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**TOKYO AS A LEADING GLOBAL
FINANCIAL CENTER: THE VISION
UNDER THE SPOTLIGHT AGAIN**

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Abstract

Japan has endeavored to develop its capital Tokyo as one of the top global financial centers for a long time. In 2014, the Tokyo Metropolitan Government presented new initiatives as part of the sustainable economic growth strategies by taking advantage of the global attention given to the 2020 Tokyo Olympic Games. Japan's advantages are the sheer size of its economy (the third largest in terms of gross domestic product); the status of the Japanese yen as the third international currency after the United States dollar and the euro; and large financial and capital markets with abundant capital. Tokyo has the potential to become a regional financial center that transfers excess capital to emerging Asia given its geographic proximity. So far, this vision has not fully materialized because Japan's financial investment continues to be destined toward the United States and Europe and in the form of relatively safe debt securities. Moreover, Japan's capital remains largely risk averse, contributing to lack of diversity in domestic capital markets and limited provision of risk money to the world. This paper takes an overview of Japan's financial and capital market developments.

Keywords: global financial center, international portfolio investment, Exchange-Traded Funds (ETF), and Real Estate Investment Trust (REIT)

JEL Classification: E4, F21, G21

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1. INTRODUCTION

The Japanese government has endeavored to develop its capital Tokyo as one of the major global financial centers for many decades. Japan's advantages are the sheer size of the Japanese economy (the third largest in terms of gross domestic product) and the status of the Japanese yen as the third international currency after the United States (US) dollar and the euro. Moreover, Japan's financial and capital markets are large with abundant capital. Thus, Tokyo has the potential to become a regional financial center that transfers excess capital to emerging Asia given its geographic proximity.

So far, this vision has not materialized to the extent that had been expected, since Japan's financial investment continues to be destined toward the US and Europe and has been largely in the form of investment in relatively safe external debt securities. Moreover, Japan's capital remains risk averse as compared with that of the US and Europe. This appears to have hampered Tokyo in its ambition to become a global financial center due to limited availability of risk money for financing overseas economic and financial activities.

As for foreign investors' financial activities in Japan, they continue to invest actively in Japan's equity market. Their equity holdings accounted for about 30% based on market value and 27% based on the number of unit shares in fiscal year 2015 (April 2015 to March 2016), rising from 26% and 23%, respectively, in fiscal year 2012. Japan's equity market has revived somewhat in recent years due to the *Abenomics* launched in December 2012 after Prime Minister Shinzo Abe came to power and the *Quantitative and Qualitative Monetary Easing* (QQE) adopted by the Bank of Japan (BOJ) in April 2013 under the newly elected Governor Haruhiko Kuroda. But their longer-run impacts on the functioning of Japan's financial and capital markets need to be examined. Moreover, lack of diversity in domestic capital markets is another factor that had hampered Tokyo from becoming a global financial center since that attracted limited foreign investors and firms to Japan.

This paper takes an overview of Japan's financial and capital market developments. Section 2 focuses on the Japanese government's initiatives to develop Tokyo as a global financial center and measures adopted. Section 3 focuses on Japan's cross-border financial investment activities. Section 4 sheds light on certain features of the banking sector, which is dominant in Japan's financial markets. Debt securities markets are analyzed in Section 5 and Section 6 highlights the equity market and developments of investment trusts.

2. JAPANESE GOVERNMENT'S VISION TO DEVELOP A GLOBAL FINANCIAL CENTER

Japan's economy is currently the third largest in terms of gross domestic product (GDP) after the US and the People's Republic of China. Its currency, the Japanese yen, remains the third internationally used currency for foreign exchange trade after the US dollar and the euro. Japan Exchange Group (JPX), which includes the Tokyo Stock Exchange, has the largest stock exchange in Japan and the fourth largest in the world in terms of market capitalization. Moreover, Japan has large financial markets—the amount of total financial assets held by financial intermediaries (covering deposit taking financial institutions, pension funds and insurance firms, and other financial institutions) amounted to about ¥3,303 trillion (or US\$30 trillion) in September 2016. According to

the BOJ's estimates and CEIC data, this is the fourth largest in the world, following the US (US\$86 trillion) in September 2016, the eurozone (€73 trillion or US\$80 trillion) in June 2016, and the People's Republic of China (CNY236 trillion or US\$35 trillion) in September 2016.

2.1 Government's Aspiration to Internationalize the Yen and Foster Tokyo as a Top Global Financial Center

The Japanese government has endeavored to foster Tokyo as a global financial center for many decades. Since the early 1980s, the government has envisaged realizing this vision through internationalizing the yen or increasing usage of the yen in international trade and financial transactions. This vision was put forward in the process of liberalizing the capital account in the 1980s—in addition to the already liberalized current account and the resultant free usage of the yen for international trade and current account transactions.

A series of tax measures were taken to make it more attractive for nonresidents to invest in yen-denominated debt securities including Japanese Government Bonds (JGBs) and municipal bonds. Samurai Bonds (yen-denominated bonds issued by nonresidents) and euro-yen-denominated bonds issued by nonresidents were introduced in the 1970s. Subsequently, a wide range of deregulations was adopted to further promote the yen's internationalization. Those included a further deregulation of euro-yen-denominated bonds issued by nonresidents in 1984; an introduction of euro-yen-denominated bonds issued by residents in 1984; and establishment of the Tokyo offshore market in 1986.

In 1996–2001, comprehensive financial and capital market reforms—the so-called “Japanese Financial Big Bang”—were implemented under the then Prime Minister Ryutaro Hashimoto and his ruling Liberal Democratic Party (LDP). This initiative had a clear vision to develop Japan's financial and capital markets to become comparable to the financial centers in New York and London, and at the same time utilize the huge financial assets of households to energize Japan's economy and for productive purposes. First, all cross-border transactions were liberalized in 1998 so that the deregulation process related to the yen's internationalization was completed. Second, it promoted the asset management businesses by introducing various investment trusts and their over-the-counter (OTC) sales by banks and other financial institutions. All the transactions of securities derivatives were liberalized and asset-based securities were introduced. Third, competition was promoted by permitting banks, securities companies, and insurance companies to enter each other's business fields. A switch from a licensing to a registration system for securities companies was performed with liberalized brokerage commissions. Fourth, the diversity of capital markets was promoted by establishing new markets for start-up firms and introducing electronic trading systems. In response, the Tokyo Stock Exchange established a new market for promising start-ups called “Mothers” (Market of High Growth and Emerging Stocks) in 1999. Finally, regulations to promote transparency and fair-trade were introduced or strengthened.

During this period, Thailand, Indonesia, Republic of Korea, and some other Asian economies experienced the Currency and Banking Crisis of 1997. The Japanese government took initiatives by providing financial support and official development assistance to Asia. In the middle of the Thai crisis, moreover, the Japanese government promoted an idea of establishing an Asian Monetary Fund—a regional financing institution that would complement the International Monetary Fund (IMF) activities in Asia in 1997. However, this vision failed to materialize in the face of

opposition from the region, the US, and the IMF. Instead, the Asia region decided to develop a regional swap arrangement framework, the so-called “Chiang Mai Initiative” among the Association of Southeast Asian Nations (ASEAN) plus Three (the People’s Republic of China, Japan, and Republic of Korea) in May 2000.

Moreover, many Asian governments found it necessary to reduce bank dependence and develop capital markets to prevent another currency and banking crisis. Accordingly, the ASEAN plus Three adopted the Asian Bond Initiative in 2012 to develop local currency-denominated bond markets and facilitate regional bond market integration. The Executive’s Meeting of East Asia and Pacific Central Banks (EMEAP) group—including central banks in the People’s Republic of China, Japan, Republic of Korea, Australia, New Zealand, Thailand, Singapore, etc.—took the initiative to form a jointly-managed fund (*Asian Bond Fund* [ABF]) utilizing a part of foreign reserves to invest in US dollar-denominated and local currency-denominated bonds issued in Asia.

2.2 Prime Minister Abe’s Vision to Make Tokyo a Top Global Financial Center in Asia

In Japan, the view that Japan could play a major role in transferring abundant capital to emerging economies and developing countries in Asia is widely held. Japan could utilize excess capital to promote financial development and finance long-term investment and infrastructure projects needed to sustain economic growth and raise living standards in the region.

The LDP has maintained this vision for a long time. The LDP policy manifesto was issued in 2010 when the LDP was an opposition party led by Mr. Sadakazu Tanigaki. The manifesto stressed that it would aim to foster Japan as the leading center of financial and asset management activities in Asia. This would be achieved by fostering competitive financial and capital markets and improving the business environment. Such improvements would enable firms to become more competitive through expanding their economic activities and utilizing households’ financial assets more efficiently.

The same vision was repeated in 2012 when the then opposition LDP was led by Mr. Shinzo Abe. After the LDP seized political power following a landslide victory in the general election of December 2012, the 2013 policy manifesto repeated its goal of creating Asia’s leading financial center and added the further goal of Japan becoming the world’s leading financial center within 5 years.

To realize this vision, the Japanese government has taken various measures to attract foreign firms and make Japan’s capital markets more attractive. First, the effective corporate tax (including central and local government taxes) was lowered from around 38% to around 35% in fiscal year 2014, further to around 32% in fiscal year 2015, and to 29.97% in fiscal year 2016.

Second, the government reformed the basic portfolio of public pension reserve assets (about ¥145 trillion) managed by the Government Pension Investment Fund (GPIF) in October 2014. The target allocation of domestic bonds (mainly comprising JGBs) dropped from 60% to 35% with a change in the permissible range from $\pm 8\%$ to $\pm 10\%$. Instead, the target allocations for the following assets were increased: for domestic equity from 12% to 25% with a permissible range of $\pm 6\%$ to $\pm 9\%$, for external equity from 12% to 25% with a permissible range of $\pm 5\%$ to $\pm 8\%$, for external bonds from 11% to 15% with a permissible range of $\pm 5\%$ to $\pm 4\%$; and the target allocation for short-term assets was eliminated (it was 5% prior to the reform).

Third, the government has attempted to induce individuals to take greater risk to accumulate assets and diversify their financial assets by introducing the Nippon Individual Savings Account (NISA) in 2014—modeled after the Individual Savings Account (ISA) adopted in the United Kingdom. Under the NISA, all dividends and capital gains are tax-free, and individuals aged 20 years or over are currently able to invest up to ¥1.2 million per year. In 2016, the Junior NISA was introduced for individuals under 20 years old by allowing their parents and guardians to open an account for a child and contribute up to ¥800,000 annually on behalf of the child.

In 2015, moreover, Prime Minister Abe announced that the Japanese government would provide about US\$110 billion over 5 years to support infrastructure projects in Asia. This would be achieved through increasing yen-denominated official development assistance, strengthening financial support for the Asian Development Bank, and promoting Japanese commercial banks and firms to participate in the investment and financing projects operated by the Asian Development Bank and the Japanese government. The 2016 manifesto repeated the same vision to foster Tokyo as Asia's leading financial center without specifying a timeframe for achieving this.

2.3 Tokyo Metropolitan Government's New Initiatives

Since 2014, the Tokyo Metropolitan Government has been taking its own initiatives to promote Tokyo as an attractive and reliable city at the center of international finance by establishing a task force. This move was inspired by the decision in September 2013 of the International Olympic Committee to select Tokyo as the host city of the 2020 Olympic Games. The Tokyo Metropolitan Government found that it would be a good opportunity to promote Tokyo as a global financial center given that a lot of attention would be paid to Tokyo over this period. The vision is to circulate domestic capital and capital from abroad including New York and London and Asia and invite foreign financial institutions and firms to establish businesses in Tokyo. In the same year, it came up with a report called "Initiatives for the Tokyo Global Financial Center" with detailed proposals including tax incentives, measures to improve the living environment for foreigners, and suggestions for developing a more business-oriented environment. These initiatives are in line with the Japanese government's efforts to foster Japan as a top global financial center in Asia.

2.4 Assessment on the Progress of Yen's Internationalization

Despite all these government efforts, the yen has not become internationalized as much as the Japanese government wished. The progress can be assessed based on the following four measures: (1) currency composition and location of sales desks with regards to various kinds of foreign exchange trade, (2) currency composition and location of active transactions with regards to OTC interest rate derivatives, (3) invoice currency used for Japan's exports and imports, (4) currency composition with regards to foreign reserves held by monetary authorities.

First, the *Triennial Central Bank Survey* compiled by the Bank of International Settlements (BIS 2016) indicates that the US dollar, the euro, and the yen were the three top currencies on one side of all foreign exchange trade undertaken from 2000 to 2016. In the latest 2016 report, these currencies accounted for 88%, 31%, and 22% of all trades, respectively—although they dropped from 90%, 38%, and 24%, respectively, in 2001. After the Global Financial Crisis of 2008–2009, the share of the US dollar strengthened moderately from 86% in 2007 to 88% in 2016, maintaining its status as a dominant vehicle currency. The share of the yen also rose moderately from 17% in

2007 to 22% in 2016, while that of the euro dropped from 37% to 31%. The British pound sterling remains the fourth currency, maintaining its market share of about 13% over the period.

In recent years, the presence of other currencies has strengthened in foreign exchange transactions. For example, the Australian dollar and the Canadian dollar increased their market shares from 4% in 2001 to 7% in 2016, respectively. The more noticeable change is the growth of the Chinese renminbi from zero percent in 2001 to 4% in 2016. The renminbi became the eighth most actively traded currency in the world and the most actively traded emerging market currency. This is a result of the Chinese government's efforts to promote its currency to be used in trade transactions, liberalize cross-border financial investment, and promote currency swap arrangements with foreign central banks. In September 2016, the IMF launched the new Special Drawing Right (SDR) basket including the renminbi as the 5th currency after the US dollar, the euro, the yen, and the British pound—based on the decision to include the renminbi in the SDR basket in November 2015.

In terms of the locations where foreign exchange trade takes place, the largest sales were in the United Kingdom, where 37% of foreign exchange trading was intermediated in April 2016, followed by the US (20%); Singapore (8%); Hong Kong, China (7%); and Japan (6%). The locational advantage of the United Kingdom is maintained with its market share rising from 32% in 2001 to 37% in 2016. The share of the US also rose from 16% to 20% over the same period. By contrast, Japan's share dropped from 9% to 6% while the shares of Singapore and Hong Kong, China rose from 6% to 8% and from 4% to 7%, respectively. In addition, the Japanese yen is transacted more actively in the United Kingdom than in Japan—just like the US dollar and the euro are being more actively transacted in the United Kingdom than in the US and the eurozone, respectively.

Second, with regards to OTC interest rate derivatives trade in April 2016, the yen's presence is less strong than in foreign exchange trade. The most actively traded OTC interest rate derivatives were US dollar-denominated instruments, which accounted for about half of all interest rate derivative turnover, followed by euro-denominated instruments. Yen-denominated instruments were ranked only 5th after British pound sterling- and Australian dollar-denominated instruments, and remained below pre-crisis levels. In terms of geographical distribution, OTC interest rate derivatives were traded most actively in the US, followed by the United Kingdom; France; Hong Kong, China; Singapore; Australia; and Japan.

Third, the invoice currency used for Japan's international trade remained centered on the US dollar, according to data released by the Ministry of Finance. In terms of Japan's exports, the US dollar accounted for half, followed by the yen (37%). The relatively high share of the yen mainly reflects intra-firm trade transactions between Japanese manufacturers and their subsidiaries and/or contractors operating in Asia. Japan's exports to the US have been dominated by the US dollar, which accounted for 86%, followed by the yen (14%). By contrast, the US dollar continues to be a dominant invoice currency for Japan's imports from the world, accounting for about 70% of total imports. This mainly reflects Japan's heavy reliance on commodity imports. This pattern of invoice currency composition has not changed much since 2000, and was similar before and after the Global Financial Crisis.

Fourth, currency composition of official foreign exchange reserves compiled by the IMF indicates that the US dollar continues to be a dominant reserve currency although its share dropped over time. Its share of allocated reserves—defined as foreign reserves whose detailed decomposition data are available and account for about 70% of

total foreign reserves—dropped from 72% in 2000 to 64% in 2007 and maintained the same ratio in 2016. The euro remained the second reserve currency over the same period—its share rose from 18% in 2000 to 26% in 2007 but dropped to 20% in 2016. The yen was the third reserve currency in 2000, accounting for 6% of allocated reserves, but was then overtaken by the British pound sterling, with its share of allocated reserves declining to 3% in 2007 and rising moderately to 4% in 2016. The British pound sterling's share rose from 3% in 2007 to 5% in 2007 and maintained this share in 2016.

2.5 Tokyo Financial Center Ranked Fifth since 2007

Tokyo has been ranked the fifth largest financial center according to the *Global Financial Center Index* (GFCI) published by Z/Yen from its first release in 2007 until its most recent release in March 2017. While the gaps are narrowing, Tokyo remains far behind London and New York, which stand out as the only truly global financial centers. Tokyo also remains constantly behind Singapore and Hong Kong, China—the third and fourth ranked financial centers that play a dominant role in circulating money between Asia and the rest of the world. Singapore functions mainly as a gateway to Southeast Asia, while Hong Kong, China serves as a gateway to mainland People's Republic of China.

GFCI ranking is assessed based on five categories (business environment, human capital, infrastructure, financial sector development, and reputation). Tokyo is ranked fifth in terms of human capital and infrastructure, but sixth in terms of business environment and financial sector development and seventh in terms of reputation. Reputation had the lowest ranking, perhaps due to relatively low comparative positioning against other financial centers and relatively slow financial innovation, although Tokyo provides an attractive high-quality living environment for many foreigners.

The relatively low ranking on business environment could be attributable to high corporate taxes, moderate economic growth, and some labor market rigidity, despite a favorable score for political stability without strong anti-government anti-globalization populism movements. The corporate tax rate was cut starting in fiscal year 2014 as pointed out above. The rate is currently comparable to that of Germany (30.18%) and lower than that of the US (38.9%), but still higher than that of the United Kingdom (19%), Singapore (17%), Republic of Korea (24%), and Australia (25%). The labor market still requires reforms that enable workers to achieve a better balance between work and life by reducing long working hours, that eliminate income tax and social security incentives that promote female labor market participation on a part-time basis, and that reduce differences in wages and social security benefits between regular and nonregular workers.

Moreover, the relatively low ranking on financial sector development could be related to lack of diversity in the financial and capital markets as well as declining market liquidity partially caused by massive monetary easing, as explained in Sections 4-6. It may be also associated with lack of the depth of industry clusters especially in the financial services and related sectors including financial advisory, consulting, accounting, and legal advice.

3. JAPAN'S CROSS-BORDER FINANCIAL INVESTMENT AND FINANCIAL INTERGRATION WITH THE WORLD

The Japanese government's long-standing vision to foster a global financial center especially for Asia is aimed at promoting greater private sector cross-border financial activities between Japan and Asia. This section, therefore, focuses on Japan's cross-border capital flows by examining changes in external financial asset and liability.

3.1 Japan's Financial Assets Concentrated toward Advanced Economies

Developing Tokyo as a regional financial center in Asia could be a challenging task given that Japan's cross-border outbound and inbound transactions remain predominantly with advanced economies such as the US and Europe.

Table 1: Japan's External Asset and External Liability

		External Assets							
		FDI		Portfolio Investment			Foreign Reserves		Others
Year		Total	FDI	Total	Equity	Debt Securities	Reserves	Others	
2000	Billion Yen	341,520	32,307	150,115	30,133	119,982	41,478	117,620	
	% of Total		9	44	9	35	12	34	
2007	Billion Yen	611,050	62,416	287,687	65,376	222,311	110,279	150,668	
	% of Total		10	47	11	36	18	25	
2016	Billion Yen	997,771	159,194	452,917	162,879	290,037	142,560	243,100	
	% of Total		16	45	16	29	14	24	
		External Liability							
		FDI		Portfolio Investment			Others		
Year		Total	FDI	Total	Equity	Debt Securities	Others		
2000	Billion Yen	208,473	6,096	101,609	63,222	38,387	100,768		
	% of Total		3	49	30	18	48		
2007	Billion Yen	360,828	15,703	221,487	142,031	79,456	123,638		
	% of Total		4	61	39	22	34		
2016	Billion Yen	648,658	27,840	324,469	181,530	142,938	296,349		
	% of Total		4	50	28	22	46		
		Net External Asset							
		FDI		Portfolio Investment			Others		
Year		Total	FDI	Total	Equity	Debt Securities	Others		
2000	Billion Yen	133,047	26,211	48,506	-33,089	81,595	16,852		
2007	Billion Yen	250,222	46,713	66,200	-76,655	142,855	27,030		
2016	Billion Yen	349,113	131,354	128,448	-18,651	147,099	-53,249		

FDI = foreign direct investment.

Source: Bank of Japan.

Table 1 reports that Japan's total external assets accumulated from foreign direct investment (FDI), portfolio investment, foreign reserves, and others (including loans and deposits) rose sharply from ¥341 trillion yen (65% of GDP) in 2000 to ¥611 trillion (115% of GDP) in 2007 and further to ¥998 trillion (186% of GDP) in 2016. Net external

assets—the difference between external assets and liabilities—also rose, from ¥133 trillion (25% of GDP) in 2000 to ¥250 trillion (47% of GDP) in 2007 and further to ¥349 trillion (65% of GDP) in 2016. This indicates that Japan remains a net international creditor nation.

Among various external assets, assets related to portfolio (securities) investment accounted for the largest component. According to the portfolio investment destination by region (data available for 2014–2016), it largely comprised debt securities from the US, which include treasury securities, agency bonds (bonds issued by Government-Sponsored Enterprises [GSEs]), agency mortgage-backed securities (MBSs issued by the GSEs), etc. Holdings of debt securities issued by the US accounted for 36% of external assets related to portfolio investment in 2014, and they rose to 39% in 2015 and further to 41% in 2016. The second largest debt security assets are those issued by Europe—they accounted for 33% of total external assets related to portfolio investment in 2014, but dropped to 30% in 2015 and further to 28% in 2016. Together with foreign reserves held by the Japanese government, holdings of US securities are quite large.

The preference for relatively safer external debt securities over external equity reflect that Japan's investors are largely risk averse. This may be attributable to the composition of the investor base—the major investors are commercial banks, insurance firms, pension funds, and some investment trusts. Commercial banks and institutional investors have increased investing in external debt securities since QQE, which has resulted in substantially low returns in Japan. They tend to prefer debt securities due to financial regulations and their asset-liability management for pension funds and insurers.

It is noteworthy that the share of external equity holdings rose gradually from 9% of external assets on portfolio investment in 2000 to 11% in 2007 and further to 16% in 2016. This is partly attributable to the reform of the basic portfolio of public pension reserve assets managed by the GPIF as mentioned above. Despite a diversification of outbound portfolio investment, Japan's preference for external debt securities remains largely unchanged.

3.2 High Hedging Cost as a Barrier to Rapid External Investment

One of the major challenges for Japan's financial institutions with regards to external investment lies in how to secure stable US dollar funding sources in the face of high hedging cost. From 2014, US dollar funding premiums in the foreign exchange swap and cross-currency basis swap markets rose substantially against the Japanese yen. Various factors contributed to the higher US dollar funding premium or a negative foreign exchange swap-implied yen rate. A key factor is increased demand for the US dollar as a result of Japanese financial institutions' greater incentives to invest in the US in response to interest rate differentials, i.e., higher interest rates in the US than in Japan and the eurozone as a result of monetary policy divergence.

Another factor is that tighter financial regulations prevented US financial institutions from actively engaging in financial transactions as providers of US dollars to Japanese and European financial institutions. Moreover, the Money Market Fund (MMF) reform made it more expensive for external financial institutions including Japanese banks to raise US dollars in the US interbank money markets, adding to the higher dollar funding cost. The MMF reform announced in 2014 by the US Securities and Exchange Commission with effect from October 2016 required floating net present value for

institutional prime MMFs that invest in commercial paper, certificates of deposit, and other non-treasury bills, thereby allowing the daily share prices of these funds to fluctuate—a big shift from the past practice of maintaining a constant share price of one US dollar. Also, the MMF reform permitted institutional prime MMFs to impose a fee on redemption under certain conditions. The MMF reform resulted in a shift of funds from institutional prime MMFs to government MMFs, which are not subject to the reform.

Consequently, Japanese banks have found it expensive to raise US dollars through using the commercial paper and certificate of deposit funding tools in the US. In response to higher dollar funding cost, some Japanese financial institutions diversified foreign securities investment toward agency mortgage-backed securities (MBS) and corporate bonds in the US whose returns had been higher than the US treasury securities, or alternatively, euro-denominated sovereign bonds whose hedging cost had been lower than the US dollar. Some financial institutions increased external investment without hedging exchange rate risk. Nonetheless, financial institutions must counterbalance additional risk borne by investing in riskier assets or without hedging exchange rate risk since financial regulations require additional capital accumulations.

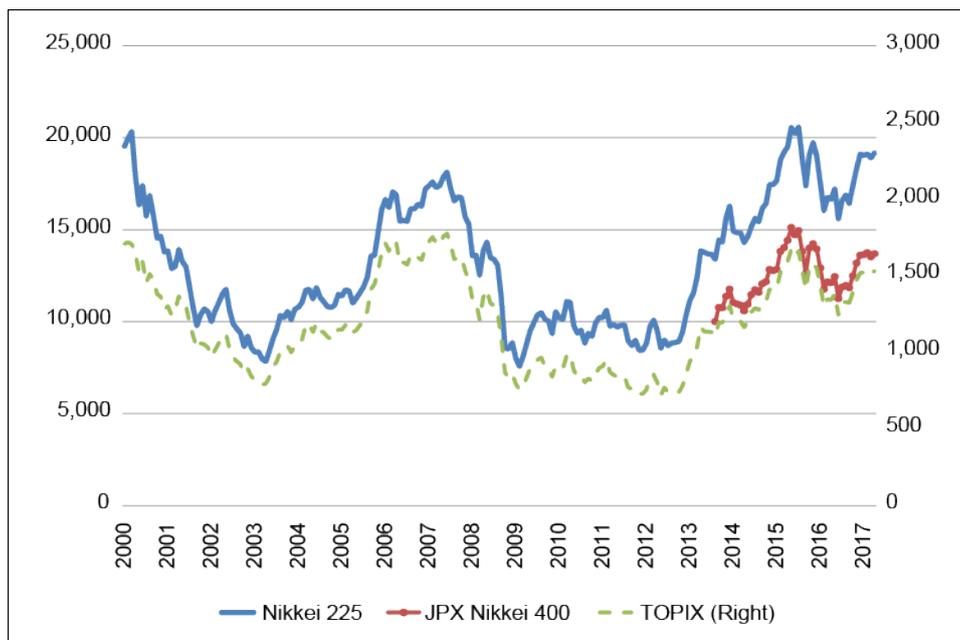
Moreover, regional banks that had increased investment in US securities have faced large losses since the sharp increase in US interest rates triggered by the US Presidential election. Also due to the high hedging costs, they have been more cautious in investing in foreign securities from late 2016.

3.3 Foreign Investors' Preference for Japan's Equity over Debt Securities

Japan's total liability accumulated from FDI, portfolio investment, and others rose from ¥208 trillion in 2000 to ¥361 trillion in 2007 and further to ¥645 trillion in 2016. Most portfolio investment in Japan originates from the US and Europe. Unlike Japan's portfolio investment abroad, however, portfolio investment from US and eurozone companies in Japan has concentrated on Japan's equity rather than Japan's debt securities since 2000. This trend continued after the adoption of QQE.

From end-December 2012, moreover, foreign investors began to increase equity investment in response to a rise in stock prices driven by the launch of *Abenomics* and the subsequent QQE adopted by the BOJ. Stock prices rose sharply as shown by major stock price measures including Nikkei 225, Tokyo Stock Price Index (TOPIX), and JPX Nikkei 400 (Figure 1). Nikkei 225 exceeded the highest level recorded prior to the Global Financial Crisis. Nevertheless, Japan's stock prices have never recovered to the historically highest level achieved in December 1989 (¥38,947 in the case of Nikkei 225 and 2,884 points in the case of TOPIX) during the stock (and real estate) bubble period of 1986-1991. The bubbles were generated due to the government's increase in public investment projects and the BOJ's cut in the interest rate to cope with the recession driven by the 1985 Plaza Accord and associated yen's sharp appreciation. Market prices recovered to about half of the maximum price levels on two occasions: one in early 2000 and the other after the launch of *Abenomics* and QQE (2015 and from late 2016 to 2017 after Mr. Donald Trump's victory in the US presidential election on 8 November 2016). However, prices have been quite volatile and high levels were never sustained for long.

Figure 1: Stock Market Price Developments
(Yen, Points)



Note: Units of Nikkei 225 and JPX Nikkei 400 are points, and the unit of Nikkei 225 is yen.
Source: CEIC.

Returns on debt securities were low before QQE and became lower under QQE, so bonds are too expensive for foreign investors unless they are able to obtain the yen cheaply through the cross-currency basis swap against the US dollar. Since the cost of obtaining the yen for these investors is much cheaper than negative returns from holding TBs, nonresidents accounted for 51% of the outstanding TBs issued at end-December 2016. Until end-September 2016 the BOJ was the largest holder of TBs, but it reduced its holdings perhaps due to an increase in their prices. Foreign investors' share accounted for only 5.5% of the outstanding JGBs. In terms of outstanding JGBs and TBs combined, foreign investors held 10.5%. This suggests that nonresidents' holding of TBs reflects low funding cost rather than intrinsic interest in Japanese bonds.

Overall, equity is riskier than debt securities. Thus, the differences in portfolio investment patterns between Japanese investors and foreign investors suggest that Japanese investors tend to be more risk averse than their counterparts in the US and the eurozone. While Japanese investors tend to be concentrated in commercial banking, insurance industry, and pension funds, foreign investors tend to be more diverse and many are nonbank financial institutions including short-term oriented investors.

3.4 Japan's One-Sided FDI Flows

Japan's outbound FDI is another important type of investment by Japanese firms, although the amount of FDI assets (accumulated amount of outbound FDI) is much smaller than those of securities and others (Table 1). Regional decomposition is available for 2014–2016. Asia accounts for about 30% of Japan's outbound FDI assets throughout the period, suggesting the region is an important destination of capital for

Japanese firms. Indeed, the presence of Japanese manufacturers including automobile producers is large and noticeable in many Asian economies.

The amounts of assets related to outbound FDI to the US and Europe are equally large, accounting for about 35% and about 25% of total outward FDI, respectively. Again, advanced economies are important destinations of Japan's FDI capital. This is a reflection of the fact that Japan has competitive advantage in producing and exporting high-quality, relatively expensive export products, so these firms tend to increase production in these mature markets. The presence of the Japanese banking sector remained relatively large globally until the first half of the 1990s with the number of overseas branches reaching the peak of 380 in 1996. Since then, the domestic nonperforming loans rose rapidly, and the growing banking sector problems promoted the merger and acquisitions within the sector and a decline in the number of overseas branches (to 92 by 2011). Since 2012, the number of foreign branches began to rise moderately to 102 as of September 2016, reflecting the soundness of the banking sector and the need to develop new business opportunities in other countries in the face of substantially low interest rate and limited credit demand domestically.

With regards to external liability related to FDI (accumulated amount of inbound FDI), the amount is relatively small compared with external assets related to FDI and accounts for only 17% of external assets related to FDI. Despite a cut in the corporate tax rate, as mentioned above, the FDI inflow remains limited. Among source regions, Europe is the most active FDI investor in Japan, accounting for about 50% of external liability related to FDI.

3.5 Assessment of Japan' Cross-Border Financial Activities

Tokyo has the potential to become a regional financial center that would transfer excess capital to emerging Asia for productive purposes given its geographic proximity. So far, this vision has not materialized since the major destination of financial investment continues to be biased toward the US and Europe. Japan's investment in Asia is largely FDI and the size remains limited relative to Japan's total external assets. Moreover, Japan's FDI performance can be characterized by a one-way (namely, outbound) flow. A wider gap between FDI-related external assets and FDI-related external liability is indicative of the limited entry of foreign (manufacturing and nonmanufacturing) firms and the limited success of foreign firms operating in Japan. This is different from the US and Europe, where both inbound and outbound FDI are fairly balanced with the rest of the world. Japan's one-way flow of capital is more evident with regards to FDI as compared with portfolio and other types of investment.

Japan's limited portfolio investment in Asia has remained largely unchanged even after bond markets became more developed in Asia from the 2000s under the Asian Bond Initiative and ABF referred to above. Moreover, Japan's investors are less willing to take risk compared with those of the US and Europe. This appears to have hampered Tokyo from becoming a center for generating dynamic, innovative, cross-border capital flows in the world.

4. JAPAN'S BANKING SECTOR COPING WITH ABUNDANT BANK DEPOSITS

Japan's financial asset held by financial intermediaries are dominated by deposit taking financial institutions. Deposit taking financial institutions cover domestically licensed banks; foreign banks in Japan; financial institutions for agriculture, forestry and

fisheries; financial institutions for small businesses; postal savings (counted as Japan Post Bank from the fourth quarter of 2007); etc. Among deposit taking financial institutions, domestically licensed banks are dominant and account for about 60% of total financial assets. The total asset size held by domestically licensed financial institutions reached about ¥1,876 trillion in September 2016 and ¥1,955 trillion in December 2016 (3.5 times as large as GDP). The presence of the branches of foreign banks remains small as the total financial assets recorded only ¥45 trillion. This section focuses on Japan's domestically licensed banks that have seen large and growing deposits from households and firms. How to utilize such surplus funds profitably and efficiently has become a challenging task.

4.1 Banking Sector with the Low Loan-Deposit Ratio

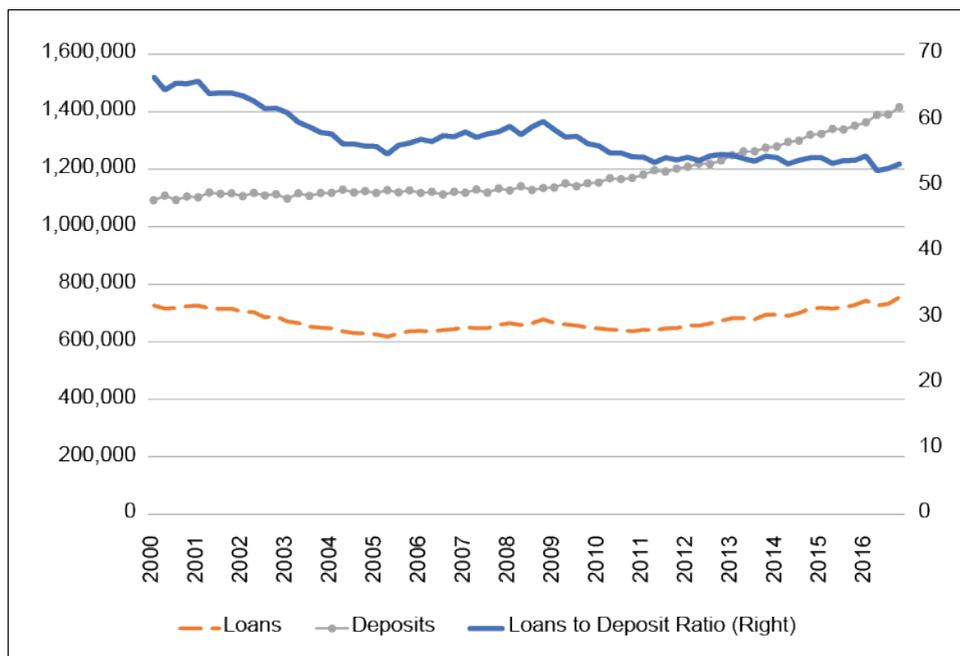
Domestically licensed banks (mainly, comprising commercial banks) can be decomposed into (1) city banks (comprising large commercial banks such as Mitsubishi UFJ Financial Group, Sumitomo Mitsui Financial Group, and Mizuho Financial Group), (2) regional banks (regional banks and regional banks II), and (3) other smaller banks (and credit unions). City banks account for half of the total financial assets held by domestically licensed banks, in December 2016. Regional banks and other small banks accounted for about 36% and 14%, respectively. Surprisingly, these compositions barely changed from 2000 to 2016.

These data indicate that Japan's banking sector is not very concentrated as compared with other advanced economies. Japan's banking sector is often considered to be overbanked. According to the *Global Financial Development Database* compiled by the World Bank, the five-bank asset concentration ratio in Japan rose from 43% in 2000 to 50% in 2007 and further to 60% in 2014 (the latest available figure). As of 2014, Japan's ratio was higher than that in the US (48%), but was much lower than Germany (99%), the United Kingdom (90%), and France (79%). Thus, the European banking sector is more oligopolistic than the banking sectors in Japan and the US. As in Japan, the ratios increased in the US, Germany, France, and the United Kingdom over the same period.

Japan's banking sector is unique compared with other advanced economies in terms of the abundance of deposits relative to the amount needed for domestic credit. For example, deposits and currency held by Japanese banks accounted for 45% of the total liabilities of all financial intermediaries as of end-June 2016. The ratio is greater than that of the eurozone (34%) and the US (16%) according to a BOJ estimate. According to the *Global Financial Development Database*, moreover, the ratio of bank deposits to GDP in 2014 (the latest available figure) was 230% in Japan, which was substantially greater than in the US (82%), Germany (78%), and France (77%).

In sharp contrast to abundant bank deposits, demand for credit has been limited for a long time in Japan. This is a structural phenomenon, as evidenced by the persistently low and declining bank loans to deposit ratios. The ratio dropped from 66% in January–March 2000 to 53% in October–December 2016 (Figure 2). This reflects that the pace of an increase in bank deposits has been faster than the pace of increase in bank loans. The gap between loans and deposits is mainly filled by JGB holdings. This suggests that abundant capital has not been utilized efficiently for productive purposes in the private sector.

Figure 2: Loans, Deposits, and Loans–Deposit Ratio of Depository Corporations
(Billion Yen, %)



Source: Flow of Funds, Bank of Japan.

4.2 Long-Standing Limited Credit Demand

Long-standing limited demand for credit reflects not only the rapid pace of aging in Japan and its declining population, but also the outlook for the shrinking markets of goods and services. The markets for durable consumer goods (such as home electronics and automobiles) already exhibited declining trends after the Global Financial Crisis. This is also due to a declining number of young households and a rising number of elderly single households. The production of durable consumer goods dropped by 15% between 2008 and 2016.

Abenomics and QE helped to increase demand for automobiles with tax advantages and very accommodative financial conditions, but automobile sales levels neither recovered to the level seen before the Global Financial Crisis nor reversed the declining trend. The production level of durable consumer goods dropped further by 9% between 2012 and 2016. In general, credit demand is weaker in local and rural areas than in large cities and relatively prosperous regions. Local and rural areas here refer to almost all regions outside the Tokyo Metropolitan Area, Aichi Prefecture (where Toyota Motor Corporation’s headquarters with large production activities are located), Fukuoka Prefecture (with Fukuoka City, a gateway to Asia and the largest city in Kyushu, Japan’s third biggest island), and Okinawa Prefecture (where population growth and birth rates are the highest in Japan). All these regions have faced a net outflow of population especially of younger working-age people, a rapid pace of aging, and declining business activities.

A shift in production location abroad by manufacturers has risen since 2000 and accelerated from 2012. According to *the FY 2016 Survey Report on Overseas Business Operations by Japanese Manufacturing Companies* compiled by Japan Bank for International Cooperation (JBIC), the share of overseas production in total production rose from 25% in fiscal year 2001 to 30.6% in fiscal year 2007, then fluctuated around this level, before rising to 33% in fiscal year 2012 and further to 38.5% in fiscal year 2016. The increase in overseas production contributed to the weaker economic performance of local and rural areas. A loss of international competitiveness in some manufacturing sectors such as home electronics, personal computers, and other information technology products against other Asian firms has also reduced manufacturing activities in Japan and thus demand for credit.

Since 2013, *Abenomics* and QQE have enabled stagnant loan growth to turn positive. This is a welcome trend, but the current year-on-year loan growth of 2%–3% remains too moderate to offset a decline in the interest rate margins (difference between lending and deposit rates). The interest rate margin fell below 1% in 2012 due to monetary easing by the BOJ under the then Masaaki Shirakawa Governorship. The margin continued to drop under QQE and further after the announcement of a negative interest rate policy in January 2016 (with the effect from mid-February 2016). Deposit growth, rather than slowing, grew even faster than bank loans especially after the negative interest rate policy; thus, the already low loan-deposit ratio dropped even further (Figure 2).

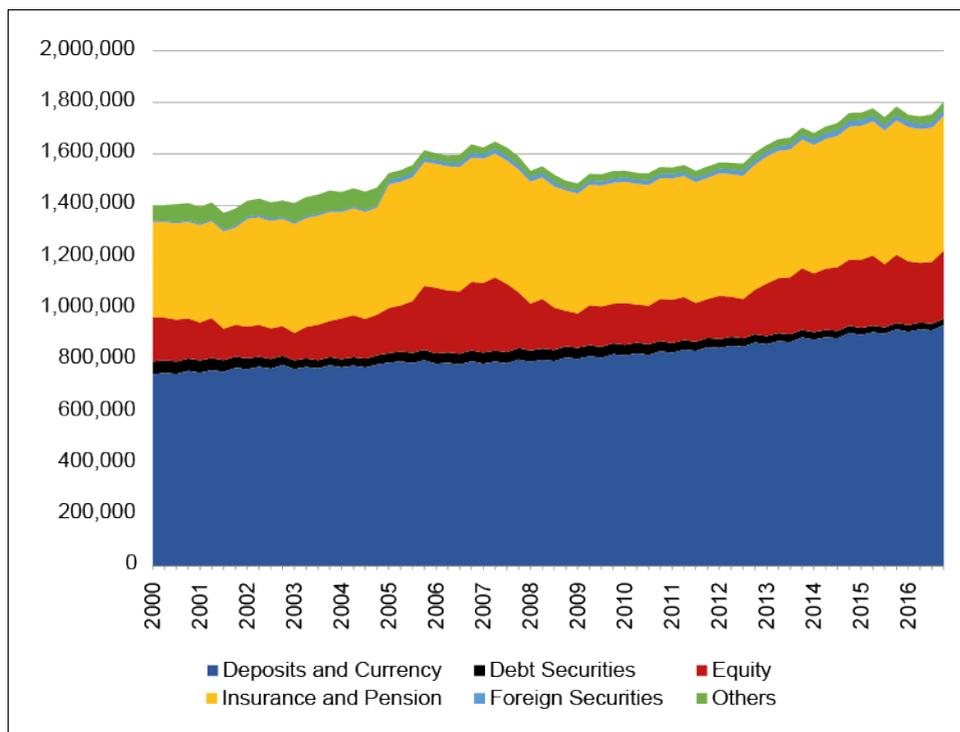
The main objective of QQE is to achieve the 2% price stability target by increasing aggregate demand and inflation. One of the important expected transmission channels of monetary easing is to promote portfolio rebalancing of financial institutions from safe assets (i.e., JGBs and TBs) to risk assets (such as bank loans, mergers and acquisitions, FDI, and other securities investment). Together with the banking sector's provision of innovative financial services, the BOJ has envisaged that firms would be encouraged to shift from holding cash and bank deposits to expanding fixed business investment, mergers and acquisitions domestically and overseas, research and development, FDI, etc. Similarly, the BOJ has envisaged that households' portfolios would be rebalanced from safe assets (such as cash and bank deposits) to risk assets (such as residential investment, investment in equity investments and investment trusts, etc.). In other words, the unprecedented massive monetary easing intends to energize Japan's economy by promoting "healthy" risk-taking behavior among firms, households, and financial institutions, which has been lacking since the collapse of the equity and real estate bubbles in the early 1990s.

A continuing low and stagnant loan–deposit ratio reveals that QQE has not achieved these objectives so far although it has been successful in lowering lending rates. The limited effectiveness of QQE in terms of stimulating credit demand suggests that abundant deposits and limited credit demand are structural rather than cyclical.

4.3 Household's Excessive Reliance on Bank Deposits

Japan's banking sector has ample bank deposits held by households and firms. Regarding households, they traditionally prefer banks deposits. Deposits and currency accounted for around 50% of households' total financial assets from 2000 to 2016 (Figure 3). Such large-scale holdings of deposits are quite remarkable given that the deposit interest rate is very low—it was so even before QQE and has been close to zero percent since the adoption of QQE.

Figure 3: Households' Financial Assets by Type of Assets
(Billion Yen)



Source: Flow of Funds, Bank of Japan.

Thus, it may be difficult to understand, especially for non-Japanese people, why individual investors continue to keep large amounts of money in the form of bank deposits. In the past (mildly) deflationary period, it could be said that households were rational to do so because of the rising real value of bank deposits. But since June 2013 the rate of change in the CPI has been positive and it jumped above 3% during fiscal year 2014 thanks to a consumption tax hike from 5% to 8% (adding about 2 percentage points to inflation) and due to the yen's depreciation and the resultant increase in import prices. Despite mild inflation, however, Japanese households continue to prefer bank deposits.

QQE contributed to raising households' equity and investment fund share holdings as a share of total financial assets from around 9%–10% in 2008–2012 to 12% in the first half of 2013 and further to 13%–14% from the second half of 2013 to October–December 2016. However, the ratio did not exceed the maximum (17%) reached in June–August 2007 and 15%–16% before the Global Financial Crisis. The moderate increase during 2013–2016 reflects mainly stock price hikes (Figure 1), because the ratio of individuals' holdings of equity listed on the stock exchanges dropped to 22% in fiscal year 2015 from 29.5% in fiscal year 2011 based on the number of unit shares. Individuals remained net sellers of equity from fiscal year 2009 to fiscal year 2015; many of them took the opportunity to sell equity when prices rose from late 2012.

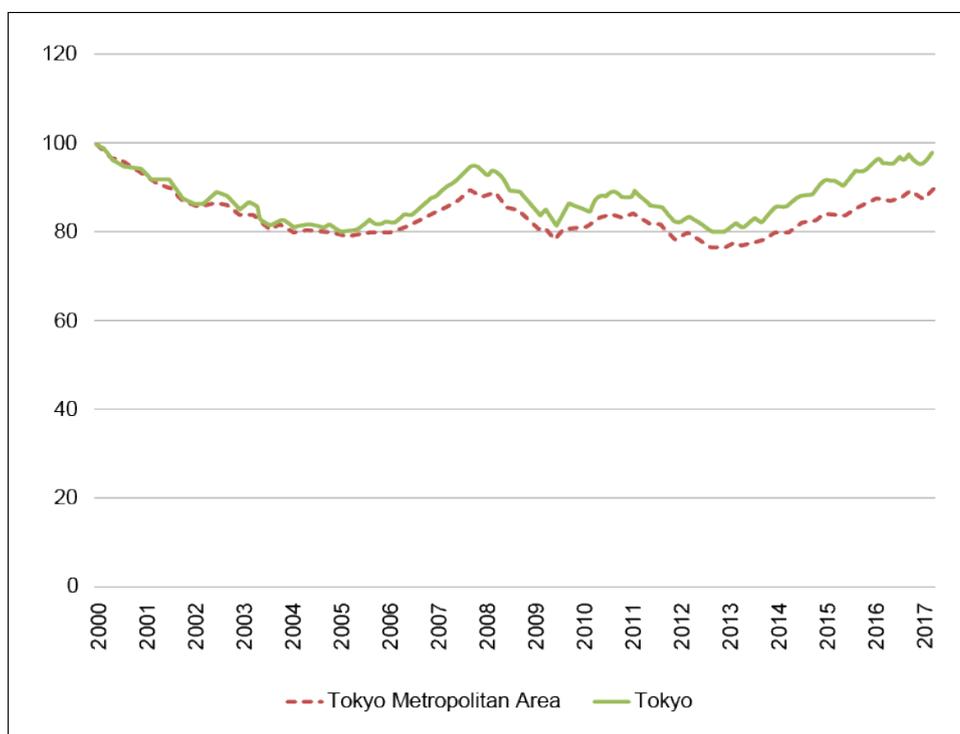
By contrast, households' holdings of debt securities accounted for only 1%–2% of total financial assets over the same period. Their equity holdings are greater than debt securities holdings partly because a wide range of JGBs and other corporate bonds are available to professional investors as compared with households. Overall, the sheer size of deposits and currency indicate households are highly risk-averse, suggesting

continuation of risk averse behavior. This is partly because bank deposits are regarded as safer assets due to the protection of deposits up to ¥10 million per bank per person.

The risk adverse behavior of Japan’s households is in contrast with that of households in the US and the eurozone. According to BOJ’s estimates, deposits and currency accounted for 52% of households’ total financial assets in Japan as of end-September 2016 while they accounted for only 14% in the US as of end-September 2016 and 35% in the eurozone as of end-June 2016. Equity holdings and investment trusts accounted for 46% in the US and 25% in the eurozone, while only accounting for 13% in Japan.

The high degree of risk aversion in Japan is attributable to limited successful investment experiences since the collapse of stock price and real estate bubbles begun in the early 1990s. Like equity, real estate prices have never recovered the maximum price level achieved in 1991. According to *Tochi Data*, the national land price reached ¥585,289 per square meter in 1999, dropping to below ¥140,000 per square meter in 2005 and 2012. Between 2012 and 2016, the national land price rose, cumulatively by 14%. Despite the increase, the price remained only 27% of the maximum level reached in 1991.

Figure 4: Residential Real Estate Price Development
(January 2010 = 100)



Source: Japan Real Estate Institute.

Figure 4 exhibits residential real estate prices in Tokyo and the Tokyo Metropolitan Area including three neighboring prefectures. Real estate prices began to rise in 2013 after the launch of the *Abenomics* and QQE and prices in Tokyo approached the levels achieved in early 2000. However, the pace of recovery has been slower in the Tokyo Metropolitan Area than in Tokyo. Some prices in central Tokyo have risen considerably faster due to (a) the expectation of rising real estate prices driven by infrastructure investment related to the 2020 Tokyo Olympic Games, (2) an increase in housing

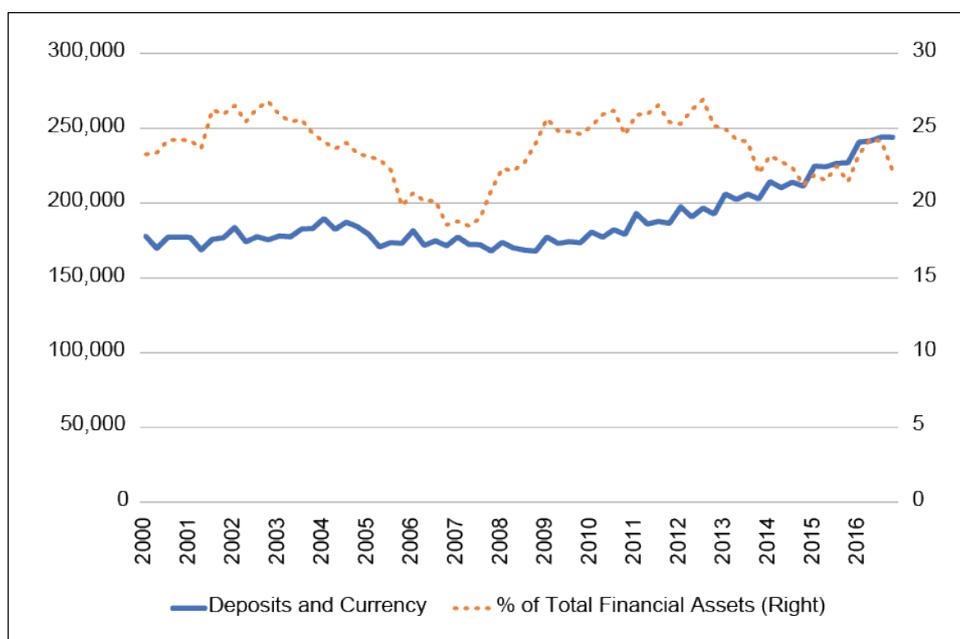
investment for rent mainly for tax saving purposes, and (3) increased demand for high-quality apartments. Rather than being a response to growing demand for rental housing caused by a greater number of tenants, higher investments in housing for rent were made by individuals who own land since inheritance and property taxes could be reduced on the portion of land utilized for apartments or housing for rent.

4.4 Cautious Corporate Sector with Ample Deposits and Cash

Like households, Japanese firms are known to be highly risk averse, as demonstrated by their large holdings of deposits and currency. The amount of deposits and currency held by banks remained stable at around ¥180 trillion in 2000–2010, but began to rise from 2011 and rose at an accelerated pace from 2013 owing to an increase in corporate profits. In 2016, the amount of deposits and currency exceeded ¥240 trillion—about one fourth of firms’ financial assets and about 45% of GDP in 2016 (Figure 5). This reflects firms’ choice to accumulate profits in the form of retained earnings rather than allocating them to expanding business fixed investment, mergers and acquisitions, research and development, foreign portfolio investment, and outbound FDI.

Corporate profits rose rapidly in 2013 and companies maintained high profit levels in 2014–2016. This high profitability was attributable to various favorable factors: (1) the yen’s substantial depreciation from end-December 2012 and the resultant increase in the yen value of overseas profits, (2) large public investment in 2013, (3) a series of cuts in the corporate tax rate from 2014, (4) higher tourist arrivals driven by the yen’s depreciation and a deregulation of tourist visa issuance since 2013, (5) a sharp decline in commodity prices and imported materials in 2014–2016, and (5) an increase in foreign demand since 2015.

Figure 5: Firms’ Holdings of Deposits and Currency
(Billion Yen, % of Total Financial Assets)



Source: Bank of Japan, Flow of Funds.

In 2013–2016, firms increased their nonresidential fixed investment. However, the amount of increase was moderate and remained well below cash flows or change in deposits and currency. Since 2013, firms have been expanding outbound FDI with the amount of assets growing from ¥72 trillion in the first quarter of 2013 to ¥123 trillion in the fourth quarter of 2016. The increase was moderate and foreign assets related to FDI accounted for only half of deposits and currency in 2016.

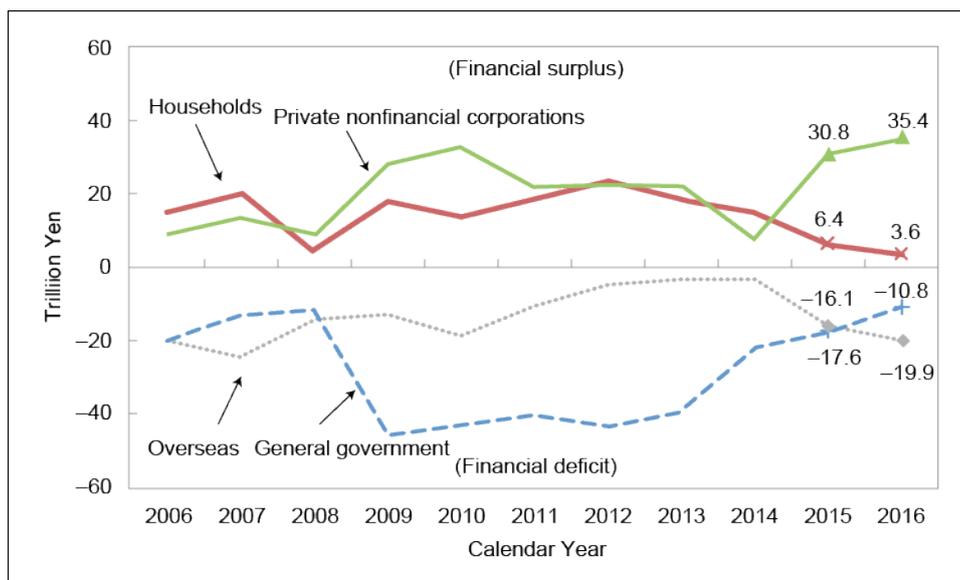
Similarly, firms in the US also increased their holdings of deposits due to an increase in profits over time and achieved about US\$1 trillion in December 2016. However, the amount is relatively small compared with Japan, accounting for only 5% of total financial assets and 5% of GDP. In addition, US firms actively engaged in outbound FDI so that the amount of foreign assets related to FDI recorded US\$5 trillion, which is about 5 times as large as deposits. Firms' nonresidential fixed investment exceeded cash flows or change in deposits.

4.5 Assessment of Banking Sector Activities

Among advanced economies, financial markets in Japan and the eurozone are bank-dominated. The amount of financial assets held by deposit-taking financial institutions accounted for about 60% of total financial assets held by financial intermediaries in Japan and about 50% of total financial assets held by financial intermediaries in the eurozone. By contrast, financial markets in the US are market-based, with financial assets held by these institutions accounting for only 20% of total financial assets. The financial markets in the US are dominated by a wide range of nonbank financial institutions or entities—including securities dealers and brokers; the MMFs, FTFs, GSEs, financial companies, Real Estate Investment Trusts (REITs), etc. The amount of total financial assets held by these institutions accounted for about 46% of total financial assets held by financial intermediaries.

Given abundant deposits and the public's preference for bank deposits, Japan's banking sector is likely to remain dominant among financial institutions in the financial and capital markets for the foreseeable future. The banking sector has been struggling with its long-standing problem of how to utilize abundant deposits given the limited demand for credit. Firms maintained financial surpluses or excess savings (greater savings relative to nonresidential fixed investment) before and after the Global Financial Crisis. An increase in corporate profits since 2013 has further increased corporate holdings of deposits and currency, thereby expanding the financial surplus and excess saving in 2015 and 2016 (Figure 6). As for households, their financial surplus has declined since 2013 and at present is nearly zero because the rapid pace of aging and the declining working-age population reduced saving. This means that financial deficits or excess investment of the Japanese government are financed solely by the corporate sector; no longer by the household sector. In such an environment, it is not easy for the banking sector to find new firms and existing borrowers who wish to engage in new economic activities and are thus short of capital. Tighter financial regulations also make commercial banks more cautious in extending credit to unknown clients without track records or collateral.

Figure 6: Financial Surplus and Deficit by Sector



Source: Flow of Funds, Bank of Japan.

Moreover, small and medium-sized enterprises have traditionally obtained funding from credit unions that have deeper knowledge of the regions and individual firms through long-term relationships. Through such relationships, they take greater credit risk than other banks. Given an increase in abundant deposits, both credit unions and larger regional banks are eager to provide credit to viable client enterprises including small and medium-sized enterprises. As a result, competition has become intensified.

Since 2014, the Financial Services Agency has encouraged commercial banks to provide asset-based lending (ABL) rather than traditional lending based on collateral using land and personal guarantee—for the purpose of promoting new lending to small and medium-sized enterprises. Such ABL refers to loans collateralized by movable property (such as inventories) and accounts receivable. This ABL helps commercial banks to deepen their understanding of the actual conditions of their clients’ enterprises. Meanwhile, the BOJ has been providing 4-year lending (currently at zero percent interest rate) since 2011 to commercial banks in accordance with their actual lending and investment performance toward strengthening the foundations for economic growth—including commercial banks’ ABL. While such initiatives have contributed to new types of lending activities by commercial banks, their impacts on total credit demand as well as active use of ABL have been limited. The BOJ’s outstanding loans linked to ABL (and equity investment) recorded ¥60 trillion and applied to only 14 financial institutions as of end-May 2017.

In a longer run perspective, the abundance of bank deposits is expected to decline gradually, especially in small cities and rural areas. This is not only because the number of elderly people is growing, but also because bank deposits inherited from the older generations are likely to be transferred to and concentrated in large cities where the younger generations tend to live and work. This suggests that an increase in joint business activities or mergers and acquisitions among banks and credit unions in small cities and rural areas is expected as a way to reduce operating costs and raise profitability.

5. GROWING PUBLIC SECTOR DEBT SECURITIES MARKET

Japan's capital markets (debt securities and equity) are much smaller than its banking sector. Nevertheless, the size of the debt securities market has been growing rapidly because of an increase in the issuance of Japanese Government Bonds (JGBs). This section focuses on public and private sector debt securities markets as well as the BOJ's asset purchase programs that have significantly influenced the markets.

5.1 Overwhelming Size of the JGB Market

The capital markets comprised the debt securities market and the equity market. The total size of the debt securities market recorded about ¥1,263 trillion in December 2016 and accounted for 235% of GDP. This size is greater than that of the equity market (equity market capitalization accounted for about 100% of GDP), which is a reflection of the sheer size of the general government's mounting debt. Privates sector debt securities (those issued by financial institutions and nonfinancial enterprises) amounted to only ¥114 trillion and accounted for just 21% of GDP, which is well below the size of the equity market.

In the debt securities market, the general government (central government, local governments, public corporations) is the dominant issuer. General government debt securities comprise (1) central government securities (ordinal bonds), (2) Treasury Discount Bills (TBs), (3) municipal bonds, and (4) other securities issued by public corporations. The total size of debt securities issued by the general government doubled between 2000 and 2016—rising from ¥490 trillion in December 2000 to ¥720 trillion in December 2007 and further to ¥1,046 trillion (about 195% of GDP) in December 2016. The ordinal bonds (¥854 trillion) and TBs (¥117 trillion) dominate the general government debt securities market and accounted for 93% of the total general government debt securities outstanding in December 2016. The market size of municipal bonds remains small.

It should be noted that JGBs include ordinary bonds and Fiscal Investment and Loan Program (FILP) bonds. However, they are separately reported as ordinary bonds are included in the general government account and the FILP bonds are included in the public enterprises account. Nevertheless, they are classified collectively and issued together as same JGBs. FILP bonds are loan funds that require redemption, while ordinary bonds are grant funds that do not require a repayment obligation since taxes are the main fiscal sources. In December 2016, the FILP bonds recorded about ¥104 trillion (or about 19% of GDP) so that the amount of JGBs outstanding issued amounted to ¥958 trillion.

While the amount of outstanding general government debt securities issued is huge, general government financial assets are relatively large and recorded ¥558 trillion (104% of GDP). Taking the difference between total financial liability and total financial asset generates a net financial liability of ¥690 trillion (128% of GDP) and is much smaller than total (or gross) financial liability of ¥1,245 trillion (233% of GDP). Total financial assets include the assets held by the social security funds including the GPIF (about ¥245 trillion). The GPIF and other public pension funds are invested mainly among (domestic) debt securities, equity and investment fund shares, and external debt securities, more or less in line with the GPIF portfolio guideline mentioned above. Even though the net financial liability is much smaller than the gross financial liability, it should be remembered that financial assets managed by the social security funds are

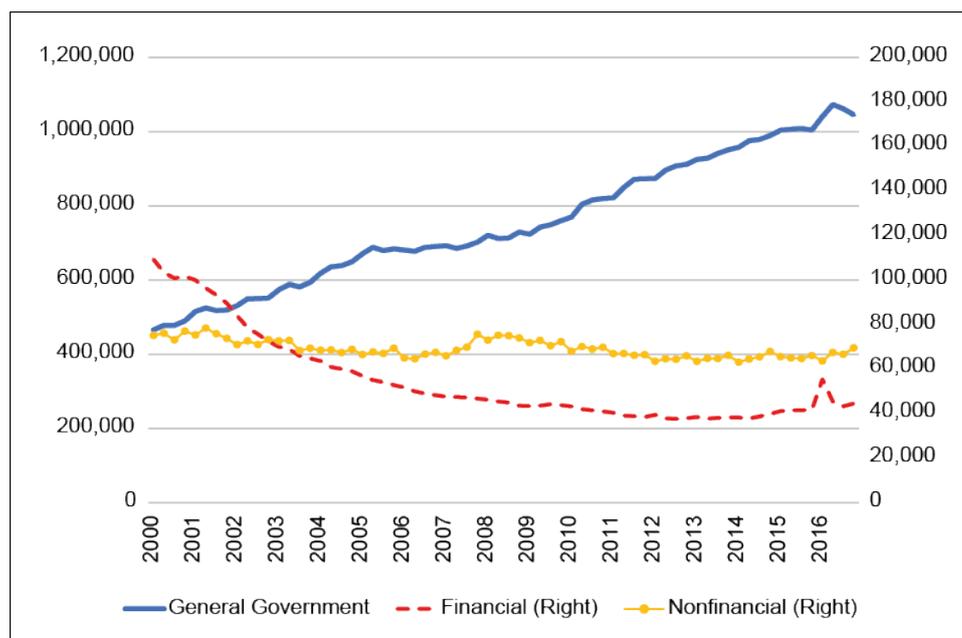
accumulated to be used for future pensioners’ benefits, i.e., these assets cannot be used to repay the government’s debt.

Moreover, it should be pointed out that foreign reserves—which are managed by the Ministry of Finance (about ¥117 trillion)—are included in the general government financial assets. However, they are excluded from net financial assets since those assets are financed by issuing TBs recorded on the liability side.

5.2 Small and Stagnant Private Sector Debt Securities Market

The second largest issuers of debt securities are private nonfinancial corporations. Their securities cover mainly corporate bonds and commercial papers. Their amount outstanding issued remained small and largely stable after the Global Financial Crisis and was equivalent to 13% of GDP in December 2016 (Figure 7). From January–March 2013 (before QQE) to October–December 2016, the amount outstanding issued rose moderately by about ¥6 trillion. Some large firms issued super-long corporate bonds (with remaining maturity of over 10 years) due to a substantial decline in JGB yields with all maturities, especially after adoption of the negative interest rate policy. However, this increase in super-long corporate bonds contributed to expanding the corporate bonds market only moderately. The relatively small size of the corporate bond market reflects that credit demand by firms has been limited. Firms can borrow funds cheaply from commercial banks and many firms maintain retained earnings in the form of deposits and currency, as previously mentioned.

Figure 7: Outstanding Debt Securities by Issuers
(Billion Yen)



Source: Flow of Funds, Bank of Japan.

The third largest issuers are domestically licensed financial institutions, and their debt securities are mainly bank debentures and commercial papers. The amount outstanding issued remained largely constant after the Global Financial Crisis, accounting for only 8% of GDP in December 2016. From January–March 2013 to

October–December 2016, the amount outstanding issued rose by about ¥6 trillion as commercial banks issued longer-term bonds like nonfinancial corporations. As banks have ample deposits and thus limited need to find alternative funding sources, the bank debenture market remained stagnant.

As for securities asset markets, the size is very small and hardly noticeable. They include asset-based bonds (ABSs), asset-backed commercial papers (ABCP), and trust beneficiary rights. ABSs are mainly dominated by Residential Mortgage-Based Securities (RMBS) issued by the Japan Housing Finance Agency (JHFA) that is owned by the government. RMBS are issued by the JHFA in partnership with private financial institutions that offer and execute long-term fixed-rate housing loans (called “Flat 35”). The JHFA purchases Flat 35 from private financial institutions and entrusts Flat 35 to whom JHFA concluded trust agreements and established a third-party beneficiary trust for the holders of RMBS. The RMBS are bonds backed by trust assets and the pooled mortgages are different from mortgages extended purely based on private sector initiatives. RMBS continued to rise moderately from 2007 (from which time data is available) while ABSs backed by real estate property and other ABSs dropped sharply from 2009 and continued to drop even after 2013.

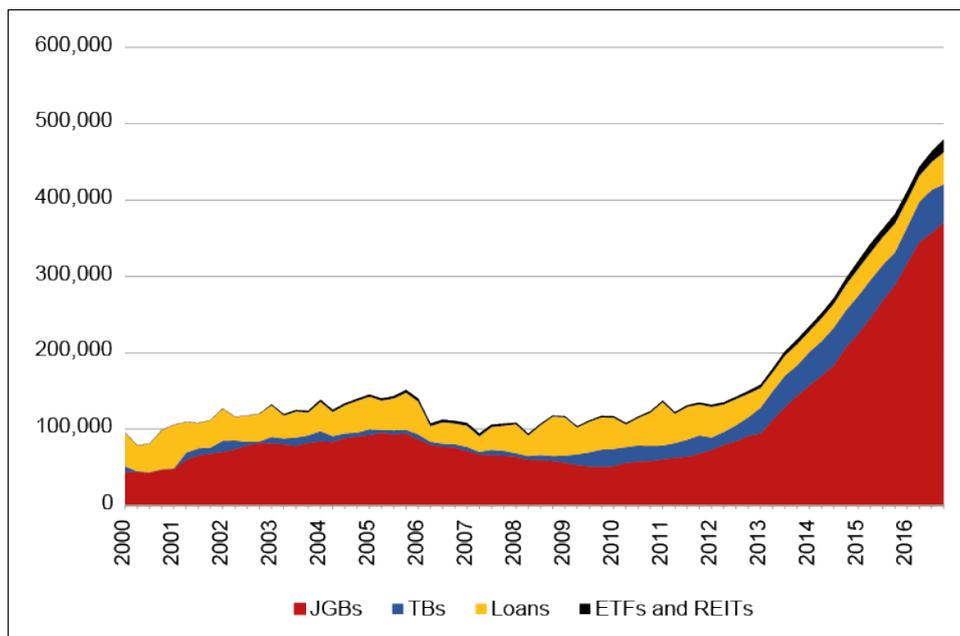
The overall size of the securities asset markets dropped after the Global Financial Crisis—by 28% from ¥45 trillion in December 2007 to ¥32 trillion in December 2016. Even since the start of *Abenomics* and QQE, there have been no signs of recovery. This reflects that commercial banks prefer keeping mortgages and other loans on their balance sheets since they find it unnecessary to raise additional funds from the markets to increase lending volumes. This appears to differ from the US where nonbank financial institutions raise funds through issuing debt securities actively, and from the eurozone where commercial banks raise funds not only from bank deposits but also from wholesale financial markets and covered bond markets.

5.3 Growing Amount of JGB Holdings by the BOJ

The huge and growing JGB market reflects an accumulation of the central government fiscal deficit. The Bank of Japan Law prohibits the BOJ from monetizing its fiscal deficit or financing the government directly. Under QQE, therefore, the BOJ has purchased the JGBs from financial institutions that hold current account balances with the BOJ. The JGB purchase is a major monetary easing tool aimed at raising aggregate demand and thereby achieving the 2% price stability target—rather than financing the government deficit. Therefore, the BOJ stresses that the practice should not be viewed as monetization. The BOJ’s large-scale purchases of the JGBs raised JGBs’ prices and reduced yields substantially, generating a very accommodative monetary environment.

In April 2013, the BOJ adopted monetary base control by abandoning the policy rate target and initially set an annual pace of increase in the monetary base of about ¥60–¥70 trillion. To meet this monetary base target, JGB purchases of about ¥50 trillion (about 10% of GDP) with maturity up to a maximum 40 years were essential (for details, see Shirai [2017a]). The JGBs are the only assets that enable the BOJ to continue such large-scale purchases (Figure 8). Other assets purchased include two risk assets—exchange-traded funds (ETFs) (about ¥1 trillion annually) and REITs (about ¥30 billion annually). The BOJ also purchases TBs and extends 4-year loans to financial institutions (currently at zero percent interest rate). The BOJ maintains holdings of commercial paper and corporate bonds that had been purchased under the asset purchase program led by the previous Masaaki Shirakawa Governorship—due to their small market sizes and high demand by investors for those assets.

**Figure 8: The Amount of Assets Held by the Bank of Japan
(Billion Yen)**



JGBs = Japan Government Bonds; TBs = Treasury bills; ETFs = exchange traded funds; REITs = Real Estate Investment Trusts.
Source: Flow of Funds, Bank of Japan.

QQE was expanded in October 2014. The monetary base target was expanded from about 60–70 trillion to about ¥80 trillion. The amount of JGB purchases was expanded from about ¥50 trillion to about ¥80 trillion. The amounts of ETFs and REITs purchases were raised from about ¥1 trillion to about ¥3 trillion and from about ¥30 billion to about ¥90 billion, respectively. The BOJ expanded the EFTs to around ¥6 trillion in July 2016. A negative interest rate policy was added in January 2016 and yield curve control in September 2016 (for details, see Shirai [2017b]). In December 2016, BOJ’s holdings of the JGB and TBs reached about ¥371 trillion (about 40% of the outstanding JGBs issued) and about ¥50 trillion (about 43% of the outstanding TBs issued), respectively.

Especially after a negative interest rate policy, JGB yields declined substantially and all the yields with remaining maturities up to 10 years became negative. The lowest 10-year yield recorded around -0.3% and the yield curve became flat in July 2016. This brought down banks’ lending rates and the interest rate margin further. The flat yield curve also made it difficult for commercial banks to profit from maturity transformation (lending or investing in longer-term assets based on shorter-term liabilities) as well as insurance firms to gain reasonable returns from saving-type products.

With the subsequent yield curve control, the 10-year yield was raised and stabilized at around zero percent. The yield curve steepened moderately for the yields with remaining maturity above 10 years. This new action was de facto tightening, but it helped to stabilize the yields and to expand the interest rate differentials against the US. Especially after Mr. Donald Trump’s victory in the November 2016 US Presidential election, the US yields rose rapidly and led to a depreciation of the yen against the US dollar and many other currencies due to wider interest differentials (and an appreciation of the US dollar against the yen and many other currencies). The depreciation of the yen helped to raise Japan’s equity prices (Figure 1).

While the longer-term JGB yields became higher than those just before the yield curve control, the BOJ continues to purchase the JGBs at high prices; many of them are purchased at prices above their face values. Moreover, the yields remain substantially low over all the maturities compared with the period prior to QQE. From January–March 2013 to May 2017, all yields below 10-year yield turned from positive to negative, which is to be expected given that yield curve control stabilized the 10-year yield at around zero percent. With the regards to the yield above 10 years over the same period, the 20-year yield dropped on average from around 1.7% to around 0.5% and the 30–year yield dropped from 1.9% to 0.8%.

5.4 Assessment of the Debt Securities Markets

Japan's debt securities markets lack diversity. The JGBs stand out. For firms, ample deposits and currency reduce their need to issue corporate bonds. For financial institutions, ample bank deposits reduced their need to issue bank debentures. This could be one of the factors making it more challenging for Tokyo to be recognized as a global financial center, since other cities like New York enjoy a wide range of debt securities including agency MBSs, ABSs, corporate bonds, debentures, and high yield bonds. Also, Japan's debt securities market is less diverse than Europe where the covered bonds market is large and diverse. QQE and yield curve control helped to lower and stabilize debt-financing cost for the private and public sectors. Given the large presence of the BOJ in the JGB markets (and corporate bond and commercial paper markets), meanwhile, market participants and financial institutions increasingly pay attention to the BOJ's next actions and exit strategies.

6. DEVELOPMENTS OF EQUITY MARKETS AND INVESTMENT TRUSTS

The equity market performance deteriorated after the Global Financial Crisis, but revived somewhat from late 2012, as was evident from a stock price hike (Figure 1). The net assets of investment trusts including the ETFs and REITs have also expanded rapidly and achieved their highest levels as of March 2017. The BOJ's purchases of ETFs and REITs certainly contributed to these favorable movements. This section focuses on the features of Japan's equity markets and investment trusts.

6.1 Listed Companies Dominated by Domestic Companies

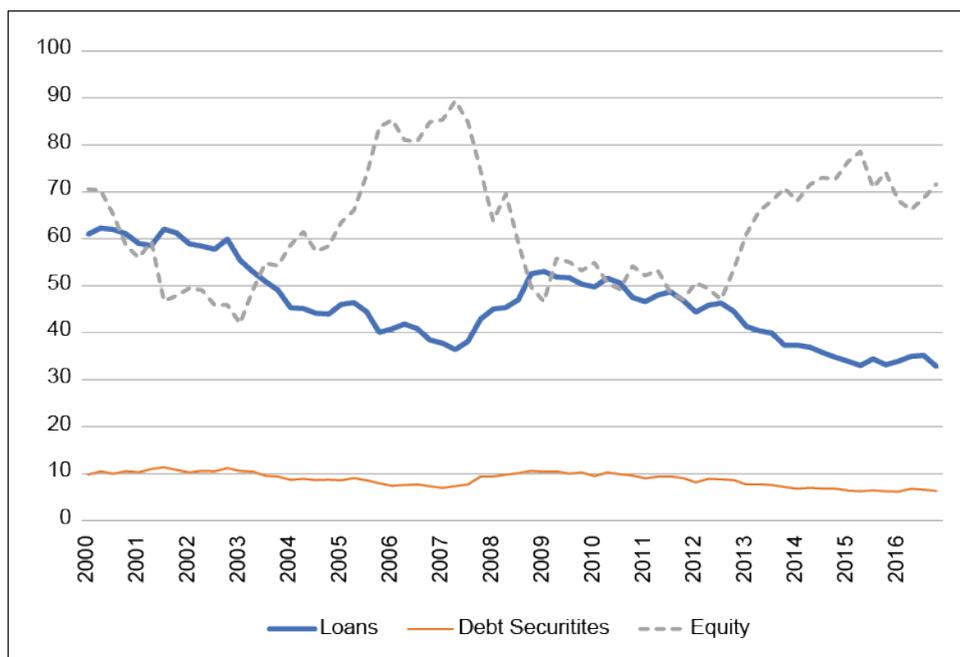
There are currently four stock exchanges in Japan (Tokyo, Nagoya, Sapporo, and Fukuoka). Among them, the JPX is the biggest. JPX was established in January 2013 by combining the two largest securities exchanges: Tokyo Stock Exchange and Osaka Securities Exchange. Tokyo Stock Exchange and Osaka Exchange are currently JPX's subsidiaries.

The spot markets of the Tokyo and Osaka Stock Exchanges were merged in July 2013 and the number of listed enterprises increased by 1,100 companies (which are listed on Osaka 1st Section, 2nd Section, and JASDAQ markets) to 3,423 companies. After that, the number of companies listed in all the stock markets belonging to JPX (1st Section, 2nd Section, Mathers, JASDAQ, Tokyo Pro markets) increased by 132 firms to 3,557 companies as of end of May 2017. The number of listed companies in the 1st Section—the largest market—rose by 266 companies to 2,018 listed companies.

By contrast, the number of foreign companies dropped from 11 companies in July 2013 to only five firms currently. The number of foreign listed companies has been on a declining trend since 1992 after the collapse of the stock market bubble in 1990. The maximum number of foreign listed firms on the Tokyo Stock Exchange was 127 companies in 1991. The declining trend reflects Japan's weakened macroeconomic performance, language barriers, listing cost, Japan-specific business practices, etc. As a result, listed companies mainly from the US and Europe withdraw from the Tokyo Stock Exchange to reduce cost arising from double listings. The Tokyo Stock Exchange took this trend seriously and made efforts to improve the situation in 2010, for example by exempting foreign companies listed on major overseas stock exchanges from listing examination procedures and by allowing disclosure of financial documents in English. Despite such efforts, the Tokyo Stock Exchange has not been successful in raising the number of foreign listed companies. Indeed, the domestic orientation of Japan's stock exchanges has further strengthened. The limited presence of foreign companies could be one of the factors working against Tokyo in terms of its ambition to be recognized as a global financial center.

Market capitalization of all the markets belonging to JPX reached ¥586 trillion and accounted for about 110% of GDP in March 2017. The 1st Section has the biggest market capitalization, accounting for about 96% of the total. JPX currently has the fourth largest market capitalization worldwide following the NYSE, NASDAQ, and London Stock Exchange Group. The increase in stock prices from late 2012 contributed to the larger market capitalization of individual listed companies, thereby raising the ratio of equity finance to total liability and equity (Figure 9).

Figure 9: Firms' Financing Sources
(% of Liability and Equity)



Source: Flow of Funds, Bank of Japan.

6.2 Essential Role Played by Foreign Investors in the Equity Market

While there are only a few foreign listed companies, foreign investors have been finding it increasingly attractive to invest in Japan's stocks. They have become major market players in the equity market, as already pointed out in Section 3.

Foreign investors' holdings of shares listed on the four stock exchanges on a market value basis rose from 19% in fiscal year 2000 to 26% in fiscal year 2011 (the fiscal year before QQE was adopted), to 28% in fiscal year 2012, and further to the maximum 32% in fiscal year 2014. After that, foreigners' market share dropped slightly to about 30% in fiscal year 2015, but remained high. In terms of the number of unit shares, foreign investors' market share rose from 13% in fiscal year 2000 to 28% in fiscal year 2011, but dropped slightly to 27% in fiscal year 2015. Foreign investors have been the largest investors since 2010. This rising trend is remarkable given that their market share was a mere 4% in the 1980s and 1990s. In terms of the number of unit shares, foreign investors' market share increased from 13% in fiscal year 2000 to 29% in fiscal year 2011. The share then declined to 27% in fiscal year 2015.

Financial institutions (including commercial banks and insurers) are the second largest investors, but their market share has gradually fallen since the early 2000s. They used to hold large shares of listed companies as a way to maintain long-term business relationships with each other. In line with growing awareness and practices of corporate governance that call for an explanation of rational reasons for maintaining such shares, financial institutions have begun to sell them. The move was proceeded by commercial banks, later followed by insurers. In terms of market value, their total market share dropped from 39% in fiscal year 2000 to 28% in fiscal year 2015. In terms of the number of unit shares, the market share fluctuated over this period and recorded 25% in fiscal year 2015.

Business companies are the third largest investors in Japanese equity. Their share was maintained at about 10% from fiscal year 2000 to fiscal year 2015. In terms of the number of unit shares, the market share moved around 20%–25% over the same period. Recently, business companies have also begun to pay attention to the rationale of long-term holdings of shares of listed companies that have business relationships. While this should reduce the ratio, it is offset by a recent increase in companies buying back their own equities.

As for individual investors, their market share fluctuated—rising from 19% in fiscal year 2000 to over 20% in fiscal year 2002–2004 and it was again above 20% in fiscal year 2008–2012. The market share then dropped from 20% in fiscal year 2012 to 17% in fiscal years 2014–2015. Many individual investors took advantage of a stock price hike from late 2012 as an opportunity to sell shares they had held on to for a long time while stock prices were sluggish, as mentioned above. Although they profited from capital gains, this did not lead to accelerating equity investment. The subsequent volatile movements of stock prices may have discouraged individual investors from increasing investment in risk assets. Their position as a net seller from fiscal year 2009 was maintained until fiscal year 2016. Individual investors used to be major investors with very high market shares in the 1970s (their maximum share was 38% in 1970) so they were not risk averse in those days. In terms of the number of unit shares, the share also rose from 26% to 29.5% in 2011, followed by a decline to 26% in 2012 and further to 22% in 2015.

6.3 Stock Price Hike Since Late 2012

Stock prices have risen since late 2012 reflecting high corporate profits and other favorable factors mentioned above. Moreover, the BOJ has been purchasing directly the EFTs that track major stock price indices such as Nikkei 225, TOPIX, and JPX Nikkei Index 400. This has certainly contributed to higher stock prices by reducing the downside risk and thereby reassuring investors, as pointed out below. The BOJ's large-scale purchases of JGBs also contributed to raising stock prices through a decline in long-term interest rates—through portfolio rebalancing, the exchange rate, and asset price channels.

A further rise in stock prices is expected by many equity investors. This is partly because current equity prices—as measured by the price earnings ratio—are no longer undervalued, but not necessarily overpriced. Moreover, many investors anticipate higher stock prices in Japan due to a further increase in interest rate differentials between the US and Japan. This would be driven by expected economic stimulus packages to be implemented under Donald Trump's presidency and resultant higher interest rates. Foreign investors also hold the view that the BOJ's massive asset purchases with yield curve control would continue and contribute to maintaining the interest differentials by holding down Japan's yields. Since major listed companies are manufacturers in Japan, a depreciation of the yen contributes to raising the yen value of corporate profits and hence stock prices.

6.4 Performance of Investment Trusts: ETFs and REITs

Japan's total net assets of investment trusts recorded US\$1.4 trillion in December 2016—the eighth largest in the world according to data released by the Investment Trusts Association. The total net assets of investment trusts in the US overwhelmed other countries due to their sheer size (18.8 trillion US dollars). Luxemburg (US\$3.9 trillion) is ranked second and Ireland (US\$2.2 trillion) is ranked third.

Out of Japan's net assets in investment trusts, about 60% are allocated to publicly offered investment trusts and the rest to privately placed investment trusts. The net assets of publicly offered investment trusts have grown rapidly since 2013 and reached about ¥100 trillion in March 2017—the highest level registered since 1998 when data started becoming available—¥86 trillion of which were stock investment trusts (including ETFs worth about ¥23 trillion), accounting for about 90% of the net assets of publicly offered investment trusts. The net assets of publicly offered stock investments are largely denominated in the yen. The market share of yen-denominated assets rose from 43% in 2009 to 67% in March 2017 (of which net assets excluding ETFs rose from 40% to 54% over the same period). This was a result of a rapid increase in investment in Japanese equities since 2013.

The expansion of the ETF market is remarkable. Japan's ETFs are largely stock ETFs and all are of the stock index type. The net assets of ETFs were small before the Global Financial Crisis, reaching a maximum of about ¥4 trillion in 2006, followed by a decline in 2007–2009. From 2013 they rose rapidly, from ¥4.2 trillion in 2012 to ¥8 trillion in 2013 and further to ¥23 trillion in March 2017.

The BOJ's expansion of ETF purchases clearly energized this market. The BOJ introduced a program to purchase ETFs tracking the Nikkei 225 and TOPIX as part of a *Comprehensive Monetary Easing* (CME) package led by the then Governor Shirakawa in October 2010. Initially, the maximum amount of holdings was set at ¥450 billion with a deadline of end-December 2011. The maximum amount was subsequently expanded

in March 2011 to ¥900 billion and the deadline extended to end-June 2012, and further expanded in August 2011 to ¥1.4 trillion with the deadline extended to end-December 2012. In April 2013, QQE expanded the amount of the ETF purchase by setting an annual pace of about ¥1 trillion, which was an acceleration of the BOJ's purchase pace. The annual pace was expanded to about ¥3 trillion in October 2015 and further to about ¥6 trillion in July 2016. ETFs tracking the JPX Nikkei 400 were added to the program in March 2016.

The BOJ's holdings of ETFs recorded about ¥14 trillion in May 2017 and accounted for over 60% of the total net assets of ETFs. The BOJ became a dominant player in the ETF market. The number of ETFs rose steadily and rapidly from 16 in 2007 to 156 in March 2017. Since the growth rate of the number of ETFs is greater than the growth rate of the net assets, the size of net assets per fund stagnated.

With regards to listed REITs, the market has faced a similar rising trend to that of the ETFs since 2013. Several factors contributed to this trend: BOJ's purchases of REITs as pointed out below, low interest rate environment, and the speculation on higher real estate prices driven by the 2020 Tokyo Olympic Game, etc. The net assets of listed REITs recorded about ¥4 trillion in 2009 and remained at that level until 2011. The net assets then rose rapidly from 4.6 trillion in 2012 to ¥8.5 trillion in February 2017 (the market value of REITs rose from ¥4 trillion to ¥12 trillion over the same period). The number of REITs was 42 in 2007–2009, followed by a decline in 2010–2011. The number of REITs subsequently rose from 37 in 2012 to 58 in February 2017. However, the TOSHO REIT index (the index of the REITs listed on the Tokyo Stock Exchange) saw an end to its rising trend in early 2015 and has since fluctuated between 1,700 and 1,900 points.

As with the ETFs, the BOJ's action contributed to expanding the REIT market rapidly. The BOJ introduced the REIT purchase program in October 2010 under its CME package by initially setting the maximum amount of holdings at around ¥50 billion with a deadline of end-December 2011. The BOJ also introduced several self-imposed conditions on ETF purchase: (1) a minimum credit rating requirement (AA or higher), (2) a purchase limit (5% of the amount outstanding issued), and (3) ETFs whose purchase and sale have been transacted “on a financial instruments exchange 200 days or more per annum with a total trading value of 20 billion yen or more per annum”. This purchase limit was then raised to ¥100 billion in March 2011 with the deadline extended to end-June 2012 and further raised to ¥110 billion in August 2011 with a deadline of end-December 2012. Subsequently, QQE introduced an annual pace of ETF purchases of about ¥30 billion, followed by a rise to about ¥90 billion in October 2015. As the BOJ's holdings rose, the BOJ found it difficult to continue the ETF purchases due to its violation of the self-imposed 5% limit for some REITs. The limit was raised, therefore, from 5% to 10% in January 2016. As of May 2017, the BOJ's holdings of ETFs stood at ¥390 billion.

6.5 Assessment of the Equity Market and Investment Trusts

The BOJ considers its purchases of ETFs and REITs to be part of its monetary easing policy for the purpose of raising aggregate demand and inflation—not to keep the market price artificially high. Together with the yen's sharp depreciation and rising corporate profits, the ETF purchases contributed to raising Japan's stock prices. With the REIT market, the real estate market has also grown in the Tokyo Metropolitan Area and other large cities, leading to greater transaction volumes.

These movements promoted portfolio rebalancing for some investors and financial institutions. Many existing investors benefited from capital gains and raised the valuation of their financial assets. Although these favorable market developments have increased the confidence of existing investors and large listed firms, they have not managed to change the risk averse behavior of households, firms, and financial institutions in general, and have not resulted in a large number of new individual investors. Many remain cautious, as pointed out above.

Moreover, the impact of the BOJ's actions on these markets is large since the market participants have been conducting transactions by taking into account the BOJ's actions – even though the amounts of purchases are well below the daily transaction volumes. The BOJ is widely viewed as tending to purchase ETFs and REITs when their prices fall. This has given a sense of security to investors by reducing downside risk as well as generating transactions that attempt to anticipate the BOJ's moves. Some equity market participants view that a further increase in the BOJ's ETF purchases may lead to a situation where market prices of individual companies do not necessarily reflect firms' specific information and fundamentals. Meanwhile, many individual investors and some market participants in the REIT (and real estate) markets hold the view that these markets are likely to remain active and favorable at least until the 2020 Olympic Games due to an expected increase in construction activities (such as for sport facilities, hotels, and restaurants)—even if the BOJ reduces the amount of REIT purchases.

An important issue in the future, therefore, will be how the markets will respond to change in the BOJ's policy, which is likely to move toward normalization or a more sustainable framework in the foreseeable future.

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