I. Financial market developments during the second half of 2005

1. Short-term money market

During the second half of 2005, the Bank of Japan continued to provide large amounts of liquidity far beyond the minimum reserve requirements, and so the extremely accommodative conditions in the short-term money markets continued. The long-end of short-term interest rates (6-12 month yields) have risen since the summer as prospects of an end to the quantitative easing policy (QEP) and a subsequent rise in interest rates have become clearer.

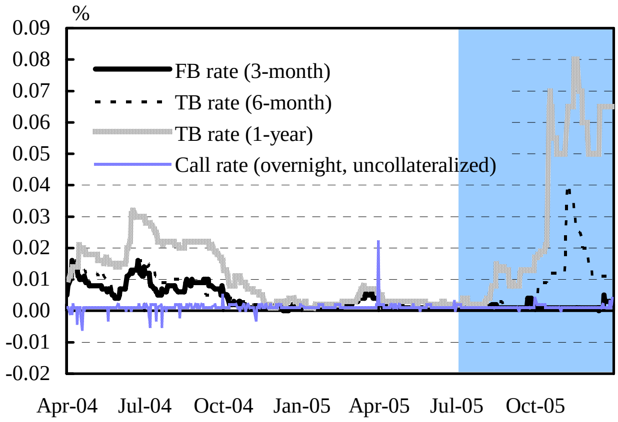
As for interest rate developments in the short-term money market, yields ranging from overnight to 3 months have been at around zero while demand for liquidity in the market has been extremely weak with the Bank retaining its target for the current account balance at around 30 to 35 trillion yen (Chart 1).

The long-end of short-term interest rates of over 6 months moved in step with the 3-month rate from the beginning of July to early August. In view of the moderate economic recovery and narrowing year-on-year rate of decline of consumer prices, both the Bank and the government upgraded their economic assessment on August 9. Following this revision, rates of over 6 months to one year rose to pre-QEP levels, reflecting the strengthened market expectations that the QEP will end over the course of fiscal 2006 (Chart 1).

Market participants' predictions on the duration of monetary easing priced in by 3-month euroyen futures rates extended outward in the first half of 2005, and then shortened in the second half (Chart 2). At the beginning of November when the yields on the leading contract month of euroyen futures rose, market participants were pricing in a 0.25 percent rise in the policy rate within a year following the end of the QEP over the course of FY2006. Furthermore, since mid August the daily close of 6-month rates six months ahead derived from swaps and other interest rate products exceeded the levels observed during the interest-rate hikes in the summer of 2003 and 2004, and rose as high as the level of February 2001, just one month prior to the introduction of QEP (Chart 3). Later, expectations of the QEP ending over the course of

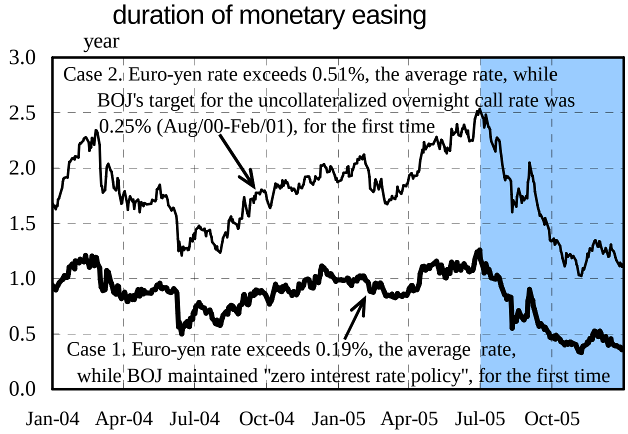
- This is a translation of the Japanese version published on January 27.
- In the charts, the shadowed portion represents the period (the second half of 2005) covered in this Report.

Chart 1: Short-term interest rates



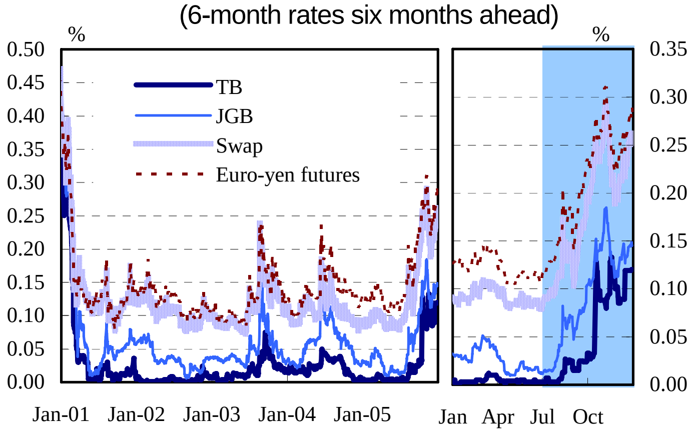
Sources: Japan Bond Trading Co., Bank of Japan

Chart 2: Market participants' expectations on the duration of monetary easing



Note: The markets' expectation on the duration of monetary easing is assumed to be the time to the point on the yield curve of 3-month euro-yen futures exceeds the average of the euro-yen rates during the periods below.
Case1. Bank of Japan maintained a "zero interest rate policy" (Sep/99-Aug/00)
Case2. The target for the uncollateralized overnight call rate was 0.25% (Aug/00-Feb/01)
Sources: Tokyo Financial Exchange, Bloomberg, Bank of Japan

Chart 3: Implied forward rates (6-month rates six months ahead)



Sources: Bloomberg, Quick, Japan Bond Trading Co., Bank of Japan

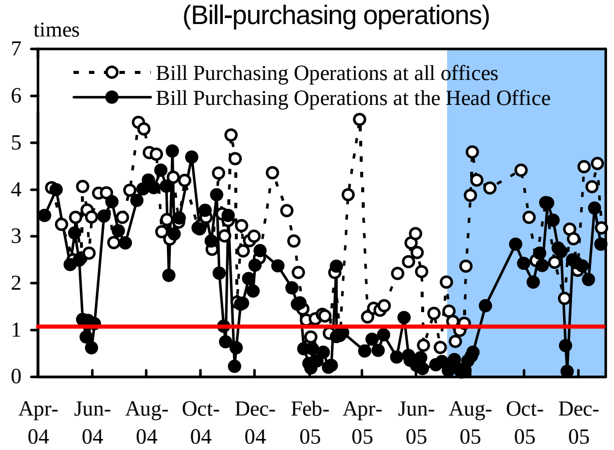
FY2006 fell back somewhat, influenced by various statements regarding the conduct of monetary policy. While market participants expect interest rates to rise fairly moderately, they expect such rises to start earlier than they had expected in June.

Regarding the bidding tendency of financial institutions in the Bank's funds-supplying operations, "under-biddings" (i.e. cases where bids for central bank funds fall short of the offered amount) continued until the beginning of August, and the current account balance at the Bank temporarily fell short of the lower band of its target of 30 trillion yen on July 29, and August 3-5. Bidding incentives have recovered as the prospects of the Bank ending its QEP and subsequent rise in interest rates strengthened (Chart 4). Meanwhile, although the overall average length of funds-supplying operations has been shortened, this was accompanied by far less frequent under-biddings.

As can be seen, the bidding incentives of financial institutions and the frequency of under-bidding changed significantly since the beginning of August. This change was driven mainly by the shift in duration of the QEP expected by market participants. Financial institutions formulate their bidding strategies based on the length of operations, views on interest rates, and prospects for their funding positions. Weaker incentives to hold excess funds with the Bank due to improved credit situation of financial institutions and decrease in their deposit-loan ratio had been off set by extensions of maturities of the Bank's open market operations. During the second half of 2005, although bidding incentives declined temporarily, anticipation of interest rate rises associated with the shortening of the expected duration of the QEP seems to have strengthened the bidding incentives (Chart 5).

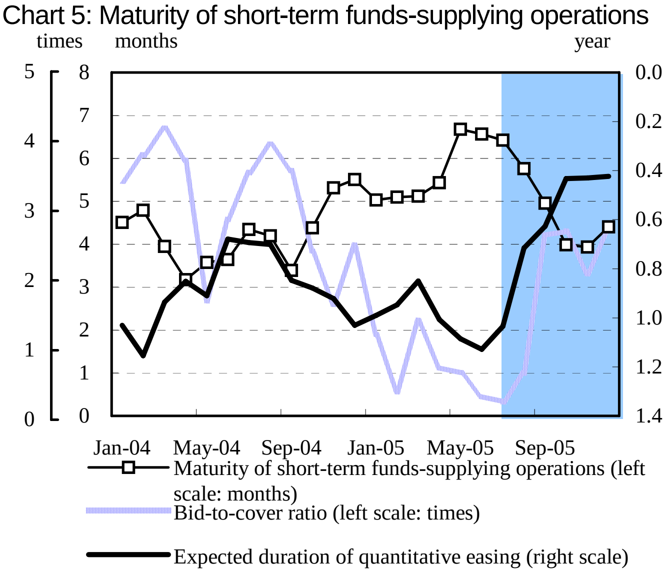
Since the QEP has continued for almost five years, financial institutions have become more reliant on the Bank's funds-supplying operation and therefore the role of inter-bank money markets, where banks lend and borrow money, has diminished. For example, although the amount outstanding has slightly recovered, transactions in the uncollateralized call market has remained at very low levels (Chart 6, Refer to Section 2 for the functioning of the short-term money markets).

Chart 4: Bid-to-cover ratio
(Bill-purchasing operations)



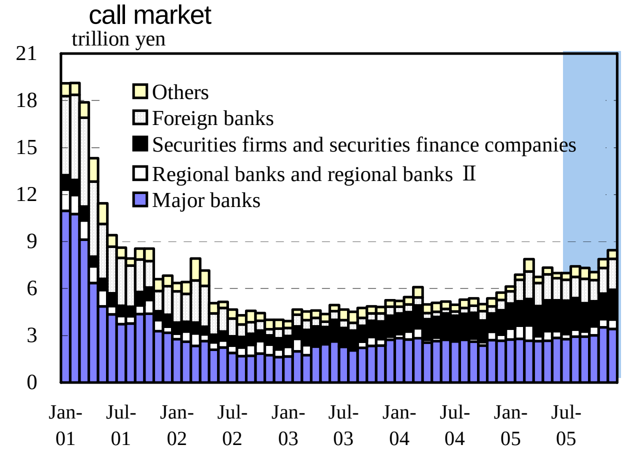
Note: Based on the dates of offers.
Source: Bank of Japan

Chart 5: Maturity of short-term funds-supplying operations



Notes: 1.Maturity of short-term funds-supplying operations is based on the quarterly offerings of the following operations and is derived as the weighted average amount based on successful bids of (1) the maturity of outright purchases of bills, purchases of JGS with repurchase agreements, and purchases of CP with repurchase agreements, and (2) the remaining maturity of issues purchased through outright purchases of TBs/FBs.
2. Bid to cover ratio is that of bill purchasing operations at the Head Office. Expected duration of quantitative easing is calculated as Case 1 of Chart 2.
Source: Bank of Japan

Chart 6: Amounts outstanding in the uncollateralized call market



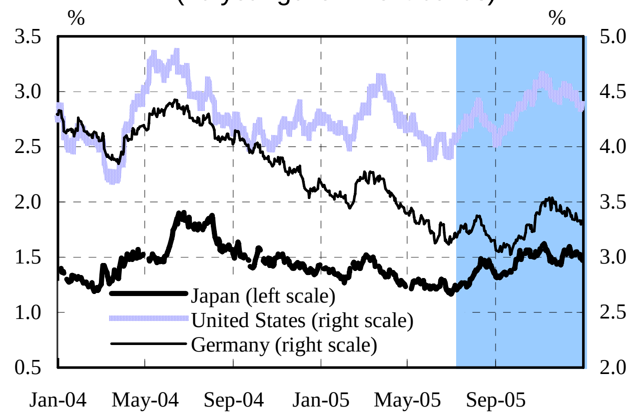
Note: Monthly average.
Source: Bank of Japan

2. JGB Market

Long-term interest rates rose gradually with some fluctuation, as rates for newly issued 10-year JGBs moved to 1.470% at the end of December from 1.165% at the end of June. Still, the increase in yield was small on the whole (Charts 7 and 8).

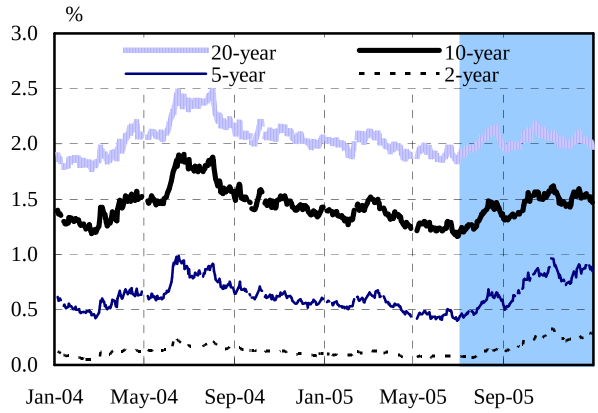
After the decline in the first half of 2005, the long-term interest rate has risen to 1.620 percent, the highest level since September 2004, toward the beginning of November. The interest rate rose mainly due to the markets' improved outlook for the economy and price (Chart 9). Market participants' outlook for consumer prices for FY2005 showed a narrowing rate of decline in June, and has remained at zero percent since September. Participants have also gradually revised upwards their outlook for FY2006. While the prospects for an increase in short-term interest rates fell back somewhat reflecting the receded prospect for an early exit from the QEP after mid November, long-term interest rates fell due to stronger prospects that the favorable supply and demand situation in JGB market will continue. Market participants viewed the government's bond issuance plan announced for the next fiscal year, which trimmed down the issuance amount, as a positive factor supporting the JGB price.

Chart 7: Global long-term interest rates
(10-year government bonds)



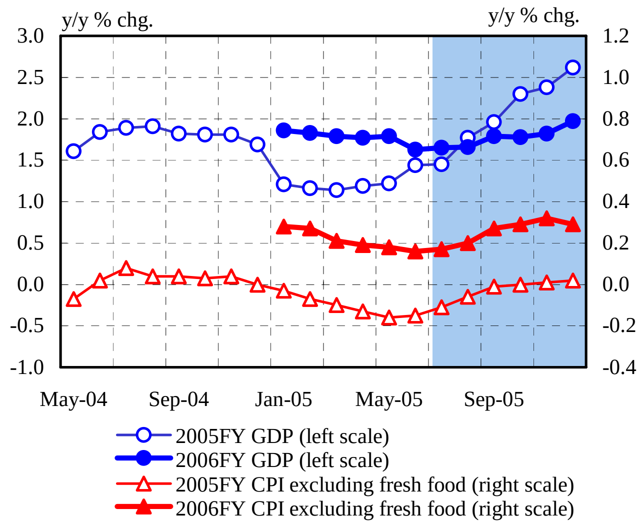
Sources: Japan Bond Trading Co., Bloomberg

Chart 8: Interest rate movements (by maturity)



Source: Japan Bond Trading Co.

Chart 9: Economic outlook: Survey of economists



Note: Latest survey period: Nov 24 -Dec 1.
Source: Economic Planning Association "ESP Forecast"

Development in interest rates by maturities

Looking at the government bond yield curve, interest rates rose across all maturities. In detail, the rise in short to medium-term interest rates was significant (Chart 10). The increase in short to medium-term yields reflects that yields up to 5 years are more influenced by changes in prospects of the monetary policy actions, and yields around 7 years are strongly influenced by developments in the futures market that reflected foreign participants' anticipation of higher yields. Meanwhile, the change in yields over 10 years was relatively small due to the strong demand mainly by domestic institutional investors while most market participants expect that medium to long-term economic growth and inflation to remain low.

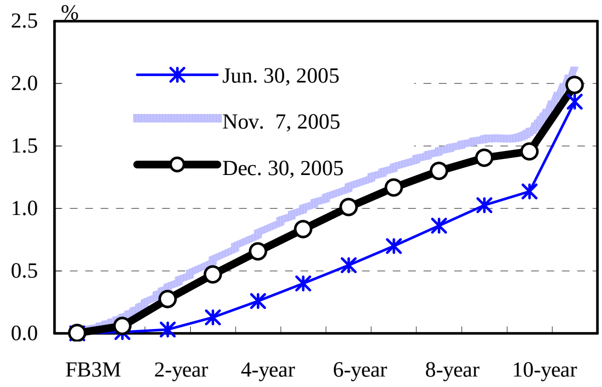
These developments in interest rates were reflected in interest rate volatility. While market participants anticipate fluctuations of long-term yields to be limited compared with the past instances of rising interest rates, implied volatility of 1 to 2-year yields, which are strongly influenced by the prospects of monetary policy actions, rose in mid September and remained relatively high (Chart 11).

Strong demand from domestic investors

From a supply and demand perspective, overall limited rise in long-term interest rates can be explained by the strong demand from domestic investors.

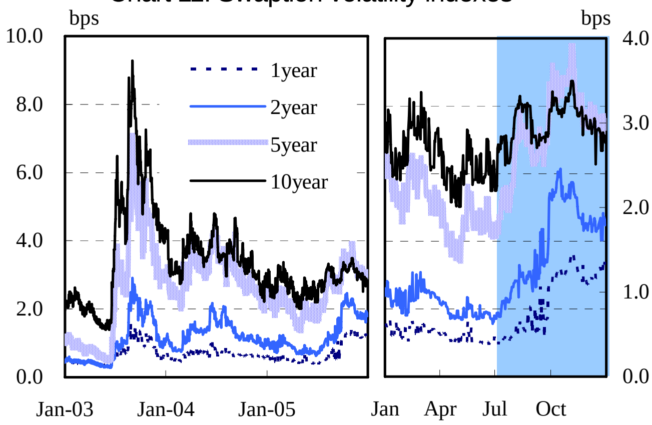
Pension funds and insurance companies, who hold long-term debts on their balance sheets had a strong demand in bonds with longer than 10-year maturities. They maintained their incentives to purchase bonds constantly when interest rates were rising (Chart 12).

Chart 10: Government bond yields



Source: Japan Securities Dealers Association

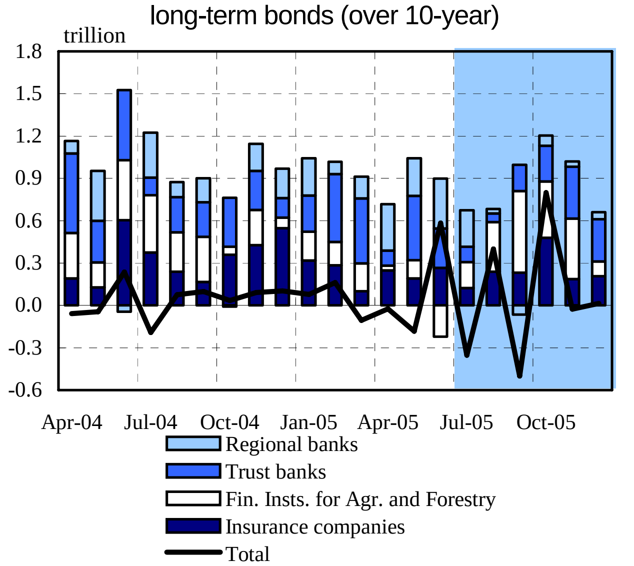
Chart 11: Swaption volatility indexes



Note: Swaption is an option on a swap. In this chart, the underlying asset is 1 year, 2-year, 5-year or 10-year interest rate swap and the term to expiry is one-month. "Volatility Index" expresses the implied volatility of each swaption in terms of basis points, multiplying the forward yields by the implied volatility of swaption in terms of percentages.

Sources: Bloomberg, Bank of Japan

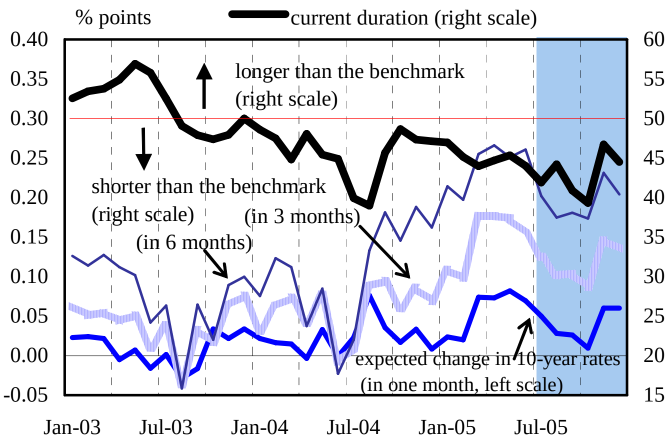
Chart 12: Transactions by investor category of super-long-term bonds (over 10-year)



Source: Japan Securities Dealers Association

Financial institutions also had a strong potential appetite for purchasing bonds with shorter than 10-year maturities, reflecting their balance sheet conditions of deposits exceeding loans. Financial institutions invest in bonds based on their views on short-term interest rates, which are regarded as their funding costs. During the second half of 2005, financial institutions adopted a more cautious investment stance as they assumed they were closer to an end of the QEP. However, they showed a strong consistent demand when long-term interest rates rose to a certain level that ensured wider margins. Most of the market participants predicted that interest rates will continue to rise for another 6 months but that the increase in yield would remain limited (Chart 13).

Chart 13: Expected changes in long-term rates (10-year) and duration of JGB portfolios

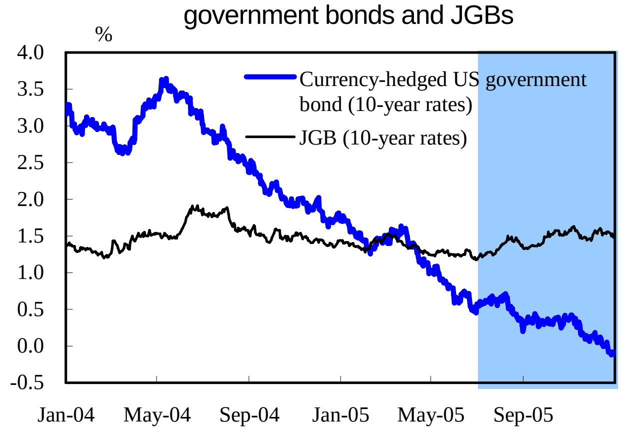


Notes: 1. Survey of securities firms and institutional investors.
2. Latest survey period: Dec 26-28.
3. Average JGB yield (10-year):
Latest survey period: 1.512%

Sources: QUICK "QSS Report", Bank of Japan

Furthermore, some institutional investors shifted their investment into JGBs from foreign bonds. Those investors invested in foreign bonds combined with transactions to hedge several months of foreign exchange risks. The rates of return on these investments were higher than those on JGBs after adjusting the hedge cost. However, the relative attractiveness started to diminish from mid 2005. The widening short-term interest rate differential between Japan and abroad, and the flattening of the yield curves in the U.S. and Europe implied that yields on foreign bonds after adjusting the hedge costs were lower than the JGBs (Chart 14).

Chart 14: Yields of currency-hedged US government bonds and JGBs

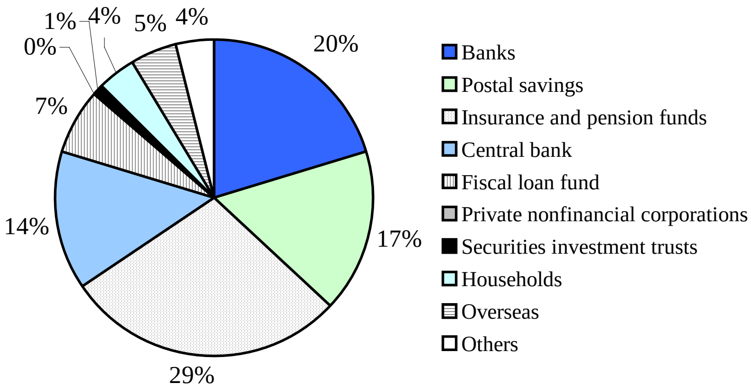


Note: The hedge cost is defined as the difference between 3M $LIBOR and 3M yen LIBOR.
Source: Bloomberg

Increased activity of overseas investors

As interest rates in Japan remained low, investments in cash bonds by overseas investors continued to be limited. Foreign holdings of JGBs remained at around 5 percent on a stock basis (Chart 15).

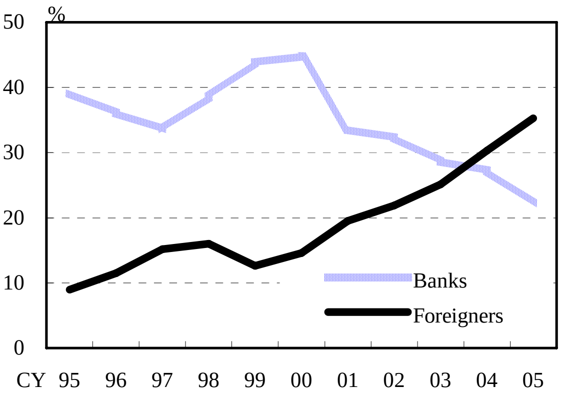
Chart 15: Government bond holdings by investor category



Note: 05/3Q.
Source: Bank of Japan

However, overseas investors were more active in JGB futures and cash bonds (Chart 16) and appeared to have a positive view on interest rate rises on the back of the strong overall outlook for the Japanese economy. Continuing active purchases of Japanese equities by overseas investors would indicate that they are bullish on Japan. Also, overseas investors were pointed out to have taken short positions on JGB futures and other products at some stage during the second half of 2005, which has had an increasing influence on Japanese interest rates. The unwinding of positions by overseas investors against the flattening of the yield curve overseas, especially in the U.S. markets, has influenced the flattening of the Japan's yield curve in 2006, along with the strong demand from domestic investors.

Chart 16: Trading volume of JGB futures by investor category



Source: Tokyo Stock Exchange

Increase in correlation of interest rates between Japan and abroad

The daily correlation between Japanese and U.S. interest rates has been getting stronger (Chart 17). The correlation used to be weak in the past except during times of financial stress such as extreme interest rate rises, and the correlation was low compared with that between the U.S. and Europe (Chart 18). Since the spring of 2005, the correlation has increased even under a normal market condition and was higher than that between the U.S. and Europe for some period.

Chart 17: Correlation of long-term interest rates between Japan and the U.S.

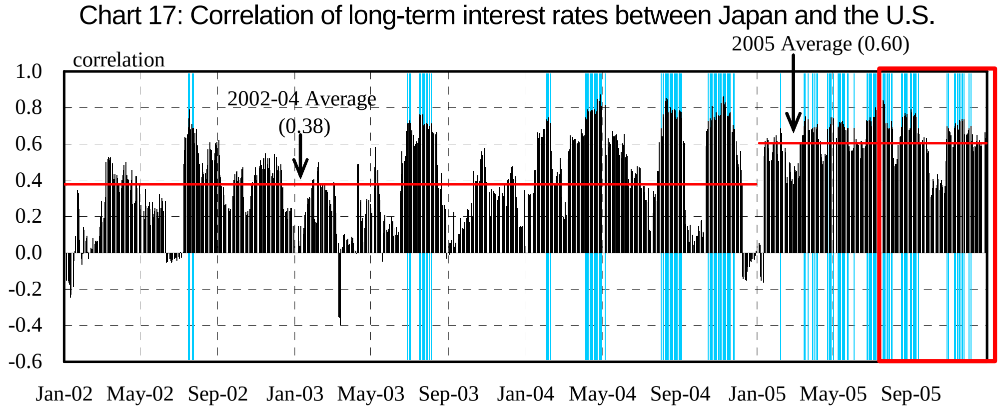
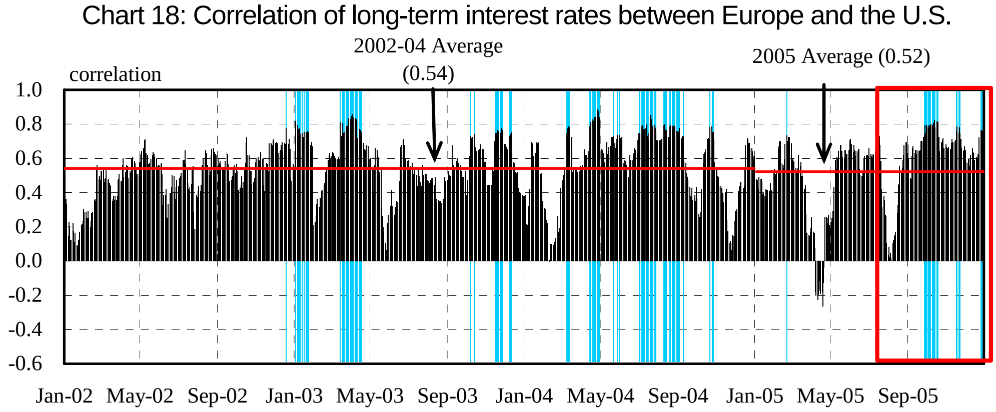


Chart 18: Correlation of long-term interest rates between Europe and the U.S.



Notes: 1. Fig 17 expresses the correlation between the daily logarithmic changes of the 10-year U.S. government bond yield and the logarithmic changes of JGB futures from the last close price to the opening price.
2. Fig 18 expresses the correlation between the daily logarithmic changes of the 10-year U.S. government bond yield and the daily logarithmic changes of the 10-year German government bond yields.
3. Shaded area is where the correlation figure is larger than 2002-05 average plus one standard deviation.

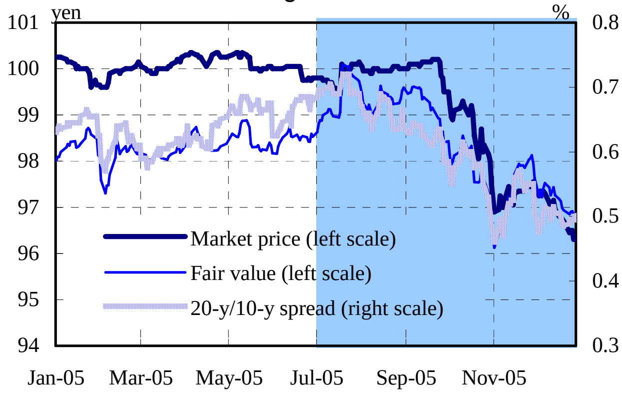
Sources: Bloomberg, Tokyo Stock Exchange, Bank of Japan

Fall in prices of 15-year floating-rate JGB

The fall in price of 15-year floating-rate JGBs is a development worthy of mention in the second half of 2005, reflecting the flattening of the yield curve for bonds with a maturity of over 10 years (Chart 19).

Since the price of floaters is relatively insensitive to a parallel rise of interest rates, financial institutions and other investors showed strong demand for the bond, and the price continued to exceed the fair value. However, the present value of floating rate coupons and redemption amount decrease sharply when yields on bonds with a maturity of shorter than 15 years rise and yields on longer ones fall, meaning that fair value declines sharply when longer-end yield curve flattens. During the phase when the interest rate rose from October, medium-term interest rates rose strongly while the rise in longer-end yields was limited (Chart 20). As a result, the price of floaters fell by almost 3 yens within just one month, and has currently fallen further below the theoretical price.

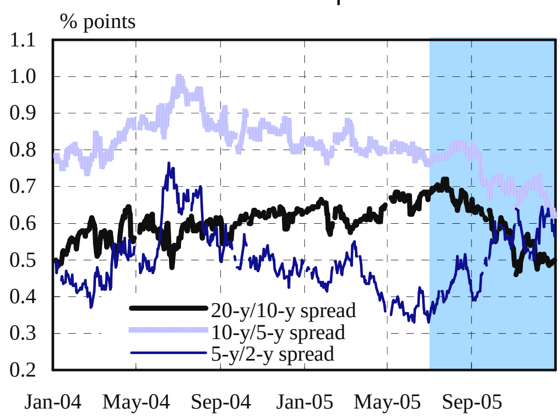
Chart 19: Price movement of 15-year floating-rate JGBs



Notes: 1. Fair value in this chart is an approximation that does not take account of convexity adjustments and other factors.
2. Prices before Nov.16 are of newly-issued bonds, and prices after Nov. 17 are of JF#36.

Sources: Japan Bond Trading Co., Bank of Japan

Chart 20: Term spreads

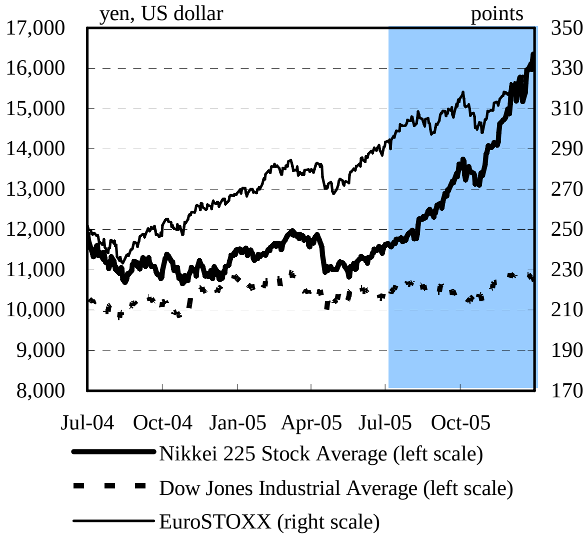


Source: Japan Bond Trading Co.

3. Equity Market

Stock prices rose significantly through the second half of 2005, as the recovery in the economy and solid corporate earnings outlook were confirmed. The Nikkei 225 Stock Average moved out from its trading range of recent years and rose to around 16,000 yen, the highest since October 2000 (Charts 21 and 22). The Nikkei index increased 40 percent during 2005, the best-performing stock index among major markets while the N.Y. Dow fell 0.6 percent and EuroSTOXX rose 23 percent. Owing to the expansion in the base of investors, such as the increase in internet trading by individual investors, purchase by overseas investors and share buybacks, the volume and value of stocks traded exceeded the level of the bubble in the late 1980s.

Chart 21: Global equity prices

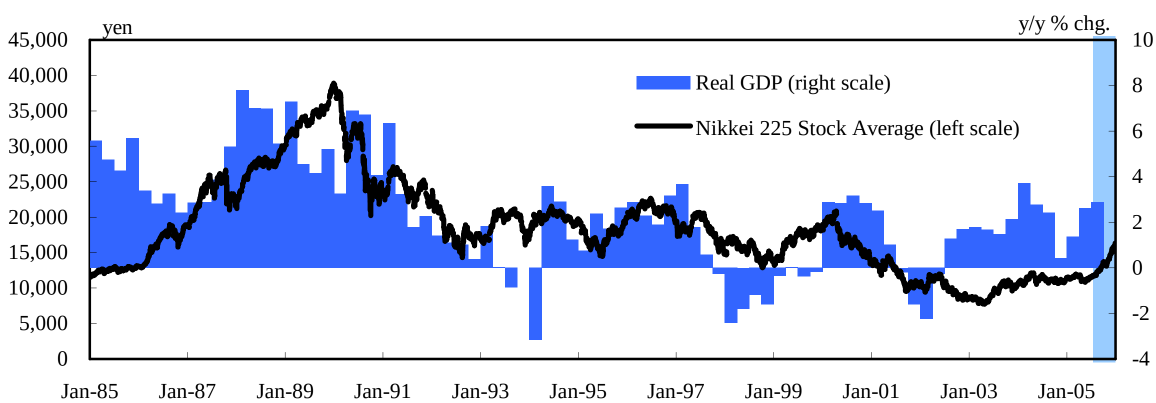


Source: Bloomberg

Development in equity prices

Looking in detail at the developments during this period, stock prices rose consistently until the beginning of October to around 13,000–14,000 yen, reflecting the announcements on August 9 by both the Bank and the government that they upgraded economic assessments. The move was accentuated by heightened expectation for more structural reforms by the leading political parties following the land-slide victory in the general election in September. While U.S. and European stock markets lost steam due to the rise of the oil price and the aftermath of large hurricanes, and the result of the general election in Germany, overseas investors continued to invest relatively aggressively in Japan favoring the recovery of the economy and solid corporate earnings outlook. Later, as global equity prices adjusted to higher expectations of interest rate rises in the U.S., Japanese stock prices also declined temporarily due to profit-taking by some foreign funds ahead of their financial year end. However, after investors acknowledged that the performance of Japanese firms for the first half of fiscal 2005 had exceeded expectations, the rise in stock prices accelerated, reaching 16,344 yen on December 29, the highest since 16,311 yen on September 21, 2000. In early 2006, stock prices fell back somewhat to around 15,000–16,000 yen, as a consequence of spread-out profit taking triggered by domiciliary examinations of some firms by the procuratorial authority.

Chart 22: Long-term trend in Japanese equity market



Note: The latest real GDP figure is at the third quarter of CY 2005. The chain-linking method has been applied since 95/1Q.
Sources: "The Nihon Keizai Shimbun," Cabinet Office

Price rise led by domestic industries, financial institutions, and basic material sectors

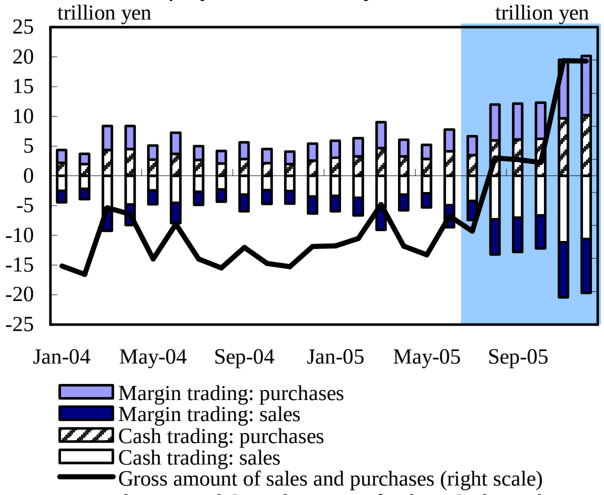
Looking at the performance by sector, with the economic recovery mainly led by domestic demands, and the rise in crude oil and metal prices, domestic industries such as the real estate and retail, financial institutions and basic materials sectors outperformed the market (Chart 23). Especially, bank stocks rose to the highest level since December 1999. The banking sector's out-performance reflected expectations for better future earnings by market participants who recognize that banks have now left their non-performing loan problems behind (Box 1).

Increase in transaction volumes and expansion in investor base

In the secondary market, the volume and value of transactions surpassed the levels of the bubble era (Chart 24). On November 8, daily transactions exceeded 4.7 billion shares, setting a new historical high, and the monthly transaction volume exceeded historical highs several times after August. One reason for the increase in transactions is the expansion in the base of investors such as individual and overseas investors.

Individual investors have utilized internet trading and margin trading, and stepped up activities in both the purchasing and selling of stocks (Chart 25). The number of internet trading accounts has been increasing and had reached around 8 million accounts by September 2005 (Chart 26). Regarding the margin trading, some financial institutions have eased their term restrictions and the borrowing rate for margin purchases remained low, encouraging individual investors to take advantage of those facilities.

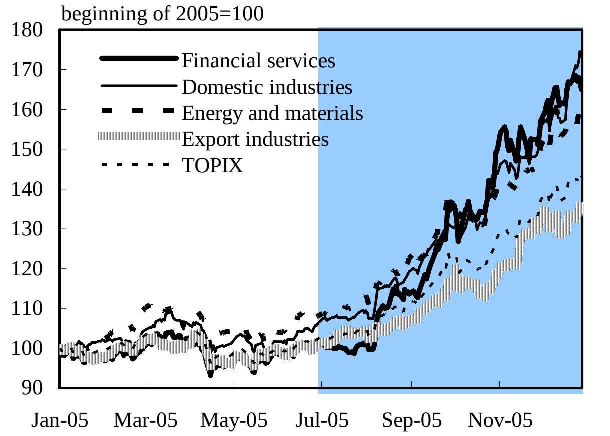
Chart 25: Equity investment by individual investors



Note: The First and Second sections of Tokyo, Osaka, and Nagoya Stock Exchanges

Source: Tokyo Stock Exchange

Chart 23: Value of equity by sector



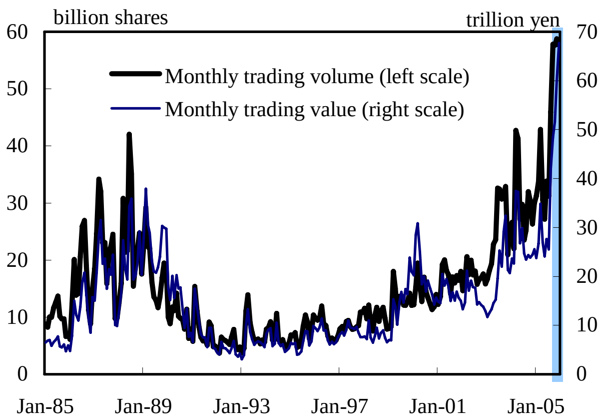
Note: 1. Value of equity is based on the number of shares outstanding.

2. Each sector shown in the chart is the composition of sub-sectors which are defined by the Securities Identification Code Committee of Japan. "Financial services" includes Banks, Securities & Commodity Futures, Insurance, and Other Financial Business. "Domestic industries" includes Real Estate, Construction, Retail Trade, and Warehousing & Harbor Transportation. "Energy and materials" includes Mining, Oil & Coal Products, Iron & Steel, Nonferrous Metals, Pulp & Paper, and Chemicals. "Export industries" includes Electric Appliances, Transportation Instruments, and Precision Instruments.

3. Data for Domestic industries are adjusted for the formation of Seven & I Holdings by Seven-Eleven Japan, Ito-Yokado, and Denny's Japan.

Source: Bloomberg

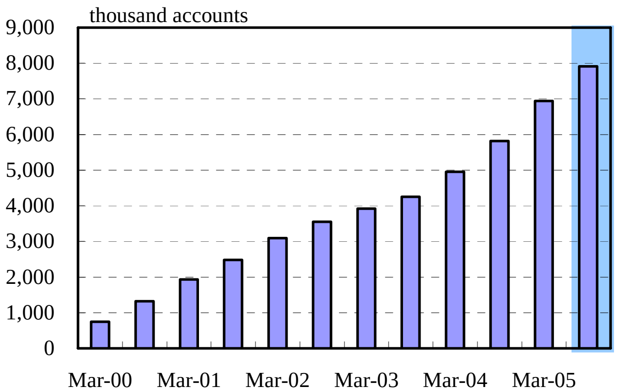
Chart 24: Stock trading volume



Note: Stocks listed on the Tokyo Stock Exchange First Section

Source: Tokyo Stock Exchange

Chart 26: Online trading accounts



Note: Published semiannually. Figures are at end of the month.

Source: Japan Securities Dealers Association

Along with the increase in transactions of individual investors, the stocks of small and newly developing corporations are also traded heavily in the newly developing stock markets such as the Second section of the Tokyo Stock Exchange (TSE) and JASDAQ market. The rise in prices of stocks listed on these markets slowed during the summer while the markets were led by the surge in prices of large stocks, but has resumed its upward trend and has been moving near their historically highest levels (Chart 27).

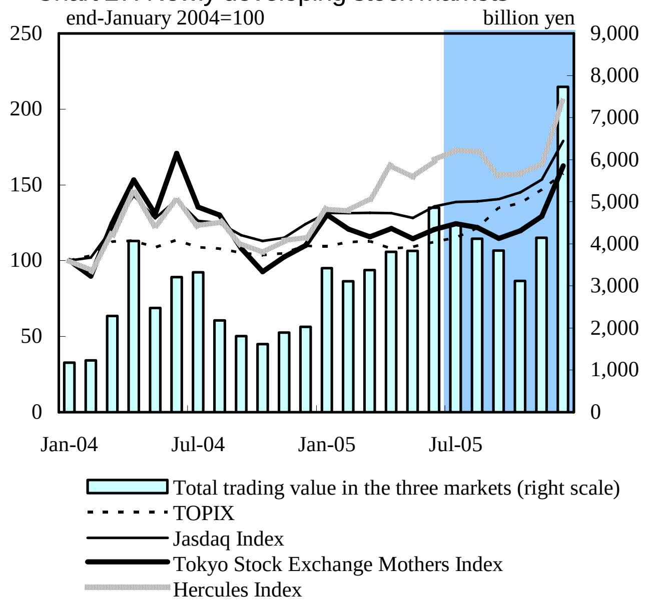
Aggressive purchasing by overseas investors continued (Chart 28). Net purchases by overseas investors exceeded 7 trillion yen in the second half of 2005 alone, and annual net purchases exceeded 10 trillion yen for the first time, and reached a new high since 1999. Global investors remained overweight in Japanese equities compared with other markets (Chart 29). Especially in the second half of 2005, some investors among hedge funds and other global investors who had not aggressively included Japanese stocks into their portfolios started to invest in Japan.

Japanese mutual funds were also net purchasers. Cash-out from mutual funds had tended to increase while stock prices were rising. Recently, however, net cash-in to some newly developed mutual funds with frequent–dividend for retail investors and privately placed stock mutual funds for financial institutions has been observed.

Issues related to equity market infrastructure

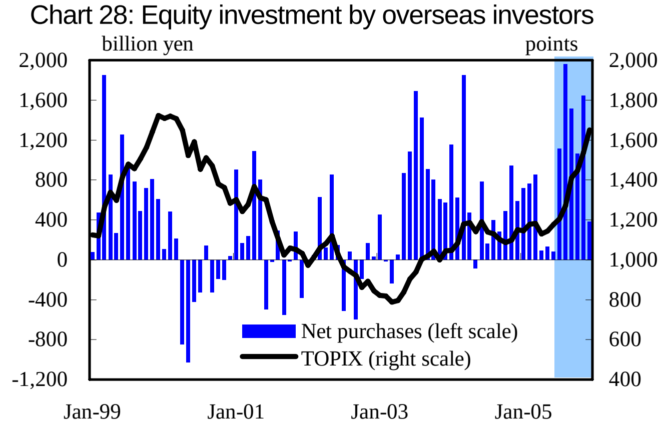
The rapid increase in trading volume in the stock markets caused some transaction problems, mainly system problems of the stock exchanges and security houses. From May to October, the Osaka Stock Exchange temporarily ceased accepting initial public offerings on the Hercules market. On November 1, the TSE suspended all trading activities in the course of the afternoon session due to a system trouble. In addition, on December 8, a false order from a security house for a company newly listed on the Mothers market caused the number of trades to exceed the number of shares outstanding, and the problem had to be settled by an amendment in settlement conditions. Meanwhile, internet trading services malfunctioned temporarily

Chart 27: Newly developing stock markets



Sources: Tokyo Stock Exchange, Osaka Stock Exchange, Jasdaq Securities Exchange, QUICK

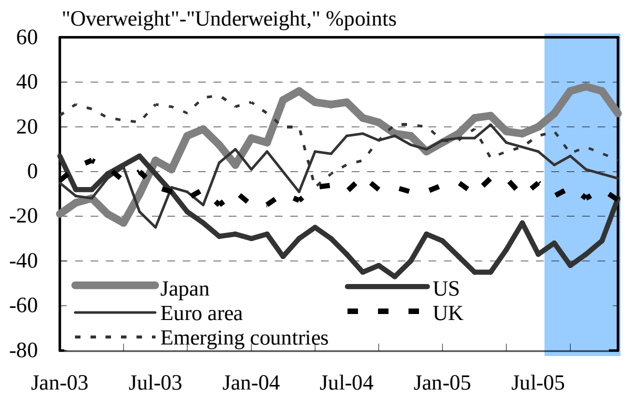
Chart 28: Equity investment by overseas investors



Note: The First and Second sections of Tokyo, Osaka, and Nagoya Stock Exchanges

Source: Tokyo Stock Exchange

Chart 29: Investment preference of global investors



Note: The chart shows global investors' investment policies for the coming 12 months.

Source: Merrill Lynch "Global Fund Manager Survey" due to system errors at some security houses. In 2006, the number of transactions increased drastically led by domiciliary examinations of some firms by procuratorial authority. The TSE suspended trading on January 18 just before the number of transactions exceeded the capacity of the system, and trading hours has been cut by 30 minutes from the following day.

Increase in share buybacks

Looking at the fund raising in equity markets, the amount of funds raised during the second half of 2005 declined while stock prices rose (Chart 30). As the amount of large-scale corporate restructuring related deals that have contributed significantly during the last couple of years was small, with firms putting higher priority on using their capital more efficiently, share buybacks increased remarkably in the second half of 2005.

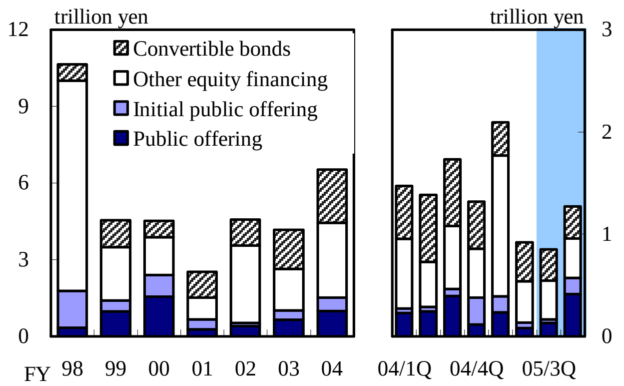
The decrease in equity financing was not a reflection of the cautious views on firms, as business fixed investments and M&As were on the rise (Chart 31). The free cash flows of firms started to be quickly utilized by the market through aggressive M&As and share buybacks. During the second half of 2005, large-scale share buybacks by some firms were observed, and share buybacks through the market as a shareholder policy became prevalent. As a result, the buyback amount exceeded the financed amount (Chart 32). These corporate actions also supported the rising trend in stock price during the second half of 2005.

Equity valuations

As discussed above, stock prices rose sharply throughout the second half of 2005. In addition to stock prices, aspects such as the increase in transaction volume, expansion in investor base, and improvement in corporate capital policy suggest that the Japanese stock market has entered a different phase.

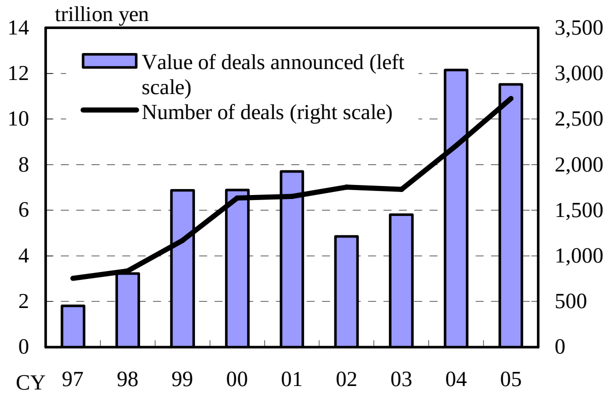
This view is supported from the perspective of equity valuation measures. Comparing the price earnings (P/E) ratio among Japan, the U.S. and the Euro area, the Japan's P/E ratio had moved in a

Chart 30: Equity financing



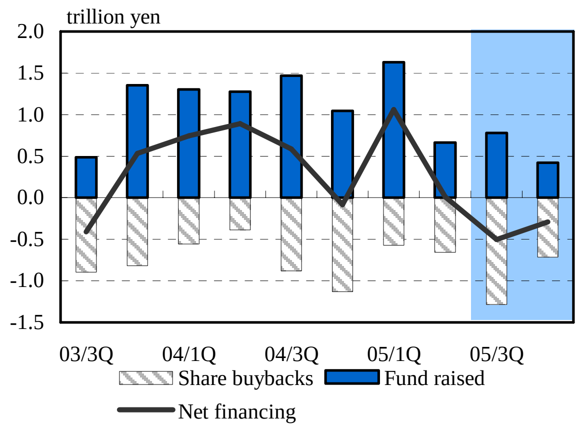
Note: "Other equity financing" includes allotment to shareholders and to third parties.
Source: Japan Securities Dealers Association

Chart 31: M&A activity



Note: Transactions which involve Japanese companies. Data include merger, acquisition (purchase of more than 50% of the shares of the target by the acquirer), business transfer, and minority interest and increased interest (purchase of less than 50% of the shares of the target by the acquirer).
Source: Recof

Chart 32: Financing from equity markets

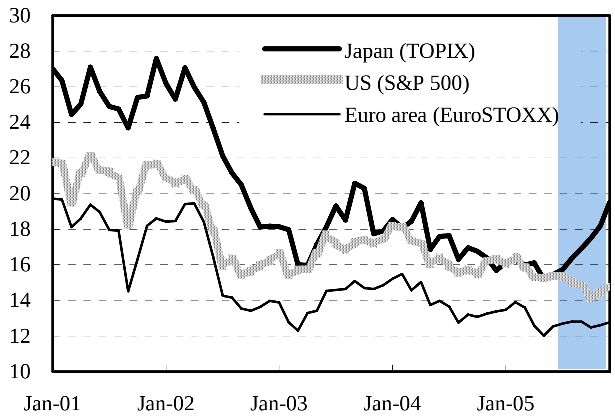


Note: 1. Transactions of companies listed on the Tokyo Stock Exchange. "Fund raised" is the sum of public offering (including preferred stock and disposition of shares, and excluding IPOs), warrants, and convertible bonds. "Share buybacks" exclude purchase from subsidiaries.
2. Transactions in December 2005 are not included in data for 05/4Q.
Source: Tokyo Stock Exchange

limited range against the other two areas for the last several years. However, since last August the Japan's P/E ratio has been rising while those of the U.S. and Euro area have remained more or less flat (Chart 33).

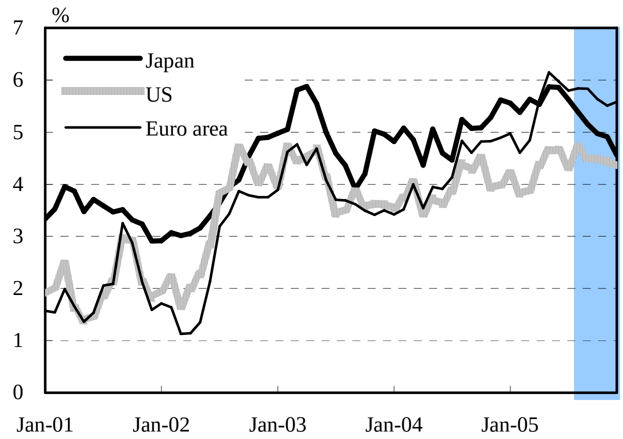
The main reason for the rise in P/E ratio was that, along with the heightened expectation of an increase in medium to long-term corporate earnings by Japanese firms, the risk premium for holding equities which had been on a rising trend, has started to decline (Chart 34 and Box 2). In the past, institutional investors had reduced equity exposure responding to the introduction of mark-to-market accounting, reduced cross shareholdings, and reduction in equity price risk from the perspective of maintaining capital ratio and asset liability management. Such behavior had caused a selling pressure in the markets and contributed to higher risk premium. However, in the second half of 2005, the premium started to decline. The increased demand for equity by overseas investors, individual investors, equity mutual funds, and corporations (share buybacks) (Chart 35 and 36) has reduced the concern of potential selling, thus diminishing the risk premium.

Chart 33: P/E ratio of major markets



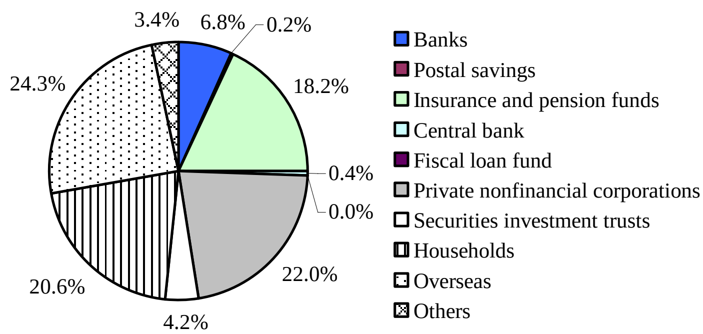
Note: 12-month forward EPS is used to calculate P/E ratio.
Source: I/B/E/S

Chart 34: Equity risk premium



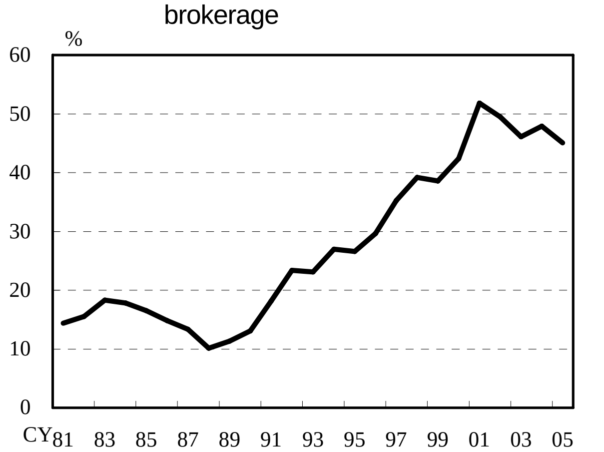
Note: See Box 2 for details.

Chart 35: Share holdings by investor category



Note: Figures are at the third quarter of CY 2005.
Source: Bank of Japan

Chart 36: Share of overseas investors in equity brokerage



Note: The First and Second sections of Tokyo, Osaka, and Nagoya Stock Exchanges
Source: Tokyo Stock Exchange