Capital Market Regulation in Japan after the Global Financial Crisis

— CHAPTER 7

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Introduction

For 40 years between the late 1930s and the late 1970s, capital markets in Japan were heavily regulated and allowed to play limited roles in allocating financial resources. Japan's financial system was dominated by the banks. A large part of household financial assets was held in the form of bank deposits, and most of external funds to corporations came in the form of bank loans. The domination of banks and suppression of capital markets originated from the wartime controls but survived and advanced during the postwar reconstruction and the catch-up economic growth that followed.

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Japan's capital markets started to change in the 1980s as various regulations were gradually relaxed. The deregulation took place over a long time and it was lopsided in the sense that deregulation on options for corporate financing moved quicker than those on options for household savers and on the range of businesses that banks can enter. As Hoshi and Kashyap (2000) argued, the lopsided nature of the financial deregulation was a major factor behind Japan's banking crisis in the late 1990s.

The deregulation process continued even during the banking crisis and into the 2000s. By the mid-2000s, major regulatory impediments to growth of capital markets were removed.

This paper examines the evolution of Japan's capital markets and the related regulatory reforms after the Global Financial Crisis. We start by looking at the importance of capital markets in the Japanese financial system. We study how the size of financial flows through capital markets relative to those through the banking sector changed since the 1980s in Section II. Then, in Section III, we look at how Japan's financial system responded to the Global Financial Crisis. We find that the disruption of the financial system in Japan was small. Section IV then surveys the financial regulatory changes in Japan since the Global Financial Crisis. While the Japanese regulators tightened the regulation to improve the financial stability as the regulators in the US and Europe did, they also continued the efforts to develop capital markets in Japan. The efforts continue and receive strong endorsement from Abenomics, which emphasized economic structural reforms to restore growth in Japan. We examine the capital market policies in Abenomics in Section V. The final section concludes.

I. From Banks to Markets

The gradual financial deregulation in Japan started in the late 1970s. During the following 40 years, the importance of securities markets has grown. As Hoshi and Kashyap (2001) showed, the Japanese financial system is in a sense going back the time to resemble what it was like before the World War II. During the pre-war period, Japan had active securities markets that played important roles in corporate financing and governance. Wartime controls were introduced to suppress securities markets. The tight regulation of securities markets and domination of banks in corporate finance and governance continued to characterize the Japanese financial system in the post-war period. As those regulations were gradually removed, the securities markets started to expand again.

The initial phase of deregulation centered on allowing large corporations to use capital markets to raise funds. The size, profitability and collateral requirements that corporations needed to satisfy in order to issue bonds or equities in public markets were gradually relaxed. The result was a dramatic shift from bank financing to market financing by large firms. Figure 1 shows the ratio of total bank loans to total assets for four groups of corporations: large manufacturing firms, large

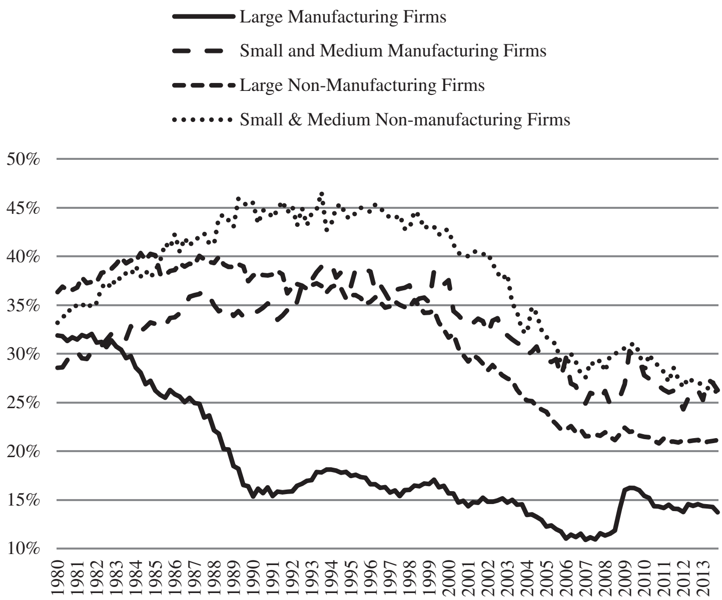

Figure 1. Bank dependence of Japanese firms (bank debt to total assets ratio (%)): 1980–2013.

Notes: The bank debt to total assets ratio is calculated by dividing the total bank borrowings (sum of series #25: Short-term borrowings and #31: Long-term borrowings) by the total assets (series #22: Total assets). Large firms are those with capital of 1 billion yen or more. Small & medium firms are those with capital less than 1 billion yen. Non-manufacturing does not include finance and insurance.

Source: Authors' calculation using *Financial Statements Statistics of Corporations by Industry, Quarterly* (Ministry of Finance Policy Research Institute, accessed on December 9, 2014).

non-manufacturing firms, small and medium manufacturing firms, and small and medium non-manufacturing firms. Large manufacturing firms clearly reduced their dependence on bank financing drastically in the 1980s. Their bank debt to total assets ratio was higher than 30% in the early 1980s, but it fell to 15% by the end of the 1980s. The ratio has moved little around the 15% level since then. For the other groups, the change was not visible in the 1980s, but the bank dependence started to fall in the late 1990s and the 2000s.

Figure 1 indirectly suggests market financing became more important over time, but Figures 2 to 5 show the growth of capital markets in Japan more directly. Figure 2 shows the amount of new corporate bond issues normalized by GDP. Following the financial deregulation of the 1980s, corporate bond issues surged. Especially popular were convertible bonds (CBs) that carried very low coupon rate (sometimes zero) reflecting the expectation of rapid appreciation of the stock prices in the

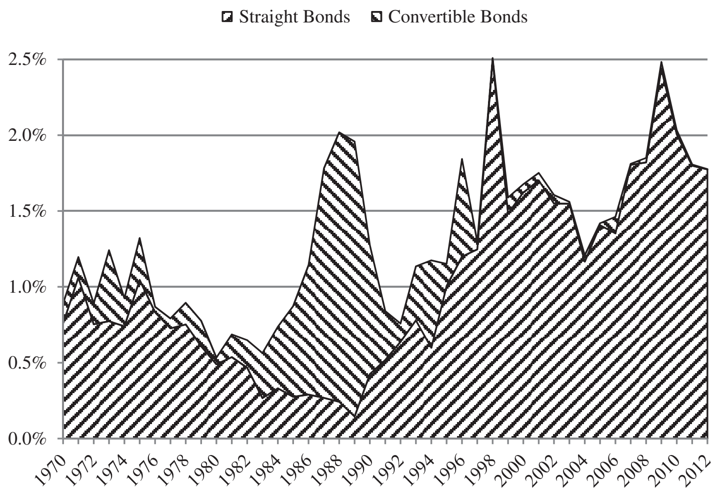

Figure 2. New corporate bond issues (% of GDP): 1970–2012.

Notes: Bond issues from 1998 on are taken from JSDA data. Bond issues before 1998 are taken from a table titled "New Issues of Bonds by Public Offerings" in *TSE Factbook 2002* (p. 99). GDP from 1994 on are based on SNA93, but GDP before 1994 are based on SNA68.
Source: Authors' calculation using *TSE Factbook 2002*, JSDA's *Issuing, Redemption and Outstanding Amounts of Bonds* and GDP figures from Cabinet Office SNA website (all accessed on December 9, 2014).

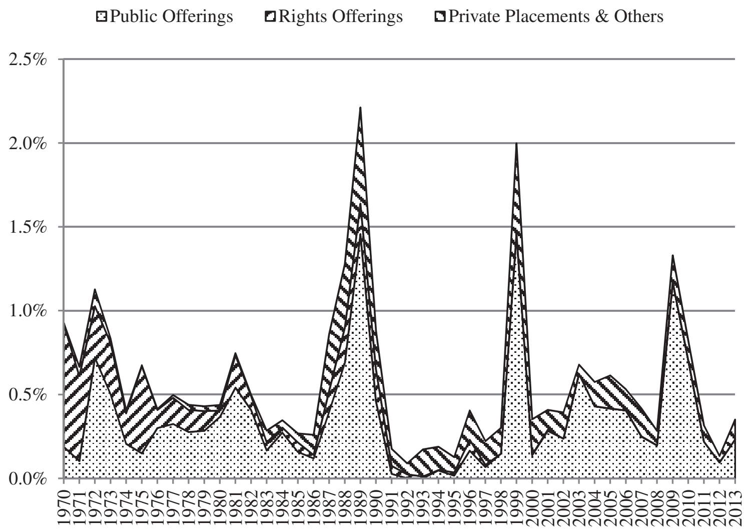

Figure 3. New equity issues (% of GDP): 1970–2013.

Notes: Stock issues data from 1970 to 2011 come from the table "Equity Financing (All Listed Companies" in *TSE Factbook 2012* (p. 107). The data for 2012 and 2013 are taken from "Financing by Listed Companies" Excel file. GDP from 1994 on are based on SNA93, but GDP before 1994 are based on SNA68.

Source: Authors' calculation using *TSE Factbook 2012*, TSE statistics from *Financing by Listed Companies* and GDP figures from Cabinet Office SNA website (all accessed on December 9, 2014).

late 1980s. CBs partially replaced straight bonds, but overall corporate bond issues increased throughout the 1980s. As the stock prices collapsed in 1990, CBs lost the popularity that they enjoyed in the late 1980s, and the bond issues declined substantially. Since then, the corporate bond issues were revived gradually and as of the early 2010s, the amount of new corporate bond issues (relative to GDP) is roughly the same as the peak reached in the late 1980s.

Figure 3 shows new issues of company stocks. New stock issues increased during the stock market boom in the late 1980s, but almost disappeared as the stock prices collapsed in the early 1990s. Except for three spikes (1999, 2003, and 2009), the volume of new stock issues have been very low, perhaps reflecting the stagnation of the stock market (and the economy) in the 1990s and the 2000s.

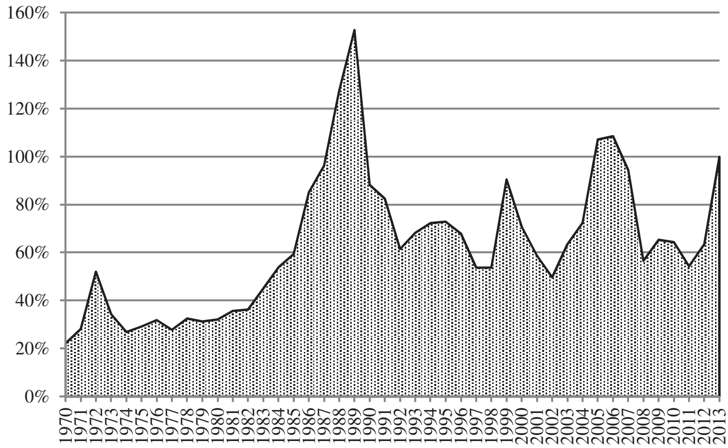

Figure 4. Total market value for the Tokyo Stock Exchange (% of GDP): 1970–2013.

Notes: The market value data from 1970 to 2011 come from the table "Number of Listed Companies, Shares and Market Value" in *TSE Factbook 2012* (p. 106). The data for 2012 and 2013 are taken from *Market Capitalization* Excel file. GDP from 1994 on are based on SNA93, but GDP before 1994 are based on SNA68.
Source: Authors' calculation using *TSE Factbook 2012*, TSE statistics from *Market Capitalization* and GDP figures from Cabinet Office SNA website (all accessed on December 9, 2014).

Looking at the market value of the Tokyo Stock Exchange relative to GDP (Figure 4), the impacts of the stock market boom in the late 1980s and its collapse in the early 1990s again dominate the trend, but even after the collapse, the size of the stock market relative to GDP has been much larger than that before the financial deregulation and the stock market boom.

Although the financial deregulation increased the corporate bond issues, the growth of government bond issues outpaced the growth of corporate bond issues. Indeed, creating the secondary market for Japanese Government Bonds (JGBs) was one of the most important impetuses for the MOF to start the financial deregulation, as Hoshi and Kashyap (2001) pointed out. Figure 5 adds the new issues of JGBs and other government bonds to the corporate bond issues reported in Figure 2. We can see the primary bond market in Japan has been

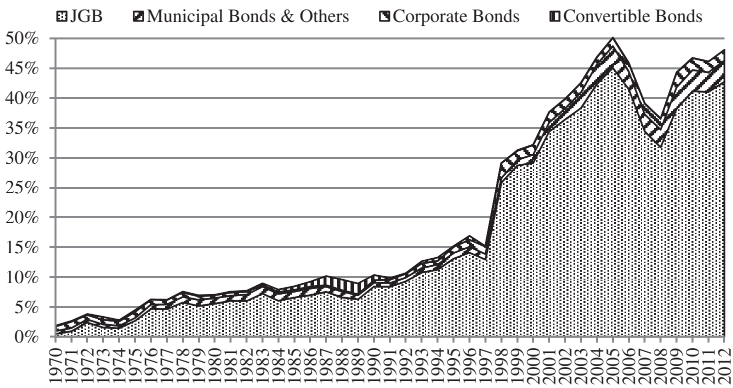

Figure 5. Government bond and corporate bond issues (% of GDP): 1970–2012.

Notes: Bond issues from 1998 on are taken from JSDA data. Bond issues before 1998 are taken from a table titled "New Issues of Bonds by Public Offerings" in *TSE Factbook 2002* (p. 99). GDP from 1994 on are based on SNA93, but GDP before 1994 are based on SNA68.
Source: Authors' calculation using *TSE Factbook 2002*, JSDA's *Issuing, Redemption and Outstanding Amounts of Bonds* and GDP figures from Cabinet Office SNA website (all accessed on December 9, 2014).

dominated by government bonds, especially after the late 1990s when the budget deficit started to widen.

The financial deregulation that started in the late 1970s continued into the 1990s and the 2000s. Neither the collapse of the asset price bubble (called *baburu keizai*, literally meaning 'bubble economy') in the late 1980s nor the banking crisis in the late 1990s stopped the process of deregulation. Compared to the deregulation on the corporate financing options, the deregulations to expand the options of household savers progressed more slowly. Thus, the proportion of securities in the financial assets of the household sector remained low. Figure 6 shows the proportions of securities and shares in the total household financial assets from 1970 to 2013 calculated from the flow of funds statistics compiled by the Bank of Japan. The classification scheme for the flow of funds statistics changed drastically in the late 1990s, and the current series goes back only to 1997. The old series, on the other hand, was discontinued after 1998. Figure 6 thus reports both old and new series with overlapping observations for 1997 and 1998. The proportion of securities or shares in the total household financial assets shows some

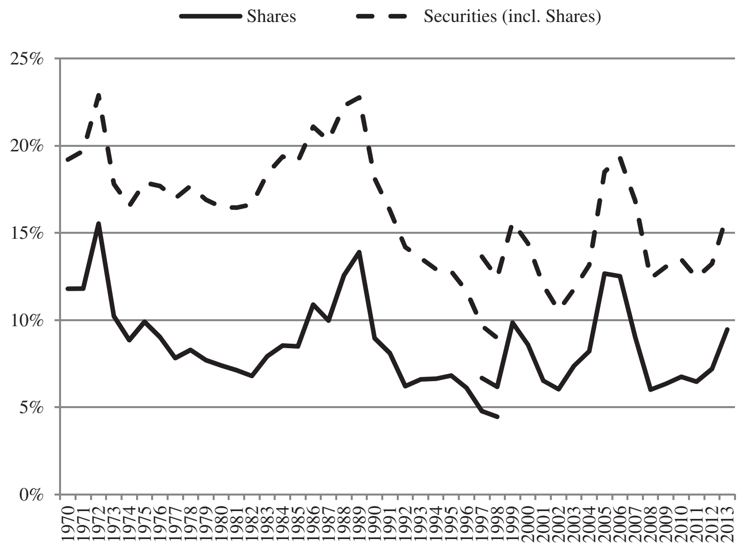

Figure 6. Securities and shares in % of total household financial assets: 1970–2013.

Notes: The data from 1970 to 1998 are taken from the old flow of funds statistics based on SNA68, which was discontinued after 1998. The current statistics are available from 1997. Both old and current flow of funds statistics can be downloaded from Bank of Japan Time Series Data Search (http://www.stat-search.boj.or.jp/index_en.html). For the current statistics, the proportion of shares in the total household financial assets is calculated by dividing the series FF'FOF_FFAS430A330 (Shares and other equities) by the series FF'FOF_FFAS430A900 (Total household assets), and the proportion of securities (including shares) in the total household financial assets is calculated by dividing the sum of the series FF'FOF_FFAS430A300 (Securities other than shares) and the series FF'FOF_FFAS430A330 (Shares and other equities) by the series FF'FOF_FFAS430A900 (Total household assets). For the old statistics, the proportion of shares in the total household financial assets is calculated by dividing the series FF'FFSA270A210 (Stocks) by the series FF'FFSA270A400 (Total personal assets), and the proportion of securities (including shares) in the total household financial assets is calculated by dividing the sum of the series FF'FFSA270A100 (Securities investment trusts) and the series FF'FFSA270A140 (Securities) by the series FF'FFSA270A400 (Total personal assets).
Source: Authors' calculation using the Bank of Japan's *Flow of Funds Statistics* (accessed on December 13, 2014).

fluctuations over time mainly corresponding to the stock prices movements, but overall the proportion has been flat for the last 40 some years.

The Big Bang financial deregulation in the late 1990s marked the final stage of the gradual deregulation process. Almost all the regulations that used to suppress the development of the securities markets were gone.

The household sector, however, did not change the composition of the financial assets very much as we just saw in Figure 6. The investment in securities, such as equities, bonds, and investment trusts, continued to be a small portion of the household financial assets.

To bring in more household financial assets to the securities markets, the government renewed the reform efforts in the 2000s. The policy makers seem to have realized that getting rid of regulations that suppressed the securities markets is not sufficient to increase the household participation in those markets. Active policies that sometimes include new regulations to make the markets more attractive to savers are also important.

Another goal was to expand financing options for startup firms, which were not served well by traditional bank financing. The financial markets, if developed right, were considered to do better in supporting companies with high potential growth but high risk. Yet another motivation for the reform efforts was the proliferation of new financial instrument and services such as financial derivatives, to which the financial regulators were compelled to respond.

Despite the reforms in the 2000s, the Japanese capital markets were still considerably underdeveloped as of the late 2000s. For example, Japan's short-term funding and derivative markets before the GFC were relatively small compared to other development economies such as the U.S. Both commercial paper (CP) and repo markets were relatively small in pre-crisis Japan. The first commercial paper was not issued in Japan until 1987.[1] While the outstanding amount grew from ¥11 trillion in 1997 to ¥20 trillion (about US$200 billion) in 2008, the Japanese CP market was still quite small relative to the US CP market, which had US$1.8 trillion outstanding in 2008. The repo market started in 1996. As of 2008, it had ¥136 trillion (about US$1.3 trillion) in outstanding amount, of which majority were cash-secured bond lending transactions (not repurchase agreements) (Central Tanshi 2014). In contrast, US repo market had US$5 trillion to US$10 trillion in 2008 (Gorton and Metrick 2012).

[1] The information on the development of CP market in Japan comes from Inoue (1998) and Bank of Japan (2013b).

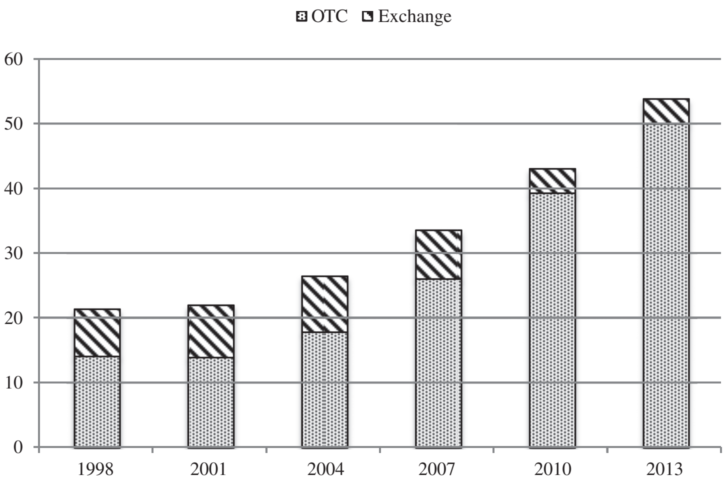

Figure 7. Derivative contracts (notional amount) (US$ trillion).

Notes: Numbers are based on nominal or notional principal amounts outstanding and in US$ trillions. Surveys were conducted as of the end of June each year. For OTC derivatives, data for the following five categories were reported in the survey: Foreign exchange, Interest rate, Equity, Commodity, and credit default swaps (CDS). The amount shown in the chart represents the sum of the five categories. The Bank of Japan started collecting data on CDS in December 2004, and thus the CDS outstanding amounts are reported here only in 2007, 2010, and 2013. For on-the-exchange derivatives, data for the following four categories were reported: Foreign exchange, Interest rate, Equity, and Commodity. The amount shown in the chart represents the sum of the four categories.

Source: OTC data are authors' calculations using the Bank of Japan, *Central Bank Survey of Foreign Exchange and Derivatives Market Activity* (accessed on November 4, 2014). Exchange data are authors' calculations using the Bank of Japan, *Regular Derivatives Market Statistics in Japan* (accessed on November 3, 2014).

Figure 7 shows the expansion of the derivative market in Japan. The outstanding notional amount grew from US$21.4 trillion in 1998 to US$53.8 trillion in 2013. The growth was entirely driven by the rapid growth in the OTC (Over-The-Counter) segment. In contrast, over the exchange outstanding amount actually declined during the period. Among the OTC derivative contracts, interest rate swaps have been the most common transaction type, followed by the foreign exchange-related transactions as Figure 8 shows.

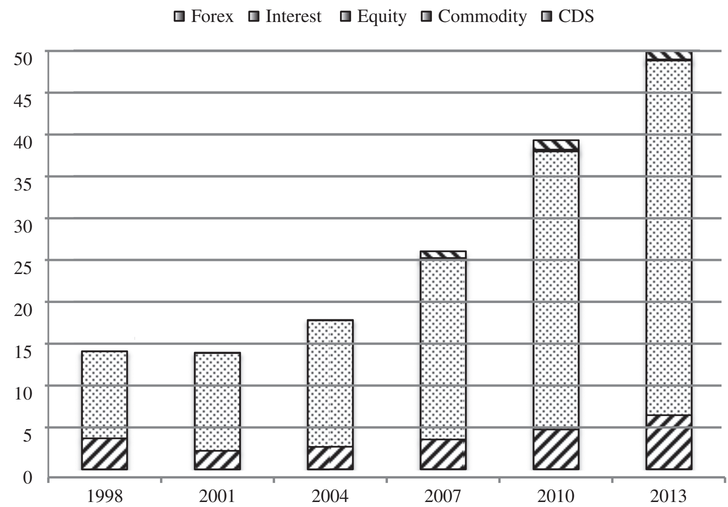

Figure 8. OTC derivative contracts, by type (US$ trillion).

Notes: Numbers are based on nominal or notional principal amounts outstanding and in US$ trillions. Surveys were conducted as of the end of June each year. Data for the following five categories were reported in the survey: Foreign exchange, Interest rate, Equity, Commodity, and credit default swaps (CDS). The Bank of Japan started collecting data on CDS in December 2004, and thus the CDS outstanding amounts are reported here only in 2007, 2010, and 2013.
Source: Authors' calculations using the Bank of Japan, *Central Bank Survey of Foreign Exchange and Derivatives Market Activity* (accessed on November 4, 2014).

Finally, CDS (credit default swap) and other credit derivative markets were also quite small in Japan compared to the U.S. While Japan had US$800 billion in outstanding notional amount as of June 2007, there was US$62 trillion global notional amount outstanding as of the end of 2007.[2] Thus, Japan accounted for only about 1% of the global CDS market on the eve of the GFC.

[2] The information on CDS comes from Bank of Japan, *Central Bank Survey of Foreign Exchange and Derivatives Market Activity* (https://www.boj.or.jp/statistics/bis/deri/index.htm/, accessed on November 4, 2014) and International Swaps and Derivatives Association, Inc., Market Surveys (http://www2.isda.org/functional-areas/research/surveys/market-surveys/, accessed on October 27, 2014).

The renewed reform efforts in Japan in the 2000s led to the fundamental revision of the Securities and Exchange Act to create a comprehensive regulatory framework to cover a wide range of financial instruments and the businesses that handle those instruments. The new law, the Financial Instruments and Exchange Act (FIEA) was promulgated in 2006.

The enactment of the FIEA resulted from amendments, replacements, and consolidation of numerous existing laws, including the Japan Securities and Exchange Act of 1947 that was modeled after the US Securities Act of 1933 and Securities and Exchange Act of 1934. The new act introduced the following key changes:

1. It expanded the range of regulated financial instruments, both by explicitly designating interests in trusts and 'collective investment schemes' (funds) as regulated financial instruments under the Act, and also broadening the scope of the term 'derivative transactions' to include those on interest rate and currency swaps, weather derivatives, and credit derivatives.
2. It redefined categories under which existing and new financial institutions are regulated. In particular, it newly defined Type 1 Financial Instrument Business Operators (FIBOs) as those engaged in sales and solicitation of securities with high liquidity and Type 2 FIBOs as those engaged in sales and solicitation of securities with low liquidity. Type 1 FIBOs are subject to more stringent regulation than Type 2 FIBOs. It also defined professional and general investors. Financial products for general investors face more stringent regulations than those mainly for professional investors.
3. It mandated statutory quarterly financial reporting by issuers of listed equity and bonds and required more stringent disclosure. For example, the management and the external auditor must certify the adequacy of the issuer's internal control on financial reporting. This part of the FIEA was dubbed J-SOX for its similarity to the US Sarbanes–Oxley Act. In contrast, financial instruments with low liquidity (e.g., interests in unlisted trusts and limited partnerships) are exempt from this requirement.

4. It established more explicit rules to be followed by bidders and target company management in public tender offers, and increased penalties for market manipulation. This part of the FIEA was enacted largely in response to the Livedoor and other tender offer attempts that revealed inadequacy of the existing regulation to ensure fairness and transparency in market transactions.[3]

Shortly after the FIEA became effective in September 2007, the Financial Services Agency of Japan (JFSA) started working on amendments, which led to the new FIEA that were enacted and promulgated in June 2008. The key component of the amendments was to allow establishment of a new market similar to the so-called 144A market in the US, where participation was limited to professional investors (*tokutei tōshika*)[4] and securities issued in such a market are exempted from the current disclosure rules intended to protect general investors from frauds.

Thus, on the eve of the Global Financial Crisis, Japan was reaching the end of the long process of financial deregulation. The recovery from the banking crisis that it experienced along the way was also very much complete, and the regulators started to strengthen Japan's capital markets further.

[3] The Securities and Exchange Act of 1947 required that the purchase of shares that exceed the one-third of the outstanding amount 'outside stock exchanges' must be done through a public tender offer. In February 2005, the Livedoor Partners (subsidiary of the Livedoor) acquired more than one-third of Nippon Broadcasting shares, to which Fuji Television had already made a public tender offer, through an after-hours transaction in the Tokyo Stock Exchange without making a tender offer. This led to a debate whether the Livedoor violated the 'one-third' rule. The FIEA required that any party who accumulates more than one-third of the outstanding amount 'rapidly' inside or outside stock exchanges must do so through a public tender offer.

[4] 'Professional Investor', as defined by the FIEA, includes Qualified Institutional Investors, the Japanese government, the Bank of Japan and listed stock corporations (*kabushiki kaisha*) and other companies.

II. Japan's Financial Markets after the Global Financial Crisis

The Japanese financial sector experienced smaller disruption in key funding markets compared to the US during the Global Financial Crisis mainly because it had much less exposure to various complex securitized products that were ultimately tied to low quality mortgage loans in the US The Japanese economy, however, was hit hard by the collapse of international trades during the global recession. Consequently, manufacturing sector increased dependence on bank borrowing after the crisis. The Japanese government sharply increased its JGB issues to finance fiscal expansion to combat the recession, and some firms (particularly the large banks and securities houses) were active in the new equity issues market.

Among the segments of short-term funding markets, both the uncollateralized call markets and special collateral repo markets shrank in absolute size and relative importance after the GFC as shown in Figure 9. In contrast, cash secured-repo and collateralized calls stayed active. Japan experienced smaller disruptions in key funding markets compared to the US Japan's repo market, for example, was estimated to have been US$1 trillion to US$1.3 trillion as of 2008, and it was still US$1 trillion as of 2012 (Central Tanshi 2014). Thus, it experienced at most 30% decline in size over the course of the crisis. In contrast, the US repo market was estimated to have been as large as US$5 trillion to US$10 trillion as of 2008 when the crisis began, and it shrank to only US$2 trillion to US$3 trillion by 2012.[5] Not only did the US repo market experience much more dramatic shrinkage (>50%), it also experienced episodic sharp increases in haircuts during the crisis (Gorton and Metrick 2012). In Japan, however, over 99% of the repo contracts were collateralized with the Japanese Government Bonds (JGBs) and thus the haircuts were minimal (Bank of Japan 2013a).

For the CP market in Japan, the estimated shrinkage during the crisis is 30% (US$200 billion in 2008 to US$140 billion in 2012), which is more significant. The CP market, however, represented a fairly small

[5] Copeland *et al.* (2012).

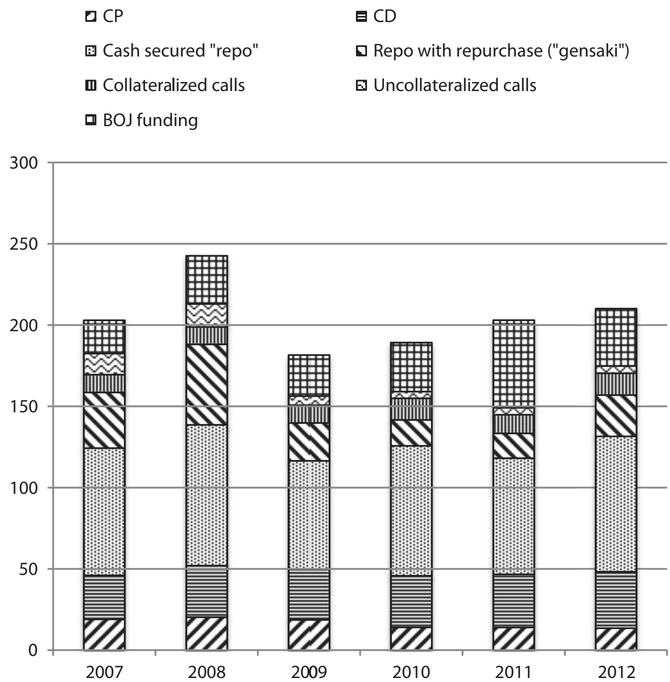

Figure 9. Short-term funding markets in Japan, by type (¥ trillion).

Notes: (1) Interbank market data are based on Central Tanshi's proprietary sources. (2) CP data are based on Japan Securities Depository Center, Inc. (3) Repo with repurchase (*gensaki*) data are based on *Balance of Bond Transactions with Repurchase Agreements* by Japan Securities Dealers Association (JSDA). (4) Cash secured repo market data are based on *Bond Margin Loans* by Japan Securities Dealers Association (JSDA). (5) Excludes Treasury Discount Bills (Treasury Bills and Financing Bills before February 2009) data.

Source: Authors' calculations using Central Tanshi, *Short Term Funding Markets* (accessed on October 21, 2014). Each figure is as of the end of March of each year.

portion of the total funding market in Japan. This contrasts with the US CP market, which was as large as US$1.8 trillion as of 2008 and experienced 40% decline to about US$1 trillion by 2012.

Although the direct impacts on financial markets were small, the Great Recession following the crisis had a negative impact on operational performance of the Japanese firms, especially manufacturing firms that depend highly on exports for their revenues. In terms of corporate financing, Figure 1 shows a sizable increase in manufacturing firms' bank dependence between 2008 and 2010 regardless of firm size. In contrast, there is no discernable pattern among the non-manufacturing firms. The increased bank debt dependence could have been caused simply by operational losses triggering erosion of the assets or by liquidity-constrained corporate bond investors refusing to refinance maturing bonds and firms resorting to more bank debt.

We can revisit Figures 3 and 5 to see what happened to stock issues and bond issues after the global financial crisis. Figure 3 shows that the primary market for shares hit the bottom in 2008, and there was a dramatic increase in 2009. The peak was driven primarily by recapitalization of financial institutions. All the major banks and brokerage firms (Mitsubishi UFJ Bank, Sumitomo Mitsui Bank, Mizuho Bank, Nomura Securities, and Daiwa Securities) issued shares and they accounted for more than 50% of the total stock issues in 2009.

The bond market continued to be dominated by JGB issues after the global financial crisis. The new JGB issues were declining immediately before the GFC, as the Japanese government embarked on the efforts to reduce the budget deficit under the Koizumi administration. Facing the economic downturn following the GFC, however, the administration that followed Koizumi returned to fiscal expansion financed by increasing JGB issues.

III. Regulatory Responses to the Global Financial Crisis

Although the Japanese financial system did not suffer directly from the Global Financial Crisis, it shared some vulnerability with the financial systems in other advanced economies that were directly hit. For example, the majority of growing transactions in financial derivatives were bilateral contracts, which can be subject to large counterparty risks. High degree of interconnection through the complex web of bilateral derivative contracts is often considered to be one of the major factors that made the financial crisis more serious. Thus, the Japanese regulators also started to respond to the Global Financial Crisis by tightening financial regulations, especially in the areas that were lightly regulated such as the OTC derivatives.

At the same time, the Japanese regulators continued the efforts to attract more household financial assets to the capital markets and to expand financing options for startup firms. JFSA seems to have realized that Japan's capital markets were still underdeveloped and just tightening regulation is not a solution.

This section examines the regulatory reforms on Japan's capital markets after the Global Financial Crisis. We do this by mainly tracking the series of amendments to the FIEA and related laws.[6] The FIEA went through significant changes in every year from 2010 to 2013. Rather than looking at the nature of the amendments by year, we divide the regulatory changes into three groups regardless of the year of change and study how the regulatory reforms progressed in each of the three areas.

The first group includes regulatory reforms to improve the stability of financial markets. This is the area where the regulators of the US and many other advanced economies focused on after the global financial crisis. The efforts of Japan's regulators in this area were carried out in coordination with the regulators in other countries.

The second is a series of regulatory reforms to attract more household financial assets to capital markets. The third group is the regulatory changes to enhance the options for users of funds, especially those who traditionally had limited access to capital markets, such as startups. These two types of financial reform were more important to Japan, where the capital markets were still underdeveloped compared with the US.

IV. Reform to Improve the Stability of Financial Markets

An important reform to improve the stability of financial markets was introduction of regulation to the OTC transactions of financial derivatives. Highly interconnected yet opaque nature of the OTC derivative transactions was believed to be an important factor that intensified the

[6] These amendments and other important legal changes related to Japan's financial regulation are collected under 'Recent Changes' on the JFSA website http://www.fsa.go.jp/en/laws_regulations/ (accessed on December 21, 2014).

crisis. Japan's regulatory reform in this area has been following the lead of the G-20 (the Group of Twenty). At the Pittsburg Summit, held in September 2009, the G-20 agreed that, by the end of 2012, (i) standardized OTC derivatives should be traded on exchanges or electronic trading platforms, (ii) standardized derivatives transactions should be cleared through central clearing parties (CCPs), and (iii) data relating to OTC derivatives transactions should be reported to trade repositories (TRs).

Following the G-20 agreement, Japan amended the FIEA in May 2010 to address (ii) and (iii) of the agreement. The amended FIEA required (1) clearing of certain standardized OTC derivatives transactions through a CCP and (2) reporting of certain data relating to certain OTC derivatives transactions to the JFSA.

All FIBOs and Registered Financial Institutions (RFIs) registered under the FIEA were required to clear designated OTC derivatives through a CCP. Foreign entities that were not registered in Japan were not covered by this requirement. Just two categories of OTC derivatives transactions were initially covered by the clearing requirement: (1) credit default swap (CDS) transactions on the iTraxx Japan index of which reference entities are 50 or less domestic corporations and (2) yen-denominated plain vanilla interest swaps on 3-month or 6-month Japanese yen LIBOR. No other types of OTC derivatives were included.

CDS transactions on the iTraxx Japan index can only be cleared through licensed Japanese CCPs, whereas interest swap transactions can be cleared through any of licensed Japanese CCPs, licensed foreign CCPs, and foreign CCPs with approved linkage arrangements with licensed domestic CCPs. In November 2012, when the 2010 Amendment went into effect, only one CCP, the Japan Securities Clearing Corporation (JSCC), was in operation as a licensed CCP and no other CCPs, foreign or domestic, had been licensed or approved.

The central clearing of these OTC derivatives was mandated starting in October 2012. Figure 10 shows that the new assumption of obligations (newly contracted OTC derivatives) by JSCC sharply rose from about only ¥20 trillion per month in 2012 to almost ¥60 trillion per month on average in 2014. The open interest amount increased dramatically, from ¥14 trillion in October 2010 to nearly ¥1 quadrillion (or ¥1,000 trillion) in September 2014. The percentage share of centrally cleared

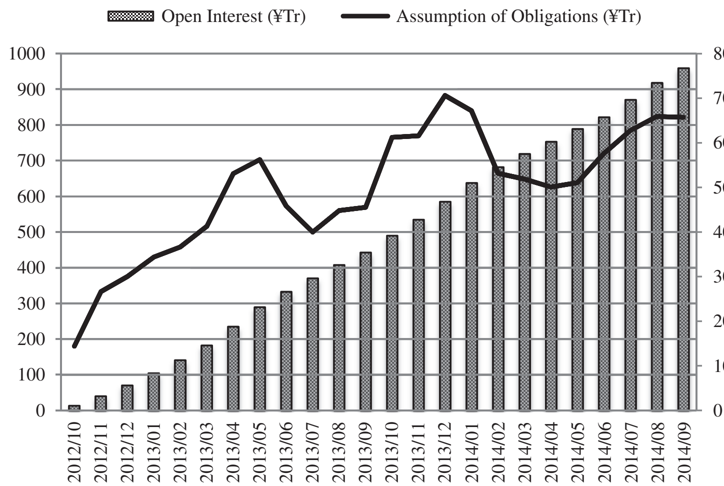

Figure 10. Centrally-cleared OTC derivatives, Open Interest and Assumption of Obligation (¥ trillion).

Notes: The left axis corresponds to the Open Interest amount in ¥ trillions; the right axis corresponds to the Assumption of Obligations in ¥ trillions.

Source: Authors' calculations using Japan Securities Clearing Corporation, *Statistics for Interest Rate Swap* (accessed on November 4, 2014).

OTC derivatives among all OTC derivative transactions in Japan grew from about 20% as of June 2013 to about 40–50% a year later (June 2014).[7] Thus, by this measure the Japanese regulators seem to have been accomplishing one of the main purposes of the OTC derivative reform, namely to reduce systematic risk by subjecting greater portions of OTC derivative contracts to centrally clearing.

[7] The comparison is based on notional principal amounts outstanding and assumes that all centrally cleared interest rate swaps are denominated in yen. The total outstanding amounts are based on the Bank of Japan survey of major dealers. The BOJ survey publishes the notional amounts either (i) by currency or (ii) by duration but not by both. Thus, one needs to compare either (i) the centrally cleared swaps (all duration) to the total interest rate swaps (all duration), or (ii) the centrally cleared, short duration swaps to the total short duration swaps multiplied by the proportion of yen-denominated swaps among all. Using the two methods, we obtain that the proportion of centrally cleared interest rate swaps was 18% or 22% as of June 2013 and 40 or 48% as of 2014 respectively.

The amended FIEA also specified a reporting requirement. Information relating to (1) forward transactions and index forward transactions where the settlement date comes three or more business days after the trade date, (2) option transactions and index option transactions where the exercise date comes three or more business days after the trade date, (3) swap (e.g., interest swap and currency swap) transactions, and (4) credit derivatives transactions where the trigger event is in relation to credit condition changes to a reference entity (e.g., CDS) must be reported to the government.

If transactions are cleared through a CCP, the CCP is responsible for keeping the trade information and reporting it to the JFSA. If transactions are not cleared through a CCP, any party to the transactions that is a Type 1 FIBO or RFI must either store and report the trade information to the government itself or provide information to a designated Trade Repository (TR), which in turn must report the information to the government. In March 2013, the JFSA approved DTCC Data Repository Japan (DDRJ) to be the first TR to operate in the Japanese market.

Mandatory use of electronic trading platforms (ETPs), the first point raised by the G20 Pittsburg agreement, was addressed in the 2012 amendment of the FIEA. It is scheduled to take effect within 3 years, i.e., by 2015. In JFSA's implementation proposal as of this writing (December 2014), large FIBOs and RFIs (with derivative contracts exceeding ¥6 trillion or US$59 billion) will be required to use ETPs by September 2015 when they enter into yen-denominated plain vanilla interest swap contracts. This threshold is expected to cover 10 to 20 of the largest dealers. The JFSA will consider expanding this requirement to CDS transactions on the iTraxx Japan index after monitoring the market liquidity of these transactions.

The 2010 amendment of FIEA also introduced two other reforms aimed at improving the financial stability. The first is the reform to strengthen group-wide regulation and supervision of financial companies. The reform expanded the scope of regulation and supervision of securities companies from individual securities companies to the company groups including the subsidiaries and related companies. Large securities companies were now required to report the financial conditions of their subsidiaries and other related companies and those entities became subject to examinations of the JFSA. Regulation at consolidated level was also introduced to groups led by insurance companies. The prudential regulation of insurance companies was expanded to cover their subsidiaries and they now must calculate the solvency ratios on the consolidated basis.

The second is the enhancement of the closure procedures for problem financial institutions. Before the 2010 change, the JFSA was allowed to file a bankruptcy only for securities companies. The JFSA was not allowed to file a petition for the appointment of a new trustee when the license for trust business was rescinded. The enhancement gave the JFSA to power to file a bankruptcy for any FIBO and to file a petition for a new trustee for a deregistered trust business operator. The change also introduced a penal provision for legal persons (in addition to individuals) for violating court injunction orders against unregistered FIBOs.

Another important reform to improve the financial stability was the establishment of orderly resolution mechanism that covers all financial institutions. During the global financial crisis, the failure of Lehman Brothers brought almost entire global financial system to a halt. To avoid repeating such a meltdown, many critics advocated a mechanism to let a large globally connected financial institution fail without bringing down the entire financial system. In October 2011, the Financial Stability Board published *Key Attributes of Effective Resolution Regimes for Financial Institutions*, which was endorsed by the G-20 Summit at Cannes in November 2011 (FSB 2011). Following this G-20 agreement, Japan expanded its resolution mechanism for banks that is specified in Chapter 7 of the Deposit Insurance Act (DIA) to all financial institutions including financial holding companies and securities houses in the 2013 amendment of the FIEA, DIA, and other related laws.

Reform to Attract More Funds to Capital Markets

The 2011 amendment of the FIEA and other related laws included several measures to enhance the asset investment opportunities for savers. For example, the registration requirements and regulations on solicitations for investment management businesses were relaxed. The relaxation was mostly for those businesses that cater to professional investors.

Similarly, the regulation on asset securitization was relaxed by, for example, exempting the special purpose vehicle (SPV) for asset securitization from filing a plan change notice if the change is considered minor.

The 2011 amendment also included some changes to enhance integrity of capital markets, which would encourage more investors to participate in the markets. One such reform was the introduction of the rules that make certain financial transactions (e.g. sales of unlisted stocks by an unregistered FIBO) void. The amendment also strictly prohibited advertising and solicitation by unregistered FIBOs and increased the maximum amount of criminal penalties against an unregistered FIBO.

The efforts to make capital markets more accessible to more investors continued in the reforms in 2012 and 2013. The 2012 amendment of the FIEA introduced measures to further strengthen the regulation against market misconducts. The most important measure was the revision of the Administrative Monetary Penalty (AMP) system for market misconducts. The revision expanded the scope of AMP beyond the entities that commits market misconducts such as falsifying financial statements to include the parties that assist such misconducts by advising on an illegal scheme or knowingly being counterparties to fraudulent transactions. The revision also expanded the authority for the JFSA to investigate market misconducts cases and to make appearance orders to the related parties. Finally, the revision expanded the scope of subjects of AMP beyond FIBOs to include other operators and investors who trade on third party's accounts.

The 2013 amendment again included the tightening of the regulation against market misconducts especially by asset management companies (JFSA 2013). The reform was partially prompted by a large fraud case of the AIJ Investment Advisors, which was revealed in 2012.[8] AIJ managed assets for more than 100 customers, many of whom were corporate pension funds, but ended up losing most of the assets under management. AIJ obtained customers on falsified investment records that showed higher and more stable returns than many other asset management companies. The JFSA forced AIJ to terminate operations in February 2012, at which point most of the assets under management

[8] See Maxwell (2012) and Osaki (2013) for more on the AIJ case.

could not be found. The eventual loss amounted to ¥24.8 billion and the top AIJ executives received criminal sentences.

To avoid frauds like the AIJ case, the asset management regulation was strengthened in several aspects. The amounts of criminal penalties for frauds were raised. For example, the fine for making false statements in investment reports was no more than ¥500,000 before the revision. The maximum amount was raised to ¥3 million. Moreover, there were no additional corporate fines before the change. The revision specified additional corporate fines of no more than ¥300 million. Similarly the fines for obtaining investment contracts through fraudulent means were increased (from no more than ¥3 million and additional corporate fines of no more than ¥300 million to no more than ¥5 million and additional corporate fines of no more than ¥500 million). The revision also included stronger requirements to disclose the status of investment assets to customers and clearer obligation for the trust banks that are appointed as custodians for the investment contracts.

The 2012 amendment also clarified the insider trading regulation to allow the transfer of shares of a company by the company's insiders with knowledge of undisclosed material facts in some cases where such trading is not likely to hurt the general investors. Those cases include transfer of equity stakes as part of a business transfer (as long as the equities account for only a part of transferred assets) and use of treasury shares as a compensation for merger.

The insider trading regulation was again revised in the 2013 amendment. The revision was partially motivated by several cases where the lead underwriter of public offering disclosed material facts to asset managers. Although the JFSA imposed financial penalties to those lead underwriters (including major securities companies such as Nomura), the existing insider regulation did not have a clear rule that prohibits disclosure of inside information by lead underwriter. The revision specified that corporate insiders with unpublished material facts cannot disclose such information or recommend trading to the third party. The revision also increased the amount of monetary penalty for insider trading violation by asset managers when they used client accounts to carry out the insider trading. Under the existing rule, the penalty amount was calculated as the amount of management fees for 1 month multiplied by "the ratio of the value of the relevant stocks to the total assets under management." (JFSA 2013, p. 5) The amount was changed to the total management fees for 3 months.

In addition to these changes, the revision expanded the scope of insiders in TOB (Takeover Bid) cases. Under the existing rule, a person who received the information on tender offer facts from the target company before the target company made any agreement with the bidder was considered a secondary recipient of information and excluded from the scope of insider trading regulation. This is because the target company was not considered as a TOB insider before an agreement was made with the bidder. The revised rule expanded the scope of TOB insiders to include the target companies regardless of the existence of agreements with the bidders.

The establishment of a 'comprehensive exchange,' where securities, financial derivatives and commodity derivatives are all traded, in the 2012 reform can also be considered as a part of the efforts to make capital markets available to more investors.

Reforms to Enhance the Options for Users of Funds

The third area of reforms after the global financial crisis aimed at enhancing the options for users of funds. The amendments of the FIEA and other related laws included several reforms in this area.

The 2011 amendment of the FIEA introduced several measures to give diverse alternatives for corporate financing. These included the improvement of legal framework for corporate fund raising through rights offering. The framework allowed a corporation that is raising funds by allocating stock options to simply submit a securities registration statement and post the information on a public website instead of preparing and sending prospectus to every shareholder. How the information on rights offering that shareholders receive is interpreted in the insider trading regulation (it constitutes a material fact) was also clarified.

The 2011 amendment also enhanced the range of borrowers who are allowed to set up commitment lines. Before the change, commitment lines were only available for very large companies. The amendment allowed medium size companies and subsidiaries of large companies to set up commitment lines. Another reform that targeted medium to small companies was the deregulation to allow banks and insurance companies to provide 'financial leases' (non-renegotiable fully amortized loans to purchase equipment) directly to lessees. Even before the change, banks and insurance companies were already able to provide financial leases indirectly through subsidiaries, but now they themselves were allowed to provide financial lease as one of the loan options for their customers.

The 2011 amendment made financing in Japan easier for foreign companies, too. The amendment expanded the type of securities reports that foreign companies listed in Japan can submit in English (instead of Japanese). Before the change, foreign companies listed on a Japanese stock exchange were required to file their financial statements in Japanese. Now the revision allowed them to file the statements and supplementary documents in English.

In the 2013 amendment of FIEA, J-REIT, the Japanese version of REIT (Real Estate Investment Trust) acquired more options for their financing. Introduced in 2001, the market for J-REIT grew steadily and J-REIT became significant users of the Japanese capital markets. The amendment expanded the financing and capital policy choices available for J-REIT including equity repurchase and rights offering. The amendment also allowed J-REIT to acquire overseas real estate indirectly using a Special Purpose Company (SPC) rather than directly owning the real estate.

Improvement of corporate governance of J-REIT was another goal of the reform. To reduce conflicts of interest between J-REIT and the asset management company that sponsors the J-REIT, prior approval from the board of J-REIT was now required for any substantial acquisition of properties from the sponsor company. At the same time, J-REIT was subject to insider trading regulations.

The 2013 amendment also introduced an exception to the restriction on shareholding by a bank, when it is leading restructuring of the corporation. A bank is prohibited from holding more than 5% of voting rights in a non-financial company, but this restriction was relaxed when it is deemed essential for successful corporate restructuring or revitalization of a region.

V. Abenomics and Capital Markets

The global financial crisis and the global recession that followed and affected the Japanese economy were probably important contributing factors for the demise of the Liberal Democratic Party (LDP) in 2009. The LDP failed to get the largest number of seats in the House of Representatives (lower house) Election in August, 2009, and lost power. This was only the second time that LDP was voted out of the power since its inception in 1955. The Democratic Party of Japan (DPJ) instead formed the government, but the financial regulatory policy did not show any drastic changes. As we saw above, the government continued the policy to encourage the development of capital markets to help economic growth while at the same time coordinating with the rest of G-20 to introduce the regulatory reforms to improve the financial stability.

The DPJ government lasted only for a little more than three years (going through three Prime Ministers). The LDP regained the power at the House of Representatives Election in December, 2012, and the Prime Minister Shinzo Abe announced the economic policy package to end the deflation and restore the growth for Japan. The policy package that has come to be known as Abenomics is a combination of expansionary macroeconomic policy (aggressive monetary policy *aka* the first arrow and flexible fiscal policy *aka* the second arrow) and economic structural reform (growth strategy *aka* the third arrow).

Abenomics lists capital market reform as an important part of the growth strategy. Thus, Japan is continuing its efforts to encourage the development of capital markets. Several capital market policies are included in the growth strategy that the Abe administration announced in June 2013. The growth strategy has been revised in June 2014, but the capital market policies are still included as essential measures to stimulate growth. This section reviews the capital market policies in Abenomics.

The revised growth strategy of 2014 identifies ten key reforms, which are (1) enhancing corporate governance, (2) reforming investment of public and quasi-public funds, (3) accelerating industrial restructuring and venture businesses, promoting provision of funds for growth, (4) corporate tax reform, (5) promotion of innovation and a robot revolution, (6) enhancing women's participation and advancement, (7) enable flexible working practices, (8) attracting talent from overseas, (9) aggressive agricultural policy, and (10) vitalizing the healthcare industry and providing high-quality healthcare services. The first three relate to reform of the financial system in general and capital markets in particular.

Of the first three areas, the efforts in the second area (reform of public and quasi-public funds) started by the creation of government panel for "Sophisticating the Management of Public/Quasi-public Funds" in July, 2013. The panel published the recommendations on how to reform management of public and quasi-public funds in November, 2013.

Public pension funds include Government Pension Investment Fund (GPIF), National Public Service Personnel Mutual Aid Fund, Local Public Service Personnel Mutual Aid Fund, and Private School Personnel Mutual Aid Fund, and quasi-public funds include incorporated administrative agencies such as national university corporations. These funds collectively hold more than ¥200 trillion (40% of GDP), so they are huge players in the capital markets. GPIF is by far the largest among these with about ¥114 trillion of assets.

In the recommendation, the panel urged the public funds to adjust their portfolios to increase the returns while keeping the risk at a reasonable level. The panel pointed out that diversifying away from domestic bonds, which constitutes most of the assets of many public funds, is especially important. The funds were encouraged to shift their portfolios into new type of assets including REITs, real estate, infrastructure, venture capital, private equity, and commodities. The panel also endorsed the idea of the public funds become an active investor. To improve returns, the funds were asked to establish close communications with investment targets and exercise voting rights appropriately. The panel also recommended improving governance and risk management structure of the funds. Each fund has a government ministry in charge. For example, the GPIF is under the control of the Ministry of Health, Labor, and Welfare. The panel suggested creation of a governance structure that allows the funds to make investment decisions to maximize the returns within the well-articulated risk tolerance without unnecessary interventions from the ministries in charge.

The government has been acting also on the other two key areas related to capital markets ((1) enhancing corporate governance and (3) accelerating industrial restructuring and venture businesses, promoting provision of funds for growth). Some early reforms have been implemented in the 2014 amendment of the FIEA.

To strengthen the role of the capital market in providing risk money to emerging and growing companies, the 2014 amendment relaxed the entry requirements for FIBOs to engage in equity crowdfunding while introducing new regulation to prevent fraudulent investment solicitation using internet. It also introduced a new trading system for non-listed shares that is less onerous than the one used for listed shares. To encourage foreign providers of risk money to enter the Japanese capital market, the amendment allowed FIBOs to have accounting years different from the standard one (from April 1 to March 31).

The amendment also included some measures to promote new listings and facilitate financing by listed companies. To encourage more new listings, newly listed companies were given three years before they were required to have their internal control report audited. To relieve the regulatory burden of the listed companies, transactions of treasury stock were made exempt from filing large shareholding reports, so that they would not need to submit a report to the regulator each time they acquire or dispose of treasury stocks. The strict liability rule for false statement in the secondary market was replaced by a fault liability rule, so that a listed company is not liable if it proves that it was not at fault.

The emphasis of Abenomics has been the reforms to grow Japan's capital markets, but the 2014 amendment of the FIEA included changes to enhance the stability of capital markets, too. First, regulation on sale of partnership rights was tightened. Type 2 FIBOs (those deal with securities with low liquidity) were prohibited from soliciting investment in a partnership right while knowing that the money invested is used for other purposes. The revision also obligated Type 2 FIBOs to establish at least one office in Japan.

Introduction of regulation of financial benchmarks such as TIBOR was another reform in the 2014 amendment of the FIEA to enhance the financial stability. After the global financial crisis, several incidences of financial benchmark manipulation were discovered, and the G20 advocated for new regulatory framework for financial benchmarks.

Finally, trying to strengthen the regulation against fraudulent conducts, the 2014 amendment established procedures for confiscating electronic share certificates and other intangible property that were acquired through fraudulent transactions, because the old rules did not have procedure to confiscate intangibles.

In the general Election for House of Representatives in December 2014, the ruling coalition led by the LDP has retained two-thirds majority and Shinzo Abe has been reappointed as the prime minister. In the press conference immediately following the formation of the Third Abe Cabinet on December 24, 2014, Prime Minster Abe declared "The foremost issue is making the success of Abenomics a certainty."[9] Thus, the efforts to develop capital markets in Japan are likely to continue.

Conclusion

On the eve of the global financial crisis, Japan's capital markets were underdeveloped compared to more advanced markets in the US Japan had moved significantly away from the bank dominated financial system that characterized Japan until the early 1980s, but the households continued to hold a sizable portion of their financial assets in bank deposits. Corporate financing through bonds and stocks increased, but the corporate bond market was dwarfed by the large and expanding market for JGBs.

The underdevelopment of capital markets meant that the Japanese financial institutions did not have much exposure to the type of securitized products that put many financial institutions in the US and Europe into serious trouble. Thus, Japan experienced smaller disruption in key markets compared to the US during the global financial crisis.

[9] From "Inauguration of the Third Abe Cabinet — Press Conference by Prime Minister Abe" available at the website for Prime Minister of Japan: http://japan.kantei.go.jp/97_abe/statement/201412/1224danwa.html, accessed on December 25, 2014.

After the global financial crisis, Japanese regulators adopted two pronged approach. On one hand, they implemented reforms to improve the stability of financial markets in coordination with regulators in other advanced economies. At the same time, Japanese regulators continued their efforts to make capital markets attractive to both investors and borrowers. In Abenomics that aims to restore the growth of the Japanese economy, developing capital markets is one of the most important policy areas. If the policy turns out to be successful, the Japanese financial system will finally complete the transition from the bank dominated system to the system where markets play a central role.

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