

Reszat, Beate

**Working Paper**

## Japan's Financial Markets: The Lost Decade

HWWA Discussion Paper, No. 231

**Provided in Cooperation with:**

Hamburgisches Welt-Wirtschafts-Archiv (HWWA)

*Suggested Citation:* Reszat, Beate (2003) : Japan's Financial Markets: The Lost Decade, HWWA Discussion Paper, No. 231, Hamburg Institute of International Economics (HWWA), Hamburg

This Version is available at:

<https://hdl.handle.net/10419/19172>

**Standard-Nutzungsbedingungen:**

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

**Terms of use:**

*Documents in EconStor may be saved and copied for your personal and scholarly purposes.*

*You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.*

*If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.*



DISCUSSION PAPER

# **Japan's Financial Markets: The Lost Decade**

**Beate Reszat**

HWWA DISCUSSION PAPER

**231**

Hamburgisches Welt-Wirtschafts-Archiv (HWWA)  
Hamburg Institute of International Economics

**2003**

ISSN 1616-4814

Hamburgisches Welt-Wirtschafts-Archiv (HWWA)  
Hamburg Institute of International Economics  
Neuer Jungfernstieg 21 – 20347 Hamburg, Germany  
Telefon: 040/428 34 355  
Telefax: 040/428 34 451  
e-mail: [hwwa@hwwa.de](mailto:hwwa@hwwa.de)  
Internet: <http://www.hwwa.de>

The HWWA is a member of:

- Wissenschaftsgemeinschaft Gottfried Wilhelm Leibniz (WGL)
- Arbeitsgemeinschaft deutscher wirtschaftswissenschaftlicher Forschungsinstitute (ARGE)
- Association d'Instituts Européens de Conjoncture Economique (AIECE)

# **HWWA Discussion Paper**

## **Japan's Financial Markets: The Lost Decade**

**Beate Reszat**

HWWA Discussion Paper 231

<http://www.hwwa.de>

Hamburg Institute of International Economics (HWWA)  
Neuer Jungfernstieg 21 – 20347 Hamburg, Germany  
e-mail: [hwwa@hwwa.de](mailto:hwwa@hwwa.de)

Dieses Diskussionspapier ist im Rahmen eines Forschungsprojektes zur Wettbewerbsfähigkeit von Finanzzentren des Schwerpunktes "Internationale Finanz- und Währungsordnung" entstanden. Die Autorin dankt Stefan Prawitz für technische Unterstützung.

Edited by the Department of World Economy

Head: PD Dr. Carsten Hefeker

**HWWA DISCUSSION PAPER 231**

**June 2003**

# **Japan's Financial Markets: The Lost Decade**

## **ABSTRACT**

Recent debates about the state of Japan's financial system focus on the weakness of Japanese banks. But, in the complex financial relations of an advanced economy bank finance cannot be seen separate from other forms of financial intermediation. Despite the reform efforts under the Big Bang program, financial markets in Japan show severe signs of malfunctioning, distortion and backwardness. The paper gives an overview of the current state of markets for money, bonds, equities and derivatives arguing that for reform to become successful measures to develop an entirely different market culture were needed. It calls for a redefinition of the role of interest groups in the financial intermediation process – including the role of government.

JEL-Classification: E 58, E 62, G 10, N 25

Beate Reszat  
Hamburgisches Welt-Wirtschafts-Archiv (HWWA)  
Neuer Jungfernstieg 21  
20347 Hamburg  
Phone: 040-42834-448  
Fax: 040-42834-451  
e-mail: [beate.reszat@hwwa.de](mailto:beate.reszat@hwwa.de)

## 1. Introduction

The beginnings of the 1990s marked the end of Japan's high growth period. Amidst the resulting calamities this offered a unique opportunity to consolidate and overhaul the country's archaic financial system. Two developments pointed the way to reform: the burst of the bubble that had seized the Japanese economy in the 1980s and the political ambitions to implement a Japanese-style Big Bang in Japan's financial markets. In the end, as this paper will show, both did not lead to a distinct, more efficient financial system, as many observers had hoped, and the chance was largely lost.

In the second half of the 1980s Japanese financial markets had experienced a strong boom in stock and land prices. The burst of the bubble left the financial system in a shambles. The Nikkei index fell from its peak of ¥38,917 in December 1989 to ¥14,309 in August 1992. Land prices in metropolitan commercial areas declined to one-fifth to one-quarter of their peak level (Kuroda 2003). Banks faced a massive overhang of bad loans for which securities and property that had become almost worthless served as collateral. The international competitiveness of Japanese financial markets and institutions worsened dramatically. In unveiling the many weaknesses of the country's financial system the crisis pointed to the sectors in which reform appeared most urgent. The list was long ranging from the deficiencies of Japan's securities markets and payment systems over the inadequacies of financial accounting and disclosure to the shortcomings of financial institutions' risk management and corporate governance.

As the crisis lasted debates arose whether the country experienced a fundamental "hollowing out" (*kûdôka*) of its financial system.<sup>1</sup> The signs were worrying. Activity in domestic securities markets remained low while, at the same time, there was a steady increase in offshore trading of Japanese stocks. A growing number of foreign companies delisted from the Tokyo Stock Exchange (TSE) and more and more Asian countries were observed bypassing Tokyo in favour of listing in New York and other overseas markets. Foreign banks and securities houses were increasingly shifting their regional headquarters from Japan to Hong Kong and Singapore and the growth of foreign exchange trading in Tokyo, one of the world's three big centres, slowed down markedly.

In reaction to these developments the Japanese government announced a drastic reform of the financial system to make it "free, fair and global". This program which successively came into effect since 1998 became known as "Japanese Big Bang" (Baba and Hisada 2002). Its aims can be divided into four categories: (1) To increase investors' opportunities, (2) to improve the quality of financial services and promote competition, (3) to make markets more "user friendly" and (4) to make trading fairer and more transparent.

The planned measures included the liberalisation and diversification of financial products, activities and organisation structures, the improvement of the infrastructure for financial markets and transactions, the reduction of risks and a thorough reform of securities trading (Suto 1998). The stepwise progress made in these areas is complex

---

<sup>1</sup> See for a broad overview of this phenomenon the various contributions in Fukao and Ueda 1996.

and in this paper an overview of some of the achievements reached, and some fallacies of the reform program, will be given.

In analysing the functioning and performance of Japan's financial markets and structures the emphasis will be laid on a phenomenon called "institutional complementarity" which is stressed by various authors in and outside Japan.<sup>2</sup> In this context, the economy is interpreted as a complex organic system which is in a permanent process of evolution. The resulting outcome is path-dependent and determined by initial conditions and history.<sup>3</sup> Small events may have big effects which is one reason why economic development differs across countries. In this process, the functioning of the whole, and of each subsystem, depends on the performance of all its parts. This holds for the economy as well as for the financial system (Reszat 1999):

History shows that in the course of economic development financial development proceeds from simple lending and borrowing arrangements with friends and family over a system dominated by commercial banks to levels of ever higher sophistication. The lesson usually drawn from this experience is to think in hierarchies focusing on few categories such as bank lending and stock markets with market-based systems like those prevailing in the US and the UK widely considered superior to the bank-based systems of Continental Europe and Japan.<sup>4</sup>

In practice, financial systems and subsystems in highly developed economies fulfil a wide range of complementing rather than overlapping functions with each component contributing to the performance of the whole. In this environment, the dichotomy between banks and securities markets appears a relic of the past. These days, the infrastructure of deep and efficient capital markets is unthinkable to be built without the support and participation of major banks. Banks are engaged in bond underwriting, sell capital market products to households and securitise loans in bundling them into packages to be sold in the market (Reszat 2003). Where they exist, system-wide differences in performance are rather the result of administrative and regulatory constraints or the judicial efficiency observed across countries (La Porta et al. 2000).

For analysing the functioning of such a system existing approaches to the relation between financial and economic development are unsatisfactory in many respects. Most of the literature concentrates on less-developed countries, and even those focusing on advanced economies show little agreement on the measures of financial activity. The data basis is poor. Ideally, indicators of financial development should measure the ease with which borrowers and lenders are brought together, the confidence they have in each other, and the efficiency with which functions of financial allocation, distribution,

---

<sup>2</sup> In Japan, this view is found in the work of Masahiko Aoki and others on comparative institutional analysis (hikaku seido bunseki) or CIA, laying the foundations for an explanation of the uniqueness of the Japanese economy and financial system (Aoki 1996, Baba and Hisada 2002). In international policy discussions this approach stimulated debates on the comparative advantage of economic systems. See, for example, Sakakibara 1993.

<sup>3</sup> See for an overview of evolutionary theories in economics and their main characteristics Dosi 1997. The overall importance of history and path dependence is emphasised in the various contributions to Arthur 1994.

<sup>4</sup> Examples are Allen and Gale 2001a, Levine and Zervos 1998, and Rajan and Zingales 1998. See for an overview Khan 2000.

information and risk management are performed. But, few of these measures are available and the crude proxies used do not account for many of the aspects vital to a modern financial system (Rajan and Zingales 1998).

A financial system's main task is capital allocation. This does not only comprise the channeling of funds from savers to investors but the provision of a wide range of financial products with varying risk and return profiles that meet the financial needs of a developed economy. Many activities can be standardised to an extent that allows trading on organised exchanges. Others require made-to-measure contracts. As a rule, markets are incomplete since fixed costs and uncertainties limit the range of services offered which is one reason why firms themselves are not only beneficiaries of the financial system but also part of it taking over functions of a financial institution to compensate for the limitations of markets and intermediaries (Allen and Gale 2001a).

Traditional theories of financial intermediation stress the role of transaction costs and asymmetric information. Financial institutions take deposits or issue insurance policies and channel funds to individuals and firms. Evaluating assets has fixed costs that intermediaries can share giving them an advantage over individuals. Transaction costs also arise in association with direct finance when the primary securities issued by firms are transformed into indirect financial securities sold to the final investor or when short-term liabilities to customers are transformed into long-term loans. Financial institutions have a comparative advantage in screening and monitoring borrowers, and especially banks play important roles in corporate governance. As a rule, they stand in long-term relations with their customers. Often, they are the only external source of finance for small and medium-sized enterprises. Banks are represented on company boards of directors and intervene into the affairs of firms in many ways, in particular during periods of distress. They renegotiate capital structures and provide liquidity, for example, by backing other sources of short-term finance (Gorton and Winton 2002).

In recent years, the business of financial intermediation has changed considerably rendering the traditional role of financial intermediaries increasingly less relevant (Allen and Santomero 1996). Banks started securitising loans in searching a way not to keep all the money they lend on their balance sheet, insurance companies discovered their asset management capabilities beyond mere actuarial functions and began innovating and broadening their products and services, and new types of intermediaries such as nonbank financial firms focusing on special financial functions emerged. And, in contrast to former times, these days, most trading takes place among financial institutions themselves without any customers involved.

The range of financial innovations is widening including new kinds of derivatives, securitised loans and the creation of synthetic assets through dynamic trading strategies. New benchmarks are arising. One example is the explosion of trading in interest rate swaps and their growing use as benchmarks in international fixed-income markets (Wooldridge 2001). Financial institutions in modern markets are increasingly focusing on the trading of risks and the bundling and unbundling of risks of financial contracts. Risk management and the facilitation of risk transfer have become key areas of financial intermediation (Table 1). Another financial service of growing importance is the facilitation of participation in financial markets and the reduction of costs of



learning about effectively using them on a day to day basis (Allen and Santomero 1996).

**Table 1: Financial Intermediation Old and New**

Issuer	Financial instrument	
	traditional	recent
Governments	bonds, notes, bills	securitised loans, swaps
Banks	deposits, acceptances	derivatives
Firms	equity, bonds, convertibles, preferred stock, commercial paper, warrants	floating-rate debt, synthetics
Exchanges	commodity futures	financial futures, options

Source: Analogous to Allen and Santomero 1996, Table 1 and 2.

Financial markets are linked through continuous processes of arbitrage. Extraordinary profits in one market attract funds from others eventually leading to a risk-adjusted convergence of prices over the whole range of financial products and instruments. It is only where artificial barriers exist – be it unbridgeable distances as in some areas of retail finance, administrative hurdles, or lack of information and transparency – that these mechanisms do not work. There is horizontal arbitrage between different markets and vertical arbitrage in one market at different points in time. Both assure the availability and best use of funds in an economy.

A closer look at Japan reveals that, despite recent efforts under the Big Bang program, participants in the financial system of the world's second-biggest economy are still excluded from many opportunities modern financial markets offer. Recent debates on Japan's financial malaise focus strongly on the banking sector. However, the weakness of Japanese banks is but one of the many facets of the system's malfunctioning. As will be demonstrated, markets for money, equities, bonds and derivatives all show severe distortions that add to the overall failure of the whole standing in the way to recovery. In order to remove the barriers to a revival of Japan's financial system the Japanese authorities face a daunting task: As will be argued – and has been argued before – this will require to abandon long-established values and attitudes and deliberately quit the path marked by history. The challenge is to find politically feasible solutions cautiously overcoming the resistance of the interest groups involved and redefining their roles in the financial intermediation process – including those of the authorities themselves.

## 2. Japan's financial markets

In Japan, after many years of successive reforms, all elements needed to establish a modern well-functioning financial system appear to be in place. Indicators of the quality of financial infrastructure show the country in many respects on a par with financial markets in the UK and the US (Herring and Chatusripitak 2001). This holds for measures of creditor rights such as contract enforceability or indicators of the effectiveness of the judiciary system. Bureaucratic quality is high and corruption low. The quality of accounting standards is well above the average of Asian countries and

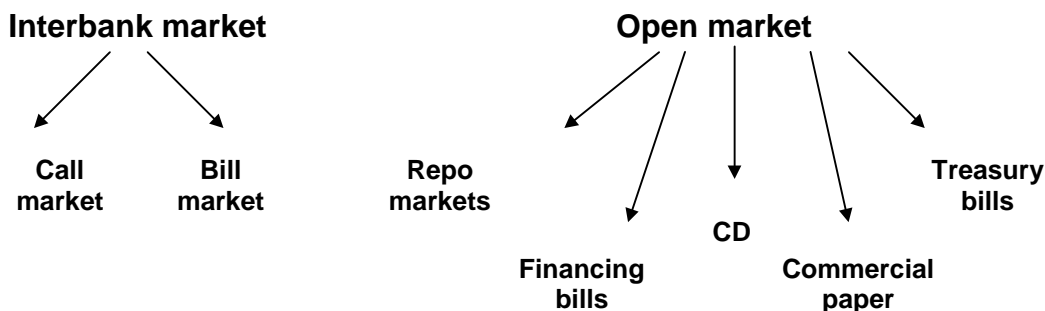
there are few restrictions on the press so that the overall quality of economic information can be expected to be high. On the other hand, lack of corruption does not mean that policy influence is low, bureaucratic quality may come along with overregulation in detail, accounting practices may deviate from the prevailing rules, and press freedom is no indicator of the quality of financial news. Japan is not on the list of economies with respected and trusted regulatory frameworks in East Asia. Traditionally, its markets are regarded as unusually opaque and less sophisticated than those of its competitors in the region. There is a widespread view that "the Australian, Hong Kong and Singaporean markets and regimes are 'cleaner' and healthier than those of Japan." (De Brouwer 2003: 24).

In accordance with a common practice in what follows a distinction is made between money markets, with maturities of one year and less, and capital markets. The latter are further divided into bond and equity markets. In addition, there are several derivatives markets which in relatively short time have become a significant part of the Japanese system (Takagi 1993).

## 2.1 Money markets

Financial markets in Japan are strongly limited in their ability to fulfil meaningful economic functions. The shortcomings are rooted either in the elements themselves or in the way they are used (Kuratani and Endo 2000). One example is money markets. In Japan, the money market consists of two segments, the interbank market and the open market to which both financial institutions and non-financial corporations have access (Figure 1). The interbank market comprises the call market and the bill-discount market. Open market instruments are repos or bond repurchase agreements, commercial papers (CP), negotiable certificates of deposit (CDs), financing bills (FBs) and Treasury bills (TBs). In addition, there is the dollar call market and an offshore market as parts of the Japanese foreign exchange market.

**Figure 1: Money market**



Up to the late 1990s, the interbank market was the most important domestic source of short-term funds for Japanese banks. In 1990, at its peak, it accounted for more than 40 per cent of money market volume (including the dollar call market). The oldest market segment is the yen call market established in 1902 (Japanese Bankers Association

2001). Maturities in this market range from half a day to several days. In 1971, the bill market was introduced with transactions usually lasting from one to three months.

In both markets, money market brokers (*tanshi gaisha*) play an important role as intermediaries. Those are private non-banking organisations with a licence from the Ministry of Finance which is giving them a cartel-like position. They are endowed with borrowing privileges from the Bank of Japan, and the central bank uses its influence on them to exert a far-reaching control over the Japanese money market. A typical money market transaction goes as follows: The lender bank transfers a deposit to a money market broker receiving a promissory note in return. The borrower bank, in turn, gives a promissory note to the broker receiving in reaction the lender's deposit. Settlement takes place on the banks' accounts kept with the Bank of Japan with the latter functioning as a clearing house in this market (Baum and Hayakawa 1994).

In the open market, until recently, the oldest segment was the *gensaki* market, dating back to the late 1940s, where bonds were sold (or bought) under the agreement to buy (or sell) them back on a fixed date at a fixed price. Participants in this market were financial institutions but also business firms, public bodies and, since 1979, foreign investors. Main buyers were public institutions and non-financial companies. On the sellers' side securities firms dominated. Maturities were up to one year, allowing to convert a long-term paper into short-term debt or investment. For many years, the *gensaki* market had been the only market free from central bank interventions and interest rate restrictions. In March 2002, *gensaki* transactions were abolished and replaced by a new type of repurchase agreements modelled closer along those prevailing in US and European markets. Beside repurchase agreements and the *gensaki* market the Japanese system knows a third kind of repo market, the so-called cash-collateralized bond lending which after liberalisation in 1996 has become the predominant repo market (Bank of Japan 2002).<sup>5</sup> But, the importance of the repo markets as a whole is declining. End of 2001, amounts outstanding there had decreased to about ¥6 trillion from their peak of over ¥22 trillion in 2000.

In the late 1970s, the Bank of Japan began liberalising the call and bill markets in an effort to strengthen the transmission mechanism of monetary policy. Restrictions on arbitrage between the interbank market and the open market were lifted. In May 1979, trading in certificates of deposit started which quickly became an alternative to the *gensaki* market. Other reforms followed. The markets for financial bills and Treasury bills were established in 1981 and 1986 respectively, the market for commercial paper in 1987.

Typically, in Japan's consensus-seeking society financial deregulation is a stepwise process carefully balancing the interests of the various groups of actors involved. One example is interest rate liberalisation. In 1985, large-denomination time deposits

---

<sup>5</sup> In contrast to uncollateralised transactions repos have many advantages. Repo operations may reduce credit risk and cost of funds. For internationally operating banks, as long as government securities are used as collateral the lender can save capital charges. For the borrower funding costs are reduced due to the low credit risk of the securities serving as collateral. Beside, bilateral limits become superfluous (Deutsche Bundesbank 2000). See for a comparison of the main characteristics of the repo markets in the US and Japan Mizuho Securities 2001.

bearing market rates and large-denomination money market certificates were introduced. Overall interest rates on time deposits were "virtually" freed in 1993, those on demand deposits in 1994 (Kuroda 2003). Another example is the CP market. It was first established in November 1987. In December 1988, the range of available maturities was increased. In the first half of the 1990s, the range of actors allowed to issue CP was widened to domestic securities companies, non-banks and insurance companies. In March 1995, foreign securities companies were allowed to issue CP in the Japanese market. In April 1996, eligibility requirements for issuing CP, including listing conditions, were "virtually" abolished (Ogawa 2003). For many years the smallest money market segment, its importance rose when further deregulation in 1998 enabled banks to issue CP, and corporations directly to turn to end-investors. End of 2002, amounts outstanding of CP underwritten by banks were almost ¥23 trillion making it the fourth-largest one behind the Japanese offshore market (outstanding amounts in 2001: over ¥49 trillion), the markets for financing bills (over ¥43 trillion) and Treasury bills (about ¥35 trillion). By comparison, the uncollateralized call market in 2002 was only about ¥4 trillion and the collateralised call market about ¥11 trillion.

As a rule, regulation is not limited to the domestic market but also extends to international activities of Japanese financial institutions and companies, and foreign actors in international yen markets, and even stretches to the least regulated international financial domain, the euromarkets. The euromarkets are markets for financial products denominated in yen and traded outside Japan. The biggest euromarket is based in London. Other centres are Singapore, Hong Kong and New York. Instruments include euromarket deposits, CDs and CP, but also loans and bonds. Japanese banks hold the largest shares in those markets which, although free from interest rate controls and legal reserve requirements, are exposed to various forms of government influence. For example, together with the introduction of the domestic CP market in 1987 a restriction prohibiting the holding of euromarket CP by nonresidents was lifted, and when Japanese banks started to trade CP issued internationally by foreign companies they waited for official permission which was granted in 1984.

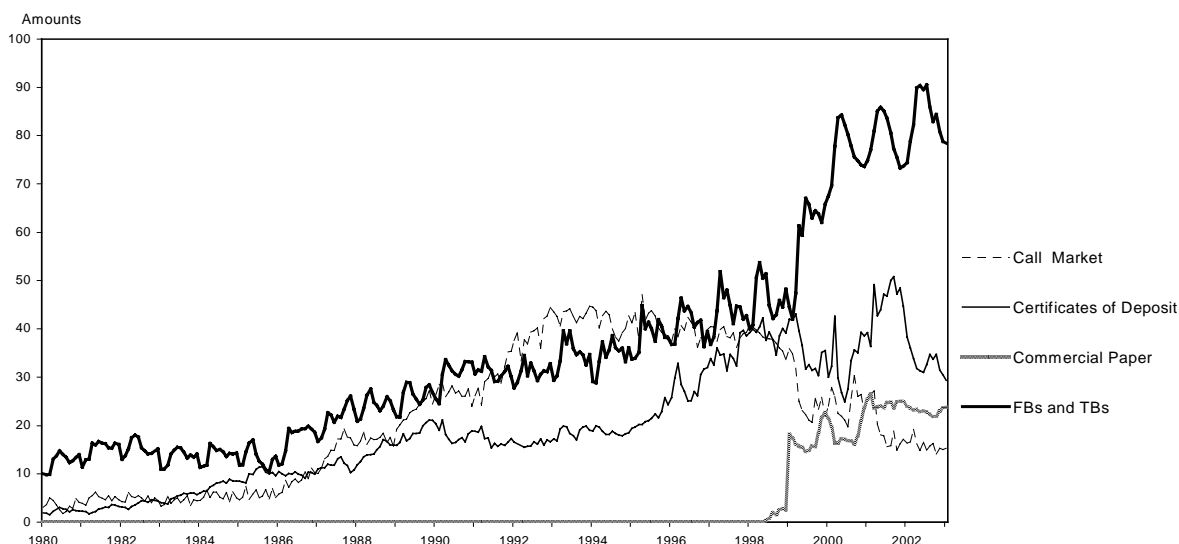
Two markets that, in principle, are part of the Japanese foreign exchange market are the dollar call market and the Tokyo Offshore Market. The latter was established in December 1986 in an effort to develop the role of Tokyo as an international financial centre. Participants are authorised foreign exchange banks mediating between nonresidents. In contrast to the euromarket, the offshore market is not open to Japanese residents. Compared to other places worldwide, trading volume is low and since the late 1990s even declining. The main reasons for its lack of attractiveness are taxes and the nonexistence of securities trading (Hall 1993).

The dollar call market came into existence in April 1972. Initially, the idea was to enable Japanese banks without access to the euromarkets to square short-term positions in foreign currency. There are no restrictions on currencies traded but as the name suggests the US dollar dominates. Traditionally, the highest trades are in short-term transactions with maturities between two and seven days. As a rule, interest rates are slightly above those prevailing in the London euromarket (Wohlmannstetter 1991). After introduction, trading volumes grew rapidly, and after liberalisation of capital transactions in December 1980 soon exceeded those in the yen call market, only

to fall back again after the establishment of the offshore market end of the 1980s and declining markedly thereafter.

Since the late 1990s, there have been dramatic shifts in the weight of the various money market segments. The importance of the yen call market decreased at the expense of the market for Treasury bills and, in particular, financing bills (Figure 2). Treasury bills are zero-coupon short-term government bonds with maturities of up to one year. Financing bills are government securities with maturities of three months or less that were issued initially to cover temporary fiscal shortfalls and, at the beginning, were rather unattractive. Introduced in 1973, they were offered in public auctions at a fixed interest rate below the official discount rate. They were underwritten close to one hundred per cent by the Bank of Japan and held by the Bank and by official institutions such as the Trust Fund Bureau, the National Debt Consolidation Fund, the Postal Live Insurance and Postal Savings schemes or, before privatisation, the Japanese National Railways.<sup>6</sup>

**Figure 2: Japan's Short-term Money Markets\***



\* Amounts outstanding in various market segments, Jan 1980 - Dec 2002, monthly data.

Source: Bank of Japan.

<sup>6</sup> Until reform in 2000, financing bills were the dominant source of finance booked in the Foreign Exchange Fund Special Account (FEFSA) which was initially established to manage the foreign funds of the Japanese government. On the asset side, the largest item beside international reserves was yen assets deposited with the Trust Fund Bureau, the predecessor of the Fiscal Loan Fund Special Account, making the account an important channel for the finance of public spending programmes and a major source of funds for the Japanese Fiscal Investment and Loan Program (FILP). See for the details Reszat 1998: 164 ff. and for FILP reform Wright 2002.

The observed shifts in the structure and composition of the money market largely reflect a reorientation of monetary policy. Since 1999, the markets for TBs and FBs became the core markets for the operations of the Bank of Japan widening the group of actors targeted by monetary policy after the interbank market had proved less and less responsive to the Bank's efforts. For this purpose, interest rates in the bill markets had to become more attractive and in April 1999, the Ministry of Finance started issuing FBs through competitive price auctions.

Over many years the Bank of Japan had continuously tried to bring interest rates down in order to stimulate the Japanese economy. From February 1999 to August 2000 the Bank had pursued a so-called "zero-interest-rate policy". In August 2000, it switched to a "quantitative easing policy" focusing on bank liquidity. The daily target for bank deposits with the central bank of initially 4 trillion yen was increased to 5 trillion yen in March 2001. In February 2003, it exceeded 15 trillion yen (Tomita 2003), in March, after the outbreak of the Iraq war, 24 trillion.<sup>7</sup> The aim was to create a big overhang of excess funds pushing borrowing rates as low as possible. As a result, trading in the call market at times almost came to a halt. Financial institutions regularly park money in the overnight market. But, with the interest rate declining to not more than 0.001 per cent a year – too little even to cover the cost of trades – this was no longer an alternative.

The BOJ policy was not successful. Instead it distorted the markets depriving them of any meaningful economic function. Interest rates in these markets no longer fulfilled their role as signals of scarcity of short-term finance in the economy, of short-term risks and market expectations, but were reduced to mere indicators of the monetary system's falling apart. The additional liquidity created by the central bank did not filter into the economy, companies and consumers remained reluctant to spend and banks still depressed by the burden of bad debts shun from issuing new loans since the ultra-low interest rates did not compensate lenders for the risks involved. For the first time since the Great Depression in the US the world saw instances when interest rates dipped below zero. As so often in the case of Japan, the signs of growing distress became first visible in international markets:

In mid-December 2002, for the first time, negative interest rates in the euroyen market emerged. Japanese banks raising US dollars by converting yen through currency swaps had to pay a forward discount on the dollar that enabled their counterparts from Europe and the US still to make profits from the reported interest rates which, for example, were between minus 0.25 to 0.30 per cent for two-week yen. In January 2003, domestic interest rates in Japan fell below zero for the first time when one European bank in Tokyo lent ¥15 billion paying 0.01 per cent. Others were following. Due to a higher standing, foreign banks were getting a spread of almost 0.1 per cent out of a yen/dollar swap leaving them with a small profit even if they paid the borrowers for taking yen.<sup>8</sup>

---

<sup>7</sup> The last number reflects efforts by the Bank of Japan to stabilise the financial system as war broke out and fears arose that a following decline of stock markets would force banks to book even larger losses on their securities portfolios end of the fiscal year in March than otherwise. When stock prices rose instead, the policy was not revised.

<sup>8</sup> Another reason why they did not keep the yen in cash is internal limits on yen positions. Foreign banks were willing to engage in swap transactions but they often needed to get rid of the yen side of the business before the end of the day.

These incidents demonstrate where the liquidity provided by the central bank is going. Instead of being absorbed by the traditional transmission mechanism of monetary policy it is largely making its way into foreign currency serving other purpose than to contribute to meeting the economy's short-term financial needs. Not without reason has the share of daily trading volumes in foreign exchange swaps in Japan risen dramatically in recent years increasingly surpassing those in the historically much bigger cash market. This development is reinforcing a tendency reflected in Japanese economic indicators since the 1980s: a breakdown of the traditional relationship between the real and financial realm of the economy.<sup>9</sup>

## 2.2 Equities markets

Severe market distortions are also found in Japan's capital markets, in particular those for equities. Since the burst of the bubble end of the 1980s stock trading did not manage to recover (Figure 3a) and primary equity transactions and merger and acquisition activity remained very weak. In recent years, among international investors the awareness of the severeness of the crisis largely faded with the tumbling of share prices worldwide which since the end of the 1990s made the Nikkei seem no longer to fare much worse than other major stock markets (Figure 3b). But, the overall tendency of market decline internationally cannot distract from the fundamental flaws of Japan's equity markets that despite all reform efforts in recent years still exist.

Japan's financial system has long suffered from a strict functional separation among financial institutions weakening stock trading. There was – and in many respects still is – a division between banking and securities business. The first steps to abolish this separation came with the Law concerning the Reform of the Financial System which from April 1993 onward allowed different categories of banks to set up wholly-owned subsidiaries for securities trading. The first securities subsidiaries established by two long-term credit banks, two trust banks and the Norinchukin Bank started operating in July 1993. The Bank of Tokyo followed in October the same year. Each institution needed the approval of the Ministry of Finance (MOF), which, when it was the turn of the big city banks, decided to wait for a while before admitting them, too, worrying about an "adverse impact" of its decision on small securities companies (Kuroda 2003). In addition, severe restrictions remained. For example, banks were not allowed to directly engage in stock brokerage denying them the advantages of diversification across sectors and businesses.

The Big Bang, and the Financial Reform Law passed in June 1998, brought additional changes. Those concerned securities derivatives, the promotion of asset-backed securities and the approval of special-purpose companies.<sup>10</sup> In December 1998, banks

---

<sup>9</sup> One example is the relation between net long-term capital flows and the current account in the balance-of-payments (Reszat 1998: 17). Another is the low rate of consumer price inflation during the bubble years. The speculative wave that seized asset prices, land rents and golf club membership fees untypically left overall prices in Japan largely untouched.

<sup>10</sup> Special-purpose companies are one example that, despite national restrictions, Japanese banks often are among the most innovative financial institutions in international markets. They had been among the first establishing so-called structured derivative product companies (DPCs) internationally at the beginning of the 1990s (Reszat 1998).

became allowed to engage directly in sales of securities investment trusts and OTC derivatives, and remaining restrictions on securities subsidiaries were lifted in October 1999. Other measures in these years included the liberalisation of brokerage commissions, the abolition of restrictions on off-exchange market trading for exchange-listed stocks and the introduction of new accounting standards for securities and derivatives. Companies were required to consolidate their accounts and banks to mark equity holdings to market rather than valuing them at the purchase price.<sup>11</sup> As a result, markets did become more competitive.<sup>12</sup> But, apparently, those reforms did not succeed in markedly boosting equities trading. Japanese flow of funds accounts show that between 1990 and 1999 the share of bank loans in financing nonbank business stayed at around 39 per cent (Baba and Hisada 2002).

There are eight stock exchanges in Japan, but trading is concentrated in Tokyo and, to a much smaller extent, in Osaka.<sup>13</sup> Historically, competition between Osaka and Tokyo is strong. In Osaka, the world's probably oldest futures exchange, the Dojima Rice Exchange, was established in the early 18<sup>th</sup> century under the Tokugawa rule (Schaede 1990). Osaka financiers long dominated trade in Japan (McClain 1999) and during the Meiji era the city was the country's main financial centre (Reszat 1998). On the other hand, Japan's oldest stock exchange is the Tokyo Stock Exchange (TSE), established in 1878. In many respects, the places developed in parallel. Each has its own financial products, market for venture capital and strategic links to other exchanges worldwide. In futures trading the Nikkei-225 contract of the Osaka Securities Exchange (OSE) is most successful, as is the 10-year government bond future listed on the TSE. But OSE's joint venture with the US National Association of Securities Dealers, Nasdaq Japan, was terminated only two years after its launch and is now operated by the OSE under the new name Hercules, competing with Tokyo's market for high growth values and emerging stocks, Mothers, and Japan's much larger OTC market Jasdaq. The TSE appears more active in forming strategic alliances and links to other parts of the world. It has a long-established cooperation with the London Stock Exchange and is part of a 10-member alliance including the New York Stock Exchange that plans to offer 24-hour trading around the world. But, in many instances international cooperation is a one-sided affair,<sup>14</sup> and the experience shows that most ambitious plans eventually do not materialise.

---

<sup>11</sup> In a preliminary last step of these reforms, all businesses in Japan, will be required to mark assets to market in 2004.

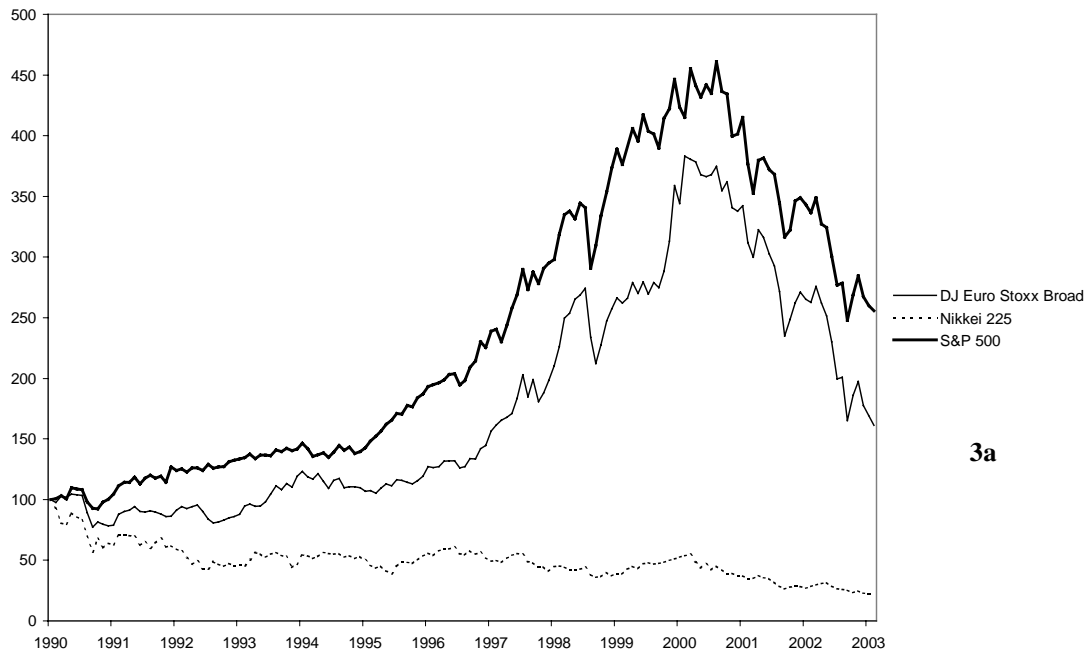
<sup>12</sup> Brokerage commissions on equity transactions became razor-thin. In addition, a market segmentation between trade in domestic and foreign funds emerged. For example, at the beginning of 2003, commission brokerage charges were reported to be well below 0.5 per cent on domestic funds while those for trades in foreign securities varied strongly from 2 per cent to over 4 per cent.

<sup>13</sup> In 1999, the market shares of these exchanges were for Tokyo 88.43 per cent, Osaka 8.53, Nagoya 2.81, Kyoto 0.09, Hiroshima 0.01, Fukuoka 0.03, Niigata 0.03 and Sapporo 0.06 (Japan Securities Research Institute 2000).

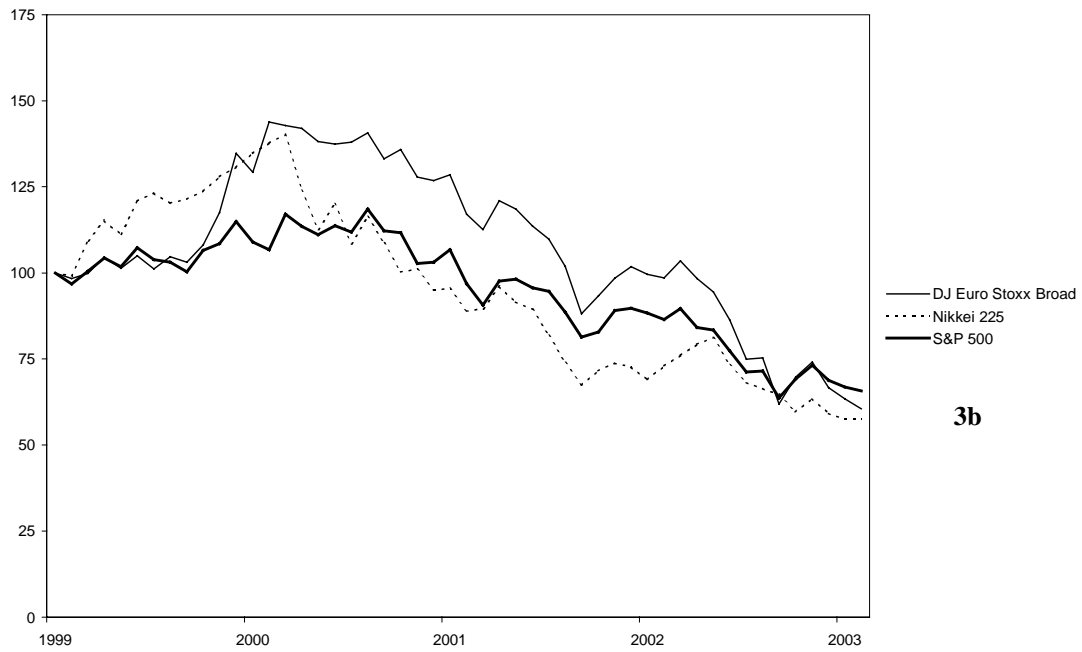
<sup>14</sup> One example is exchange traded funds (ETFs). Japanese ETFs are offered internationally via the NASDAQ network and in cooperation between the TSE and the American Stock Exchange. But, in Japan, trading in foreign ETFs is not allowed (Nabor 2001). Another example is the alliance between Japan and Singapore which according to Japanese hopes once would evolve into a full-blown Asian capital market. The Japan-Singapore New Age Economic Agreement provides for mechanisms by which investors in both countries use their local exchange to access and buy stocks in the other exchange. But, for reasons rooted in the different legal systems of both countries, although Singaporeans can invest in Japanese stocks under this agreement, Japanese cannot invest in Singaporean stocks (De Brouwer 2003).



**Figure 3: Relative Performance of International Stock Markets**



Jan 1990 – Feb 2003, end of month close, 1990 = 100.



Jan 1999 – Feb 2003, end of month close, 1999 = 100.

Competition between the two exchanges did not prevent market decline. Both struggle to cope with the challenges of falling stock prices and an increasing pressures from inside and outside Japan. One of those challenges is technology. Worldwide, with the advent of the internet, banks, securities houses and non-traditional players started to set up trading platforms and offered all kinds of financial services online. In Japan, the abolition of restrictions on off-exchange market trading for exchange-listed stocks in 1998 allowed the establishment of electronic communication networks (ECNs) and private trading systems (PTS), too. Those systems are highly cost-efficient in circumventing the exchanges and matching clients' orders directly. The resulting competitive pressures make the exchanges seek to raise funds for investments in information technology. The solution they chose is privatisation. The TSE members decided to demutualise the bourse into a commercially run operation in September 2001 as a first step towards listing. The OSE demutualised earlier that year and plans to float in March 2004.

When Tokyo announced its Big Bang in 1997, many investment banks started to increase their staff levels in hopes of capitalising on an impending stock market boom. This holds in particular for foreign firms. But after years of disappointing experiences many of them have left the country or drastically scaled down operations in Japan. There are various reasons for this retreat. Economic growth has been much slower than expected and the liberalisation of commissions and a rapidly falling stock market have hurt profit margins. Operating costs are high, and merger and acquisition activities have been extremely disappointing as corporate restructuring is not developing as expected. Among the international financial community there is a growing debate about the increasing irrelevance of Japan after many years in which in the performance of global portfolios the Japan weighting had been a critical factor and not having an informed view on Japan meant having no worldwide opinion on the overall outlook for G7 economies (Ibison 2003).

With worsening economic prospects, cultural gaps widened, benefiting other places in East Asia such as Singapore and Hong Kong that are wooing international financial institutions, and animosities are voiced increasingly louder and more frequently on both sides. Foreign investors are feeling more and more unwelcome being regarded as *hagetaka* or "vultures" preying of weakened Japanese companies (Nakamoto 2002). Regulators' openly demonstrated distaste for foreign takeovers and other incidents raise suspicions of partiality and anti-foreign sentiments.

The latter mingle with a deep-seated uneasiness about the overall role of politics and government interference. Official stock market manipulation has a long tradition in Japan. The Japanese Ministry of Finance has long been notorious for its "price keeping operations" (PKOs)<sup>15</sup>, and more than in any other major market in the world stock prices in Tokyo were – and still are – influenced by rumours about official intents and strategies. There had been expectations that with recent reforms that brought a loss of MOF's supervisory and regulatory functions to the newly established Financial Services

---

<sup>15</sup> Between 1992 and 1995 alone the Japanese government was reported to have pumped more than ¥12 trillion into the market through the purchase of equities using pension funds and postal savings (Wright 2002).

Agency (FSA), and with declining political influence of the renamed Zaimu-shô, this phenomenon would cease to exist, but this is not the case:

The most obvious signs of ongoing official interference can be observed regularly as the end of the fiscal year is approaching. Financial institutions and other companies are holding large balances of shares which they are forced to mark to market once a year, and a market decline threatens to weaken their overall performance. The government has found various ways to cope with the problem. One is accountancy techniques. In contrast to international standards, in order to reduce losses on their securities portfolios Japanese institutions are allowed to use the average price of shareholdings during the last month of the fiscal year to calculate their value rather than the closing price on the last trading day. Another is to put pressure on market participants to change their behaviour. This process of administrative guidance or *gyôsei shidô* is taking various forms of moral suasion alongside the rule of law and prudential requirements. One manifestation are the repeated crusades against short selling by the FSA which go far beyond the way official influence is exerted in other places (Ibison 2002).

The latter example is the more disturbing as it demonstrates the persistence of behaviour patterns and unwritten rules even if institutions are changing formally and agreement on the necessity of reforms is widespread. This is no matter of "old habits die hard" but the expression of a grown understanding of the role and functions of capital markets that differs fundamentally from those in other parts of the world. Traditionally, in Japan's long history of bank-based corporate finance share holdings above all serve the purpose to cement industrial relations. There has always been a large group of so-called stable shareholders (*antei kabunushi*) consisting of banks, insurance companies and large business corporations that are prepared to hold their positions indefinitely. Firms are used to hold stakes in important customers and suppliers, and industrial conglomerates of hundreds of members (*keiretsu*)<sup>16</sup> are linked through interlocking shares. As a consequence, market liquidity is low since only a small fraction of outstanding shares is actively traded (Hodder and Tschoegl 1993).<sup>17</sup>

In this world, the function of market prices differs, too. Prices play a secondary role not necessarily reflecting market risks and investors' expectations of future returns. More often than elsewhere shares are bought and held to support allied firms and sold only to meet the most urgent financial needs – or, in the changing regulatory environment, the minimum requirements of international capital standards – rather than to realise profits. Over wide periods trading is dominated by strategic operations with a view on annual

---

<sup>16</sup> Each *keiretsu*, in a sense, is representing a cross-section of the Japanese economy. In 1990, the 8 biggest groups contained about 900 companies – excluding banks and insurance companies (Reszat 1998). Although with the decline of the Japanese economy and resulting mergers and acquisitions across group boundaries those structures are slowly eroding, many of the ties are still intact.

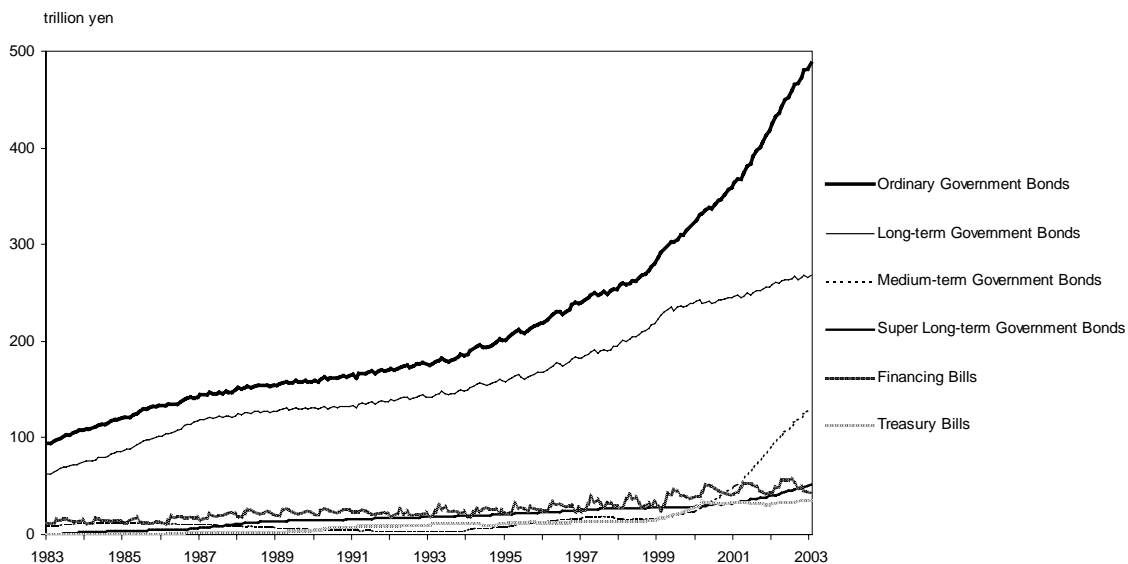
<sup>17</sup> Stable shareholding has declined since the second half of the 1990s from about 45 per cent of total shares publicly traded to 37.9 per cent in 1999, but it is still a major feature of the Japanese system. Compare Okabe 2002. Recent developments indicate that despite a deadline of 2004 for Japanese companies to reduce their cross-shareholdings for financial institutions the numbers might have started even to rise again. One factor is the continuing injection of capital into ailing affiliated companies by Japanese banks. Another is that leading banks, in their effort to raise funds to strengthen their capital base, are urging affiliated companies to take up the stock. The outstanding example here is Mizuho which is acting as main bank for around 60 per cent of the companies listed on the TSE.

financial statements. In this environment, government interference in the market mechanism in pursuit of higher goals comes natural. If price movements threaten to disturb the carefully orchestrated balance of interests in the economy by benefiting some groups at the expense of others intervention appears wholly justified. The markets are subordinated to policy. Official intervention is not limited to MOF and FSA. The BOJ decision in 2002 to buy shares from commercial banks in the order of ¥2,000 billion – later expanded to ¥3,000 billion – and the proposal that the Bank should purchase exchange traded funds and other equities linked to the "real" side of the economy in order to provide additional liquidity did not raise the protests such measures would provoke in other places. No other central bank of a leading industrial country has assets equal to 25 per cent of GDP in its balance sheet, but there are few voices of concern about the effects this phenomenon has on market culture in Japan.

### 2.3 Bond Markets

Historically grown features and attitudes also characterise bond markets in Japan. The by far largest is the market for Japanese government bonds (JGBs). Its origins date back to the beginning of Japan's "welfare era" in the early 1970s when Japan abandoned the balanced-budget policy the country had adopted from 1949 onwards. The volume of JGBs in the economy grew dramatically with the worsening of the economic situation in the 1990s and at the beginning of 2003 had almost reached ¥500 trillion (Figure 4). Between August 1992 and October 2000 alone fourteen packages of emergency fiscal and economic measures were introduced totalling more than ¥132 trillion of spending, loans and tax cuts (Wright 2002).

**Figure 4: Japan's Government Bonds**



\*Amounts outstanding at the end of the year.

Sources: Bank of Japan, Japan Securities Dealers Association

The high volume of government borrowing in the market is greatly crowding out private business.<sup>18</sup> In addition, bond issuance by private corporations was long hampered by regulation that was loosened only in the 1980s (Flath 2000). There are different kinds of corporate bonds in Japan. Straight bonds offer the holder a stream of interest payments. Convertible bonds, that exist since 1966, may be exchanged for some specified number of shares of common stock of the issuing company in addition. Beside, since 1981, there are warrant bonds with a warrant, i.e. an option to purchase shares of the firm's stock, attached. Detachable warrants, first authorized in Japan in 1989, may be traded independently of the bonds with which they are issued. Then, there are samurai bonds and shogun bonds. The former are yen-denominated bonds issued in Japan by non-residents that first appeared in the 1970s. Shogun bonds are foreign-currency denominated bonds issued by non-residents in Japan. A variant of the latter are daimyo bonds, non-resident eurobonds issued in Japan and sold to investors in the euromarkets.

Despite this variety of products, corporate bonds play traditionally a minor role in Japan. Up to the first oil crisis, issuance was strictly controlled under a low-interest-rate policy except for electronic power bonds and bank debentures and severe restrictions remained until the end of the 1980s. But even after 1993, when restrictions were said to have been eased substantially (Japan Securities Research Institute 2000), their share was small compared to the government bond market. For example, in 1997, the total volume of new issues of corporate bonds was less than ¥6.8 trillion while public bond issues that year accounted for over ¥70 trillion (Suto 1998). The share of corporate bonds rose slowly but steadily in the 1990s, but with the strong increase of government debt in recent years it fell back again (Figure 5).

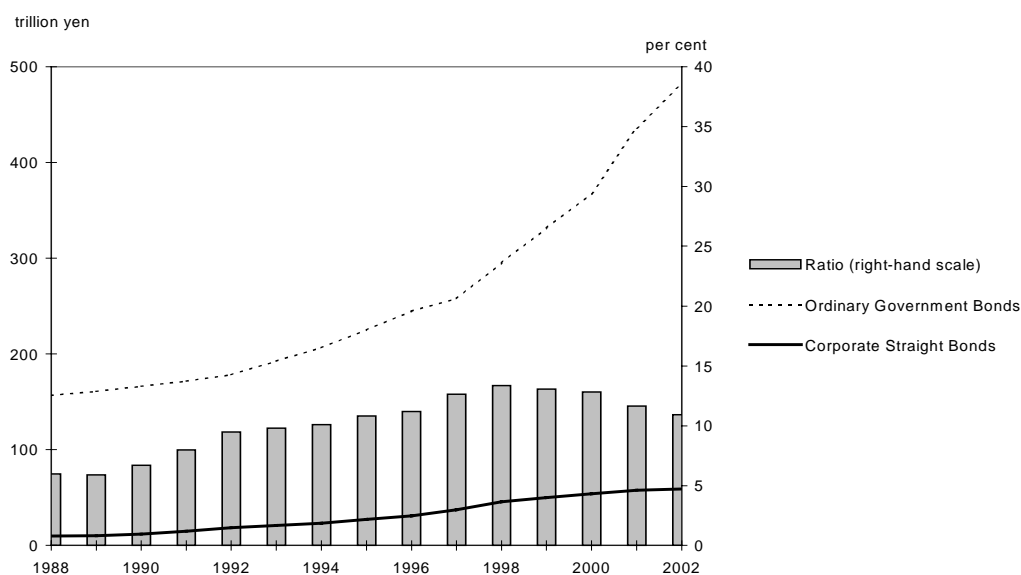
Big corporations partly circumvented restrictions by turning to international markets. But, borrowing conditions in those markets worsened, too, for Japanese in recent years. This holds even for the Japanese government. There is a "Japan premium" on Japanese sovereign debt since August 1998 when Russia's moratorium on its external debt raised international investors' awareness of the inherent risk of government bonds (Tomita 2003).<sup>19</sup> After successive downgrades of Japanese public debt by international rating agencies, in the middle of 2002, Japanese bonds had the lowest ranking of all major developed nations and some developing ones as well. Even worse, yields on JGBs have risen above those on yen-denominated government bonds with identical maturities issued by Spanish and Italian governments.

---

<sup>18</sup> Crowding out of private firms by government bonds has reached still another dimension recently spreading to the credit markets when banks with a view on capital ratios increasingly shifted assets from 100 per cent risk-weighted corporate loans to zero risk-weighted JGBs.

<sup>19</sup> There had been a Japan premium earlier for Japanese banks paying higher interest rates on interbank borrowing in eurodollar and euroyen than their US and European competitors. It first emerged in late summer/early fall 1995 when the failure of Yamaichi Securities unveiled large previously unreported losses raising concerns internationally about the overall solvency of major Japanese banks. See Peek and Rosengren 1998.

**Figure 5: Japan's bond Markets: Public and Corporate Bonds 1988-2002\***



\*Amounts outstanding at the end of the year.

Sources: Bank of Japan, Japan Securities Dealers Association.

As a rule, ratings and rating agencies provide useful information for investment decisions. In international markets where transparency is lower and information about individual borrowers less easily available they are even more valuable. Nevertheless, the Japan premium has been harshly criticized by observers in and outside Japan. The main argument is that Japan, the second-largest economy worldwide, and the largest creditor nation, cannot go bankrupt. A related argument is that as the third-largest exporter behind the US and the euro area the country will always earn sufficient foreign-exchange to pay for its foreign-currency denominated debt.

But, as history shows, if defined as an arbitrary alteration in the payment terms for principal or interest, default may take various forms of which tax increases and inflation are but two possibilities. Government bonds may be cancelled and redemptions postponed. Taxes on bond holders may be imposed. Liabilities other than those resulting from bond issuance may be deferred or cancelled. For example, the Japanese government has a wide range of liabilities ranging from guarantees of the postal savings system over the provision of the deposit insurance cap on bank deposits to credit guarantees given to small and medium-sized enterprises and substantial future payouts of public pensions (Tomita 2003). That it is not always willing to meet these liabilities is demonstrated by the "hidden debt" it is carrying forward which is largely the result of strategies to disguise rapidly rising public deficits in the past by way of special off-balance-sheet accounts. Two examples are the tax revenues the government failed to transfer to local governments and the proceeds from the sale of Nippon Telegraph & Telephone shares that were not used to contribute paying down the national debt as proclaimed.

With the worsening of the international credit standing of Japanese government bonds the quality as benchmark issues of these papers weakened. In general, long-term government yields are used as an interest-rate benchmark for the entire range of other fixed-income securities considered less creditworthy in an economy. What makes benchmark status so attractive to governments is, above all, borrowing cost. Markets for benchmark securities are characterised by low risks, a most efficient functioning and a high degree of liquidity making fund raising comparably cheap. Government debt is special in many respects. Normally, it is considered to be essentially free of the risk of default. Trading is facilitated by the often large amount of debt outstanding and the fungibility of issues. Large borrowing needs and a long life enable governments to offer a wider range of maturities than many other borrowers which, in turn, facilitates the construction of yield curves. And, as a rule, there exist well-developed repo and derivatives markets for government securities allowing market participants to take short and long positions that reflect their expectations of future interest rate movements.

In addition, securities with benchmark status provide a couple of positive externalities. They serve as benchmarks for pricing and quoting yields on other securities, and as hedging instruments, and they are the most common form of collateral in financial markets. Investors tend to choose them as "safe havens" during periods of financial turmoil. In addition, government securities markets' infrastructure, including the legal and regulatory framework, trade execution arrangements and clearing and settlement systems, are considered to enhance the development of non-government markets which is one reason why governments with a history of financial surpluses such as Hong Kong, Norway and Singapore were issuing debt even at times when it was unneeded (Study Group on Fixed Income Markets 2001).

These advantages help explain why in practically all countries government securities have been the most important type of instrument traded in financial markets (Allen and Gale 2001b).<sup>20</sup> But, the question is to what extent Japanese financial markets benefit from them given the described imperfections. In Japan, market liquidity, measured as ratio of trading volume to amounts outstanding, is low compared to other countries. An extraordinary large part of marketable securities is held by the government and the Bank of Japan making pricing based on supply and demand estimates extraordinarily difficult (Inoue 2003). Trading volume in Japan's futures markets is high, but among exchange-traded instruments, beside equity futures, it is only the 10-year government future that matters, while all others play a far lesser role, and the much bigger OTC market is wholly dominated by interest rate swaps. In the cash market, too, the range of maturities is strongly skewed towards 10-year bonds which are the sole ones sufficiently liquid to serve as benchmark. Beside, Japan is the only big industrial country without reopening system which further reduces market liquidity.<sup>21</sup> And, given the overall weakness of the corporate-bond sector in Japan public interest in developing a market infrastructure to enhance the growth of non-government securities appears low.

---

<sup>20</sup> In earlier times, when markets for government securities were still underdeveloped, private debt instruments often served as benchmarks. In Japan, during the 1950s and 1960s, bank debentures and telegraph and telephone bonds assumed this role (Wooldridge 2001).

<sup>21</sup> Above all, reopenings are conducted to increase the fungibility of benchmark issues and increase issue size.

Given these market imperfections and the increasing possibility of default in one form or the other, Japanese governments bonds are less and less able to fulfil benchmark functions and markets have begun to look for alternatives. In international markets, with advances in computer and financial technologies, interest rate derivatives have partly replaced government bonds and related derivatives as benchmarks and hedging instruments for non-government securities after the near-collapse of Long-Term Capital Management (LTCM) and occasional squeezes in German bund futures have demonstrated the weaknesses of traditional strategies. But experience shows that for Japan this alternative, too, has its limits.

## **2.4 Derivatives**

Worldwide, trading volumes in derivatives markets are much higher than in any other financial market segment. Leading derivatives exchanges alone transact daily over \$2,600 billion, much more than the world's stock exchanges. Derivatives are traded over the counter (OTC) and on organised exchanges. In Japan, trading on organised exchanges is separated along the same rules that hold for banks and securities firms in cash markets. There is a division between bond futures and stock price index futures on the one hand and interest rate and currency futures on the other. Both categories are listed and traded on different exchanges.

Trading in bond futures started in October 1985 in long-term government bond futures at the TSE. In 1988, trading in TOPIX followed. Other Japanese exchanges offering derivatives contracts are the OSE where trading in Nikkei 225 contracts began in 1988, and the Tokyo International Financial Futures Exchange (TIFFE), where euroyen and US dollar short-term interest-rate futures are traded. The most successful contracts are the 10-year government bond contract and the Nikkei 225.

With the latter exceptions Japan's derivatives markets are weak. They are poorly developed and much less sophisticated than those in western countries. One consequence is that option trading plays a minor role. Another is the focus on cash instruments instead of derivatives for benchmark and hedging purposes. For example, until recently, benchmark trading in Japanese government bonds was entirely concentrated on the cash market (Japan Securities Research Institute 2000). The reason for this backwardness is partly technology: Modern hedging strategies, in particular those involving options, require advanced computers and respective skills which, with few exceptions, are generally lacking in Japan's chronically undercapitalised financial institutions (Fukao 2003, Reszat 1998).

With a notional amount outstanding of \$7.7 trillion in December 2002, exchange-traded derivatives account only for the smaller part of Japan's derivatives. The larger is traded over the counter with outstanding amounts of \$13 trillion end of 2002. The highest share in OTC trading is interest rate swaps which account for almost 80 per cent of notional amounts outstanding (Table 2). The second-highest is foreign exchange where, again, swaps are dominating.



**Table 2: Notional Amounts Outstanding in OTC Derivatives Markets<sup>1</sup>**

	<b>Total</b>	<b>US-Dollar</b>	<b>Euro</b>	<b>Japanese Yen</b>
Foreign exchange <sup>2</sup>	10,427	9,583	3,857	2,305
Interest rate derivatives	89,995	32,178	30,671	13,474
<i>of which</i>				
- swaps	68,275	21,575	24,568	11,671
- options	12,575	5,997	4,414	997

1 End of June 2002, in billions of US dollars.

2 Including outright forwards and foreign exchange swaps.

Source: Bank for International Settlements.

Trading in interest rate swaps has increased markedly in recent years, not only in Japan but worldwide. One explanation for the growing interest in these instruments in international markets is that they are more and more replacing government bonds and related derivatives as benchmarks. An interest rate swap is a contractual agreement between two counterparties to exchange a fixed rate instrument for a floating rate instrument. No principal amount is changing hands. Instead, basically, a series of payments is calculated by applying a fixed interest rate to a notional principal amount, and another stream of payments using a floating rate of interest, and then both are exchanged. The pricing of swaps is typically based on the London Interbank Offer Rate (LIBOR).

Compared to government bonds, one advantage of swaps is correlations: Swap rates tend to move more closely with prices of other credit products, in particular during periods of financial turmoil. Another advantage is the absence of an underlying asset. There are no limits to entering into swap contracts, and reverse price movements due to demand and supply imbalances are rare (Study Group on Fixed Income Markets 2001). In addition, swaps spare capital and do not consume large amounts of credit limits (Santillán et al. 2000), an argument which is particularly important for Japanese banks. Swaps are used by a wide range of financial intermediaries and corporations, government agencies and sovereign states for a variety of reasons. Those include the reduction of funding costs, the hedging of interest rate exposures and the creation of types of assets not obtainable otherwise. In Japan, there is still another explanation for the use of these instruments. Interest rate swaps are an attractive source of profits for Japanese financial institutions that help them boost revenues and distract attention from the fragile state of their core businesses.

Given the described deficiencies of the Japanese bond markets swaps have undeniable advantages that should make them an ideal benchmark in yen markets. But, swaps do not come without risks. A counterparty may default at the end of the agreement. Usually, this risk is low since banks in the LIBOR contributor panels are mostly rated double A. But, the weak standing of Japanese banks is largely hindering yen instruments to get benchmark status. In face of the resulting uncertainties about the future development of yen swap rates market participants shun their use for constructing

yield curves despite traditional markets' pitfalls (Wooldridge 2001). This may be one explanation why, compared with other world financial markets, the share of interest rate derivatives is low in Japan and, in contrast to the worldwide trend, even falling (Table 3).

**Table 3: Daily Turnover in OTC Derivatives Markets<sup>1</sup>**

	<b>Total</b>		<b>Foreign Exchange<sup>2</sup></b>		<b>Interest rate<sup>3</sup></b>	
	April 1998	April 2001	April 1998	April 2001	April 1998	April 2001
Japan	120.6	131.7	89.0	115.9	31.6	15.8
United Kingdom	591.2	628.1	468.3	390.3	122.9	237.8
United States	293.8	284.7	235.4	169.1	58.4	115.7

1 Average daily turnover in billions of US dollars.

2 Including outright forwards and foreign exchange swaps.

3 Single currency contracts only.

Source: Bank for International Settlements 2002, Table C.4.

### 3. Conclusions

Negative interest rates, the Japan premium on government bonds, a de facto still nonexistent domestic market for corporate debt and the lack of benchmarks for constructing a reliable yield curve for yen instruments are all symptoms of a financial system that has long ceased to fulfil many basic financial functions a highly developed economy depends on. As a consequence, each sign of economic recovery in Japan is suffocated by financial market inefficiencies. One argument often heard in this context is that in Japan's bank-based system market dependence is traditionally low so that the damage done by market failure is low as well. But, as has been argued earlier, in an advanced economy like the Japanese one, banks are part of a complex interdependent system influencing, and being influenced by, the whole.

The weakness of Japan's banks is one reason why the markets are not working properly. A weak capital basis, low profitability and technological backwardness render them unable to take risks and exploit profit opportunities and hinder them to participate in the process of innovation, globalisation and change financial markets in other countries are experiencing and to play the role financial institutions take in the development and promotion of financial market growth elsewhere. In addition, a long tradition of government and corporate group support prevents them from developing an awareness of the requirements of balanced risk-return structures and adequate corporate governance which, again, weakens market functioning. Further, the still existing functional separation across markets denies banks and other financial institutions the full benefits of business diversification and risk management and the exploitation of respective scale economies.

The greatest danger for system performance in this context is rooted in its evolutionary nature: Path dependence includes self-reinforcing patterns that work in both ways. Current innovations are built on innovations in the past and the roots of tomorrow's failures and inefficiencies are planted today. In many respects, Japan's financial



## References

Allen, Franklin and Douglas Gale (2001a): *Comparing Financial Systems*, Cambridge, Massachusetts: MIT Press.

Allen, Franklin and Douglas Gale (2001b): *Comparative Financial Systems: A Survey*, <http://fic.wharton.upenn.edu/fic/>.

Allen, Franklin and Anthony M. Santomero (1996): *The Theory of Financial Intermediation*, <http://fic.wharton.upenn.edu/fic/papers/96/9632.pdf>.

Aoki, Masahiko (1996): *Keizai Shisutemu no Shinka to Tagensei*, Tokyo: Toyo Keizai Shinposha.

Arthur, W. Brian (ed.): *Increasing Returns and Path Dependence in the Economy*, Ann Arbor: The University of Michigan Press.

Baba, Naohiko and Takamasa Hisada (2002): *Japan's Financial System: Its Perspective and the Authorities' Role in Redesigning and Administering the System*, in: *Monetary and Economic Studies*, April, pp. 43- 93.

Bank of Japan (2002): *Payment Systems in Japan*, July [http://www.boj.or.jp/en/siryostat/sjgb0302\\_f.htm](http://www.boj.or.jp/en/siryostat/sjgb0302_f.htm).

Baum, Harald and Hayakawa, Masaru (1994): *Die rechtliche Gestaltung des japanischen Finanzmarktes*, in: Baum, Harald and Drobnig, Ulrich (eds): *Japanisches Handels- und Wirtschaftsrecht*, Berlin: Walter de Gruyter.

De Brouwer, Gordon (2003): *Finance in East Asia*, paper presented at the workshop on "A New Financial Market Structure for East Asia: How to Promote Regional Financial Market Integration, Big Island, Hawaii, 7-8 February.

Deutsche Bundesbank (2000): *The money market as the operational point of departure of the central bank, and initial experience of the range of monetary policy instruments of the Eurosystem*, Monthly Report, January.

Dosi, Giovanni (1997): *Opportunities, Incentives and the Collective Patterns of Technological Change*, in: *The Economic Journal*, pp. 1530-1547.

Flath, David (2000): *The Japanese Economy*, Oxford: Oxford University Press.

Fukao, Mitsuhiro und Kazuo Ueda (eds) (1996): *Kin'yû kûdôka no keizai bunseki*. Tokyo: Nihon Keizai Shimbun Sha.

Gorton, Gary and Andrew Winton (2002): *Financial Intermediation*, <http://www.nber.org/papers/w8929>.

Hall, Maximilian J.B. (1993): *Banking Regulation and Supervision - A Comparative Study of the UK, USA and Japan*, Aldershot: Edward Elgar.

Herring, Richard and Nathporn Chatusripitak (2001): *The Case of the Missing Market: the Bond Market and Why It Matters for Financial Development*, Wharton Financial Institutions Center Working Paper 01-08, <http://fic.wharton.upenn.edu/fic/papers/01/0108.pdf>.

Fukao, Mitsuhiro (2002): *Barriers to Financial Restructuring: Japanese Banking and Life-Insurance Industries*, paper presented at the Conference on "East Asian Monetary and Financial Cooperation", Hamburg, May 29-31.

Hodder, James E. and Adrian E. Tschoegl (1993): *Corporate Finance in Japan*, in: Takagi, Shinji (ed.): *Japanese Capital Markets*, Oxford: Blackwell, pp. 133-163.

Ibison, David (2002): *Shadow Management*, in: *The Financial Times*, 13 June.

Ibison, David (2003): *Banks Tire of Waiting for Sun to Rise on Japan's 'Big Bang'*, in: *Financial Times*, 14 February.

Inoue, Hiroataka (2003): *The Structure of Government Securities Markets in G10 Countries: Summary of Questionnaire Result*, [http://www.bis.org/publ/cgfs11ino\\_a.pdf](http://www.bis.org/publ/cgfs11ino_a.pdf).

Japanese Bankers Association (Zenginkyo) (2001): *The Banking System in Japan March 2001*, Tokyo: JBA.

Japan Securities Research Institute (2000): *Securities Market in Japan 2001*, Tokyo: Japan Securities Research Institute.

Nabor, Andreas (2001): *Finanzmarktwettbewerb und Regulierung*, in: Pohl, Manfred and Iris Wiczorek (eds): *Japan 2000/2001*, Hamburg: Institut für Asienkunde, pp. 165-189.

Nakamoto, Michiyo (2002): *Locals Seek to Ward Off Foreign Vultures*, in: *Financial Times*, 15 November.

Khan, Aubhik (2000): *The Finance and Growth Nexus*, in: Federal Reserve Bank of Philadelphia: *Business Review*, January/February, pp. 1-14.

Kuratani, Masatoshi and Yukihiro Endo (2000): *Establishing New Financial Markets in Japan*, <http://www.nri.co.jp/english/report/papers/2000/pdf/np200006.pdf>.

Kuroda, Akio (2003): *Financial Reform in Japan*, in: Maximilian J.B. Hall (ed.): *The International Handbook of Financial Reform*, Cheltenham: Edward Elgar, pp. 156-191.

La Porta, Rafael, Florencio Lopez-de-Silva, Andrei Shleifer and Robert Vishny (2000): Investor Protection and Corporate Governance, [http://rru.worldbank.org/documents/investor\\_protection\\_origins\\_consequences\\_reform\\_latest.pdf](http://rru.worldbank.org/documents/investor_protection_origins_consequences_reform_latest.pdf).

Levine, Ross and Sara Zervos (1998): Stock Markets, Banks and Economic Growth, in: American Economic Review Vol. 88, pp. 537-558.

McClain, James L. (1999): Space, Power, Wealth and Status in Seventeenth-Century Osaka, in: McClain, James L. and Wakita Osamu (eds): Osaka – The Merchants' Capital of Japan, Ithaca: Cornell University Press, pp. 44-79.

Mizuho Securities (2001): The Repo Market in Japan, January, <http://www.mizuho-sc.com/english/ebond/reports/repo.html>.

Ogawa, Eiji (2003): Tokyo Financial Market as Financial Centers in Asia, paper presented at the workshop on "A New Financial Market Structure for East Asia: How to Promote Regional Financial Market Integration, Big Island, Hawaii, 7-8 February.

Okabe, Mitsuaki (2002): Cross Shareholdings in Japan – A New Unified Perspective of the Economic System, Cheltenham: Edward Elgar.

Peek, Joe and Eric S. Rosengren (1998): Determinants of the Japan Premium: Actions Speak Louder than Words, Federal Reserve Bank of Boston Working Paper 98-09, [http://www.bos.frb.org/economic/wp/wp1998/wp98\\_9.pdf](http://www.bos.frb.org/economic/wp/wp1998/wp98_9.pdf).

Rajan, Raghuram G. and Luigi Zingales (1998): Financial Dependence and Growth, in: American Economic Review, Vol. 88, pp. 559-586.

Reszat, Beate (1998): The Japanese Foreign Exchange Market, London: Routledge.

Reszat, Beate (1999): Emerging Financial Centres, Self-Organisation and Evolution, in: Homo Oeconomicus XV, No. 4, pp. 459-481.

Reszat, Beate (2003): How has the European Monetary Integration Process Contributed to Regional Financial Market Integration?, HWWA Discussion Paper No. 221, Hamburg, February.

Sakakibara, Eisuke (1993): Beyond Capitalism, Lanham: Economic Strategy Institute.

Santillán, Javier, Marc Bayle and Christian Thygesen (2000): The Impact of the Euro on Money and Bond Markets, European Central Bank Occasional Paper No. 1, July.

Schaede, Ulrike (1990): Der neue japanische Kapitalmarkt, Wiesbaden: Gabler.  
Study Group on Fixed Income Markets (2001): The Changing Shape of Fixed Income Markets, BIS Paper No. 5, October.

Suto, Megumi (1998): Japan's Financial Markets: Structure, Policy Issues and Reforms, in: Lukas Menkhoff, Beate Reszat (eds): Asian Financial Markets – Structures, Policy Issues and Prospects, Baden-Baden: Nomos.

Suto, Megumi (2002): Japan's Financial Institutions and the Yen – What are the Obstacles to Internationalization?, paper presented at the Conference on "East Asian Monetary and Financial Cooperation", Hamburg, May 29-31.

Takagi, Shinji (1993): Introduction, in: Takagi, Shinji (ed.): Japanese Capital Markets, Oxford: Blackwell, pp.1-17.

Tomita, Toshiki (2003): The Risk Premium Warning on Japanese Government Bonds, NRI Paper No. 61, February.

Wohlmannstetter, Gottfried (1991): Finanzplatz Tokio, Frankfurt am Main: Fritz Knapp Verlag.

Wooldridge, Philip D. (2001): The Emergence of New Benchmark Yield Curves, in: BIS Quarterly Review: International Banking and Financial Market Developments, 10 December, pp. 54-64.

Wright, Maurice (2002): Japan's Fiscal Crisis – The Ministry of Finance and the Politics of Public Spending, 1975-2000, Oxford: Oxford University Press.