capitalization. The equity portfolios also typically account for a large chunk of the value of Japanese general trading companies (sogo shosha), banks and construction companies. It is not unknown for stocks in these sectors to be valued at a discount to the value of their equity portfolios, implying that the parent business has zero or negative value. (In some of the above industries, a case can reasonably be made that this assessment of the value of the basic business is correct.) Japanese casualty insurance companies also typically sell at a discount to the value of their equity portfolios, and are commonly valued by reference to those portfolios.

Although in theory the ideal time to sell cross-holdings would be when prices are high, Japanese companies in practice increased their purchases of cross-held shares in the late 1980s when prices were high, and started to sell them off in the 1990s. We discuss below some of the factors that have caused cross-holdings to start to unwind, but the basic reason for this apparently illogical behaviour by Japanese corporations is that cross-holdings were always there for strategic reasons rather than because companies sought to make profits from them.

**Calculating the Impact of Cross-holdings on Market Valuation**

If we assume that the high levels of the yield ratio in the late 1980s were to do with the build-up in cross-holdings, then in order to measure where the yield ratio should fall to, we ought to estimate how much cross-holdings increased and decreased. This is difficult given the absence of reliable data on cross-holdings. Calculating cross-holdings correctly is not possible on current data; while most listed companies give details of their stock-holdings, banks, which form the core of the cross-holding system, do not. One useful source of information on who owns the Japanese market is the *Kabushiki Bunpu Jokyo Chosa* (Report on Equity Distribution) by the Japan Stock Exchanges Conference. This source does not distinguish between listed and unlisted owners of equity, but it allows some approximation.

The categories listed are: (i) Public Sector, (ii) City, Long-term Credit and Regional Banks, (iii) Trust Banks, (iv) Investment Trusts contained in the two bank categories, (v) Pension Trusts contained in the two bank categories, (vi) Life insurers, (vii) Non-life insurers, (viii) Other financial institutions, (ix) Securities companies, (x) Business and other corporations, (xi) Foreigners (individual and corporate), and
(xii) Individuals and other. It is easy to see that categories (i), (xi) and (xii) are unlisted, so they are not cross-shareholdings. It is also a reasonable to assume that (iv) investment trust, (v) pension trust, (vi) life insurer and (viii) other financial institutional holdings are not cross-shareholdings. Although some continue to be owned by corporations, the majority of investment trust holdings are owned by individuals. Ownership of equities by pension trusts might be argued to reside partially with the companies backing a pension fund if the fund was in surplus, but almost all funds in Japan are currently in deficit, so ownership of the underlying assets resides firmly with the pension beneficiaries. None of the life insurers is listed, most of them being mutual rather than joint stock companies. Other financial institutions, which are neither banks, insurance companies nor brokers, are mostly credit co-operatives or agricultural co-operatives, and are not listed.

Conversely, most significant banks (ii and iii), non-life insurance companies (vii) and securities companies (ix) in Japan are listed, so it makes sense to count all holdings in these categories as crossholdings, after excluding investment and pension trusts from the bank totals. A problem that arises in this context is the growing ownership of the market by public funds such as the postal savings system, whose funds are managed by trust banks. It is therefore something of an oversimplification to count all stock owned by banks as cross-held, but this seems unavoidable.

The final difficulty is what to assume about corporate holdings of the market. While most major corporations in Japan are listed, many are not, and unlisted corporations are often used as vehicles of individual holdings of shares. In addition, religious foundations and special purpose entities like the JNR Settlement Corporation (which owns the JR (railway) operating companies) count as corporates. It seems reasonable to estimate that about 50 per cent of the holdings listed as corporate are owned by listed companies, while the other 50 per cent are owned by unlisted companies and therefore do not count as cross-holdings. Making these assumptions, we find that the percentage of the market cross-held as at March 1996 was 36.0 per cent, and that this percentage has trended as shown in Chart 10.16.

The picture given by Chart 10.16 is in line with common perceptions of the trend in cross-shareownership. Cross-holdings increased to a peak in the late 1980s, and have since declined. If anything, the rise in cross-ownership seems to have both started and peaked earlier than is commonly believed, with the increase starting well before the
‘bubble’ proper began in 1986, and ending before the peak of the market at the end of 1989. The numbers suggest, however, that the increase in cross-shareholdings in the late 1980s, which is commonly estimated at around 10 percentage points, was in fact only around 5 points, if that. Varying the assumptions about what percentage of corporate holdings are owned by listed companies does not make a significant difference to this result.

The other oddity of Chart 10.16 is that the downtrend in cross-shareholdings appears to have come to an end in about FY 1993. This probably is a fault in our assumptions. We have stripped out investment trusts and pension trusts from the holdings of the banks, but the data do not enable us to strip out shares held on behalf of public funds. Since public fund buying through trust banks (and Daiwa Bank, which is technically a city bank but has a trust licence) has been a feature of the mid-1990s, we believe that the downtrend in cross-shareholdings has been steadier than the chart suggests. If anything the evidence is that it may have begun to accelerate again in 1995–6.

On a parent basis, this estimate, plus a knowledge of the dividend yield in the market, is all we need to estimate the impact of cross-holdings on the market valuation. At the time of writing, the ‘official’ parent prospective PER of the TSE First Section, as quoted in the Nihon Keizai Shinbun, is 53.97x. Since the market capitalization is ¥377.72 trillion, it follows that the net profit figure being used is
377.72 / 53.97 = ¥7.00 trillion. Let us use the estimate reached above that 36 per cent of the total market is cross-held, meaning simply that it is held by Japanese listed companies. This 36 per cent of the market can be regarded as essentially fictitious, as shown above. The adjusted market capitalization is therefore 1 – 0.36 = 0.64 of ¥377.72 trillion, or ¥241.74 trillion. Earnings, however, will also be distorted to the extent that dividends are being double-counted. If we assume that the cross-held shares have the same average prospective dividend yield as the total market, or 0.74 per cent (this figure is calculated from the unadjusted market capitalization), dividends paid between listed companies will be ¥377.72 trillion * 0.36 * 0.74 per cent, or ¥1,006 billion. These dividends have to be excluded from the market’s earnings in calculating the ‘real’ parent PER of the overall market. The real parent PER of the market, adjusting for cross-shareholdings, is therefore \( \frac{¥241.74}{7.00 - 1.01} = 40.4x \). Of course, the decimal places in these calculations represent a largely spurious accuracy, but the important point is the difference between the ‘real PER’ after adjustment for cross-holdings (40.4x) and the quoted one (54.0x). The real PER shows what earnings stream a purchaser would get, in relation to his purchase price, if he was able to buy the entire First Section of the Tokyo Stock Market at currently quoted prices. The existence of cross-holdings causes the parent PER of the market to be 34 per cent overstated.

The calculation of the distortion on a consolidated basis is obscurer, since we do not have accurate data about what percentage of cross-holdings are in the form of subsidiaries and affiliates. The archetypal cross-holding in the Japanese market is between a bank and its customer, and is not consolidated by either party. On the other hand, some of the holdings which are consolidated, such as Ito-Yokado’s holding in Seven-Eleven Japan, are relatively large. For the sake of argument, let us assume that half of all cross-holdings by value are in the form of subsidiaries and affiliates. In this case there is a greater double-counting of earnings, as shown above, since earnings of subsidiaries and affiliates will be double-counted in line with the shareholdings of the parent company. This has the effect of reducing the distortion to the PER introduced by cross-holdings, on a consolidated basis.

There is no figure regularly quoted in the *Nihon Keizai Shinbun* for the consolidated PER, but at the time of writing HSBC James Capel’s analysts put the TSE First Section on a consolidated PER of 52.10x (since the source is different, this number cannot be directly
compared with the parent PER quoted above). The consolidated net earnings assumption is therefore \( ¥377.72/52.10 = ¥7.25 \) trillion. The double-counting of the market capitalization is the same as in the parent example above, so the adjusted market capitalization remains \( ¥241.74 \) trillion. But how much of the earnings needs to be stripped out as double-counted? Of the \((377.72 - 241.74) = ¥135.98\) fictitious capitalization of the market, half (\(¥67.99\) trillion) is double-counting the earnings to the full extent of the holding. If we again assume an average \((52.10x)\) PER for this element, the double-counted earnings on this portion are \(¥67.99/52.10 = ¥1.30\) trillion. For the other half, where the holdings are not consolidated, the only double-counting is the dividend element, or \(¥67.99*0.74\) per cent = \(¥500\) billion. Thus the correct calculation for the consolidated adjusted PER would be \(¥241.74 / (7.25 - 1.30 - 0.50) = 44.36x\). It can be seen that the distortion introduced by cross-holdings on a consolidated basis is rather smaller than at the parent level, but it still pushes up the stated PER of the market by about 17 per cent.

Of course, in order to make fair comparisons between the PERs or yield ratios of markets around the world, one would have to strip out any cross-holdings in other markets. Germany, for instance, also has significant cross-holdings which could be inflating its PER if they are not generally consolidated. But it is beyond the scope of this book to carry out such international comparisons. We merely conclude that, on our assumptions given above, Japan’s cross-holding arrangements are currently inflating its PER by around 17 per cent on a consolidated and 34 per cent on a parent basis.

The earnings yield ratio used so extensively in this chapter is calculated on a parent basis, primarily because of the absence of reliable consolidated earnings data series. This ratio at the time of writing is 1.57x, calculated from a compound bond yield of 2.901 per cent and a prospective parent earnings yield of 1.85 per cent. Since the earnings yield is the inverse of the PER, and the PER is 34 per cent overstated, we can see that the earnings yield ratio is 34 per cent overstated too. The adjusted earnings yield ratio is therefore 1.17x currently.

Although stock-ownership data are available once a year only, it is possible to go back and adjust the yield ratio in the past as well. Chart 10.17 shows the yield ratio adjusted from 1981. We have filled in the gaps between the yearly cross-ownership figures by assuming that changes in cross-ownership take place smoothly throughout the year. It can be seen that this adjustment does not do away with the ‘bubble’
in the second half of the 1980s, but it reduces its impact on valuations. After adjustment, the average parent yield ratio in the five years 1981–5, before the bubble, was 1.41x. The average for the next five years was 1.96x. It appears much more clearly in the adjusted yield ratio chart than in the standard one that the period when the market has been most expensive relative to earnings has actually been in the early 1990s. During this period, earnings collapsed disastrously, and did in fact fall into negative territory as a result of massive losses from the banks in FY 1995. In other words, the valuations so far in the 1990s have mostly been very expensive relative to prospective earnings. The main reason for this is presumably that the market has been well aware that earnings have been unusually depressed, and has been prepared to discount a sharp recovery ahead. Assuming that the consensus assumptions on earnings for FY 1996 are not over-optimistic, this should be a buy signal.

It will be noted that the unadjusted PER and yield ratio should be steadily falling if cross-holdings continue to unwind. Using our assumptions given above, and holding other variables equal, a 1 point drop in the cross-held percentage of the market would cause a drop of about 0.5 points in the stated parent PER. Since we expect cross-holdings to continue to decline, as discussed in the following section, it follows that stated PERs and yield ratios ceteris paribus should also decline over the coming years.

Chart 10.17  TOPIX Earnings Yield Ratio (adjusted for cross-holdings)
WHITHER CROSS-HOLDINGS?

The cross-holding system has been suffering severe pressure over the last few years. In the severe recession of the early 1990s, when Japanese listed non-financial companies saw their net profits plummet almost 70 per cent in three years, industrial companies increasingly resorted to selling cross-held shares to bolster weak profits from their underlying businesses. They were followed by the banks, whose write-offs of bad debts had an even more dramatic impact on profitability, pushing them massively into the red in FY 1995.

Several issues need to be considered here. First, are companies selling, or merely crossing shares (i.e. selling to realize a profit, but immediately buying the shares back again)? Crossing shares boosts profits but has no longer-term implication for the cross-holding system or the market. The answer is, while there has been a great deal of mere crossing of shares to realize gains, there has also been a significant amount of genuine outright selling. This conclusions is borne out by the estimates for the cross-held percentage of the market used in the preceding section, which show a declining trend in recent years.

The second major issue is whether the share-selling seen in the 1990s is merely a function of the business cycle. Are companies merely selling cross-held shares because profits are weak? Or is the cross-holding system in the process of unwinding in the longer term? Again the answer appears to be that both are true. A great deal of the selling seen in the 1990s would not be happening without the need to shore up profits. But there is some evidence that the cross-holding system is entering a period of longer-term decline.

CYCLICAL SELLING

Cross-held shares have frequently been sold in the past by companies or industries suffering from poor profitability. The major steel companies, for instance, started selling their bank shares in desperation in the mid-1980s as the steel business fell into loss. Some of the selling in the 1990s clearly relates to such cyclical reasons. Sumitomo Heavy Industries sold shares to cover the cost of closing down its printing machinery business, while numerous other companies, such as Mazda Motor, have been selling shares simply to keep their profits in the black, or to reduce stated losses. Thus it is clear that there is a large cyclical component to selling of cross-held shares. (Whether Mazda’s
profit problems are cyclical is a legitimate question, but there is not space to consider that here.)

Some companies have been selling shares regardless of the business cycle, but these are generally companies whose business is in long-term decline. Yuasa Trading was in the habit of selling shares in order to stay in the black, but it eventually ran out of holdings to sell and was forced to merge with Yuasa Shoji. There are one or two mavericks who sell shares even though they have no particular need to do so. The confectionery company Meiji Seika has boosted its recurring profits for several years by selling shares, even though its basic business remains steadily profitable.

The banks have been major sellers of shares to boost profits, although it should be said in their favour that they also did a lot of this when share prices were high in the late 1980s. But most of the banks’ share-selling was merely crossing until around FY 1994; it seems to have been only then that they decided that their bad debt problems were severe enough that they would actually have to shrink their balance sheets by selling some of their equity holdings outright. For the banks, selling equity holdings is not always motivated directly by the desire to cut low-yielding assets; sometimes these sales are a side-effect of moves to improve profitability by cutting off low-margin clients (whose shares are then sold).

Corporate reasons for selling shares in recent years have thus been mostly but not entirely to do with poor business results for the companies in question. Nevertheless, there are reasons this time to suspect that cross-holding arrangements will be on a declining trend for a period of some years.

BIS

One major non-cyclical factor is the BIS capital adequacy rules introduced in 1990. These rules state that, in principle, banks operating internationally should have capital equivalent to 8 per cent of their risk-weighted assets. Although Japanese banks technically meet this standard, this is partly because they have not been forced to be realistic about writing off their irrecoverable bad debts in a timely fashion. Furthermore, the standards are being tightened. The US has introduced its own standard recognizing only banks with a more than 10 per cent capital:asset ratio as ‘high grade banks’. Additional rules are also likely to be introduced whereby banks will need to back not only credit exposures but also market exposures with capital.
As a result of these pressures, Japanese banks are being forced to improve their returns on assets, which have always been relatively low by international standards. One reason why these returns have been so low is that the banks have invested a substantial chunk of their assets in shareholdings of their customers which yield very little. Banks have not tended to mind very much about this, though, given that significant capital gains have built up over time on these shareholdings. Japanese bankers have never felt any great need to back these assets with capital, given that latent gains on them have been large enough to make the possibility of write-offs on these assets look extremely remote.

Now, however, these assets are having to be backed by capital, the marginal cost of which is increasingly high. Subordinated debt, which can be counted as Tier II capital, is costing 3–4 per cent for major Japanese banks at the time of writing. It does not make too much sense to tie up this expensive capital in equities yielding 1 per cent. Furthermore, there is a growing shortage of Tier I capital, and banks are finding it increasingly difficult to persuade their shareholders to put up more. The initial reaction has been for the banks to boost margins on their existing lending, a move which has been helped by the tying of loans to the new short- and long-term prime rates. Nevertheless, a longer-term solution to their shortage of capital would be to adopt a more Western, arm’s-length approach to their customers, and reduce cross-holding arrangements wherever feasible. To that extent, the present pressure on the cross-holding system will probably persist even after the economy recovers.

Gaiatsu

Another factor tending to put pressure on cross-holdings is foreign complaints about Japan’s keiretsu system. (The term gaiatsu, meaning foreign pressure, has become commonly used in Japanese circles in reference to the numerous negotiations by which foreigners attempt to reduce trade barriers in the Japanese economy.) The most obvious concrete response to these complaints has been the efforts of Japan’s auto companies to increase purchases of foreign parts, but the Strategic Impediments Initiative bilateral talks with the US in 1990 also resulted in a significant strengthening of Japan’s Fair Trade Commission. The FTC has published guidelines stating that it would be seen as a breach of fair trade rules for companies to allow the existence or absence of a shareholding relationship to affect the terms
on which they deal with suppliers or customers. These rules could prove impractical to enforce, given the difficulty of proof. Nevertheless, the FTC is another element of a concerted attack on Japan’s traditional way of doing business.

Militant Shareholders

The third factor which may prove to be non-cyclical is the increasing militancy of owners of Japanese shares. This militancy is partly the result of the growing foreign ownership of the Japanese equity market. Although this is low by the standards of many other stock markets, foreign ownership of Japanese stocks hit a record high of 10.6 per cent of total market value in March 1996. Foreign holders of equities, particularly US-based indexed funds, are at the forefront of moves to increase Japanese corporate accountability to shareholders. Concrete results so far have been limited, given that Japanese shareholders, who own the remaining 89 per cent of the market, generally prefer not to rock the boat. But there is some evidence that even domestic shareholders have some sympathy with the moves initiated by foreigners. Dividends were the main focus initially, but Japanese institutions increasingly screen companies by return on equity and other measures of management efficiency.

A high point in this process has probably been reached in 1996, when major life insurance companies made it public to the Japanese banks that they were not prepared to buy preference share issues from those banks unless there were credible restructuring plans in place. Announcing that one will not buy a new issue hardly seems radical by the standards of other markets, but it is a step towards exercising the rights which insurance companies have as heavy existing owners of bank stock.

One of the ideas which the insurance companies have in mind for restructuring is the disposal of much of the banks’ stock portfolios. As investors, the insurance companies question why they should be subscribing additional funds to the banks when a number of the major banks have over ¥1 trillion each in stock portfolios which are low-yielding and of dubious relevance to their basic businesses. It was reported in the *Nihon Keizai Shinbun* on 11 July 1996, that Long Term Credit Bank of Japan, one of the major Japanese banks, was seeking to dispose of around ¥500 billion of its ¥2.5 trillion equity portfolio. Although LTCB denied the report, it nevertheless reflected the
pressure on the banks to sell off their cross-shareholdings, given the desperate shortage of capital they face as a result of their bad debts.

**Demise of Speculators**

A further reason for unwinding cross-holdings in the 1990s is that the speculative groups which flourished in the 1980s vanished when the bubble burst. As a result, companies no longer fear being taken over by outsiders. These fears could nevertheless return. Foreigners are already starting to make direct rather than portfolio investments in the Japanese market. Deals so far have been friendly, and mostly relate to non-listed companies. US toy-maker Hasbro took over unlisted Nomura Toy. Rupert Murdoch’s News Corporation indirectly took a stake in unlisted Asahi National Broadcasting. Only the most seriously troubled listed companies seem to be in any danger of being taken over by foreigners, but Sansui Electric, currently being restructured by Hong Kong investors, proves that this is not impossible. At the moment, some of the weaker Japanese companies would be glad of a cash infusion wherever it came from, but their fear of being taken over may well return once the business environment recovers.

One of the reasons why mergers and acquisitions (M&A) are relatively rare in a Japanese context is that the legal and procedural framework surrounding M&A is rather vague and complex. Without clear rules governing M&A activity, the deck is heavily stacked against hostile bidders. In the late 1980s, the potential gains from bidding for a target with substantial under-utilized land assets meant that a certain amount of M&A activity did take place. But after the collapse of property values in the 1990s, company managements feel much safer again, and therefore see less need of protection via cross-holding arrangements than they did previously. But even now cross-holdings as a defence mechanism are by no means just a holdover from the past. When Bank of Tokyo merged with Mitsubishi Bank in April 1996 to form the Bank of Tokyo-Mitsubishi, it had to sell off some shareholdings because of the provision in the Anti-Monopoly Law preventing individual banks from owning more than 5 per cent of a company. Even blue-chip companies like Nikon, which one would have thought would be relatively unconcerned about the danger of takeover, made sure that the stock released was purchased by other friendly companies, including Kirin Breweries and a number of banks. In return, Nikon bought stock in these companies as well. ‘Our objective
was to maintain a 50 per cent stable shareholders ratio,’ commented a Nikon director.

It is possible that the threat of M&A may reappear over coming years. The government established in 1994 an organization called the Japan Investment Council specifically to make it easier for foreign investors to make direct investments in Japan. One of the stated objectives of this Council is ‘to improve the M&A environment … through the provision of more information and improvement in administrative and legal procedures, etc’. If this objective is realized, companies may once again start to step up cross-shareholdings in order to protect themselves. For the time being, however, we are sceptical that the Japanese government will really allow the creation of an environment conducive to hostile takeover bids.

CONCLUSION

Overall, it can be seen that some of the pressures causing unwinding of Japanese shareholdings are cyclical and should evaporate as corporate profits recover. Nevertheless, there are long-term structural factors operating against the cross-shareholding system which look likely to persist even if the economy and stock market stage a strong recovery. It is probably fair to assume that the cross-holding system reached its zenith in the late 1980s and is now on a secular downtrend.

The Impact of Changing Growth Assumptions

The other obvious factor which would affect valuations would be changing assumptions about the underlying real growth rate in earnings, relative to the actual RoE at the time. The current low inflation environment should not in theory make any difference to the yield ratio, since inflation is reflected in both the earnings growth (or RoE) and bond yield parts of the equation. But if the growth rate in earnings is going to be lower in real terms than was expected in the late 1980s, a lower yield ratio would be appropriate.

We showed in the section above that adjusting for the distorting effect of cross-shareholdings on valuation reduces the apparent rise in Japanese equity valuations in the late 1980s ‘bubble’ period. But it does not eradicate it completely: the average yield ratio even after adjustment was nearly 40 per cent higher than in the early 1980s. The
most obvious explanation for this part of the increase in valuations (apart from simply saying that the market was overvalued) is that there was a substantial increase in the market’s underlying growth assumptions.

This explanation certainly fits the behaviour of the market at the time. Much of the increase in stock prices during the late 1980s was in practice justified by rising property prices. Analysts scrambled to calculate ‘Q’ ratios, which were simply the Price:Book ratio adjusted for unbooked changes in asset values. The implicit argument was that the enormous asset backing of Japanese companies would generate plentiful real estate rental and/or sale profits in the future, substantially pushing up the earnings growth rate for the foreseeable future.

This argument has since been shown to be fatally flawed. While one company might have been able to generate excellent real estate-related returns, when the entire market tried to so at once the market quickly became glutted and the returns proved illusory. If market valuation was based on this illusory perception of growth prospects, then it is not surprising that valuations have come down in the 1990s. There are two other trends which need to be taken into account when considering the long-term growth rate of earnings. Both are difficult to quantify accurately, but one of them tends to lower RoE over time, while the other tends to raise it.

On the one hand, the underlying real growth rate of the Japanese economy is steadily slowing. There is a great deal of debate as to what the underlying growth rate of the economy actually is, but almost all analysts agree that it is tending to decline as the economy matures. In the mid-1990s, with inflation perhaps the lowest since the war, it is particularly the case that the underlying nominal rate of economic growth has come down compared with the past. Inasmuch as the underlying growth rate of Japanese corporate earnings is tied to the underlying growth rate of the economy, the trend for the economy to mature is a factor which should cause the long-run trend RoE to decline over time.

On the other hand, an opposite long-term trend is that listed Japanese companies are slowly but surely starting to concentrate on the bottom line. That is to say, although the underlying nominal growth rate of the economy has fallen, the profits earned by listed companies from a given base of assets or equity are likely to improve. In other words, we ought to expect to see the share of national income taken by the listed corporate sector improve over the next 20–30 years, allowing
listed company profits to grow faster than the economy as a whole. It would be natural to expect this improvement to come at the expense of the share of national income taken by labour, but it is also possible that listed companies will gain partly at the expense of unlisted companies, who may not face the same performance pressures. This improvement will not just be the normal cyclical improvement as earnings pick up from currently very depressed levels, but is also a longer-term trend driven by the gradually growing power of shareholders in Japan. This, in turn, is a function of unwinding cross-holdings.

Since a cross-holding is essentially a holding that is held for business relationship purposes rather than as an investment in its own right, the proliferation of cross-holdings in Japan has meant that perhaps around half of the market’s shareholders have had little interest in their holding as an investment, and there has been little pressure on managements to sweat the assets under their control. As cross-holdings unwind, leading to an increasing percentage of stock being held by investors such as foreigners and domestic pension funds, those investors who require an adequate return from their holdings are accounting for a growing percentage of the market’s ownership. Pressure from these investors will, over the long term, force companies increasingly to focus on yardsticks such as RoE which measure the return being achieved by management on behalf of shareholders. Ultimately, the unwinding of cross-holdings is likely to lead to the introduction of the normal Western sanction for poor performance, the hostile takeover bid.

Furthermore, the unwinding of cross-holdings between listed companies directly boosts RoE by freeing up capital tied up in low-yielding equities and allowing it to be invested in the company’s main business. This process can be accelerated if companies start to buy back their own shares, shrinking equity bases which in many cases became bloated during the equity financing boom of the late 1980s. Share buy-backs have traditionally been allowed under Japanese law only in very limited circumstances, for fear that companies would use them to manipulate their own stock prices. But the regulations surrounding buy-backs and the tax treatment of them were both eased in the mid-1990s, and several companies did in fact carry out such buy-backs. With managements not yet fully focused on the requirements of shareholders, the extent of buy-backs so far has been fairly disappointing. But as cross-holdings unwind and shareholders become increasingly vocal, we should expect to see a greater focus on RoE and a greater use of measures such as share buy-backs to improve it.
The implication is that there will be a long-term, non-cyclical trend for RoE to improve.

Other Possible Factors Affecting the Yield Ratio

One other plausible explanation for the change in valuation basis during the late 1980s is that it had something to do with changes in taxation. In particular, the development of tokkin funds was important to financial institutions. Typically, if an institution sells a stock, it will be taxed on the difference between the sale price and its average book cost in that particular stock. Since large institutions hold most large listed equities at low average book prices dating back several decades, there was a substantial tax disincentive for them to invest in equities. If an institution held a stock at an average book cost of 100 and bought a small amount more for short-term trading purposes at 500, selling at 550 to book a profit would actually generate a loss after tax, since tax would be levied on the difference between 550 and the overall average book cost. The introduction of tokkin funds which were insulated from the main portfolio may have pushed up the valuation of stocks relative to bonds by allowing short-term trading to be carried out in a tax-efficient manner. Since the gap between average book cost and market value has subsequently narrowed substantially, it is not clear how we ought now to rate the value of this tax incentive, but it may have been an additional factor pushing up valuations in the late 1980s.

A related issue, and one that is equally difficult to quantify, is the impact of zaitech on the cost of funds for corporate investors. In this context we are thinking particularly of the fact that warrant funding was available extremely cheaply for much of the late 1980s. In fact, as Japanese companies later found out to their cost, warrant funding was only cheap for the duration of the issue. Using the proceeds to speculate in equities was a dangerous mistake for many, and was not really justified given that warrants were typically a four-year liability, while equities are a long-term asset. In a sense, Japanese companies were lucky that things turned out the way they did. Since the warrants largely expired worthless, they ended up with virtually free money for four years. If the warrants had been exercised, they would have had to service the extra equity indefinitely. But Japanese companies did not tend to see things this way, maybe because Japanese accounting treatment of warrants misled them as to the true cost. The accounting treatment was brought in line with US GAAP in April 1994, causing a
dramatic fall-off in warrant issues to almost nil. It seems likely that one of the reasons driving Japanese companies to become marginal buyers of equities was that they believed the applicable discount rate $k$ was lower than it actually was. But it doesn’t much matter whether the zaitech effect was fundamentally sound or an illusion. It is certainly over now.

Finally, of course, the rise in valuations may have been partly just a simple overvaluation. We would not lay too much stress on this possibility. Of course, speculative moves in markets can and do occur for limited time periods, but for an overvaluation to persist for 5–6 years implies that something more was happening than just speculative frenzy. We would argue that the rise in the valuation of equities against bonds during 1987 was a clear example of speculative excess, but believe that there must have been something more fundamental behind the change in valuations which persisted throughout the late 1980s and early 1990s.

**Impact of the Financial Sector**

Moving away from the theoretical arguments about the valuation of the overall market, it should be recognized by observers of the Japanese equity market that the financial sector represents the major oddity in valuations. There are two main reasons for this. One is that financial sector earnings have clearly been extremely depressed in the 1990s; the valuations of these stocks are therefore factoring in an eventual earnings recovery. The other is that because of the concentration of cross-shareholdings in the banks, their stock-holdings have typically accounted for a large part of their market value. We believe that the second part of this argument should be substantially discounted at the moment. While it is still true that Japanese banks have substantial latent assets in the form of stock-holdings, they also have substantial latent liabilities in the form of bad debts they have yet to write off. It is a simplistic approach, but we are prepared to assume that these two more or less cancel each other out, and that the stock-holdings will not add to the long-term growth rate of Japanese bank earnings.

Financial sector earnings have collapsed in the 1990s, culminating in the massive losses in the March 1996 term. On the face of it, earnings will continue to be depressed in the March 1997 term as well. A counter-argument is that financial sector earnings in the late 1980s
were greatly boosted by the extraordinary conditions prevailing in the stock market at the time. This is self-evidently true, but it probably does not alter the fact that earnings in the late 1990s are significantly below the level which the financial sector would be able to achieve if it was not still taking significant write-offs from the bad debts taken on in the late 1980s.

Depressed earnings in the financial sector go at least some way to explain why at the time of writing that sector still sells on a PER of 125x 3/97 earnings. If these earnings are still abnormally low, the financials are not as overvalued as they look. And they have a substantial impact on the valuation of the overall market. While the overall market is trading on a consolidated PER of 52.1x at the time of writing, this drops to 40.5x if the financials are excluded.

Other Special Factors

The financial sector is just the most obvious special case of a general proposition. Earnings in the 1990s have been heavily depressed so far by special losses. The banks have been the most hard hit by write-offs resulting from the excess optimism of the late 1980s, but similar special losses have been felt across the board, from real estate and
construction companies like Daikyo and Haseko to blue chips like Sony and MEI (which both took large losses as a result of overpaying for US acquisitions in the late 1980s).

Special losses will never disappear entirely. Sumitomo Corporation’s huge losses in the copper market in FY 1996 have nothing to do with the late 80s bubble, and could have happened at any time. But it is possible to see that special losses have been running at unusually high levels in the 1990s by looking at the ratio of recurring to net profits for ex-financial companies. The difference between recurring and net profits is accounted for by net extraordinary items and corporation taxes; the chart below shows these two as a percentage of recurring profits since FY 1982. It can be seen that although there was a sharp improvement in this ratio in FY 1995, it still remained somewhat higher than the ‘normal’ level of around 54 per cent.
11 Concluding Remarks

The bubble, crash, ensuing structural changes and moves towards financial market liberalization all stand as proof that the Japanese economy is moving towards maturity. Despite the differences in corporate governance structures which have been at the root of many of what we might call unique features of the Japanese economy, it is in the final instance a capitalist economy. Rapid economic growth and success which characterized much of the postwar period were built on manufacturing prowess. Such prowess is not compatible with exceptionally high labour costs and living standards, and so it is that the Japanese economy has entered its restructuring phase. Japan must now focus increasingly upon development of knowledge and service intensive employment within its national boundaries, with manufacturing bases off-shore. While the process has been painful to date, it appears to be moving at an acceptable pace.

For our purposes here, the key elements of this structural change which are of interest concern the interface between the financial markets, corporate governance structures and corporate success. The common wisdom of the 1970s and 1980s was that Japan’s bank-centred financial system and related corporate governance system liberated managers from the short-term and ‘narrow focus’ which comes from the discipline of a well-functioning equity market. This, it was argued, allowed managers to focus on long-term strategy and stability. It supposedly allowed managers to exercise greater prerogative in terms of their practices, and it is argued that all of this gave rise to economic stability and rapid growth.

We know, however, that what seems to be too good to be true typically is. The bank-centred financial system not only meant limited access to alternative sources of financing, but it also meant a corporate governance system focused on the banks. This gave rise to moral hazard in the form of lenders monitoring borrowers and excessive pressures on the borrowers to engage in aggressive investment strategies. So long as growth was rapid, this moral hazard was never exposed and the system essentially functioned as a self-fulfilling prophesy. Rapid loan growth and investment gave further growth and investment. Unfortunately, any external shock could disrupt the entire mechanism – which was indeed the case.
This financial system which earned so much praise in the 1970s and 1980s was suddenly seen for what it was in the 1990s. That is, the fundamental inflexibility of a system without severe shareholder discipline finally became transparent. Japanese managers, unused to such challenges and not subject to the discipline of the stock market, were slow to restructure or even to recognize the changes. The consequence has been exceptionally sluggish economic performance since 1992, and an equity market which has yet to recover significantly from its collapse in 1989. The needed structural changes are taking place, but at glacial speed.

Still, the medium-term prognosis is not all that bad. A significant shake-out is occurring in the financial markets, but Japan will still be left with a number of impressive players at the end of it all. The government is keen to unshackle its economy, and by the year 2000 the Japanese economy will essentially be as liberal or more so than most of its competitors. Financial market liberalization will see a dramatic increase in the importance of professional (and often foreign) asset management companies, and with it greater pressure for corporate performance and shareholder rights.

In terms of the real economy, it can be argued that these structural changes are a blessing in disguise. Given the dramatic demographic shift, Japan simply cannot produce enough workers to continue to exercise manufacturing prowess. Those who will remain in the labour force over the coming decades will have high average education, and must arguably serve in the intellectual-based industries or services. While Japan, much like the United States, might nevertheless enjoy a renaissance in light manufacturing at some point in the future, key growth will come from outside the sector. Unlike the US, however, Japan will be able to manage this transition with a labour force which is highly literate and technically skilled. If anything, the transition should ultimately be more successful.

Whatever the eventual success or otherwise of the Japanese economy and its financial system, one thing should be crystal clear at this point. Japan’s financial system was not immune from problems, and indeed has ultimately served to be at the root of recent economic difficulty. It is not a system to be emulated, as so many pop scholars and policy-makers have argued over past decades. It is not a system which handles change well and it certainly imparts no unfair advantages in the competitive arena. The Japanese economy and financial system has never been a threat.
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