

# IMF Working Paper

---

## Cross-border Activity of Japanese Banks

*W. Raphael Lam*

**IMF Working Paper**

Asia and Pacific

**Cross-border Activity of Japanese Banks**

**Prepared by W. Raphael Lam**

Authorized for distribution by Stephan Danninger

November 2013

**This Working Paper should not be reported as representing the views of the IMF.**

The views expressed in this Working Paper are those of the author(s) and do not necessarily represent those of the IMF or IMF policy. Working Papers describe research in progress by the author(s) and are published to elicit comments and to further debate.

**Abstract**

*This paper explores the determinants of Japanese banks' overseas expansion and assesses whether the growing cross-border activity will continue under the new macroeconomic policies referred as "Abenomics". The analysis finds that Japanese banks are well positioned to scale up foreign exposures, thanks to their relative resilient balance sheets and continued growth in the region. Stronger domestic growth in Japan could mitigate the pace, but is unlikely to reverse the expansion as global and regional pull-factors play a more prominent role in the growth of cross-border claims. Increasing cross-border activity could pose funding risks and supervisory challenges and require continued close monitoring.*

JEL Classification Numbers: G01

Keywords: Japan, cross-border banking, Abenomics, funding risks

Author's E-Mail Address: [wlam@imf.org](mailto:wlam@imf.org)

	Contents	Page
I.	Introduction.....	3
II.	Expanding Abroad: Past Experience and Recent Developments .....	4
	A. Past Experience of Overseas Expansion by Japanese Financial Institutions .....	4
	B. Recent Developments of Overseas Activity.....	6
	C. Nonbank Sector—Life Insurers and Securities Firms.....	10
III.	Contributing Factors for Increasing Cross-border Activity .....	10
IV.	Empirical Analysis in Cross-Border Activity of Japanese Banks.....	12
	Outlook and Policy Implications .....	14
V.	Conclusions.....	15
	References.....	16
	Appendix.....	17

## I. INTRODUCTION

**Cross-border activities of Japanese financial institutions have risen over the past few years, particularly to the Asian region.** Major Japanese banks have attained an important global and regional presence, particularly in areas of syndicated lending and project finance. Foreign claims on Asia have reached levels prior to the global financial crisis during 2005–08. Last year alone, overseas loans by major banks are growing by over 20 percent year-on-year. At the same time, major brokerage firms and life insurers have sought acquisitions or strategic partnership overseas.

**The current trend is often compared to previous episodes of overseas expansion by Japanese financial institutions over last decades.** Those episodes can be broadly classified in three waves (Figure 1): (i) the rapid expansion in the 1980s up until the burst of the asset bubbles in 1990; (ii) the expansion during the mid-1990s; and (iii) the expansion abroad beginning from 2006 but temporarily slowed during the global financial crisis. A question to explore would be how the current trend of overseas expansion has similarities to these episodes.

**This paper assesses whether this trend is likely to continue under the government’s new policy framework often referred to as Abenomics.** The Bank of Japan’s (BoJ) new quantitative and qualitative monetary easing (QQME) framework—part of the three-pronged strategies to revive growth and exit deflation—intends to encourage financial institutions to shift away from government bonds and take on greater exposures of risky assets (such as loans and investment securities).<sup>1</sup> An improved domestic outlook could increase financial institutions inward focus to satisfy rising credit demand. On the other hand, uncertainty over the Japanese government bond (JGB) market and yen movements may stimulate diversifying needs outside Japan. Are there new risks that may emerge in light of increasing cross-border activity and the implications for financial institutions and supervisors?

**To answer these questions, the paper analyzes what factors contribute to Japanese financial institutions expanding abroad recently.** The analysis proceeds in two steps: first, an empirical study of several banking systems in advanced countries is conducted to identify the determinants of their foreign claims. In the second step, the empirical results are applied to Japanese banking system to assess the role of each contributing factor in explaining overseas loan growth. The paper builds on the literature on cross-border banking (Berger, DeYoung, Genay, and Udell 2000, De Haas and Lelyveld 2010, De Young, Evanoff, and Molyneux 2009) and those on international capital flows (Fratzscher 2012, Jotikasthira, Lundblad, and Ramadorai 2012).

**The empirical results show that several regional and domestic factors have contributed to overseas expansions.** Stagnant growth and limited domestic credit demand have added incentives for Japanese financial institutions to seek opportunities abroad. Modest global uncertainty, large growth differentials, and the resilience of domestic banking systems are key drivers for cross-border claims. Outside Japan, growth in Asia and deleveraging of

---

<sup>1</sup> The three-pronged strategies Abenomics include flexible fiscal policy, aggressive monetary easing, and structural reforms to exit deflation and raise growth.

European banks in the region contributed to a rise of cross-border lending. The exchange rate appreciation in the past years might have added incentives for expanding abroad.

**The paper argues that the trend of expanding overseas is likely to continue, but will depend on a supportive domestic economy and careful risk supervision.** Growth in Asia and sufficient liquidity at home would imply the trend of expanding abroad is likely to continue. Although stronger domestic growth might slow the expansion pace, it is not expected to reverse the trend unless incomplete policies under Abenomics elevate domestic financial stability risks. Increasing cross-border activity could add to funding risks while exacerbating supervisory challenges that require continued close monitoring.

**The paper is organized as follows.** Section II takes stock of the past experience of Japanese financial institutions expanding abroad. The paper then illustrates the recent trend of overseas expansion, highlighting the regional distribution, areas of financing, and the financial performance relative to domestic activity. Section III analyzes the determinants for banks' expanding abroad based on an empirical analysis and Japan's experience. Section IV discusses the outlook and risks of Japanese financial institutions expanding overseas, followed by a discussion on policy implications. Section V concludes.

## II. EXPANDING ABROAD: PAST EXPERIENCE AND RECENT DEVELOPMENTS

### A. Past Experience of Overseas Expansion by Japanese Financial Institutions

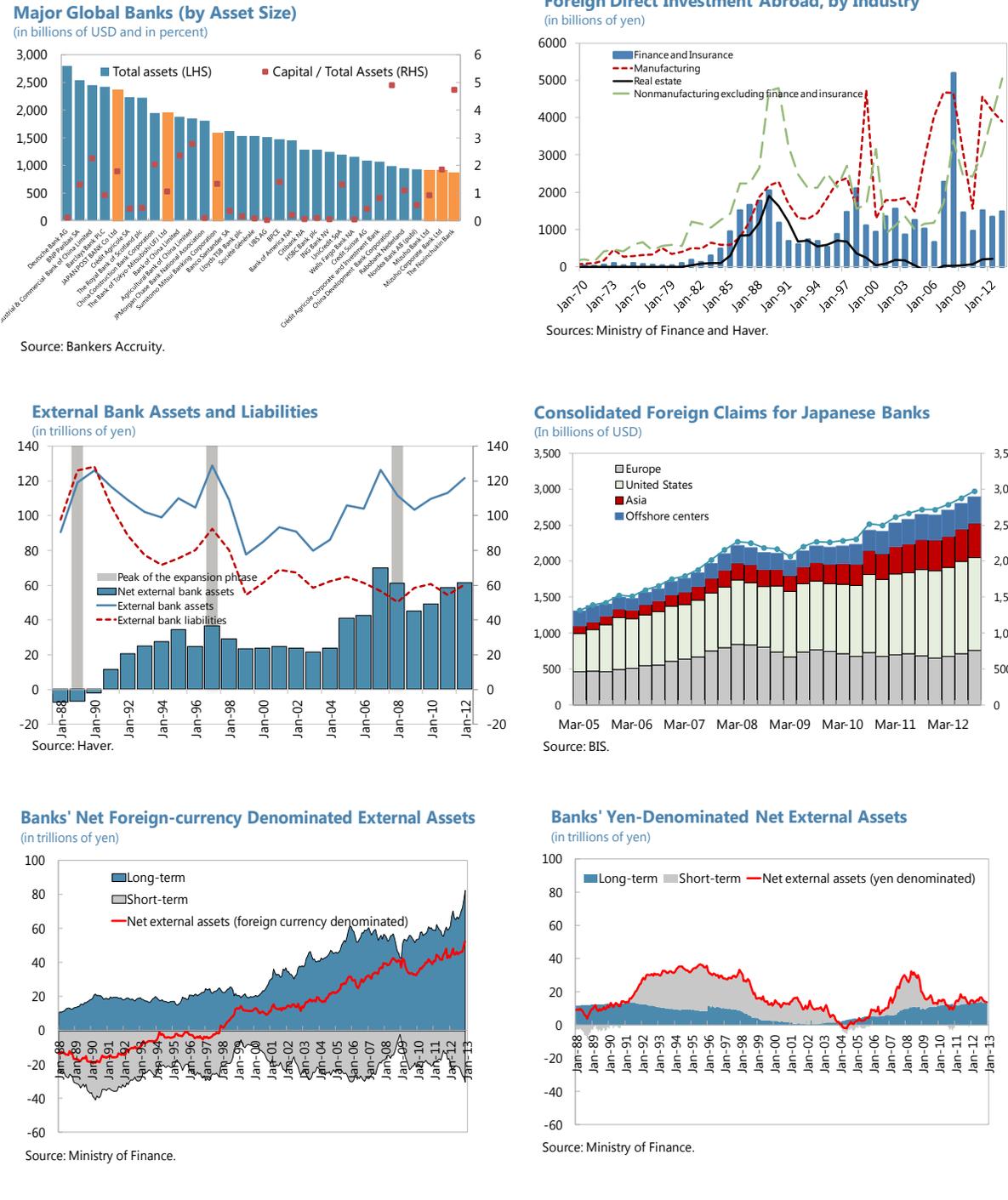
**Japanese financial institutions have attempted several times to expand abroad over last three decades.** The success was mixed. During three waves of earlier expansions, financial institutions have not, in general, secured a major global footing, except a few megabanks and securities firms.

**The first wave of overseas expansion by Japanese financial institutions occurred during the mid-to-late 1980s,** about the same time when many real-estate and construction companies increased markedly their outward foreign direct investments (FDIs) (Figure 1). In addition to financing the FDI activity, banks also established extensively branches and subsidiaries abroad in major financial hubs such as London and New York (Nolle and Seth 1996). The expansion was partly driven by strong growth in Japan, sizeable FDIs of Japanese corporations, yen appreciation, and the desire to diversify bank lending. Following the bursting of asset bubbles in 1990, banks had to scale back their foreign claims or sold off foreign assets. External bank assets fell by over 20 percent from the peak.

**Japanese banks increased foreign lending to Asia again in the mid-1990s, in part to take advantage of the rapid growth in the region.** Those loans were often denominated in foreign currency related to investment projects in the region. Following the Asian Financial Crisis, Japanese banks, however, incurred sizeable valuation losses and their nonperforming loans rose sharply, forcing them to recede on overseas lending. External bank assets fell by about 40 percent in two years (Figure 1). Overseas losses, among domestic problems, had contributed to the subsequent banking crises in Japan that lasted until early 2000s. The banking crises have resulted significant restructuring and consolidations that gave rise to a

concentrated market with a few megabanks in the form of financial groups, securities firms, and life insurers.<sup>2</sup>

**Figure 1. Japanese Financial Institutions: Global Ranking and Expansion Overseas**



<sup>2</sup> By asset size, they are among the global largest financial institutions.

**Overseas activity by Japanese financial institutions has risen again since 2005 despite the temporary decline during the peak of the global financial crisis.** As Japanese financial system has remained resilient to the global financial crisis, Japanese banks have broadened their financing to non-Japanese entities and local demand, Recent developments and the factors contributing the rise will be discussed in the next section.

**Despite the rise and fall of overseas activity, net external assets for Japanese banks have been on an increasing trend over the last decades.** This possibly suggests a change of funding source on overseas activity. In the years leading up to the Asian Financial crisis, Japanese banks have relied on foreign-currency financing that created a net liability position. Over time Japanese banks have accumulated net external foreign assets while the short-term liabilities have remained stable, implying banks have increasingly financed long-term overseas loans with domestic yen-denominated funds.

## B. Recent Developments of Overseas Activity

**After the global financial crisis, Japanese financial institutions have increased their overseas activity through takeovers and lending,** mostly in the Asian region. Stagnant domestic growth, relative resilience of Japanese banks through the global financial crisis, and strong growth in Asia have contributed to the expansion abroad.

### Banking Sector

**Japanese banks have increased their cross-border activity, mostly to the Asian region.**

Cross-border consolidated claims of Japanese banks abroad have increased since 2005 and reached near US\$3 trillion (about 15 percent of total banking and trust assets) according to the Bank of International Settlement (BIS) as of March 2013. Claims on Asia have more than doubled since the global financial crisis (now accounting for about 10 percent of total foreign consolidated claims).

The exposures to Europe, however, have grown more moderately and significantly slowed in peripheral European countries after the global financial crisis (Table 1 and Figure 1). A large share of the rising foreign claims is attributed to growing overseas loans by major banks.

**Japanese banks expanded their overseas network through various forms of ownership** (Appendix 1). Besides setting up local branches and subsidiaries, banks have sought the expansion of customer base and business functions through business alliances and investments in overseas financial institutions, and exploit different forms of ownership structured tailored to local markets.

**The expansion abroad has placed Japanese banks key players in regional and global syndicated loans and project finance** (Figure 2).<sup>3</sup> Megabanks have stepped up project

**Table 1. Foreign Consolidated Claims of Japanese Banks**

(in percent)	Year-on-year growth	Cumulative growth from 2005-2008	Cumulative growth since end-2008	Share of total consolidated claims
All countries	0.1	72.6	38.1	100.0
Europe, of which:	16.2	83.3	6.1	26.1
Peripheral European countries	7.8	73.8	-27.2	2.6
Core European countries	15.4	88.6	9.3	21.8
United States	2.2	67.0	39.2	42.6
Asia Pacific, of which:	10.6	124.1	105.2	9.6
Advanced	7.8	126.9	98.3	6.1
Emerging	14.9	119.5	116.4	3.6
Offshore centers	5.4	19.2	68.2	10.4

Source: BIS.

1/ As of March 2013.

2/ Peripheral European countries include Italy, Ireland, Greece, Portugal, and Spain.

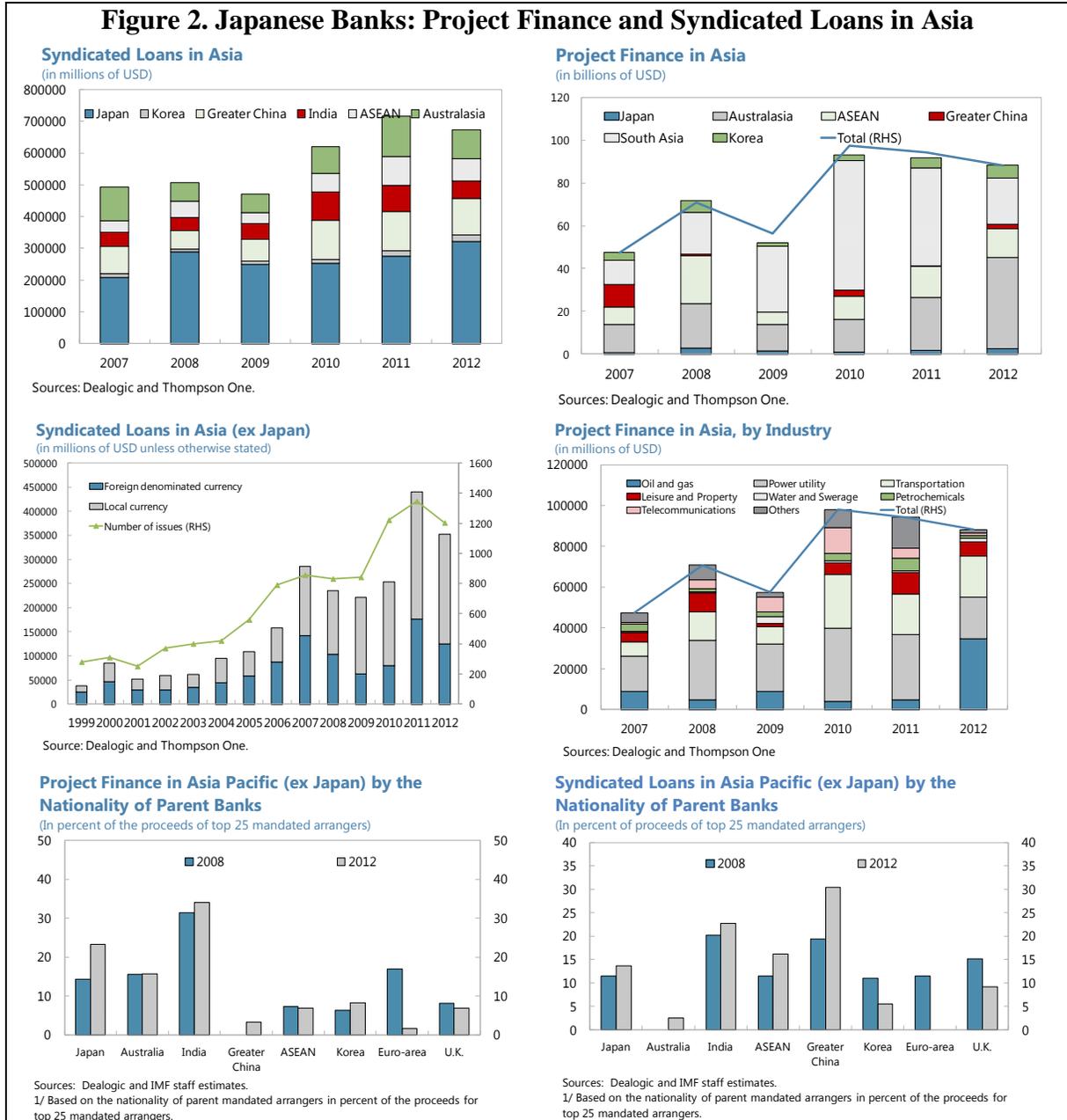
3/ Core European countries include France, Germany, Switzerland, and United Kingdom.

<sup>3</sup> They have been among the top 25 mandated arrangers and bookrunners over the past few years. Mitsubishi UFJ Financial Group, which includes Bank of Tokyo-Mitsubishi UFJ (BTMU), was the top-ranked global

(continued...)

finance and syndicated loans business, particularly in Asia, because of their strong balance sheets and long-term approach in lending. Besides interest income on lending, banks also earn fees from arranging and underwriting deals. In Asia, syndicated loans are often raised in local currency and by multiple banks across countries, thereby require sound financial base for lead banks. Project finance is largely related to financing infrastructure projects such as utilities, transportation, and communications. The three megabanks in Japan have played an increasing role, with the average ranking and market share rising, particularly following the receding of European banks (Table 2).

**Figure 2. Japanese Banks: Project Finance and Syndicated Loans in Asia**



mandated arranger of project finance deals in the first nine months of 2012, with Sumitomo Mitsui Financial Group and Mizuho Financial Group in the third and fourth places, respectively.

**Table 2. The Role of Japanese Banks in Asian Syndicated Loans and Project Finance**<sup>1/</sup>

Table. Project Finance in Asia by Top Mandated Arrangers, by Parent Nationality													
Top 25 Mandated Arrangers	2012	2011	2010	2009	2008	2007	2012	2011	2010	2009	2008	2007	
Parent Nationality	Distribution in each region (numbers)					Total amount of proceeds (in USD mn)							
Asia Pacific	21	20	21	14	16	15							
<b>Japan</b>	<b>5</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	13,596	7,479	3,540	4,538	7,392	-	
Australia	4	4	4	4	4	4	9,138	12,892	5,198	6,748	8,077	-	
India	5	8	7	4	4	5	19,897	42,597	52,063	28,352	16,279	-	
Greater China	2	2	3	0	0	0	1,946	1,886	14,743	-	-	-	
ASEAN	4	1	3	2	3	3	4,061	1,616	2,298	1,419	3,767	-	
Korea	1	2	1	1	2	1	4,788	4,539	1,855	603	3,294	-	
Europe	4	5	4	11	9	9							
<b>Euro-area</b>	<b>1</b>	<b>2</b>	<b>2</b>	<b>9</b>	<b>7</b>	<b>6</b>	985	1,678	2,379	6,833	8,757	-	
UK	3	3	2	2	2	3	3,994	3,440	816	1,110	4,172	-	
Others	-	-	-	-	-	1							
<b>Total</b>	<b>25</b>	<b>25</b>	<b>25</b>	<b>25</b>	<b>25</b>	<b>25</b>	<b>88,119</b>	<b>91,317</b>	<b>97,511</b>	<b>56,422</b>	<b>56,422</b>		
Asia Pacific	Average ranking 2/					Amount of Proceeds (in percent of industry total)							
<b>Japan</b>	<b>4</b>	<b>11</b>	<b>16</b>	<b>10</b>	<b>8</b>	<b>21</b>	15	8	4	8	13	-	
Australia	11	8	12	8	12	9	10	14	5	12	14	-	
India	8	5	4	5	15	10	23	47	53	50	29	-	
Greater China	22	22	15	-	-	-	2	2	15	-	-	-	
ASEAN	17	23	16	22	15	-	5	2	2	3	7	-	
Korea	3	15	7	18	6	2	5	5	2	1	6	-	
Europe													
<b>Euro-area</b>	<b>20</b>	<b>22</b>	<b>20</b>	<b>14</b>	<b>16</b>	<b>13</b>	1	2	2	12	16	-	
UK	16	19	22	22	19	19	5	4	1	2	7	-	
Others	-	-	-	-	-	-							

1/ Average for top arrangers that were among the top 25 list for at least two consecutive years.

Table. Syndicated Loans in Asia Pacific (ex Japan) by Top Mandated Arrangers, by Parent Nationality											
Top 25 Mandated Arrangers	2012	2011	2010	2009	2008	2012	2011	2010	2009	2008	
Parent Nationality	Distribution (numbers)					Total amount of proceeds (in USD mn)					
Asia Pacific	23	19	21	19	19						
<b>Japan</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	24,419	26,323	18,170	7,839	14,749	
Australia	1	1	1	1	-	4,378	5,680	4,514	1,878	-	
India	4	4	5	3	4	40,488	50,725	63,822	37,999	25,946	
ASEAN	5	6	3	3	3	28,893	36,233	16,089	11,085	14,700	
Greater China	9	4	9	9	6	54,256	31,773	63,762	33,502	24,996	
Korea	1	1	-	-	3	9,672	5,002	-	-	14,145	
Europe and North America	2	6	4	6	6						
<b>Euro-area</b>	<b>0</b>	<b>2</b>	<b>2</b>	<b>3</b>	<b>3</b>	-	7,614	9,610	6,310	14,763	
UK	2	3	2	3	3	16,426	28,470	20,270	9,130	19,519	
United States and Canada	-	1	-	-	-	-	5,706	-	-	-	
<b>Total / Industry total</b>	<b>25</b>	<b>25</b>	<b>25</b>	<b>25</b>	<b>25</b>	<b>260,594</b>	<b>299,211</b>	<b>281,191</b>	<b>160,773</b>	<b>198,952</b>	
Asia Pacific	Average ranking 1/					Amount of Proceeds (in percent of industry total)					
<b>Japan</b>	<b>7</b>	<b>7</b>	<b>10</b>	<b>15</b>	<b>11</b>	9	9	6	5	7	
Australia	17	15	18	20	-	2	2	2	1	0	
India	13	10	8	5	16	16	17	23	24	13	
ASEAN	14	15	15	10	12	11	12	6	7	7	
Greater China	17	14	18	13	17	21	11	23	21	13	
Korea	3	17	-	-	13	4	2	0	0	7	
Europe and North America											
<b>Euro-area</b>	<b>-</b>	<b>22</b>	<b>15</b>	<b>19</b>	<b>12</b>	0	3	3	4	7	
UK	7	11	6	13	6	6	10	7	6	10	
United States and Canada	-	14	-	-	-	0	2	0	0	0	

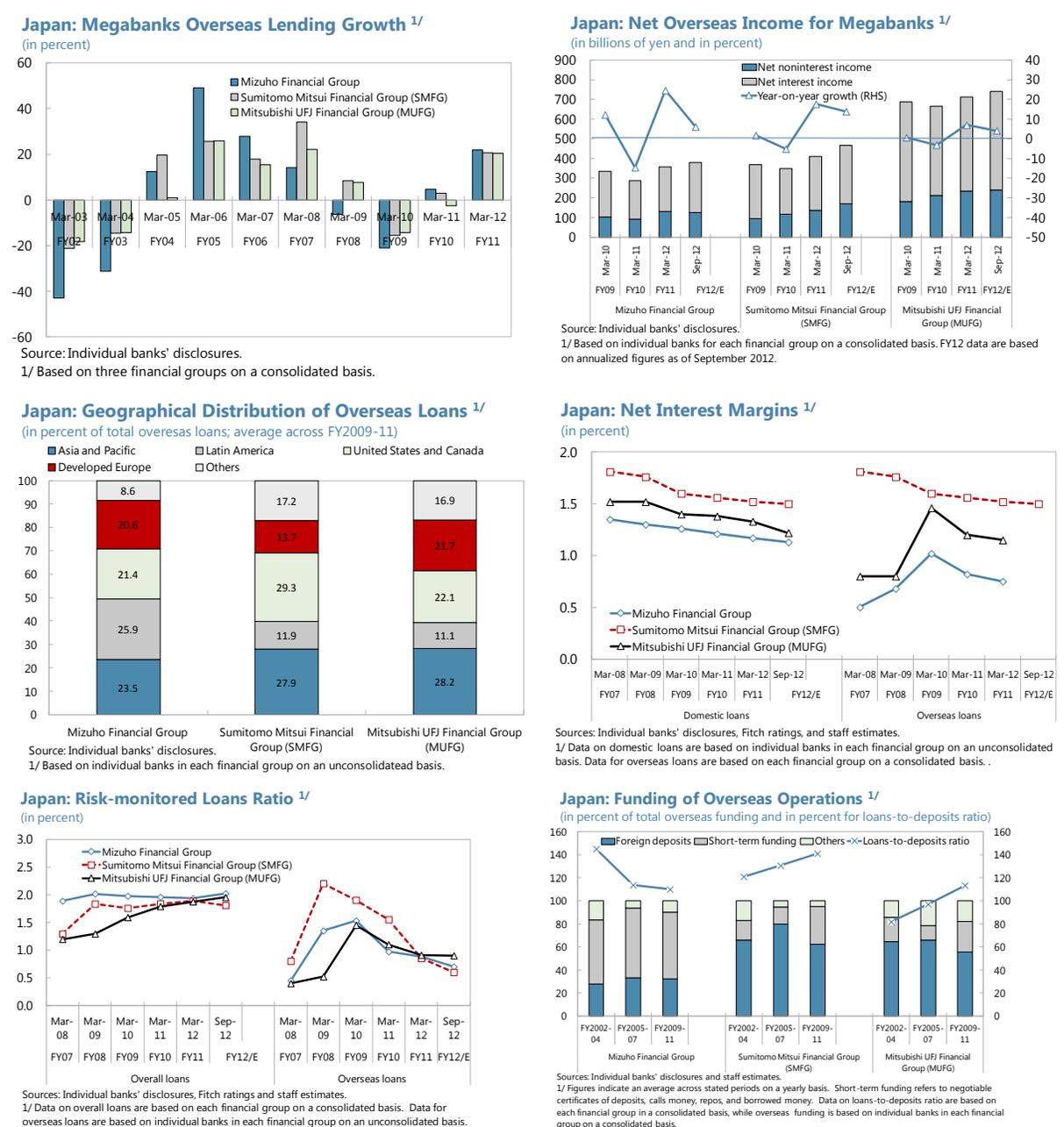
1/ Average for top arrangers that were among the top 25 list for at least two consecutive years.

**The performance of overseas lending among Japanese major banks has been stronger in several ways compared to their domestic lending** (Figure 3). Overseas gross profits now account for about 30 percent of total gross profits (about half of which arise from net interest income).<sup>4</sup> Net interest margins for overseas loans have improved after the global financial crisis and exceeded those for domestic loans. As megabanks have been cautious in lending abroad to firms with established credit history, credit risks on overseas loans are moderate. The average risk-monitored loans ratio for overseas lending was about 0.7 percent as of

<sup>4</sup> For instance, Mizuho Financial Group has about 25 percent of net business income derived from overseas customers, with return on assets for overseas loans at about 3.3 percent in FY2012.

September 2012, much lower than that on domestic lending (about 2 percent). Syndicated loans to foreign firms usually carry high investment ratings, while those to firms in emerging markets are relatively small (less than the global average in proportion) and about one-fifth of the syndicated loans have covenants that limit credit risks. Though project finance could be more risky because of the longer duration, it is usually backed by underlying infrastructure assets.<sup>5</sup> At the margin, overseas loans therefore appear more profitable in general but are associated with less risk.

**Figure 3. Comparison of Overseas Lending Activity by Three Megabanks**



<sup>5</sup> According to the Bank of Japan, default rates on selected overseas loans ranged from 0.4–1.3 percent, much lower than the respective loan margins (Financial System Report Chart III 3-11). Banks are relatively cautious in choosing overseas loan extension and setting loan conditions.

**Nonetheless, overseas expansion also brought new risks.** Foreign currency and maturity mismatches are likely to rise going forward as the growth of long-term funding in Japanese banks will begin to fall short of total external loans. Banks have increased their local deposit base (e.g., corporate deposits)—accounting for about half of the funding base—but it still falls short of the total external loans. Banks therefore rely on short-term finance such as yen-dollar basis and currency swaps that are subject to volatility, and by issuing foreign exchange-denominated bonds. The loan-to-deposit ratio for overseas loans continues to exceed 100 percent (compared to the loan-to-deposit ratio for domestic loans at about 70 percent), potentially contributing to funding risks. Funding cost and availability depend on credit ratings, which also affect prospects of securing certain lines of business. In an event of credit downgrades, funding cost could rise substantially and the loss of certain lines of business precipitate more severe funding difficulties.

### C. Nonbank Sector—Life Insurers and Securities Firms

**The trend of expanding abroad is not only limited to Japanese banks.** Major life insurers have begun to strengthen their overseas business, especially in Asia, by acquiring or affiliating with local insurers for long-term profitability (Appendix 1).<sup>6</sup> They usually expand via incremental capital and building alliances typically involving minority stakes rather than aggressive acquisitions. To gain competitiveness in local markets, they broaden in products and services (e.g., medical insurance) and increasingly rely on more efficient distribution channels (e.g., selling through banks “bancassurance”).<sup>7</sup> To date, as majority of overseas investments are minority interests, the risk and return from overseas business for major life insurers tends to be modest.

**Despite the recent setback in global operations, leading Japanese securities firms sought to counter diminishing prospects by expanding overseas.** Outward FDIs on financial services (banks and insurers) surged in 2008 on the account of Nomura holdings, a securities firm, acquiring the European arms of Lehman Brothers, which it later scaled back after incurring losses. Market share outside Japan by leading Japanese securities firms is relatively limited in most areas, such as financial advisory roles in mergers and acquisitions, and capital market issuance and underwriting (Thomson Reuters 2012). This is because of limited expertise in executing services outside Japan, and relative higher funding cost on foreign-currency instruments than other leading global peers, possibly due to lower credit ratings.

## III. CONTRIBUTING FACTORS FOR INCREASING CROSS-BORDER ACTIVITY

**Several domestic and regional factors contribute to the increasing trend of overseas activity among Japanese financial institutions.**

---

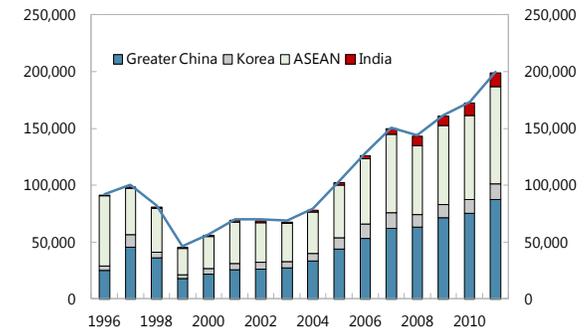
<sup>6</sup> As life and nonlife insurers tend to lower their weight of their stockholdings, they are likely to reinvest these funds in overseas mergers and acquisitions. Dai-ichi Life has investments in Taiwan, India, Thailand, and Vietnam. Nippon Life recently acquired a 26 percent stake in Reliance of India for 680\$ million, largest foreign direct investment deal in India. Tokio Marine has an Asian business portfolio in general insurance.

<sup>7</sup> “Bancassurance” accounts for about 35-70 percent of new business premium in Asia.

- **First, limited domestic opportunities have generated a need for major Japanese banks to expand abroad.** Domestic credit demand was sluggish in the past few years due to stagnant growth, though it has picked up recently. Large corporations have limited funding need as they accumulated sizeable surpluses (rising to about 6 percent of GDP).<sup>8</sup> Structural factors— such as high leverage among SMEs, population aging, and sluggish growth in Japan’s regions—have limited domestic opportunities. At the same time, lingering deflation has limited the decline of real interest rate to sufficiently stimulate credit demand. Shrinking net interest margin on loans (about 0.6-1.2 percent now relative to about 1.2–2.1 percent in early 2000s) tends to limit banks’ core profitability as interest income accounts for more than two-thirds of banks’ total income.
- **Second, major banks have weathered the global financial crisis well and have capacity to take on more foreign exposures.** They have abundant yen liquidity supported by a stable deposit base, and have further strengthened their capital adequacy (Tier 1 ratio at 12 percent) after the global financial crisis, in part to meet the Basel III requirements. The resilience of balance sheets in the Japanese banks has placed them in a better position to further expand overseas, despite lingering global uncertainty. The exchange rate has appreciated until recently, which may offer an additional incentive for expanding abroad.
- **Third, regional and global factors, such as large financing needs in emerging Asia have offered new business opportunities for Japanese banks.** Major banks have benefited from the increasing outward FDI and trade links of Japanese firms. Financing needs for infrastructure in emerging Asia are large (about US\$8 trillion), according to the Asian Development Bank. These generate demand for cross-border financial activity between Japan and various FDI destinations (text chart).
- **Fourth,** the deleveraging of European banks since 2010 has accelerated the pace of overseas expansion. Japanese banks, among other local Asian banks, have stepped up financing to gain market share against the scale-back of European banks in the region.

**Outward FDI to Asia**

(In 100 million yen)



Source: Haver.

**The current trend of overseas expansion appears to have some differences from previous episodes, though new challenges are likely to emerge.** In the past, Japanese banks have largely expanded abroad to support the corporate expansion of Japanese firms. But over the past few years, financial institutions have also moved towards extending loans to non-Japanese entities, now reaching 70 percent of overseas loans. Second, over time Japanese banks have accumulated net external foreign assets while the short-term liabilities have remained stable. While part of the increase is attributed to higher foreign assets held by

<sup>8</sup> Estimates suggest that business capital expenditures for fixed investment only account for less than 30 percent of total credit demand. External financing through capital increases has been negative (on average about ¥5 trillion per year) for the past decade due to weak equity markets. Bank lending has somewhat picked up recently, reflecting reconstruction and housing loans demand.

trust banks, the increase may suggest banks have relied on domestic yen-denominated funds to finance long-term overseas loans.

#### IV. EMPIRICAL ANALYSIS IN CROSS-BORDER ACTIVITY OF JAPANESE BANKS

**To analyze the role of these factors in contributing to the rising cross-border bank lending, the paper conducts an empirical analysis to assess determinants of banks' overseas expansion.** The analysis also assesses whether and how the current expansion is different from previous episodes. Several other studies also looked into the factors contributing to cross-border banking (Shirota 2013, and Focarelli and Pozzolo 2005) through factor analyses and institutional features.

**The empirical analysis here uses the quarterly consolidated year-on-year growth of foreign claims** on an immediate-borrowers basis published by the Bank of International Settlement (BIS). The sample is from 1984–2012, spanning across a panel of banking systems consisting of both origination and destination of cross-border claims: the origination countries/regions are mostly advanced countries, including Australia, Japan, France, Germany, Italy, Switzerland, Sweden, the United Kingdom, the United States, and Developed Europe; the destination countries or regions include Emerging Asia (China, India, ASEAN5), Developing Europe, and Latin America. The foreign claims (*FC*) are in U.S. dollar terms and are subject to valuation changes driven by exchange rate movements, which could be partly controlled by including the weighted exchange rates as an explanatory variable.<sup>9</sup> The explanatory variables are broadly classified into three categories with the specification as follows:

$$FC_{i,t}^j = \beta_0 + \gamma_{i,j} + \beta_1 FC_{i,t-1}^j + \beta_2 GF_t + \beta_3 RF_t^j + \beta_4 HF_t^i + \varepsilon_{i,t}$$

where *i* and *j* stand for origination and destination countries/regions of foreign claims, respectively. A fixed effect coefficient  $\gamma_{i,j}$  is included for each group. The explanatory variables include:

- *Global factors (GF)* consisting of the VIX index, and the Fed Fund rate;
- *Regional factors (RF)* consisting of growth differentials and real effective exchange rate movements between destination and origination countries/regions. The regression also considers alternative indicators of growth differentials using the change of fixed investments.
- *Home factors (HF)* consisting of domestic interest rates, real effective exchange rates, growth of domestic credit to GDP ratio, several indicators for the soundness of the banking systems in origination countries/regions that include Tier 1 capital ratios, nonperforming loan ratios, and the return on assets.

---

<sup>9</sup> Including the exchange rate as an explanatory variable controls partly for valuation changes in the BIS data. Strictly speaking, the exchange rate to be included should reflect the composition of foreign claims of origination countries/regions. By using the real effective exchange rate based on external trade weights as a proxy would imply an assumption that those weights are identical to those of foreign claims composition.

**Table 3. Empirical Analysis on Bank's Foreign Claims 1/ 2/**

Dependent variable: Foreign claims (year-on-year percentage change ( <i>i,j</i> ))				
Origination	Specification			
	European banks only	All	All Grouped by regions ex. China	All Grouped by regions
Destination countries / regions	All (1)	All (2)	(3)	(4)
Fixed effects ( <i>i,j</i> )	Y	Y	Y	Y
Constant	<b>171.1***</b> (54.8)	<b>127.6***</b> (40.9)	49.7 35.2	<b>65.60*</b> (38.1)
Lagged foreign claims (yoy pct. change)	<b>0.45***</b> (0.05)	<b>0.48***</b> (0.04)	<b>0.58***</b> (0.61)	<b>0.58***</b> (0.05)
<b>Global factors</b>				
Lagged VIX index	<b>-1.01***</b> (0.21)	<b>-0.70***</b> (0.21)	<b>-0.44***</b> (0.15)	<b>-0.63***</b> (0.18)
Lagged U.S. Fed-fund rates	<b>0.27**</b> (0.09)	<b>0.17**</b> (0.08)	<b>0.15**</b> (0.09)	<b>0.17**</b> (0.06)
<b>Regional factors</b>				
Real growth differential ( <i>i,j</i> )	0.78 0.69	<b>1.66**</b> (0.73)	0.59 0.48	<b>1.02**</b> (0.56)
ln (REER differential ( <i>i,j</i> ))	-4.62 3.80	-7.32 8.00	-7.27 5.32	-5.27 4.95
Interest rates (j)	-	<b>1.19*</b> (0.64)	-1.16 1.86	-1.06 1.54
<b>Home factors</b>				
Interest rates (i)	-1.08 1.09	-	-	-
Lagged domestic credit/GDP (i)	<b>-24.2**</b> (11.0)	<b>-18.6**</b> (8.8)	-2.32 8.15	-6.63 8.26
<i>Soundness of banking system (i)</i>				
Capital adequacy (Tier 1 ratio)	<b>17.45***</b> (4.51)	<b>13.05**</b> (5.04)	<b>8.8*</b> (4.9)	<b>10.02*</b> (5.09)
Nonperforming loans ratios	<b>-7.57***</b> (2.05)	<b>-5.5**</b> (2.6)	<b>-5.77***</b> (1.3)	<b>-4.3**</b> (1.9)
Returns on assets	-15.6 (18.6)	20.8 (17.4)	<b>17.5*</b> (10.3)	<b>22.4*</b> (13.3)
<i>R-squared</i>	0.40	0.36	0.49	0.49
<i>No. of observations</i>	535	863	389	496
<i>No. of origination countries or regions</i>	5	9	9	9
<i>No. of destination countries or regions</i>	7	7	3	4

Source: author's estimates.

1/ Notation *i* and *j* refer to origination and destination countries or regions of the foreign claims, respectively.

2/ \*, \*\*, and \*\*\* denote the statistical significance at 10 percent, 5 percent, and 1 percent, respectively.

**The empirical results underscore that a multitude of factors contribute to the growth of banks' foreign claims in Japan and other advanced countries (Table 3).** First, higher global uncertainty (measured by the VIX index) tend to reduce banks' activities abroad, though the net adverse impact on Japanese banks is relatively less compared to other countries. Second, in terms of regional factors, interest rates at the destination, as a proxy for the tightness of financing conditions, also play some role. Third, the growth differential is also an important driver for banks' foreign claims. For instance, a 1-percentage-point increase of the real growth differential could increase the foreign claims by about 0.3–1.6 percentage points. While a currency appreciation in the origination countries tends to increase banks' activity overseas, the coefficients are not statistically significant across all specifications. Regarding home factors, higher domestic credit growth is generally associated with slower growth overseas, possibly suggesting some substitution in banks when extending credit between home and abroad. Moreover, the soundness of banking systems at home is statistically significant in banks' overseas activity. Stronger banks' balance sheets such as

higher capital adequacy ratios and lower nonperforming loan ratios are often associated with higher cross-border activity.

**The empirical results also provide insights whether recent developments are likely to continue and how they may be affected by the new policy framework in Japan.**

Applying the estimated results to Japan shows that global and regional factors explain a large part of the rise of foreign claims. As an illustration, Japanese banks' foreign claims on Asia have grown by 103 percent since end-2008, of which about 40 percentage points are attributed by a decline of global uncertainty proxied by the VIX index, while regional factors contributed another 20–25 percentage points. Regarding home factors, the resilience of the Japanese major banks, particularly the strengthening of capital adequacy and low NPLs during the global financial crisis, contributed to around one-third of foreign claims growth. The substitution between domestic and foreign credit contributed modestly by about 5 percentage points.

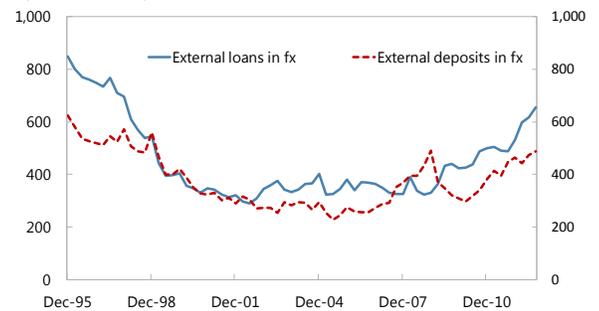
### Outlook and Policy Implications

**Japanese financial institutions would benefit from a more diversified income base as they expand abroad, though a gradual and cautious approach in overseas strategies is warranted.** Financial institutions' expansion overseas helps improve their profitability by better allocating their liquidity and developing local markets in the Asian region. Banks may also favor a gradual expansion to maintain their balance sheets under the global regulatory reform agenda (e.g., Basel III requirements). A rapid expansion could lead to buying foreign assets at high prices or entering unfamiliar local markets that could eventually result to heavy losses as in the late 1980s and 1990s.

**Higher overseas exposures may add to funding risks that would require continued close monitoring by supervisory authorities.** Securing stable and long-term dollar funding has remained a risk for Japanese financial institutions. Supervisors should encourage banks to further improve their resilience against shocks by strengthening their funding sources and risk management, such as by closely monitoring the overseas maturity mismatch and foreign currency-denominated loans-to-deposits ratios. At the same time, overseas activities add to challenges on cross-border supervision for financial institutions. Cross-border risk monitoring arrangements with foreign supervisory authorities can help monitor risks from cross-border activities, including foreign exchange funding risks. In that regard, the supervisory agencies in Japan have signed the Multilateral Framework for sharing the information of globally systemically important banks (G-SIBs) collected through the FSB Data Gap Initiatives in early 2013 based on discussions at the Financial Stability Board (FSB).

**Cross-border activity is likely to continue under the new macroeconomic policy framework.** Policies under Abenomics would mostly affect domestic outlook and exchange rates (IMF 2013) in exiting deflation and lifting growth. Recovering domestic opportunities

**External Foreign Currency-Denominated Loans and Deposits of Japanese Banks vis-a-vis All Sectors**  
(In billions of USD)



may slow the expansion pace but empirical estimates suggest that the substitution effect between domestic and overseas lending contributed modestly to the trend (about 5 percent in the growth of foreign claims in Japan). Global and regional factors explain a large portion of cross-border activity of banks.

## V. CONCLUSIONS

**Cross-border activities of Japanese financial institutions have risen over the past few years, particularly to the Asian region.** The relative resilience of Japanese banks during the global financial crisis has allowed them to take on further foreign exposures. Stagnant growth and low interest margins in Japan have added to incentives to seek opportunities abroad. Outside Japan, growth in Asia and deleveraging of European banks in the region also contributed to a rise of cross-border lending. In some aspects, such as funding sources and areas of finance are broader than previous episodes of overseas expansion.

**As the global recovery takes hold and growth in Asia is expected to continue over the medium term, Japanese banks will likely continue the trend.** Stronger domestic growth in Japan could mitigate the pace, but is unlikely to reverse a long-standing trend because empirical estimates suggest that global and regional factors play a more prominent role in the growth of Japanese cross-border claims. An incomplete set of policies under Abenomics, however, could pose risks for financial stability that could halt the overseas expansion.

**But higher overseas exposures may add to funding risks that would require continued close monitoring by supervisory authorities.** Securing stable and long-term dollar funding has remained a risk for Japanese financial institutions. At the same time, overseas activities add to challenges on cross-border supervision for financial institutions. Overseas expansion by Japanese financial institution is welcome, but would warrant a gradual and cautious approach in light of earlier episodes in the late 1980s and 1990s.

## REFERENCES

- Bank of Japan (2013) “Financial System Report”, April 2013, Bank of Japan.
- Berger A., R. DeYoung, H. Genay, and G. Udell (2000) “The Globalization of Financial Institutions: Evidence from a Cross-Border Banking Performance”, Brookings-Wharton Paper on Financial Services, 2000, vol. 3, pp. 23-120.
- De Haas, R., and I. Lelyveld (2010) “Internal Capital Markets and Lending by Multinational Bank Subsidiaries”, *Journal of Financial Intermediation*, Volume 19, Issue 1, January 2010, Pages 1–25.
- De Young, R., D. Evanoff, and P. Molyneux (2009) “Mergers and Acquisitions of Financial Institutions: A Review of the Post-2000 Literature”, *Journal of Financial Services Research*, December 2009, Volume 36, Issue 2-3, pp 87-110.
- Fitch Ratings (2013) “Japanese Mega Banks’ Offshore Growth Continues”, Fitch Ratings Special Report, February 2013.
- Focarelli, D., and Pozzolo, A.F. (2005) “Where do Banks Expand Abroad? An Empirical Analysis”, *The Journal of Business*, vol.78, no. 6, November 2005.
- Fratzscher, M. (2012) “Capital Flows, Push versus Pull Factors and Global Financial Crisis” *Journal of International Economics*, November 2012, vol. 88(2), pp.341-356.
- International Monetary Fund (2013) “Spillover Report” August 2013.
- Jotikasthira, P., C. Lundblad, and T. Ramadorai (2012) “Asset Fire Sales and Purchases and the International Transmission of Funding Shocks” *Journal of Finance*, December 2012, vol.67 (6), pp.2015-2050.
- Nolle, D. and R. Seth (1996) “Do Banks Follow Their Customers Abroad?” Federal Reserve Bank of New York Research Paper, No. 9620, August 1996.
- Shirota T. (2013) “What is the Major Determinant of Credit Flows through Cross-border Banking?”, Bank of Japan Working Paper Series, No.13-E-5, March 2013.
- Thompson Reuters (2012) “Quarterly Reviews on Deals Intelligence” various weblinks—  
<http://dmi.thomsonreuters.com/DealsIntelligence/QuarterlyReviews>

## APPENDIX

**Recent Major Equity Investments and Overseas Acquisitions by Major Japanese Banks**

Country	Name	Stake acquired (in percent)	Amount (in yen bn)
<b>Mitsubishi UFJ Financial Group 1/</b>			
Jun-06 China	Bank of China Limited	0.2	21
Apr-07 Malaysia	CIMB	4.1	45
Dec-07 Indonesia	Bank Nusantara Parahyangan Tbk	15.2	
Jun-08 Hong Kong	DahSing Financial Holdings	15.0	
Oct-08 US	Morgan Stanley	21.8	943
Oct-08 UK	Aberdeen Asset Management	18.8	
Nov-08 US	Union BanCal Corp	100.0	357
Apr-10 US	Tamalpais Bank	100.0	
Apr-10 US	Frontier Bank	100.0	
Nov-10 UK	RBS	1/	435
Apr-11 China	SWS Mu Fund Management Co.	33.3	
Dec-12 Vietnam	Comm. Bank for Industry and Trade	20.0	63
<b>Sumitomo Mitsui Financial Group 1/</b>			
Nov-07 Vietnam	Vietnam EXIM Commercial Bank	15.0	25
Jul-08 UK	Barclays	1.4	83
Dec-08 Korea	KB Financial Group	1.1	
Jan-10 Hong Kong	Bank of East Asia	9.5	53
Jun-10 India	Kotak Mahindra Bank	4.5	27
Jan-12 US	Moelis and Co.		7
Jan-12 UK	RBS	1/	505
Mar-12 Indonesia	PT Indonesia Infrastructure Finance	14.9	
Apr-12 China	China Post and Capital Fund Mgt	24.0	
<b>Mizuho Financial Group</b>			
Sep-06 Korea	Shinhan Financial Group	1.6	37
Apr-07 China	China CITIC Bank	0.2	6
Jan-08 US	Merrill Lynch		130
Aug-08 US	Evercore Partners Inc.	14.7	13
Nov-10 US	BlackRock Inc.		41
Aug-11 Indonesia	Imora Motor/ Balimor Finance	51.0	
Sep-11 Vietnam	Vietcombank	15.0	43

1/ Acquisition of project finance assets for MUFG and acquisition of aircraft leasing assets for SMFG.

**Selected Overseas Merger and Acquisitions of Life Insurers**

Date	Life insurer	Target	Value (bn yen)	Remarks
2009	Nippon Life	United States	Prudential Insurance - America	
Nov-10	Meiji Yasuda Life	Germany	Talanx	34 convertible bonds
Dec-10	Dai-ichi Life	Australia	TAL Ltd	106 increasing stake from 29 percent to fully-
	Dai-ichi Life	United States	Janus Capital Group	a stake of 15-20 percent.
Mar-11	Nippon Life		Reliance Life Insurance	48 acquire stake of 26 percent
Jan-12	Meiji Yasuda Life	Poland	Europa Group	acquired 33.46 percent stake with its German business alliance partner Talanx International
Jan-12	Meiji Yasuda Life		Warta Group	acquired 30 percent stake
May-12	Meiji Yasuda Life	Indonesia	PT Avrisc Assurance	Increased shareholdings to 23 percent.

Source: Fitch Ratings.