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Japan: Selected Issues

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JAPAN

Selected Issues

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Approved by the Asia and Pacific Department

June 30, 2008

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EXECUTIVE SUMMARY

Chapter I of the background papers for the 2008 Article IV consultation with Japan focuses on the fallout from the subprime crisis. Although Japan's financial system had relatively little direct subprime exposure, the chapter describes how close integration in global financial markets has deepened and expanded the channels for spillovers. In this environment, risks from further global economic stress need to be closely monitored. The lessons from the crisis for the Japanese financial system center on the need for sound risk management, adequate capital buffers, and enhanced disclosure for safeguarding financial stability.

Recent financial sector events should not deflect attention from medium-term structural challenges in Japan. Primary among these are demographic and fiscal pressures, which combined with concerns about wider dualities have elevated pension reform to a national debate. ***Chapter II discusses options for increasing the consumption tax to finance the public pension system.*** The chapter explains that while parametric reforms have reduced fiscal pressures, the basic pension is becoming a less adequate safety net for the retired. Of particular concern are young people who are not making contributions to the system, in part due to the unfavorable contribution-benefit ratio. Switching to a tax-financed pension would bring such groups back into the net and also improve inter-generational equality. However, managing the transition to a tax-financed system would be challenging given the need to recognize past pension contributions. Means-testing would be desirable since coverage would become universal, but would likely be difficult to implement.

Dualities in Japan also arise from divergences across sectors, income groups, and regions. ***Chapter III attempts to explain the declining share of labor income.*** The chapter confirms the importance of factors shown to be important in other advanced economies such as technological change, globalization, and labor market policies. Of particular significance in Japan are the effects of deregulation combined with large difference in employment conditions for regular and non-regular workers, which have provided a particular incentive for low-profit firms (often SMEs) to make non-regular hires. Productivity growth has also been much higher in manufacturing than in services. Manufacturers, in the face of greater openness, have limited their wage increases, while service sectors have not generated sufficient labor productivity growth to support higher wages. Many of the factors underlying wage sluggishness in Japan are deep-seated and regulatory reforms aimed at higher services productivity and narrowing of dualities will be needed to put wages on an upward trajectory.

Finally, ***Annex I describes recent events and emerging issues with regard to Japan Post's privatization***. The privatization of Japan Post commenced on October 1, 2007 and is a landmark reform. Japan Post is a behemoth in the financial sector and to avoid disruptions, privatization will necessarily be a long, gradual, and careful process. Future consultations will provide an opportunity to assess the progress that has been made.

I. Impact and Lessons from the Global Financial Turmoil[1]

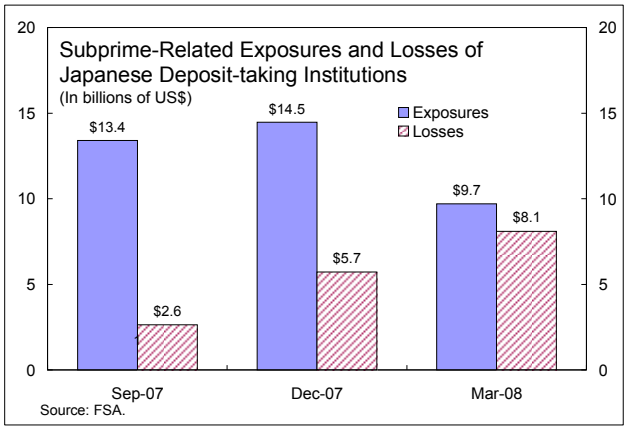
A. Introduction

1. **Japan's financial system has remained resilient to the global market turmoil**. Japanese banks' subprime exposures are relatively low, and losses account for only a small share of the total estimated globally. The limited exposure has sheltered Japanese banks from the balance sheet and funding difficulties experienced by some European and U.S. banks. Japanese money markets have been affected by the global turbulence, but to a much lesser degree than elsewhere. Since March, market conditions have improved as concerns over systemic risk have eased, but still remain volatile.

2. **Despite the limited exposure, the reverberations from the crisis were felt broadly across markets and institutions in Japan, underscoring the close integration of global financial markets**. The openness of Japan's financial system, the rise in cross-border funding, and spread of securitized assets have deepened the channels for financial spillovers to Japan. This chapter examines the impact of the global market turmoil on Japan's financial system, highlights potential channels for spillovers in the event of continued financial stress, and discusses possible lessons for Japan in strengthening its financial system.

B. Impact of the Global Financial Turmoil

3. **Although Japanese banks were not major players in the subprime business, they had sizeable exposures through their overseas securities investments.** Financial Services Agency (FSA) data show that deposit-taking institutions in Japan held $14½ billion in subprime-related products as of end-2007, which were brought down to around $10 billion by March 2008. Losses on these holdings had reached $8 billion and were concentrated among the major banks, including their securities affiliates. While sizeable, the losses represent less than 2 percent of banks' Tier 1 capital and 15 percent of core operating profits. The losses, however, had a large impact on earnings, reducing major banks' net profits by almost a third in FY2007 (ending March 2008).



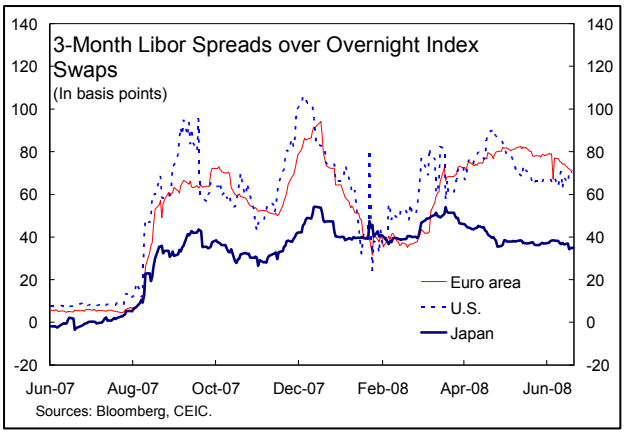
4. **Outside the banking system, subprime losses are estimated to be limited, although data are not fully available.** Including nonbanks (insurers and other securities companies), total losses are estimated by market analysts to rise to $14 billion. Information

[1] Prepared by Edward Frydl and Kenneth Kang.

on institutional holdings, such as by pension and investment trust funds, is not available, as the reporting requirements for structured holdings differ compared to banks.

5. **The reasons for Japan's limited subprime involvement range from the more traditional banking focus to stricter treatment of structured holdings under Basel II**. Compared to banks in Europe and the United States, Japanese banks historically were less involved in originating and distributing securitized products and more focused on traditional banking services. The Mizuho Financial Group had a financial holding company license in the United States that allowed it to engage in direct securitization, leaving other Japanese institutions mainly as end-investors.[2] Japanese banks' experience with their own banking crisis of the late 1990s may have also had a role in their adopting a generally conservative attitude towards risky assets. Another possible factor limiting banks' subprime exposure may have been Japan's early adoption of Basel II in March 2007, which featured stricter rules on disclosure and on the capital treatment of holdings in funds.[3]

6. **Japan's limited subprime exposure helped to contain spillovers from the global turmoil on the domestic money markets**. Since mid-2007, the three-month Japanese yen LIBOR-OIS spread—an indicator of liquidity funding risk—widened to around 50 basis points, but remained well below and has shown considerable less volatility than in Europe and United States.[4] The Tokyo interbank market rate (TIBOR)—the reference interbank rate for prime Japanese domestic banks—has also remained stable, as Japanese banks have had little difficulty in accessing term funding. In addition to the low subprime exposure, Japanese banks, with their large stable deposit base, fund only 10 percent of their liabilities in the short-term money market. Another supporting factor has been the ample liquidity provided



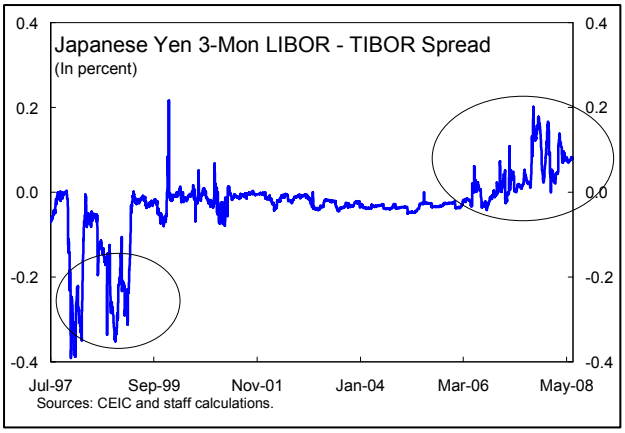
[2] In addition, Nomura Holdings through its U.S. operations was also involved in securitizing U.S. mortgages. Both Nomura and Mizuho recorded the greatest subprime-related losses among Japanese financial institutions.

[3] Japan was one of the first to adopt Basel II rules, one and two years ahead of Europe and the United States respectively, and appears to have benefited from its early implementation. For example, adjustments to basic Basel II rules helped strengthen banks' capital base. The FSA also applied rigorously a "look-through" approach for investing in funds, including hedge funds, that may have helped banks improve risk management systems, shed high risk positions, and increase capital buffers. This approach required risk weighting based on the risks of the underlying assets or imposed conservative weights where such information was unavailable.

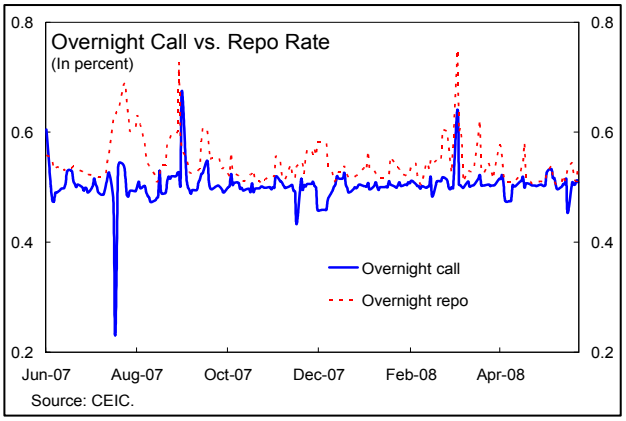
[4] The TED spread (spread between Japanese yen LIBOR and yields on government financing or treasury bills) also showed a similar widening.

by the Bank of Japan (BoJ) across a range of maturities that have helped keep short-term rates within targeted levels.

7. **However, credit markets in Japan were not immune to concerns over foreign banks' balance sheet difficulties**. Signs of perceived credit risk toward foreign banks can be found in the spread between Japanese yen-TIBOR (which features mainly Japanese banks in the Tokyo market) and yen-LIBOR (which is dominated largely by offshore European and U.S. banks).[5] The spread began to widen in mid-August as Japanese banks, as net liquidity providers in the interbank market, began charging a premium on short-term loans to foreign banks. This so-called "foreign premium" is the opposite of the situation during the late 1990s banking crisis when Japanese banks were charged a premium on their short-term borrowing from foreign banks.

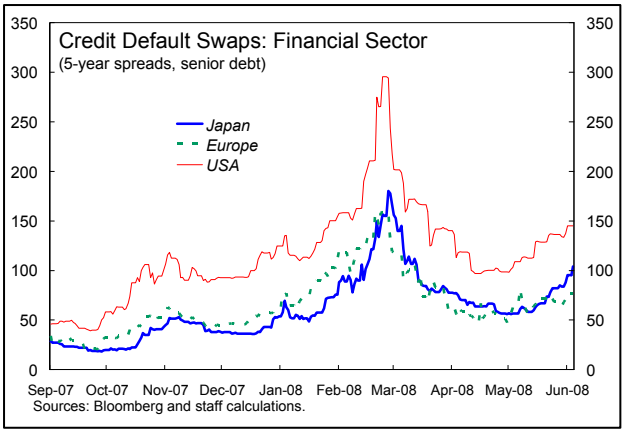


8. **Other markets also came under pressure as foreign banks turned to Tokyo for cross-border funding.** Funding markets, such as in foreign exchange (FX) swaps and Tokyo repo contracts, emerged as important cross-border channels for swapping yen funds into U.S. dollars. Volatility in these markets picked up significantly, particularly in mid-August and at the end of the 2007 calendar and financial years when funding concerns became more acute. Stress in these markets also spilled over to increase volatility in the overnight call, financing bills, and other short-term financing markets. Since the peak in March, risk spreads and volatility have come down, as ample liquidity provision by the BoJ, as well as the introduction of new lending facilities by the Fed and ECB, have relieved pressure on short-term funding markets globally.

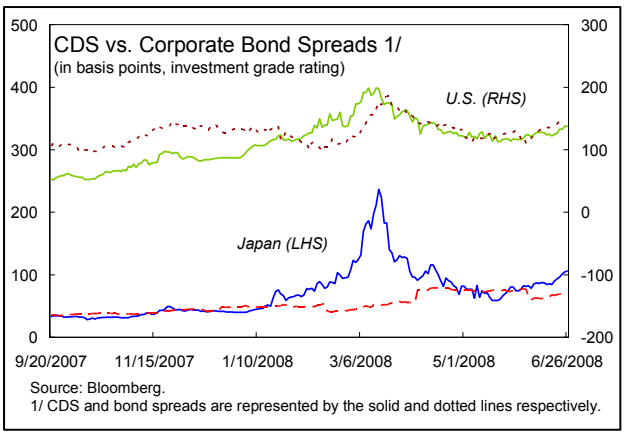


[5] Yen-TIBOR features only Japanese banks (16) in Tokyo, while yen-LIBOR is made up of mainly foreign banks (12) and only a handful of major Japanese banks (5) in the yen-London interbank market.

9. **At the same time, Japanese credit default swap spreads widened, reflecting more the global repricing of risk rather than domestic concerns.** The Japanese financial i-Traxx CDS index spread (reflecting the cost of insuring against default risk on Japanese bonds) began to widen towards the end of 2007, as global concerns over credit risk intensified. One peculiar feature was the similar increase in spreads in Japan and Europe, despite Japan's smaller subprime exposure, suggesting perhaps that global factors were driving risk perceptions.



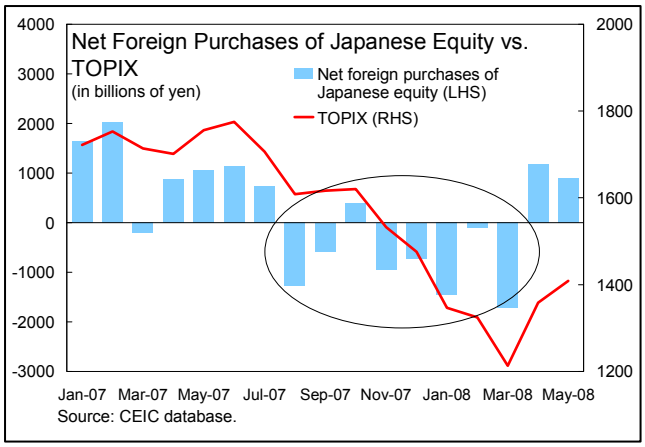
10. **One piece of evidence is that the widening of CDS spreads did not lead to a similar increase in funding costs for Japanese firms**. A comparison of CDS and bond spreads for investment-grade firms shows that both tracked each other closely in the United States whereas in Japan, CDS spreads increased significantly while corporate spreads remained low.[6] The divergence in Japan between CDS and cash bond spreads likely reflects the different perception towards credit risk between Japanese investors who are more sanguine on default risk and make up much of the cash bond market versus foreign investors who are the main players in the Japanese CDS market. With the exception of smaller firms and consumer finance companies (see below), credit conditions in Japan remain accommodative, as private bank credit and corporate bond issuances continue to expand moderately. Wider CDS spreads may also reflect market concerns over counterparty risk for major global banks who are the main traders in CDS contracts, including those on Japanese credits.[7]



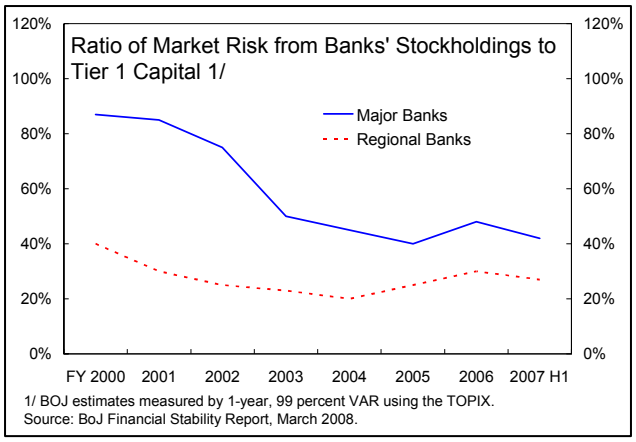
[6] Spreads on CDS and bonds may also differ due to other factors, such as market segmentation and differences in liquidity premia and sources of funding.

[7] The Japanese CDS market, while small compared to Europe and the United States, has nearly quadrupled in size since 2005, reaching around $200 billion by December 2007 (BoJ "Results of the Regular Derivatives Market Statistics in Japan", 2008), and is largely dominated by foreign financial institutions and hedge funds.

11. **Foreign selling was largely behind a sharp fall in Japanese equity prices over the past year**. In FY2007, the Japanese TOPIX fell by 30 percent, more than in other major markets. After leading the equity rally since 2002, foreign investors turned heavy net sellers in mid-2007 in response to their global liquidity problems. Foreigners, who account for a quarter of stock market capitalization and nearly two-thirds of turnover, sold around $60 billion in Japanese equity through March 2008.[8] The price decline was led by stocks of banks and exporters who were hit hard expectations of lower interest rates and a stronger yen, respectively.



12. **Falling share prices have depressed the value of Japanese banks' large equity holdings.** Japanese banks are estimated to hold nearly $190 billion in stocks, representing around ⅔ of Tier 1 capital. These holding are valued at acquisition price, and exclude substantial unrealized valuation gains. For major banks, the equity decline in FY2007 is estimated to have reduced the value of their unrealized equity gains by nearly 60 percent—valuation losses that are several times greater than the losses on their subprime investments. Despite the significant valuation losses, banks still have a sizable cushion in unrealized equity gains, estimated at over $30 billion for major banks. As of end-May 2008, analysts estimate that a 30 percent decline in the TOPIX from current levels would eliminate these unrealized gains and begin to lower Tier 1 capital directly.[9] Banks' stockholdings since 2004 have remained largely unchanged, but the increase in equity volatility in 2007–08 has likely raised banks' value-at-risk (VaR).[10]

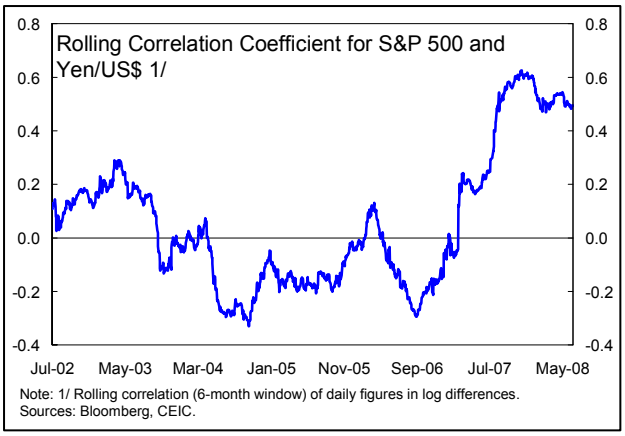


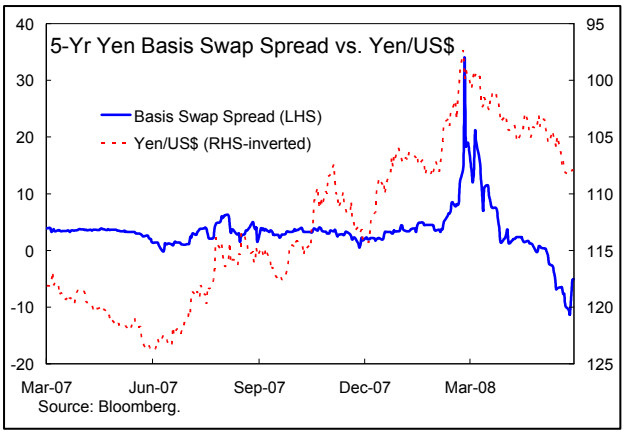
[8] The share of foreign ownership in the Japanese equity market has risen steadily to 28 percent in FY2007, up from 18 percent in FY2003.

[9] Under Basel rules, 45 percent of unrealized equity gains for major banks are included in Tier II capital.

[10] VaR is a measure of market risk, gauging the maximum loss expected over a specific period of time at a given confidence level.

13. **Increased market volatility has transformed the yen into a barometer for global risk appetite**. Since the crisis, the correlation between the yen and the S&P has risen appreciably. A chart depicting the rolling correlation coefficient for daily changes in the S&P and the yen/US$ exchange rate shows that the relationship tightened steadily during 2007, rising to almost 60 percent by the end of the year before leveling off.[11] One explanation sees changes in the S&P as a proxy for investor risk appetite and the attractiveness of yen carry trades. A decline in the S&P would thus be associated with a rise in volatility, lower risk appetite, an unwinding of carry trades, and a yen appreciation. One striking example took place in mid-March 2008 when the yen surged to a 13–year high of ¥96/U.S. dollar, following the collapse of Bear Stearns and sharp declines in the S&P. The yen's surge triggered stop-loss orders on FX margin trades, causing cross-currency swap basis spreads to rise sharply as foreign banks scrambled to repay yen obligations.[12] The markets quickly recovered, as basis swap spreads fell to more normal levels, but the yen's correlation with the S&P remains high.





14. **The domestic market for securitization has also been affected by the global turmoil**. Global concerns over structured finance have spread to Japan, souring investor sentiment towards domestic securitization. Wholesale lenders, such as consumer finance companies, who rely on ABS financing, have seen their funding costs rise significantly.[13]

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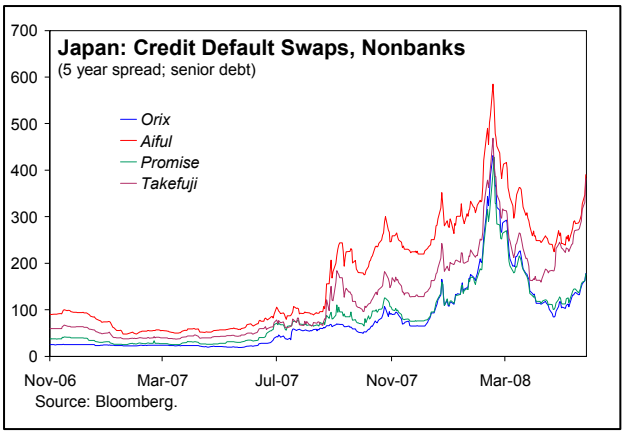
[11] The correlation is estimated using log differences of daily changes in the S&P and the yen/US$ exchange rate to account for the nonstationary in the data.

[12] Cross-currency swaps are contracts to exchange both principal and interest payments in two different currencies. A typical cross-currency swap in Japan involves a Japanese banks borrowing U.S. dollars from and lending yen to a foreign bank simultaneously. The basis swap spread is the difference between the traded interest rate and the domestic reference rate (such as LIBOR). The cross currency swap is often used by Japanese and foreign banks to fund foreign currencies and are generally long-term from one to 30 years.

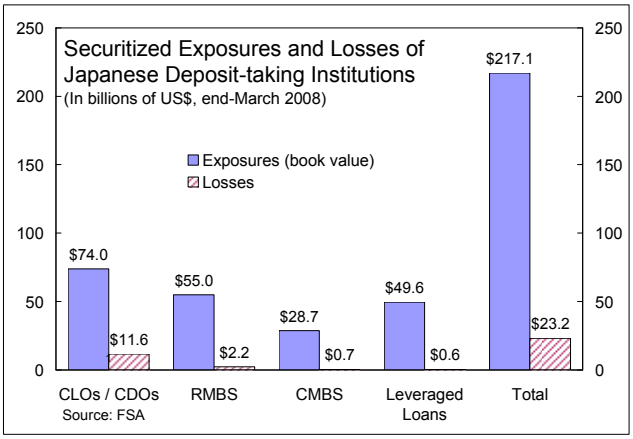
[13] Consumer finance companies were also affected by the introduction of the lower interest rate ceiling under the consumer finance law that was passed at end-2006. The fallout has been severe, as the number of money lenders has declined to 9,115 as of end-March 2008, down from 14,236 in 2006.

The result has been a sharp contraction in new issuances for domestic securitized products—by 30 percent in FY2007—and tighter credit for high-risk borrowers and SMEs who rely on such funding, though their overall size relative to bank credit is very small. Foreign investors have also pulled back significantly from the Japanese real estate market, helping to drive down REIT prices by almost 45 percent since May 2007.



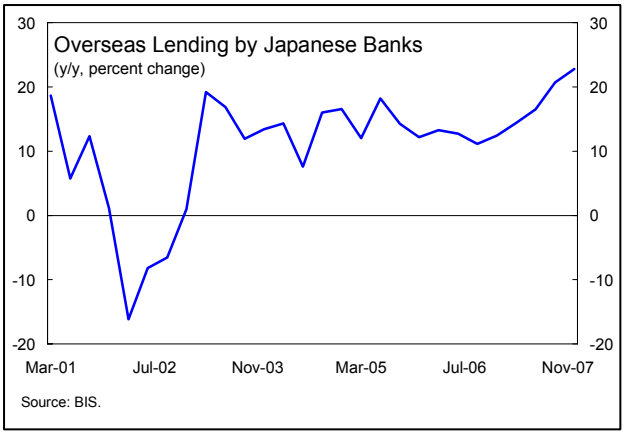
15. **In sum, Japan has not been immune to the fallout from the credit turmoil, highlighting its close integration with global financial markets**. The growing presence of foreign financial institutions across various markets in Japan, the rapid spread of securitization, and the emergence of the yen as a funding currency for carry trades and other leveraged investments have deepened the cross-border channels for financial spillovers to Japan. At the same time, stable money market conditions in Japan have partially helped mitigate the impact of the global financial shock by allowing overseas institutions to access yen-funding and adjust their balance sheets in a more orderly manner.

16. **Attention has also focused on Japanese banks' holdings of other structured products where write-downs have been more limited**. According to the FSA, Japanese deposit-taking institutions as of end-March 2008 held $217 billion in securitized products, other than subprime. These include domestic and overseas CLOs, CDOs, RMBS, CMBS, and leveraged loans, of which 60 percent were originated abroad. Losses on these exposures have amounted to around $23 billion, three times the size of subprime losses. The loss ratios vary according to products but on average are around 10 percent, far below the nearly 50 percent reported on subprime. Compared to domestic holdings, losses on overseas structured products tended to be higher. Given the large size of the securitized holdings (amounting to nearly 45 percent of Tier 1 capital), a further rise in credit spreads or defaults could generate sizable losses, including indirectly on hedges through monoline insurers and CDS contracts. Banks also have exposure to offshore/off



balance sheet structured investment vehicles (SIVs) that securitized trade receivables of their domestic clients and could come under pressure if default rates were to rise.[14]

17. **The subprime crisis has also created new opportunities for Japanese banks venturing overseas**. According to BIS data, Japanese banks increased their overseas lending at end–2007 by nearly 25 percent (y/y), mainly in the form of syndicated loans. Much of the new lending has been directed to Europe and the United States, and to a much smaller degree to Asia. Japanese banks have also stepped forward to provide risk capital to overseas banks. In January, Mizuho Corporate Bank provided $1.2 billion in capital to Merrill Lynch, while more recently, Sumitomo Mitsui Financial Group announced plans to invest $934 million in Barclays Plc.



18. **At the same time, foreign corporations are increasingly turning to Japan to issue yen-denominated bonds in the Samurai market**. In FY2007, yen-denominated bonds issued by foreign financial institutions tripled to $25 billion reaching an 11–year high. In FY2008 (beginning in April), new issuances are on pace to achieve a new record, having already reached $8.7 billion.

[14] BoJ estimates that as of end-September 2007, Japanese banks had sponsored asset-backed commercial paper (ABCP) programs amounting to ¥4.4 trillion ($42 billion). The underlying assets of the ABCPs consisted mainly of trade receivable and leases and were set up to fund firms' working capital (BoJ Financial Systems Report, March 2008).

C. Lessons for Japan from the Global Credit Turmoil

19. **The global credit turmoil arising from the subprime crisis provides a number of lessons for Japan.**[15] Among the many lessons (Box I.1), the main areas which apply to Japan cover the need for: strong risk management procedures and adequate capital buffers; transparent and timely disclosures of both on- and off-balance sheet exposures; harmonization of regulation, both within and among national markets; and flexible and efficient emergency liquidity frameworks for central banks.

Risk management and capital

20. **The subprime crisis highlighted important weaknesses in risk management, including in Japan.** This applied to financial institutions both as dealers and investors in structured products. Japanese institutions most heavily affected by the crisis—Mizuho Financial Group and Nomura Holdings—were significantly engaged in roles that went beyond just investing, such as in creating and distributing CDOs. But even some investors, such as regional banks and credit cooperatives, built up exposures that resulted in significant losses, even in supposedly highly-rated products.

21. **A major problem was over-reliance on ratings agencies as the mechanism for gauging credit risk.** This would also apply to Japan, where a relatively large proportion of ratings are paid for by the issuer, leading to potential conflicts of interest. While utilization of ratings in short-term trading accounts, where market risk is predominant, may be acceptable, holdings in investment accounts need to be supported by investors' own internal assessments. Moreover, since Japanese banks generally weathered well the subprime crisis, they are now poised to expand into new areas such as international syndicated loans and LBO deals. With this expansion, it will be important to ensure that risk management systems keep up with these new developments and that risk managers are not relying just on the credit assessments of the originators or limiting exposures to so-called prime names.

22. **Market risk assessment is also a potential problem, particularly regarding equity exposures of Japanese banks.** Liquidity demands on foreign investors led to equity sales, depressing share prices and banks' unrealized equity gains. Japanese banks' historical share holdings are grandfathered from higher Basel II risk weights until 2014. In the meantime, banks should be encouraged to continue efforts to reduce gradually their stockholdings or seek some appropriate hedging of price risk. At present, banks make little use of the CDS market as a potential hedging vehicle. Continued reliance on unrealized equity gains as capital for Japanese banks runs the risk of

[15] The G7 has asked the Financial Stability Forum (FSF) to do an analysis and make recommendations to strengthen the resilience of markets and institutions going forward. Most of these recommendations are germane to Japan and correspond to recommendations of the Financial Markets Strategy Team, an advisory group established by the Japanese Minister for Financial Services to examine the implications of the subprime crisis for Japan (*Financial Markets Strategy Team First Report*, November 30, 2007). Box I.1 provides a summary of the FSF and the FSA's recommendations based on the subprime crisis.

Box I.1. Summary of FSF and FSA Recommendations Based on the Subprime Crisis

The recommendations of the FSF fall into five broad categories:

- Strengthening the prudential oversight of capital, liquidity and risk management
  - Raise Basel II capital requirements for complex structured products, introduce a capital charge for default risks in trading books and for liquidity facilities for OBS conduits;
  - Strengthen supervision of liquidity management across a broad spectrum of liquidity risks;
  - Strengthen supervision of risk management for firm-wide risks, concentrations, stress testing.
- Enhance transparency and valuation
  - Improve risk reporting and reporting standards for OBS vehicles;
  - Improve product valuations when markets are inactive;
  - Expand information provided about securitized products.
- Change the role and uses of credit rating
  - Implement new IOSCO code for credit rating agencies to manage conflict of interest in rating structured products and improve the quality of ratings to differentiate from those on bonds;
  - Review the role of ratings in regulatory and prudential frameworks.
- Strengthen responsiveness to risk
  - Set up a college of supervisors for large global financial institutions.
- Strengthen arrangements for dealing with stress
  - Central banks should review and enhance their lender of last resort capabilities;
  - Supervisors and regulators should review and enhance their crisis management and resolution capabilities.

FSA's Financial Markets Strategy Team recommendations for strengthening the Japanese financial system

The FSA Team put forth eight specific recommended actions

- Enhancing monitoring of markets and financial institutions by the supervisory authority;
- Strengthening international cooperation among supervisory authorities;
- Addressing the issues related to the "originate-to-distribute" business model;
- Ensuring "traceability" of securitized products back to underlying assets;
- Securitization based on statistical processing backed by sufficient data;;
- Presenting principles and exploring best practices;
- Proper response to the issues related to credit rating agencies;
- Taking part in international discussions on issues related to valuation and accounting treatment of securitized products.

Sources: Financial Stability Forum, "Report on Financial Stability Forum on Enhancing Market and Institutional Resilience," April 7, 2007; Financial Services Agency of Japan, "Financial Markets Strategy Team First Report," November 30, 2007.

reinforcing the pro-cyclicality of credit using external rating or model-based capital charges, which are sensitive to financial and economic conditions.

23. **Turmoil in the markets for structured credits highlights the importance of ensuring the adequacy of bank capital.** For major Japanese banks, greater effort is needed to improve the quality of their "core" capital as their Tier 1 capital ratios remain below those of other leading international banks. For regional banks, financial globalization has blurred the traditional lines that have separated domestic and international banking by making it easier for regional entities around the world, such as German Landesbanks and Japanese shinkin banks, to invest in sophisticated overseas assets.[16] To account for these new risks, consideration could be given to gradually raising the minimum capital requirement for domestic banks in Japan above the current 4 percent level.[17] Most regional banks are already above 8 percent, and a higher minimum would encourage banks below that level to strengthen their capital base or seek a merger.

24. **The crisis also revealed some potential pitfalls in the adequacy of Basel II rules**. Japan is already operating under the Basel II regime and may need to make adjustments based on the experience gained. For example, both ratings agency assessments and model-based valuations for complicated products—keystones for constructing capital charges under Basel II—revealed shortcomings in important applications. Japan has both a relatively high percentage of ratings paid for by issuers rather than investors and a relatively recent experience with financial crisis in the 1990s. A useful adjustment, then, would be to place higher capital charges on risk assessments based on issuer-compensated ratings or on model-generated values derived from time series that do not incorporate crisis events. The subprime crisis also revealed that exposures that moved off the balance sheet into special purpose companies (SPCs) may revert back onto the balance sheet under a broader-than-expected range of outcomes. SPCs are increasingly being utilized in Japan and merit a review both of their disclosure rules and how they are charged against bank capital.

Disclosure issues

25. **The subprime crisis revealed the need for appropriate disclosure and accounting of off-balance sheet securitized products.** Two areas have been a particular focus in Japan. One concerns the accounting treatment of SPCs, vehicles set up to make tax-free distributions to professional investors from corporate accounts receivable or from the proceeds of real estate developments. In 2007, new accounting rules were introduced,

[16] During 2001-06, regional banks' overseas holdings have doubled to around 4 percent of total assets and are now only slightly below that of major banks, with some regional banks well above this average. Regional banks, like the larger banks, have been increasing their investment in structured products in a reach for yield in the low interest rate environment.

[17] Under the Basel framework, internationally active banks, that include major banks and some larger regional banks in Japan, are required to maintain a minimum capital requirement of 8 percent. The 8 percent minimum has also been adopted for domestic banks in many other countries, including the United States. On the other hand, it should also be recognized that, in the case of Japanese domestic banks, 45 percent of unrealized gains are not counted in the numerator of the capital adequacy ratio.

requiring a greater range of disclosures for SPCs not established as corporate subsidiaries. Currently, the Accounting Standards Board of Japan is reviewing rules on consolidated accounting of SPCs to converge with international standards. Additionally, the FSA has announced, in light of their rising use, that it will investigate disclosure and ownership of SPCs. The second area of concern is the so-called "traceability" of underlying assets on securitized products. The FSA, together with the Securities Dealers Association, is drafting rules requiring financial firms to put in place systems to analyze the underlying assets of securitized products and their associated risks and make this information available to investors. Assets eligible for securitization would be limited to those that can be accurately traced.

26. **Japan has moved farther ahead than other countries in enhancing disclosure on subprime and other structured holdings under Basel II**. For example, in cases where external ratings are used for setting capital charges on securitization exposures, the FSA requires that transaction-specific information (e.g. underlying assets, subordination levels and structure) be made publicly accessible. This enhanced transparency has helped strengthen bank risk management and encouraged clarity in designing structured products. Given the enhanced role of ratings under Basel II and the recent weaknesses revealed in ratings procedures, consideration could be given to requiring greater disclosure of the methodology of ratings and addressing potential conflict of interest problems for rating agencies along the lines of recommendations from the IOSCO Working Group.[18] Japan has also been in the forefront on publishing bank subprime disclosures and has extended most recently the approach to structured assets more generally. Extending such treatment to significant nonbanks, such as securities firms and insurance companies, would help further strengthen market confidence.

Crisis management

27. **The spillovers to Japan's money markets did not reveal any major gaps in BoJ's mechanisms for providing emergency liquidity**. In large part, this outcome reflected the relatively strong liquidity position of Japanese banks arising from their limited subprime exposure and generally conservative posture. It also reflected the host of tested techniques employed in the past by the BoJ for supplying exceptional liquidity. The BoJ has the legal authority to provide emergency liquidity to distressed nonbanks (and has done so in the past, e.g. Yamaichi Securities in 1997), but many nonbanks, such as insurance companies, are not covered by the facility with eligible collateral. In addition, Japan does not have a central bank facility to pay interest on reserves. While both of these issues arose in the United States in the context of the subprime crisis, they have not arisen as yet in Japan. Nevertheless, in light of the problems that emerged globally in the subprime crisis, a review of contingent procedures for provision of emergency liquidity to key nonbank institutions may be useful. There may

[18] *Report of the Task Force on the Subprime Crisis,* Technical Committee of the International Organization of Securities Commissions, May 2008.

also be scope for expanding information sharing between the BoJ and the FSA on systemically important institutions outside the banking system, particularly regarding the liquidity positions of securities firms and the off-balance sheet exposures of nonbanks.

Market for wholesale funding and securitization

28. **The subprime crisis has highlighted the risks for nonbanks from their heavy reliance on wholesale funding during market distress**. The difficulties experienced by Northern Rock and several large nonbank mortgage lenders in the United States have brought to the forefront liquidity risks associated with wholesale funding and securitization more generally. For Japan, careful monitoring is warranted for consumer finance companies that are not affiliated with a main bank and rely primarily on wholesale financing. Many continue to face difficulties in adjusting to the lower interest rate ceiling and higher funding costs.[19]

29. **The domestic market for securitization would benefit from further reforms**. Although securitization has grown steadily since the late 1990s, the primary market remains small and the volume of secondary trading limited.[20] A number of developments are working to promote the steady growth of domestic securitization business on a sound footing: improved disclosure standards, new product introductions (e.g., the government's plan to securitize the Fiscal Investment and Loan Program (FILP) loans), and bond market development (e.g., Nomura has added ABS to its Bond Performance Index, a key investor benchmark). In the near-term, greater disclosure by the originator on the underlying assets (see above) and the creation of reliable market benchmarks, such as for commercial real estate, would improve price discovery and liquidity in the secondary markets.

D. Conclusion

30. **The broad reverberations from the credit market turmoil have underscored Japan's close integration with global financial markets**. Financial globalization has deepened and expanded the channels for spillovers to Japan. Although Japan's financial system has been resilient, risks remain from continued financial market stress and a slowing global economy. At the same time, the crisis has created new overseas opportunities for Japanese banks which warrant careful monitoring. The lessons from the crisis for Japan vary, but center on the need for sound risk management, adequate capital buffers, and enhanced disclosure for safeguarding financial stability.

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[19] In addition to lowering the interest rate ceiling on consumer loans from 29.2 percent to 15-20 percent, the new consumer finance law limits outstanding loans to no more than one-third of a borrower's annual income. The changes have cut significantly into moneylenders' earnings and forced a shakeout of the sector.

[20] The size of the securitization market is small at around 8 percent of GDP (measured by assets held by SPCs), compared to 31 percent of GDP in the United States (BoJ Financial System Report, March 2008). See BoJ "Report on the Workshop on Securitization" (2004) for a summary of the key issues in developing further the securitization market.

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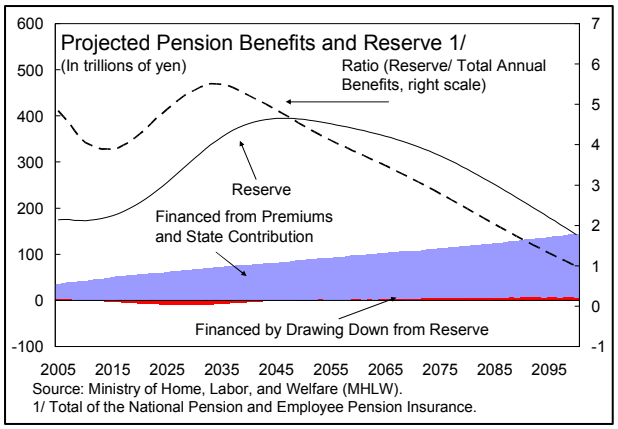
II. Issues and Options for Pension Reform[1]

A. Introduction

1. **Japan has a universal pension system consisting of two basic tiers.** As in other G7 countries, the Japanese pension system has redistributive and insurance aspects. Thus, the first tier provides a flat-rate redistributive pension (National Pension, NP) and the public second-tier provides a defined-benefit layer that increases as past earnings increase (Employees' Pension Insurance, EPI). The full NP benefit for a person who has contributed for 40 years is now about ¥66,000 per month. NP premiums are compulsory for every resident of Japan aged between 20–60 and benefits are payable from age 65.[2] To maintain a moderate replacement ratio while keeping compulsory contributions at a reasonable level, the government has contributed about ⅓ of pension payouts by the NP program (about ¥7 trillion or about 1½ percent of GDP as of FY2005). By OECD standards, Japan's pension system has a relatively low replacement ratio (OECD 2007a, Whitehouse 2007). However, due to the wide coverage of the NP, the pension system is more redistributive, and provides relatively more security to low-incomer earners than the OECD average.

2. **Recent reforms have improved the equity and sustainability of the pension system.** The combination of a pay-as-you-go system and an aging society in Japan has already required pension contributions to be raised above expected benefits for younger generations (Hatta, Horioka, and Suzuki 2007). At the same time, aging has occurred more rapidly than expected and even the higher contributions have been inadequate to protect pension reserves. Against this background, the reform of the public pension in 2004 limited scheduled increases in contribution rates and reduced replacement rates through a system of macroeconomic indexation that linked the growth of benefits to variables such as longevity. An increase in the government's contribution to the NP from ⅓ to ½ of payouts was also planned from FY2009. With these reforms, the reserves of the

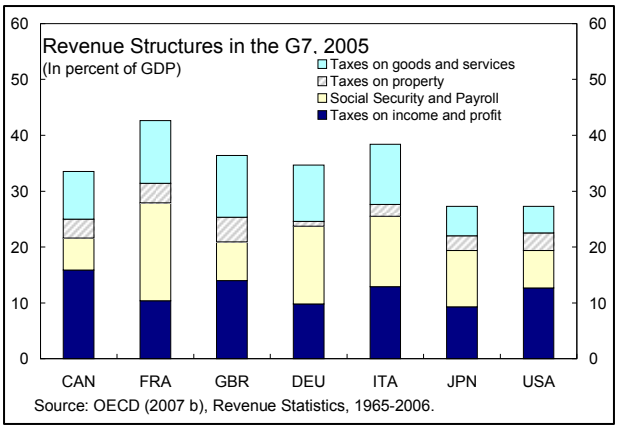


[1] Prepared by Masaaki Iizuka.

[2] There are also mutual aid associations with coverage of government employees and private school employees. This paper primarily focuses on the NP and to a lesser extent on EPI, see Sakamoto (2005) or Iakova (2004) for details on the other structures.

pension system will be drawn down only gradually such that the ratio of reserves to annual benefits expenditure still exceeds unity in 100 years.

3. **As a part of the 2004 reform, the government committed to the difficult task of raising taxes—implicitly the consumption tax.**[3] Compared to other G-7 countries, Japan's tax burden, particularly for goods and services is lower. However, in 2006, proposals were floated to raise the consumption tax rate as part of a general fiscal consolidation strategy that also involved sizable medium-term expenditure reductions, but did not gain traction. And the financing of the increased government contribution to the pension system planned for FY2009, as well as for other expected increases in social security expenditure, has yet to be secured.



4. **A number of factors have led to uncertainties about whether the pension system provides a sufficient safety net.** In 2005, about 5 percent of the population over 20 were effectively outside the NP.[4] While most employed people are paying premiums for the NP, a sizable number of self-employed participants, in particular from younger generations, are in arrears.[5] An increasing number of non-regular workers are also not covered by the EPI. In addition, recent well-publicized lapses in pension administration have created anxiety even for those who participate in the pension system (Box II.1). As pension benefits finance a significant portion of living expenses after retirement in Japan, the risk of an increasing number of pension-less people has led to significant public concern.

[3] Public support for raising taxes has been difficult to achieve. Japan introduced a consumption tax of 3 percent in 1989 and raised the rate to 5 percent in 1997. Changes in the prime minister and his Cabinet followed in both cases, although the tax hike was not the only explanatory factor.

[4] Those people either do not participate in the NP system or have arrears of more than two years.

[5] The public pension system has various categories of participants with differing contribution obligations. Category-1 insured includes the self-employed, farmers, and students. This group pays a fixed premium per month. They can be exempted from payments of contributions based on their status, but benefits would be reduced. Category–2 insured includes private company workers and public service employees. The premium for this group is remuneration based and borne evenly with the employer. Category–3 insured are insured spouses of Category–2 participants. They do not directly pay premium.

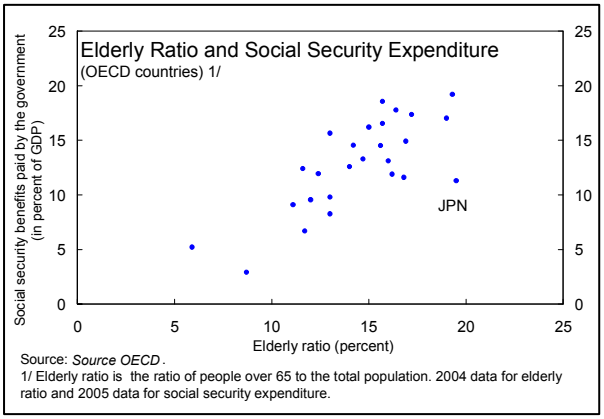
Box II.1. Pension Record Problem [1/]

In 2007, the government acknowledged losing track of more than one sixth of pension payment records (50 million). Most of the unidentified records were related to the transition to a new unified pension ID system from the old system under which transactions in different pension systems were recorded separately and individuals had multiple identification numbers. Although the government was hopeful that the missing records could be found and included in the unified system before pension age so that benefits would not affected, current pensioners became concerned that they might not receive pension benefits reflecting past payments correctly.

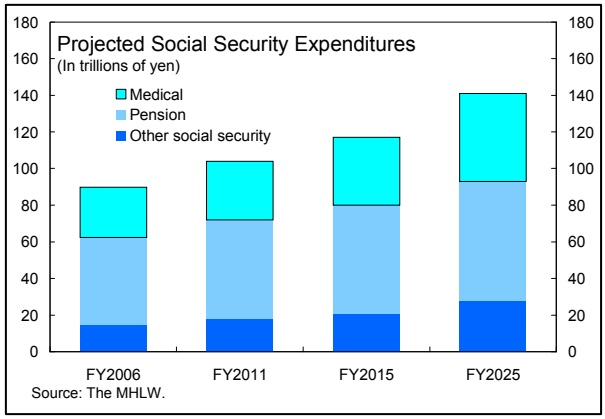
To address the problem, Diet members proposed a bill in 2007 to suspend the statute of limitation of pension rights retroactively. In addition, while continuing its effort to identify records, the government started validating past transactions with all participants and pensioners to confirm information recorded in the system. Despite these efforts, about 20 million records were still to be identified as of January 2008.

[1] Source: Social Insurance Agency, and the Nikkei Shimbun (daily newspaper).

5. **At the same time, other social-security expenditures will rise and need substantial financing.** Japan's social security related expenditures have been relatively contained so far, but are expected to rise rapidly going forward. Among them, medical and welfare expenditures, which do not benefit from the macroeconomic indexation that applies to pensions, are expected to grow rapidly. As the recent report from the Tax Commission (2007) stressed, the tax system faces challenges to support the safety and security of people, through ensuring the sustainability of the social security regime. In this regard, a consumption tax increase is the principal candidate as a possible revenue source.



Source: *Source OECD*.
1/ Elderly ratio is the ratio of people over 65 to the total population. 2004 data for elderly ratio and 2005 data for social security expenditure.



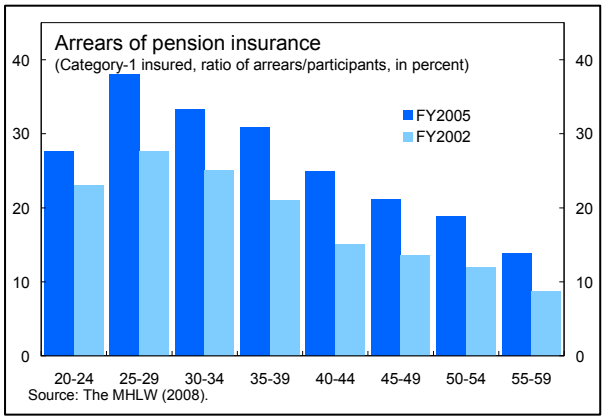
Source: The MHLW.

B. Priority Issues for Further Pension Reform

6. **The 2004 reform reduced pressures on the pension scheme, but issues beyond pension sustainability have recently drawn attention.**

- **High inequality between generations:** With aging advancing quickly, intergenerational inequality has become intense. The net benefit rate, defined as the discounted present value of net benefits from the pension system in relation to discounted present value of wages, has declined from 10 percent for those born in 1940 to about negative 5 percent for those born in 1980 (Hatta, Horioka, and Suzuki, 2007). With regard to the wider range of net services provided by the public sector, Auerbach and others (1998) conducted a generational accounting exercise for a range of OECD countries. While most countries have common patterns in intergenerational benefit distribution, with the elderly beyond 65 gaining a net benefit from the government, Japan was found to have the largest generational imbalance between current and future generations.

- **Hollowing out of the pension system:** The number of people outside the NP has been declining, but still stands at 3.4 million. The ratio of people with arrears has been rising since FY2002, and by FY2005 was 40 percent for cohorts of Category-1 insured in the 25–35 age bracket. Various factors have been cited to explain the increasing number of people opting out of the pension system, such as heavy contribution rates, myopic behavior, and administrative inefficiencies. The evidence on which factors dominate is not clear-cut. Suzuki and Zhou (2005) do not find a cohort effect where later generations tend to evade more compared to earlier generations. Rather, the authors found a strong tendency for people to lose the incentive to participate at around age 35 when there is no hope of fulfilling the 25 years of premium payments that is required under the NP system. A survey by the MHLW (2008) found that most people cited high contributions and low credibility in the pension system as the reasons for non-compliance, with both factors becoming more important compared to a survey conducted three years earlier. Nevertheless, these results need to be interpreted with caution, as even workers with ¥10 million in annual income cited the high NP premium (fixed at about ¥170 thousand per year) as a reason for non-compliance.



- **Impact on the labor market:** To raise economic growth potential amid a declining population, renewed attention has been paid on the impact of the pension system on the labor market. While some progress has been made in the past (Box II.2), the current beneficial treatment of spouses of EPI participants hinders female participation as spouses have to pay insurance only if they earn above a ¥1.3 million

of annual income threshold. There is also a jump in costs faced by employers who try to hire regular-workers instead of non-regular workers without coverage, while the system of reducing benefits for older high-income earners creates an incentive to exit from the labor market.

Box II.2. Past Pension Reforms Aimed at Improving Labor Market Participation

The government has taken the following steps to improve economic efficiency through the pension system.

- To facilitate labor participation of older workers, people aged 65 and above will be given an option to postpone receiving pension with increased accrual rates applied as compensation in 2007. The system to automatically cut 20 percent of benefits for active workers in their early 60s was abolished in 2005.
- To prevent citizens from falling short of achieving the minimum 25 years participation requirement, a moratorium was introduced for the youth in 2005.
- A defined contribution pension plan was established in 2002. Rules for early withdrawal have been relaxed since then.
- In 2007, the government submitted a bill to expand EPI coverage to non-regular workers who work for more than 20 hours per week in companies with over 300 of employees and who earn more than ¥ 98,000 monthly wage. The bill is now under deliberation.

- **Administrative efficiency:** While the number of countries where the tax collection agencies collect pension premiums is growing (Canada, the United Kingdom., the United States, Sweden and many Eastern and Central European countries), the National Tax Agency and the Social Insurance Agency collect tax and pension premiums separately in Japan (as in France and Germany). With the collection function involving similar tasks in both agencies,[6] some argue that a unified collection system would be inherently more efficient (Ross, 1997), but this debate has yet to be settled as the track record of countries with a unified agency system is still quite short.

C. Policy Options

7. **The government has begun a discussion on revamping the pension system.** The Council on Economic and Fiscal Policy (CEFP) initiated discussions on comprehensive revenue reform in 2007 and set out five key pillars for a broader revenue reform of the tax and social security systems. These are to correct inequalities among generations; maximize incentives to work at various stages of life cycle; improve credibility and transparency of the

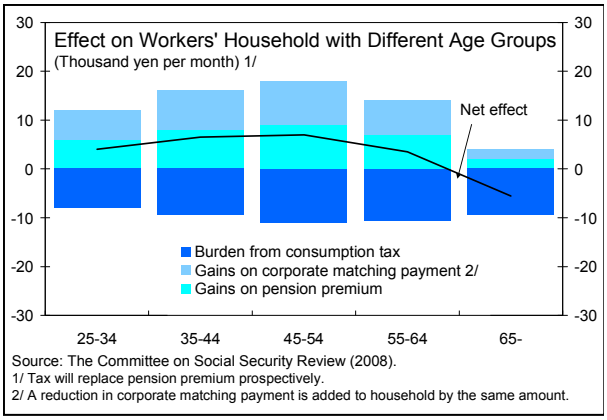
[6] The Social Insurance Agency will be required to ask the Tax Agency for forcible collection of deliberate delinquency after privatization in 2010.

social security system; achieve both medium-term fiscal consolidation of the general government and the pension system; and enhance economic vitality (CEFP 2007). Following these discussions, the Cabinet established the Committee on Social Security Review (CSSR) in 2008 to discuss broader social security issues including the pension system. The discussions are still at an early stage, but one focus has been on proposals to link an increase in the consumption tax to funding of the pension system.

Pros and cons of a tax-financing option

8. **Financing basic pensions entirely through taxes addresses certain key objectives.** In terms of which taxes should finance pensions, the consumption tax would likely be the natural choice as it provides a steady revenue flow for pension payments, distorts economic activity less, and would reduce intergenerational inequality through its wider tax base. A tax-financed basic pension could eventually cover all people over pension age. Possible merits include:

- **Reducing intergenerational inequality:** Simulations presented to the CSSR included four different transition schemes regarding the effective date of change in financing method and the extent of conditioning pension rights on past pension premiums. These simulations envisage an increase in the rate of the consumption tax (currently 5 percent) by 6–12 percentage points to finance broader coverage of the NP through FY2050 (while abolishing pension premium and corporate matching payments).[7] For example, one of the cases (Case II) assumes that the new scheme starts in FY2009 with consumption tax replacing NP contributions, while benefit payouts would be reduced in proportion to past unpaid premiums before FY2009.[8] Financing needs under Case II would be ¥9 trillion in FY2009, but would grow to ¥32 trillion in FY2050 (equivalent, respectively, to a 3½ and 6 percentage point hike in the consumption tax rate). These plans would help improve current



Source: The Committee on Social Security Review (2008).
1/ Tax will replace pension premium prospectively.
2/ A reduction in corporate matching payment is added to household by the same amount.

[7] These increases will possibly be in addition to a 1 percent hike in the consumption tax rate that might be used to finance the increase in the government's contribution to the NP envisaged under the 2004 pension reform (from ⅓ to ½ of NP payouts).

[8] Other cases are: I) all pension-age citizens immediately receive benefits irrespective of past contributions and III) all pension-age citizens would receive a pension plus a benefit based on past contributions. Case IV is a more generous version of III. The required consumption tax increases differs under each scenario.

intergenerational inequality as they require contributions from the elderly through the consumption tax, while younger generations would benefit from lower contributions (see chart).

- **Broader coverage of pension system:** The reform would alleviate concerns over life after retirement by providing a basic pension to the elderly on more generous terms. Up to 3.4 million people who are currently outside of the pension system would be covered by the NP. This also addresses the concern that a large number of the current younger generation with arrears will become pension-less. Labor participation by homemakers could also be facilitated by eliminating any distinction between the income of spouses of EPI participants and others.

- **Improving efficiency:** There could be some efficiency gains, but many steps are required before yielding tangible results. For example, Sweden consolidated collections to the tax authority in mid-1980, which involved coordinating the tax base, simplifying calculations for contributions, and using a common personal identification number.[9] However, in Japan's case, the room for efficiency gain might not be significant, as the EPI would still need management, and substantial resources would still need to be directed to record keeping and interfacing with participants in the wake of the pension records problem.

9. **The proposals may serve as a vehicle to achieve political support for a consumption tax increase, but have several drawbacks that would need to be addressed through careful design.** Taxpayers may be more likely to accept a tax hike if framed in terms of the need to finance future social security expenses. The main challenges include:

- **Transition process:** Managing a smooth transition to the new system will be challenging, as Japan's pension system has been premium-based for decades. Considering the amount of time that is likely to be needed to nurture consensus for the reform, disincentives to make pension contribution in the meantime should be minimized. Options that do not take account of past premiums have clear disadvantages in this regard.

- **Redistribution among households with different income:** The simulations indicated that the tax-financing option in general would put somewhat more burden on low-income households as they are now exempted from premiums but would pay higher consumption taxes.

[9] See William (1997) for more details on coordinating issues.

Other reforms

10. **Further parametric reform would reduce fiscal pressure and promote labor participation.** OECD (2007) noted that raising the pension age has been the most common feature of recent reforms in OECD countries. Pension eligibility ages are set to rise or have risen in the United States and Germany (both to 67) and the United Kingdom (to 68). If Japan's pension age was raised to 67 (from 65), this would improve the balance in the pension system by about 0.4 percent of GDP and create an incentive for older workers to keep working. However, lifting the pension age should be pre-announced well in advance and coordinated with raising the retirement age so as not to distort retirement planning.

11. **Measures to protect low-income earners would also be desirable for public consensus making.** Expanding the coverage of the EPI to certain nonregular workers is now under legislative review. Beyond this, the minimum requirement of 25 years contribution could be shortened if the reform package were not to include a tax-financing option. Coordination with assistance to the poor is required, first to maintain a minimum standard of living, and second to reduce redundant social security provisions. From this viewpoint, means testing of the NP could be introduced in Japan as in other G7 countries. There is a stronger case for means testing for the tax-financing option, as universal coverage calls for more public spending and income redistribution, while a premium-based system is run based on the "self-help" principle. However, monitoring the income of the self-employed, which is essential for means testing, has been very challenging in Japan.

12. **At the same time, efforts to improve labor participation should be continued.** Wedges creating disincentives to work for women, the youth and the elderly people should be reduced. Benefits given to spouses of EPI participants need reviewing (if the reform package were not to include a tax-financing option). Current efforts to widen the coverage of the pension system are in the right direction and welcomed while defined contribution (DC) pension schemes could be promoted further through user-friendly tax reform such as allowing individual contributions beyond corporate contribution and allowing entry to employees who are working in companies without a DC system. Although Japan's elderly labor already has a high participation, this could be raised further by reducing the pace of reduction in pension benefits when they have income from work.

D. Conclusion

13. **Challenges to the pension system have been mounting, but have prompted a national discussion that potentially provides an opportunity for ambitious reform.** The 2004 reform reduced pressures on the pension system significantly. However, given concerns on rapid aging and economic disparities, a fundamental question has arisen as to whether the pension system provides a sufficient safety net. With repeated delays amid political opposition to consumption tax hikes, the government will need to convince the

public that the reform will address concerns about sustainability and inequality. The government is also appropriately paying attention to the pension system's impact on labor market participation.

14. **Tax-financing options have some merits, but require careful design.** Tax-financing would help improve current inter-generational inequality, and provided more security after retirement through wider coverage. On the downside, a smooth transition to the new system will be challenging, as Japan's pension system has traditionally been premium-based. The slight increase in the burden to low-income household also needs to be addressed (e.g., through coordination with social assistance programs.) Moreover, a tax-financed system would likely require means testing, which has long been an issue in Japan due to the opaqueness of self-employed businesses.

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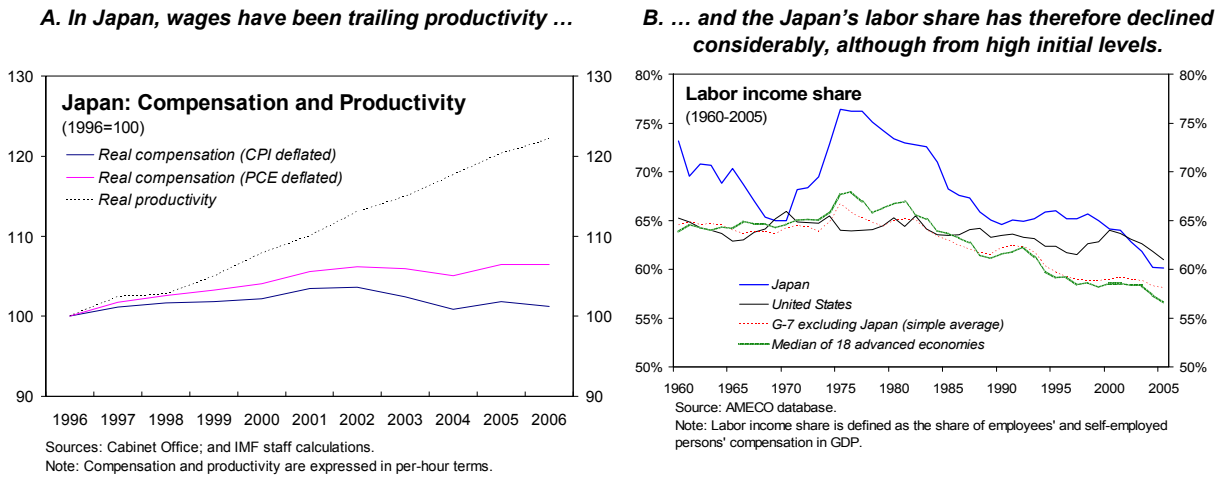
III. Why Are Japanese Wages So Sluggish?[1]

A. Introduction

1. **Real wages have stagnated in Japan over the past decade—**the real hourly wage has increased by only 1 percent despite solid labor productivity growth. Contrary to what might have been expected, wage growth has failed to pick up during the post-2002 economic recovery and the gap between real hourly wages and productivity has widened to about 20 percentage points (Figure III.1A).[2]

2. **These developments should be seen in the context of a longer-term decline in the labor income share in advanced economies.** The labor income share,[3] which tracks the evolution of wages relative to productivity, has been falling in many advanced countries, primarily as a result of globalization and technological change. In the past, Japan's labor income share was higher than in other advanced economies, but has recently dropped toward the G-7 average (Figure III.1B).

Figure III.1. Advanced Economies: Compensation, Productivity, and Labor Share



[1] This paper was prepared by Martin Sommer.

[2] The accumulated gap between *nominal* hourly compensation and labor productivity is much smaller—about 10 percentage points. This is due to a divergence in price trends: the CPI index fell by -0.5 percent during 1996-2006, while the GDP deflator used for the calculation of real productivity fell by 10 percent over the same period, in part due to rapidly falling prices of capital goods.

[3] In the chapter, labor income share is defined as the share of employees' and self-employed persons' compensation in GDP (for the aggregate economy) or gross value added (for sectors). The methodology of adjustment for self-employed persons' income follows European Commission (2007).

3. **Stagnating real wages have become a major policy issue in Japan:**

- As in other advanced economies, there is a general concern that workers are not getting their fair share of the benefits from technological progress and globalization (see, for example, Financial Times, 2008).
- Moreover, overall wage stagnation has been accompanied by a widening of inequalities between high-skilled and low-skilled workers on the one hand; and (well-paid) regular and (poorly-paid) temporary workers on the other.
- Weak wage growth has held down private consumption, which in turn has made Japan's growth highly dependent on foreign demand. From a conjunctural perspective, this dependence makes the Japanese economy vulnerable to a global downturn.

B. Japanese Wages—The Main Facts

4. **Researchers have attributed Japan's sluggish wage growth to a variety of factors:**

- ***The impact of foreign competition and technology.*** The growing integration of large emerging-market economies into the global economy and advances in communication and IT technology have facilitated relocation of production and off-shoring of some production activities to low-cost areas. This process has had two effects on advanced economies including Japan:
  - International competition has pushed down relative prices of manufactured goods, reducing export revenues. In Japan, the real value added per worker in manufacturing increased by over 40 percent over the past decade. However, the nominal increase in productivity was much smaller, only about 15 percent.[4]
  - Firms operating internationally have become more sensitive to cross-country wage differentials and have limited wage growth in their home countries. Indeed, employee's compensation in Japanese manufacturing trailed nominal productivity gains by about 8 percentage points during 1996–2006.
- ***Deregulation measures.*** Liberalization measures adopted in Japan in the second half of the 1990s (especially in 1996 and 1999) expanded the list of industries that can hire "non-regular" workers.[5] These nonregular workers are much easier to dismiss, have limited social insurance, and have typically earned about 40 percent less than regular workers. The increasing share of low-wage workers, especially in services sectors, has helped to compress aggregate wage growth.

[4] The manufacturing deflator fell by 20 percent—much faster than the GDP deflator or CPI (footnote 2).

[5] Nonregular employees include part-time workers, workers dispatched through temporary agencies, short-term hires and others (see Bank of Japan, 2005 for details).

- ***Population aging.*** The Japanese working-age population has started to shrink—the share of persons between 15–64 years of age has declined from about 70 percent of total population during the 1990s to about 64 percent at present. Given the seniority-based wage system, population aging could have reduced wages for a couple of reasons:

  - The high-wage baby-boomers are being replaced by low-wage young workers (however, this report does not find any direct evidence supporting this popular view).

  - Retirees are often re-hired as part-time workers at lower wage rates, as firms would like to maintain skilled labor, while the retirees seek to supplement their pension incomes.

5. Since the impact of globalization and technological progress on wage shares in advanced economies has recently been explored in several studies (notably, Feenstra, 2007, and Jaumotte, Tytell, 2007), the following sub-sections focus on the other two factors that may have had a disproportionate effect on wage growth in Japan—the increasing incidence of non-regular employment and population aging. All the elements will be brought together in an econometric framework in Section III.

Deregulation: the increasing incidence of nonregular employment

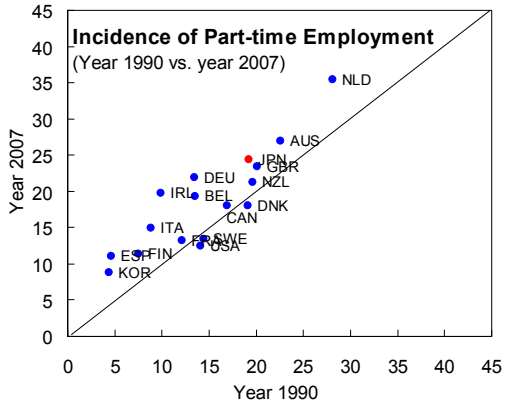
Is Japan's experience with increasing non-regular employment unique?

6. **Nonregular workers make up a significant portion of total employment in Japan.** The share of nonregular workers has grown from 20 percent of total employment in 1990 to 34 percent in 2007, creating a significant duality between employment types in the labor market. An accurate comparison of the incidence of non-regular employment across countries is not possible due to definitional differences. However, OECD data on part-time employees—typically a large fraction of nonregular employment—indicate that Japan has the third largest share of part-time employment among the sample of 19 advanced economies (Figure III.2A).[6] That said, the overall *increase* in part-time employment over the past couple of decades has been larger in some European countries than in Japan.

[6] This comparison potentially makes the Japan's labor market dualities appear less pronounced because the largest increase in non-regular employment in Japan in the past couple of years was in the segment of short-term hires and workers dispatched through temporary agencies. See OECD (2002) for a detailed discussion of various pitfalls in comparing temporary employment data across OECD member countries.

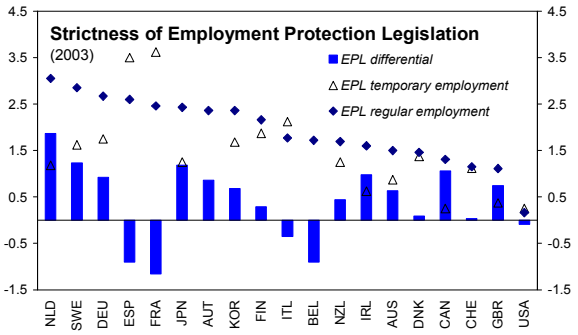
Figure III.2. Advanced Economies: Labor Market Regulations and Incidence of Part-Time Employment

A. Japan has a high incidence of part-time employment compared with other advanced economies …



Source: OECD, *Population and Labor Force Statistics*.
Note: Series expressed in percent of total employment.

B. … in part due to the large difference in regulations of temporary and full-time employment.



Sources: OECD; and IMF staff calculations.
Note: EPL differential is defined as EPL for regular minus EPL for temporary employment.

7. **Hiring of temporary employees has been stimulated by the large differential between employment protection and benefits for regular and temporary workers.** The average strictness of employment protection legislation (EPL) in Japan is close to the OECD average but Japan has one of the largest differentials between the EPL indexes for regular and temporary employment in the OECD area—the protection of regular workers is fairly strict, while temporary employment is relatively lightly regulated (Figure III.2B). Moreover, over the past couple of decades, most of the decline in Japan's EPL can be attributed to a less strict regulation of temporary employment, while the EPL for regular jobs has remained largely unchanged.[7] Again, labor market liberalization measures taken elsewhere, especially in Europe, has been more radical than in Japan, which potentially explains the larger increase in part-time employment in these countries.

8. **It should be noted that a high percentage of nonregular employees are comfortable with their flexible working status**. In particular, the labor market reforms helped previously disadvantaged groups such as women with children (or retirees) to enter (or remain in) the labor force. Indeed, the labor participation of women has increased from 60 percent to 66 percent of the working-age female population since the early 1990s. Switching to regular contracts is mostly sought by young cohorts (MHLW, 2003).

Who hires non-regular workers?

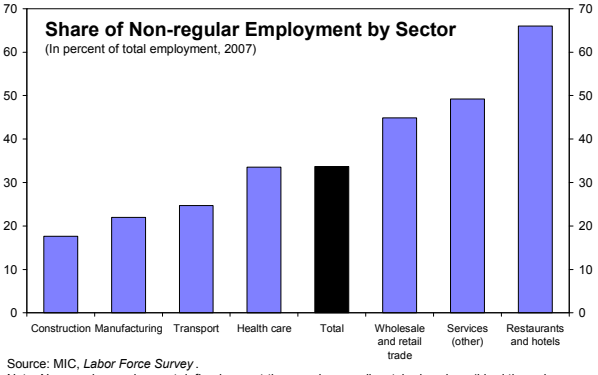
9. **Most of the increase in non-regular employment has occurred in services**, that is, in the sectors, which do not face direct international competition. In many services sectors,

[7] This pattern generally applies also to other advanced economies (OECD, 2004).

non-regular employees now make up 50 percent or more of total workforce. Despite concerns about the effects of international competition, the number of non-regular, low-wage, workers has increased only modestly in manufacturing and their share has remained low at 20 percent of manufacturing employment (Figure III.3A).

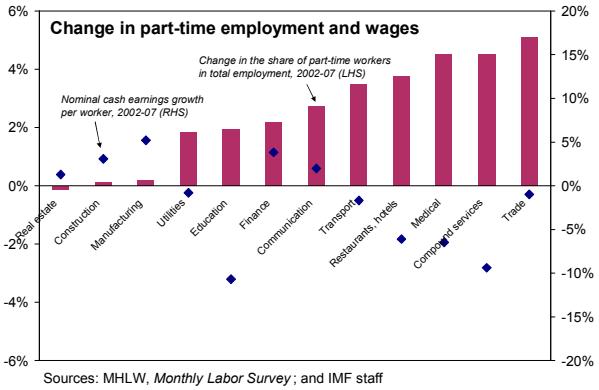
Figure III.3. Japan: Sectoral Trends in Non-Regular Employment, Wages, Productivity, And Labor Income Shares

A. The incidence of non-regular employment is largest in services sectors.



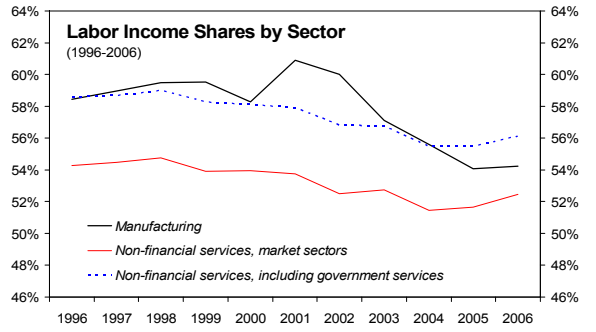
Source: MIC, *Labor Force Survey* .
Note: Non-regular employment defined as part-time employees, dispatched workers (hired through temporary agencies), workers on short-term contracts and others.

B. The significant increase in non-regular employment helped to push down average wages in services …



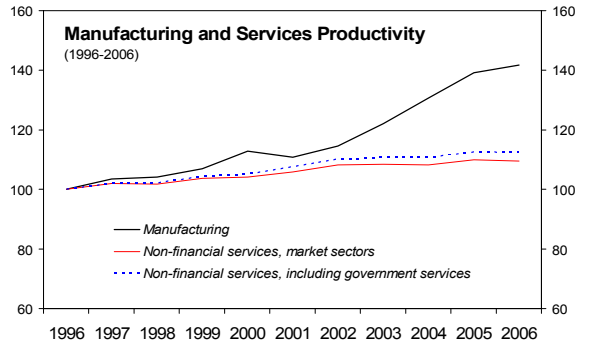
Sources: MHLW, *Monthly Labor Survey* ; and IMF staff

C. … however, labor share in non-financial services has not declined much …



Sources: Cabinet Office; and IMF staff calculations.
Note: Market non-financial services are defined as utilities, trade, real estate, transport and communications, and other service activities.

D. … due to low productivity growth in the sector, in striking contrast with manufacturing.



Sources: Cabinet Office; and IMF staff calculations.
Note: Real productivity per hour.

What have been the wage outcomes?

10. **Wage growth has been significantly smaller in industries with a larger proportion of nonregular workers.** Looking at sectoral data, a greater increase in the share of non-regular employment has typically been associated with lower wage growth (Figure III.3B). In many service sectors, average wages fell significantly over the past five years.

11. **Manufacturing companies granted their employees larger wage increases than other, more domestically oriented, sectors.** However, wage increases in manufacturing have been well below productivity gains. This would seem consistent with the hypothesis about international wage competition but, clearly, domestic factors have also been at play:

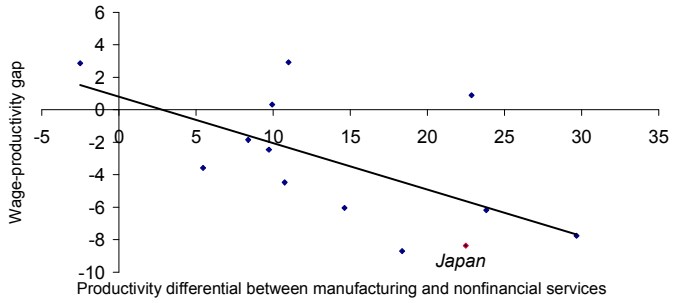
manufacturers have not been pressed to offer higher wages as the domestically-oriented sectors have been offering much less attractive compensation packages.

12. **Notwithstanding the higher proportion of non-regular workers and lower average wages, the labor income share in non-financial services declined only modestly over the past decade and, surprisingly, has even increased in recent years** (Figure III.3C). These developments have reflected low labor productivity growth of Japan's service sectors (Figure III.3D).[8] Put differently, although services sectors have been hiring extensively at low wages, profitability of these sectors has not improved as a result of hiring non-regular employees. Instead, most of the decline in aggregate labor income share can be attributed to the manufacturing sector.

13. **Compared with other advanced economies, growth within the Japanese economy has been unbalanced.** The cross-country data suggest that Japan's non-financial services sector (accounting for about 2/3 of total employment) has achieved one of the smallest productivity gains among the sample of 15 large advanced economies over the past decade—in sharp contrast with significant productivity growth in manufacturing that places Japan above the average of its peers.

14. **The unbalanced nature of Japan's growth has likely contributed to the lackluster average wage growth.** Since wages in manufacturing could not increase as much as productivity due to globalization and technological change, and wages in the non-financial services sector have been constrained by low productivity growth, aggregate wages have trailed productivity gains. Indeed, cross-country evidence suggests that countries with sizeable differentials between manufacturing and services productivity growth have accumulated the largest gaps between wages and productivity gains in recent years, despite falling unemployment.

Advanced Economies: Wage Gaps and Productivity Differentials
(2002-06; in percent)



Sources: OECD, *Annual National Accounts*; and IMF staff calculations.
Notes: Wage-productivity gap is defined as the percent difference between real wage and productivity growth per full-time employee during 2002-06. Productivity differential equals the difference between manufacturing and nonfinancial services productivity growth over the same period.

[8] The low labor productivity of Japanese services is related to the barriers to entry, limited contestability of local markets, low use of information and communication technology, and other impediments. See IMF (2007b) for details.

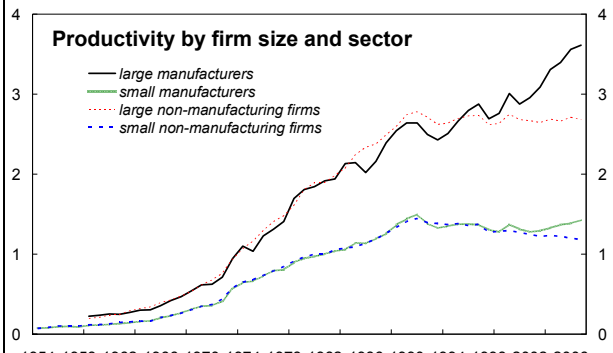
Dualities between large and small firms

15. **The duality in productivity performance between manufacturing and services is closely linked to dualities between small and large enterprises.** Large firms,[9] especially in manufacturing, have generally managed to increase productivity and offset rising input costs with greater success than small firms (Figure III.4A). However, the small firms account for most of total employment—about 70 percent.[10] Their low productivity has been a drag on economy-wide wages because the aggregate productivity gains have been concentrated among large manufacturers—that is, precisely those firms that are likely to limit wage increases due to the globalization of labor and product markets.

16. **There are further similarities between the dualities of manufacturing vs. services and large vs. small firms.** Small firms do not seem to have become more profitable as a result of hiring non-regular employees—the labor income shares in small firms have remained roughly unchanged. Most of the decline in aggregate wage share has occurred in the segment of large corporations (Figure III.4B).[11]

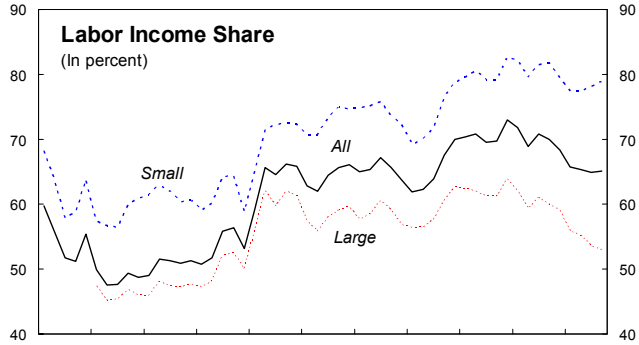
Figure III.4. Japan: Productivity and Labor Share by Company Size

A. Productivity of large manufacturing companies has grown at a brisk pace …



Sources: MoF Corporate Survey; and IMF staff calculations.
Note: Data are expressed in millions of current yen per employed person.

B. … however, wages have recently tended to lag productivity, especially among large firms.



Sources: MoF Corporate Survey; and IMF staff calculations.
Note: Labor income share calculated from the MoF Survey is not directly comparable to the labor share calculated from the national accounts.

[9] Large firms are defined as corporations with capital exceeding Y100mn.

[10] Small firms also contributed most to the employment *increase* in recent years.

[11] Some caution is necessary when making productivity comparisons between large and small companies. The MoF Survey does not report hours worked and it is therefore not possible to control for the increase in part-time and other forms of non-regular employment. Moreover, the MoF Survey and national account samples are different.

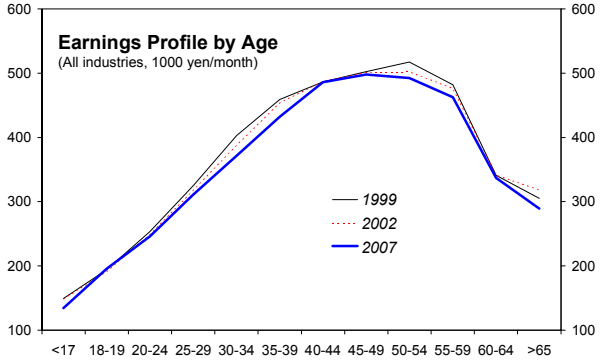
Population aging

17. **In recent years, the Japanese working-age population has started to shrink.** The share of population over 65 years old has increased from 15 to about 21 percent over the past decade, the largest increase among advanced economies.

18. **Re-employment of retired workers has put some downward pressure on wages.** The practice of offering part-time employment to retirees has become common as firms try to keep skilled employees while shedding labor costs. As a result, the relative wage of elderly workers has declined (Figure III.5A).

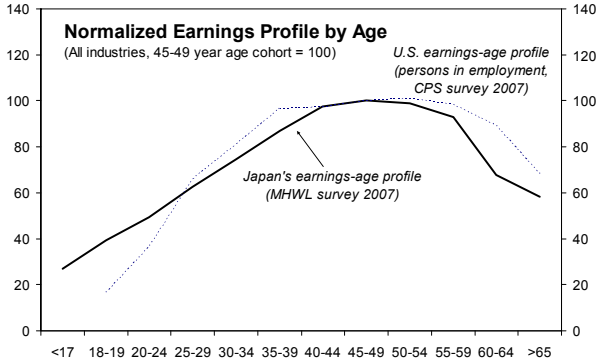
Figure III.5. Japan: The Impact of Population Aging on Average Wages

A. The earnings-age profile has become flatter as the seniority-based wage system has weakened …



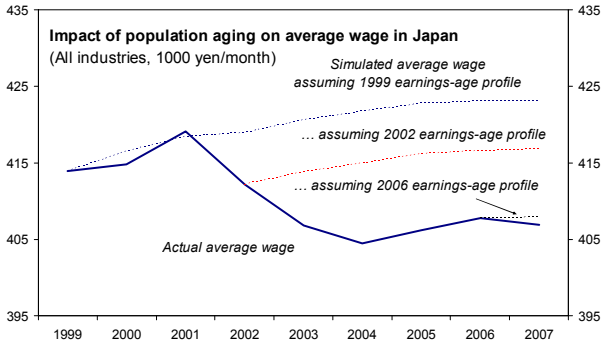
Sources: MHLW; and IMF staff calculations.
Note: Earnings are defined here as wages, overtime, and bonuses of employees.

B. … although peak earnings are still achieved later than in the U.S.



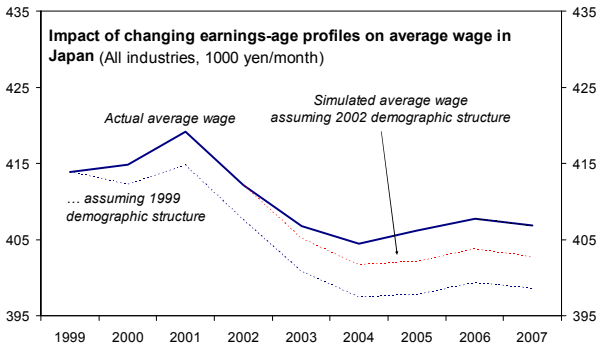
Sources: MHLW; CPS survey; and IMF staff calculations.

C. Changing demographic structure of workers has not contributed to lower average wages …



Sources: MHLW; and IMF staff calculations.
Note: The dotted paths correspond to average wages calculated holding earnings-age profiles constant at some vintage year's level, while accounting for the changing proportions of employees by age group.

D. … instead, wage sluggishness can be accounted for by changing relative wages across age groups, reflecting deregulation, globalization, and other factors.



Sources: MHLW; and IMF staff calculations.
Note: The dotted paths correspond to average wages calculated using actual earnings-age profiles but holding the proportion of employees by age group constant at some vintage year's level.

19. **More generally, the shape of the earnings-age profile has changed considerably during this decade.** The peak earnings age has shifted forward from the 50–54 year age

group to the 45–49 year group. Since the earnings of workers aged 40–44 has also increased relative to the average, the wage system has effectively become less seniority-based.[12] Besides the elderly workers, another group whose earnings fell relative to the average wage is the cohort of the currently 30–34 year old employees, again mostly due to the expanding part-time employment. In this regard, changes in the earnings-age profiles highlight the equity concerns as different age groups have been influenced by globalization and deregulation differently.

20. **For comparison, the earnings-age profiles in Japan and the United States continue to display some notable differences** (Figure III.5B). In the United States, peak earnings are reached earlier and the peak earnings period last even longer than in Japan. Moreover, older workers are paid a relatively higher wage in the United States than in Japan.

21. **Given the existing (albeit weaker) seniority-based wage system, the retirement of the high-wage baby-boomers and their replacement with young, low-wage, employees has also been cited as another cause of sluggish aggregate wage growth**. However, the negative composition effect from population aging *per se* has likely not contributed to sluggish wages in Japan. Calculations of aggregate wages under the assumption of constant earnings-age profiles suggests that demographic shifts may have had quite the opposite effect (Figure III.5C).[13] In other words, the movement of age cohorts "along the earnings-age curve" (Figure III.5A) cannot easily explain why aggregate wages have been sluggish in recent years. The intuition for this result is that while the share of employees behind their earnings peak (over 60 years) has risen, the share of low-wage young workers (under 35 years) has fallen as well—thus limiting the mechanical impact of demographics on the aggregate average wage.

22. **That said, one cannot rule out the possibility of the negative composition effect from demographics in the coming years.** Flattening of the simulated wage paths in recent years (see again Figure III.5C) suggests that the demographic structure could be at the "tipping point" at which it is about to start exerting a downward pressure on average wages. However, additional calculations using the U.N. population projections for 2010 and 2015 (not reported here) also do not predict any negative composition effects from expected demographic changes.

23. **Indeed, aggregate wage sluggishness can be accounted for by the changing shape of the earnings-age profiles** (Figure III.5D), which have in turn been linked to factors such

[12] In the late 1990s and 2000s, a number of companies introduced elements of performance-based compensation (Bank of Japan, 2005).

[13] In order to assess the impact of changing demographics on aggregate wages, one can calculate the counterfactual average wage by holding the earnings-age profile unchanged at some year's level (for instance, 2002), while accounting for the actual age structure of employees. Figure III.5C presents three versions of such calculation using vintage years 1999, 2002, and 2006.

as greater openness, international wage competition, and legal changes that encouraged non-regular employment.

C. Japanese Wage Developments in the International Perspective—Econometric Analysis

Modeling labor income share

24. The previous section has illustrated how a variety of factors such as globalization or labor and product market dualities may explain stagnating wages in Japan. This section analyzes Japanese wage developments in a more general framework by estimating a model that links labor income shares in a group of advanced economies to a variety of factors, including technological change, labor and product market policies, and other controls such as demographics or business cycle.

25. **The explanatory variables of the model are grouped as follows:**[14]

- ***Technological change.*** As suggested in earlier research (for example, IMF, 2007a), greater use of information and communication technology can, in the short term, reduce labor share by reducing demand for low-skilled workers. But labor share could also rebound once the skill adjustment to ICT investment is completed. This effect is captured in the model by assuming a quadratic relationship between technology and labor share.

- ***Globalization and competition.*** Increasing openness can make corporations more sensitive to international wage differentials (thus lowering labor share)—OECD, 2007; it can also make domestic markets more competitive, reducing any excess profits (with an ambiguous impact on labor share).

- ***Labor and product market institutions.*** Employment protection and product market regulation both limit competition in markets, creating "rents." Changes in labor and product market policies and institutions are therefore likely to affect the labor market share. Moreover, high unemployment replacement rates can create disincentives to work (OECD, 2004b), reducing the labor income share.

- ***Dualities in labor and product markets.***

  - ***Incidence of part-time employment.*** Nonregular workers have lower bargaining power; a higher share of part-time workers in total employment could therefore be associated with lower labor income shares. Moreover, more flexible work

[14] The model estimated in this section builds upon the econometric framework of Jaumotte and Tytell (2007) but is expanded to capture factors that reflect dualities. The data sources for variables are OECD, Ameco, EU Klems, and IMF databases, and Bassanini and Duval (2006). Other recent studies of wage developments in advanced economies include Bentolila and Saint-Paul (2003), Guscina (2006), European Commission (2007), and IMF (2007a). Earlier research includes Blanchard, Nordhaus and Phelps (1997).

arrangements may facilitate entry of new workers into the labor force. Since these workers are likely of low productivity, the marginal product of labor could fall, pushing down the aggregate wage.

- ***Differential between productivity of manufacturing and nonfinancial services.*** As discussed above, any large differences between "tradable" and "nontradable" productivities could reduce the wage share in advanced economies as the labor market gets more globalized.

- ***Differential in ICT investment between manufacturing and non-financial services.*** This variable is included to reflect the low use of ICT in Japan's services sectors.

- ***Other controls*** include demographics, output gap and a measure of real exchange rate overvaluation.

26. **As is apparent from the discussion above, the panel regressions include—besides "deep parameters" such as openness, institutions or demographics—also several "outcome" measures**, specifically the incidence of part-time employment and productivity differentials. These outcomes should in principle be linked to their underlying determinants—for example, the productivity differential between manufacturing and services could be modeled as a function of sector-specific labor and product market regulations, market contestability and other factors. However, such a full breakdown into deep parameters is not feasible because many of the existing structural and institutional measures are of qualitative nature, change infrequently, and the relationship between the deep parameters and outcomes is likely non-linear. This gives the inclusion of outcome measures in regressions some merit—with the qualification that, in particular, any changes in the labor market share due to labor and product market dualities should be interpreted using country-specific information in a broader context of technological and regulatory change, increasing openness and so forth.

Estimation results

27. **Table III.1 presents estimation results from a panel data model estimated over a sample of 15 advanced economies during 1980–2005.** The estimation results suggest that:

- **Technology and globalization have been important determinants of the labor income share.** Technology indeed seems to enter the model nonlinearly, reducing the wage share at low levels of technology use but later raising it once some of the low-skill occupations are eliminated. Trade openness tends to reduce the labor share with a fairly large elasticity— the labor income share falls in advanced countries by about

1 percentage point for a 10 percentage point increase in the ratio of export and imports to GDP.[15]

- **Labor and product market dualities have significant explanatory power in the regressions.** The coefficient on the share of part-time employment is large and highly statistically significant—for every 5 percentage points increase in the share of part-time employment, the labor income share falls by 1 percentage point. The differential between manufacturing and services productivity also enters with a large coefficient—in Japan's case, it contributed about 1.5 percentage point to the decline in labor share.

- **As expected, high unemployment benefits and strict labor market regulations reduce the labor income share**, in line with previous research.

- **Labor share tends to decline during economic expansions but on the whole, the elasticity is small.** Demographics and a crude measure of exchange rate overvaluation do not enter significantly.

[15] Bank of Japan (2005) presents interesting sectoral evidence that larger import penetration tends to be associated with a greater weight of skilled labor in total labor cost.

Table III.1. Labor Share in Advanced Economies: Panel Regression Estimates

Group	Variable	(1)	(2)	(3)
Technology	Share of ICT in non-residential capital stock	-0.690 (4.14)***	-0.351 (1.77)*	-0.370 (2.06)*
	Share of ICT capital squared	0.019 (4.59)***	0.012 (2.71)**	0.012 (2.96)**
Globalization	Trade openness	-0.077 (3.82)***	-0.096 (7.25)***	-0.107 (3.75)***
Dualities	Share of part-time employment	-0.206 (1.99)*	-0.238 (2.79)**	-0.228 (2.89)**
	Differential between labor productivity in manufacturing and services (in logs)	-2.866 (2.31)**	-2.235 (1.80)*	-2.082 (1.40)
	Differential between ICT capital in manufacturing and services (in logs)	-1.080 (2.07)*	-1.612 (3.59)***	-1.477 (3.06)***
Labor and product market policies	Unemployment benefits	-0.233 (7.93)***	-0.239 (7.26)***	-0.245 (7.79)***
	Product market regulation	0.503 (2.10)*	0.613 (1.47)	0.547 (1.17)
	Employment protection legislation	-1.513 (2.44)**	-1.994 (2.61)**	-2.049 (3.10)***
Cycle	Output gap	-0.152 (4.58)***	-0.123 (2.71)**	-0.118 (2.60)**
Other controls	Population 15-64 as percent of total population	…	…	0.025 (0.12)
	Deviation of REER from trend	…	…	-0.016 (0.70)
	Constant	80.19 (41.39)***	77.218 (31.25)***	76.31 (6.14)***
	Fixed effects	Yes	Yes	Yes
	Time effects	…	Yes	Yes
Summary statistics	Sample	1980-2005	1980-2005	1980-2005
	Observations	312	312	312
	Adjusted R-squared	0.88	0.90	0.90

Source: IMF staff estimates.

Notes: Robust t statistics are reported in parentheses.

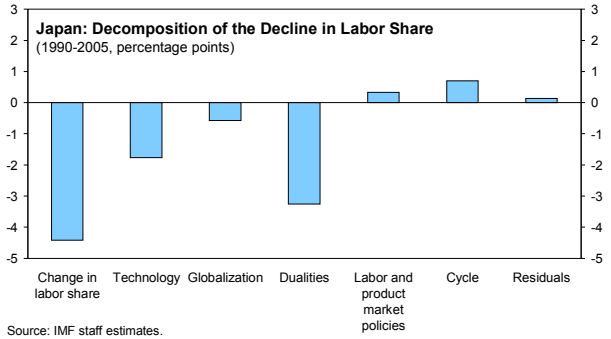
{***,**,*} denote statistical significance at {1, 5, 10} percent levels.

Decomposition of changes in the labor income share

28. **The estimated coefficients can be used to decompose changes in the labor income share to the contribution of various explanatory variables.** In Japan, the labor share fell by 4.5 percentage points during 1990–2005.[16] This decline be split into: a –1.8 percentage point contribution of technology, a –0.6 percentage point contribution of openness, and a -3.3 percentage point contribution of dualities (Figure III.6A).[17] Within the dualities group, the largest contribution is from the rising share of part-time employment (–1.4 percentage point) and productivity differential between manufacturing and services (–1.5 percentage point). The *direct* impact of changes in labor and product market regulations is estimated positive, at 0.3 percentage points, mostly because unemployment benefits relative to the median wage declined over the period. However, caution is needed in interpreting this result because liberalization measures have reduced the labor share through indirect channels, most notably by contributing to an increase in non-regular employment.

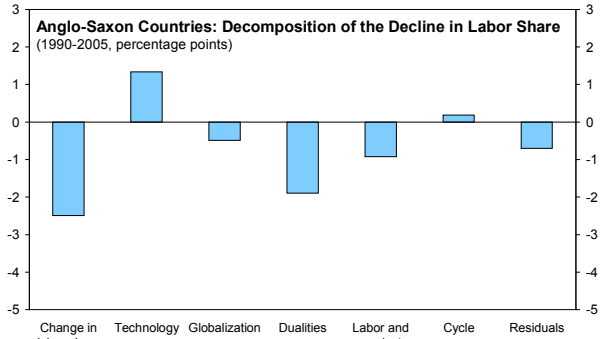
Figure III.6. Advanced Economies: Decomposition of Changes in Labor Income Shares

A. In Japan, the labor income share has declined more than in Anglo-Saxon economies, with a large contribution from economic dualities …



Source: IMF staff estimates.
Notes: Technology = contribution of ICT share; globalization = contribution of openness; dualities = contribution of part-time employment, labor productivity differential, and ICT differential; labor and product market policies = contribution of labor and product market legislation and unemployment replacement rate; and cycle = contribution of the output gap.

B. … while in Anglo-Saxon economies, technology has tended to raise the labor income share as adoption of technology has proceeded at a faster pace there than in Japan.



Source: IMF staff estimates.
Note: Simple average of the United States and the United Kingdom.

29. **In some European countries, dualities have also contributed significantly to falling labor share.** For example in Germany and Italy, a rapid increase in part-time employment reduced wage shares by more than one percentage point, while the differential

[16] Year 1990 was selected as the starting point for this calculation because the early 1990s coincide with the increasing integration of large emerging-market economies into the global economy and regulatory reforms in many countries. Moreover, labor shares were adjusting downward during the 1980s in response to the previous unsustainable rise in the period of oil shocks.

[17] A wave of corporate restructuring in Japan during the 1990s and 2000s has accelerated the reallocation of employment from manufacturing to services. While the restructuring process could on its own explain some of the wage sluggishness, its impact on the labor share (i.e., wages relative to productivity) is likely to have been *positive* as service sectors typically have higher income shares than manufacturing.

between manufacturing and services productivity gains contributed another ½–1 percentage point to the labor share decline.

30. **The experience of the United Kingdom and United States provides an interesting contrast.** The overall decline in labor share was only about ½ of Japan's during 1990–2005 (Figure III.6B). In these two Anglo-Saxon economies, technology tended to boost the labor share as ICT investment has surpassed the threshold level: the share of ICT capital in total non-residential capital stock is higher by about 2/3 in the United Kingdom. and the United States compared with Japan. Also, dualities seem to play a relatively smaller role, reflecting a limited increase in part-time employment.[18]

D. Summary and Policy Recommendations

31. **Wages have been trailing productivity gains in most advanced economies over the past couple of decades.** This paper confirms the importance of technological change, globalization, and labor market policies in explaining these developments. In case of Japan, the analysis highlights the role of the factors that have contributed to the build-up of labor and product market dualities—between regular and non-regular workers, large and small companies, or manufacturing and services.

32. **Japan's economic dualities may explain why wage growth has been more disappointing in Japan than in some other advanced economies.** The large difference in the employment protection and benefits between regular and nonregular workers stimulates the firms with low profitability (often SMEs) to offset rising input costs by offering mostly lower-paid temporary positions. As a result, profitable companies have a reduced incentive to agree on attractive compensation packages. Besides the large difference in employment protection between regular and nonregular workers, the unbalanced nature of Japanese growth together with greater openness may also have contributed as manufacturers have limited wage increases, while services sectors did not generate labor productivity growth sufficient to support higher wages. Cross-country evidence suggests that countries with large differentials between manufacturing and services productivity growth have experienced the largest declines in the aggregate wage share in recent years, despite low unemployment.

33. **From the short-term perspective, very recent amendments to the part-time employment legislation have provided some boost to full-time employment, while average nominal wages have picked up.** However, many of the factors underlying wage sluggishness in Japan are deep-seated and policy changes are needed to put wages firmly on an upward trajectory:

- Reforms aimed at increasing productivity in services (or, from another point of view, at small enterprises) and reducing the gap in employment protection and benefits

[18] Of course, rising wage inequalities have raised public concerns also in these countries, nothwithstanding the relatively solid growth of average wages (see, for example, IMF, 2007a).

between regular and nonregular workers could help boost per-capita incomes. However, policymakers may face here a trade-off between higher productivity and employment level, especially in regions with limited short-term growth prospects.

- The general direction of future labor market reforms should be toward lower employment protection. Rather than increasing employment protection for temporary workers, flexibility should be increased for the permanent contracts (OECD, 2008). It is notable that economies with flexible labor markets such as the United Kingdom, the United States, and New Zealand have observed smaller declines, or even increases, in labor income shares during the recent cycle. Moreover, the more equal treatment of regular and nonregular workers would help ease equity concerns.
- Certain financial reforms would also be useful, either by facilitating emergence of new high-productivity enterprises, or by encouraging restructuring of existing inefficient businesses. Measures aimed at encouraging greater FDI could also force restructuring, while potentially helping local SMEs gain access to foreign markets, helping to boost productivity (IMF, 2007b).

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ANNEX I. UPDATE ON THE PRIVATIZATION OF JAPAN'S POSTAL SAVINGS AND INSURANCE: KEY RISKS AND CHALLENGES[1]

A. October 1st, 2007: The First Step towards Privatization

1. **As a first step towards privatization, the government has reorganized Japan Post into four separate businesses under a single holding company.** On October 1, 2007, Japan Post Holdings (JPH) was created with full ownership in four subsidiaries: Japan Post Service, Japan Post Network (JPN), Japan Post Bank (JPB) and Japan Post Insurance (JPI). Under the 10-year privatization plan, the government will require Japan Post Holdings to divest its shares in JPB and JPI by 2017, while at the same reducing the government's stake in JPH to one-third. Plans are also underway to list shares in JPB and JPI on the Tokyo Stock Exchange starting as early as 2010.

2. **The legal separation of the postal network from the savings and insurance arms has opened the door for private institutions to compete on a more level playing field with JPB and JPI.** With its 24,000 branches nationwide, the postal network has long provided an important distribution advantage for its former savings and insurance units. While the postal network will continue as a retail window for JPB and JPI (from now on against the payment of fees), the network will also be allowed to distribute financial services originated and developed by other private financial institutions.

3. **In addition, JPB and JPI will now face similar regulatory and supervisory treatment as other private institutions.** In October 2007, JPB and JPI were brought under the Banking Law and the Insurance Business Law, respectively. As such, they are now regulated and supervised by the FSA under the same set of rules, risk-controls and disclosure requirements as other financial institutions. In addition, new deposits and policies at the JPB and JPI no longer carry an explicit government guarantee, but instead will be covered under the public insurance schemes with the same limits as for private institutions.[2]

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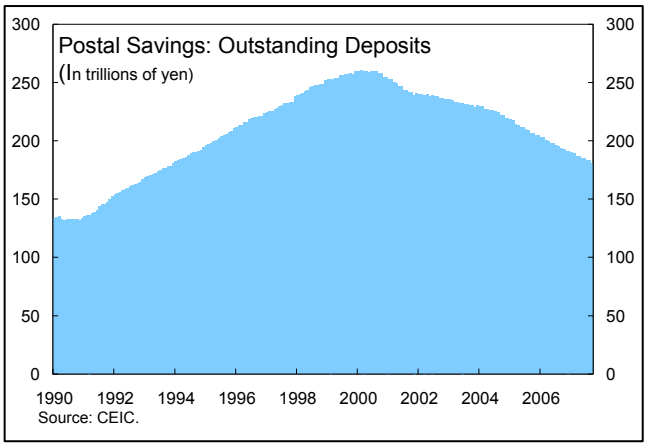
[1] Prepared by Romuald Semblat (APD).

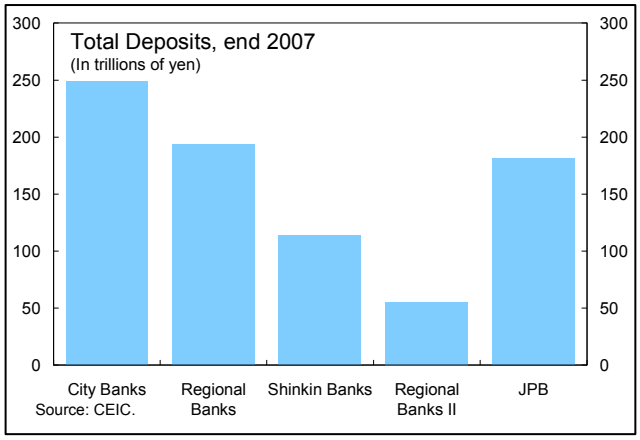
[2] However, both institutions will still benefit implicitly from having the government as their sole shareholder.

B. Key Challenges and Risks

4. **JPB poses a challenge to commercial banks, particularly at the regional level.** JPB's deposits have come down by almost a third since 2000, as households have shifted away from deposits into higher-yielding financial products. Despite this reduction, JPB's deposit base remains enormous, roughly two-third the size of city banks combined, and almost equal to that of all regional banks. While its market share in the urban areas is relatively small (in Tokyo it is less than 10 percent), it still maintains a large presence in the rural areas. In response, regional banks have taken steps to join forces, in some areas and in some instances seek out business alliances with JPB.

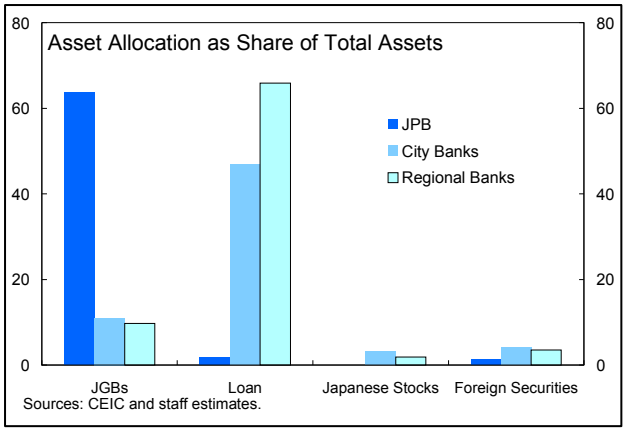


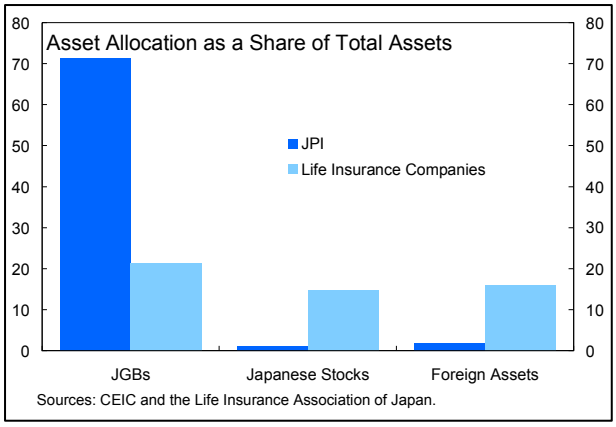
5. **Enhancing the profitability and ensuring the soundness of JPB will be important for its future viability as a private entity.** JPB's net interest margin is only ¾ of a percent—less than half that of private banks—with a return on assets of only ½ percent. The meager returns are due mainly to its large concentration in low-risk assets such as JGBs. In order to raise its profitability (and prepare for future listing), JPB is aiming to expand into new business lines and take on more risk. Already, it has been permitted to enter into credit card businesses and intermediate housing loans. However, JPB does not have the adequate risk management systems for conducting direct mortgage lending and instead initially sells mortgages and limited number of financial products originated by other private financial institutions. It is important that JPB have the systems in place to manage properly these new risks.



6. **The privatization process will also need to manage the risks to financial markets from potential portfolio shifts by JPB and JPI.** Reflecting their historical role in securing funding for public lenders and infrastructure projects through the Fiscal Investment and Loan Program (FILP), JPB and JPI have amassed huge portfolios in risk-free assets, mainly JGBs and Fiscal Loan Funds deposits. Given the size of their balance sheets, any shift in

investment strategy by the JPB and JPI, such as into stocks and foreign securities, could have a significant impact on asset prices, as well as on capital flows.





C. What is Being Done to Deal with these Challenges?

7. **During the transition, the government is maintaining tight controls over the business activities of JPB and JPI.** The expansion of JPB and JPI into new business activities and the management of their assets is still subject to government approval. Fair competitive relationships and business conditions of the institutions shall be considered when the government makes decisions on their business expansions, upon hearing an opinion from the Postal Services Privatization Committee (PSPC). In December, the government allowed the JPB to engage in a limited number of operations, including syndicated loans, swaps and interest rate futures, and reverse repos. In addition, the government also allowed the JPB to engage in credit card businesses, and intermediary businesses of housing loans and life insurance products including variable annuities in April. However, it maintained the ¥10 million per person cap on postal savings deposits to limit JPB's expansion.

8. **The tight rules on asset management also suggest that any portfolio shifts will likely be gradual.** Time deposits at JPB and policies at JPI that are contracted before October 2007 continue to benefit from a full government guarantee, but in return, the corresponding funds are required to be invested in safe assets and managed conservatively. Only deposits and policies contracted post October 2007 will be allowed to be managed with greater flexibility. As a result, JPB and JPI now operate two sets of books— a "pre-privatization" and "post-privatization" book. With the "post-privatization book" likely to grow slowly, the diversification of assets at JPB and JPI away from safe assets is expected to be very gradual, limiting the potential impact on financial markets and capital flows.