PATTERNS OF FINANCIAL INTERMEDIATION IN THAILAND IMPLICATIONS FOR CENTRAL BANK POLICY

Thailand's country paper for the BIS meeting of Deputy Governors of emerging economies' central banks on 25–27 February 2015.

EE460: Thai Economy
Semester 1/2019
Faculty of Economics, Thammasat University

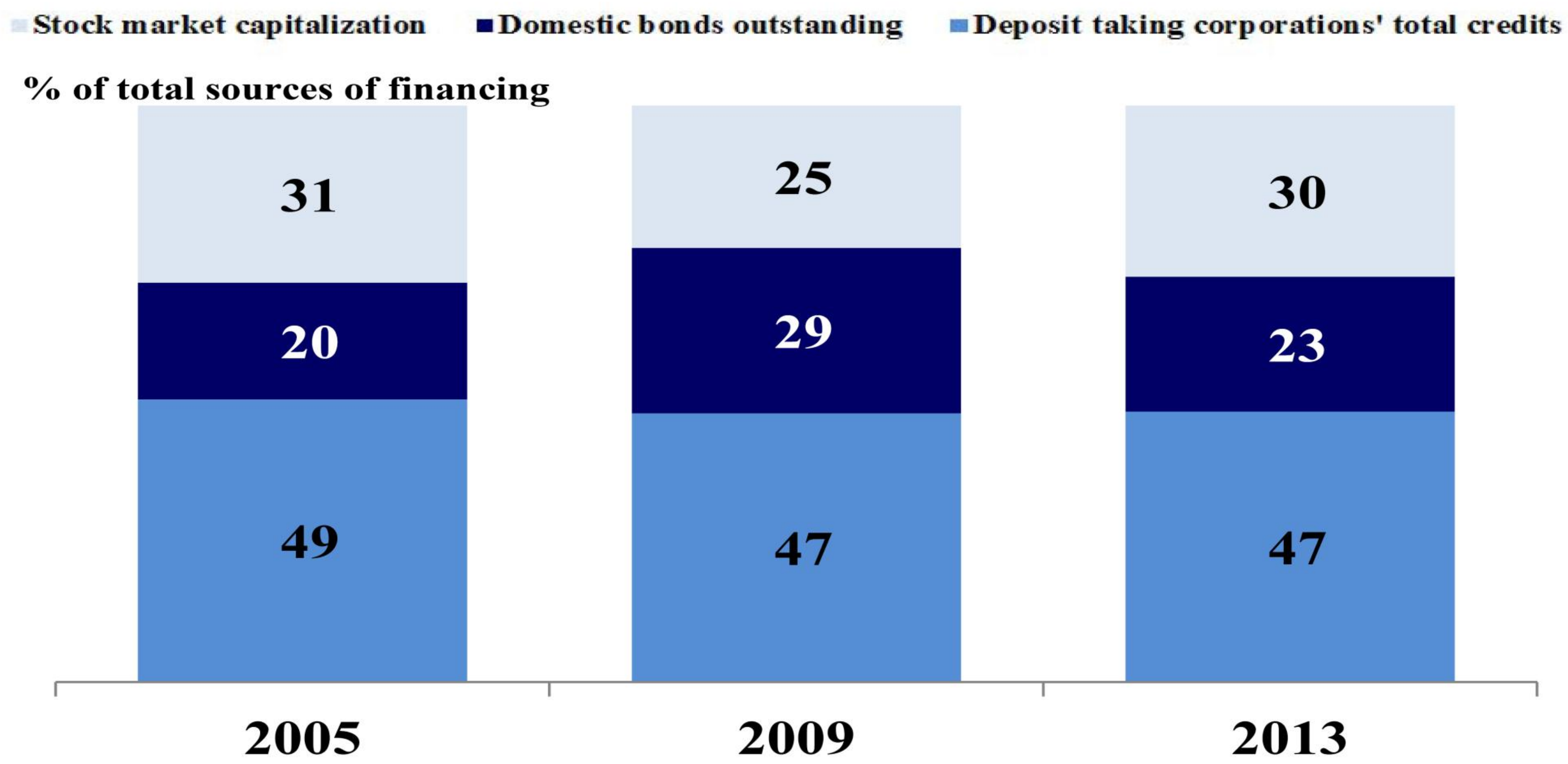
1.OVERVIEW OF THE THAI FINANCIAL LANDSCAPE OVER THE PAST DECADE

- For the past 10 years, the banking sector has remained the main channel of financial intermediation, especially for the private sector, by competing for most deposits and loan business.
- At the end of 2013, total credits extended by all deposit-taking corporations (excluding the central bank) accounted for 47% of total sources of financing.
- In terms of participants, the four largest domestic commercial banks have maintained their dominance as financial intermediaries for households and firms, and thus have maintained their strong influence on the pass through of monetary policy to the economy.
- The 1997 Asian economic crisis, the GFC did not directly bring significant changes to the Thai financial landscape due to the country's sound economic fundamentals and banking system.

Source: Bank of Thailand and BIS (2015)

1.OVERVIEW OF THE THAI FINANCIAL LANDSCAPE OVER THE PAST DECADE(cont'd)

Structure of financial intermediation in Thailand   Graph 1



Note: 1. Stock market capitalization is the size of the Stock Exchange of Thailand (SET); 2. Domestic bonds outstanding issued by residents; 3. Deposit-taking corporations include commercial banks, SFIs, cooperatives etc. (excluding a central bank)

Source: The Stock Exchange of Thailand; Bank of Thailand; BOT staff calculation

Source: Bank of Thailand and BIS (2015)

1.OVERVIEW OF THE THAI FINANCIAL LANDSCAPE OVER THE PAST DECADE(cont'd)

- However, changing economic and financial conditions, in part arising from exceptionally low global interest rates following the GFC, and a prolonged period of accommodative domestic monetary policy as well as government policy have induced changes in the Thai financial system. Some are transient while others reflect a longer-term structural adjustment.
- Among these changes, two important adjustments have affected the effectiveness of monetary policy transmission.
- First, the domestic financial markets have gained more importance as alternative places for the private and public sectors to save and raise funds. This is evidenced by a rise in the financial markets' share to total sources of financing from 51% in 2005 to 53% in 2013.

Source: Bank of Thailand and BIS (2015)

1.OVERVIEW OF THE THAI FINANCIAL LANDSCAPE OVER THE PAST DECADE(cont'd)

- The financial markets have also progressed in terms of the diversity of participants and liquidity in the secondary market, despite a temporary plunge in the stock market's capitalization during the subprime crisis.

- Second, SFIs, which are effectively instruments for government policy implementation that facilitate and support fiscal policy, have been as active in loan extension and deposit mobilization as the commercial banks. While their growing importance supported the Thai economy during the GFC, this has in turn affected the interest rate adjustments made by commercial banks in the following period.

Source: Bank of Thailand and BIS (2015)

2. THE ROLE OF THE BANKING SECTOR

- Over the past decade, the Thai banking sector has maintained its predominance in intermediating financial resources to the real economy.

- Government policies have played a part in influencing the degree of competition within the sector.

- In addition, changes in economic and financial conditions at home and abroad have altered banks' balance sheets and business operations.

Source: Bank of Thailand and BIS (2015)

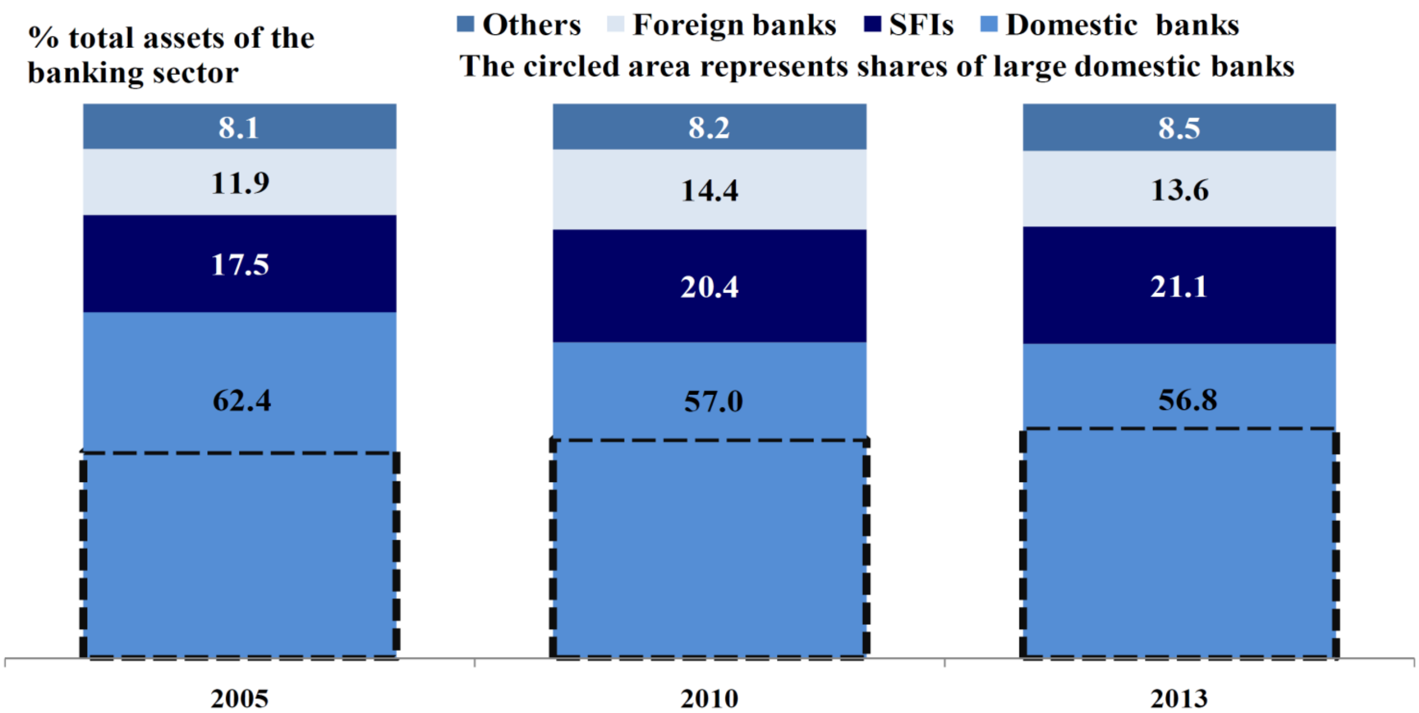
3.RELATIVE IMPORTANCE OF PARTICIPANTS

- Domestic commercial banks, dominated by a small number of large institutions, remain dominant, accounting for approximately 60% of the sector in 2013. SFIs and foreign commercial banks had moderate shares of 21% and 14%, respectively.

Source: Bank of Thailand and BIS (2015)

3.RELATIVE IMPORTANCE OF PARTICIPANTS (cont'd)

Relative importance of players in the Thai banking sector — Graph 2



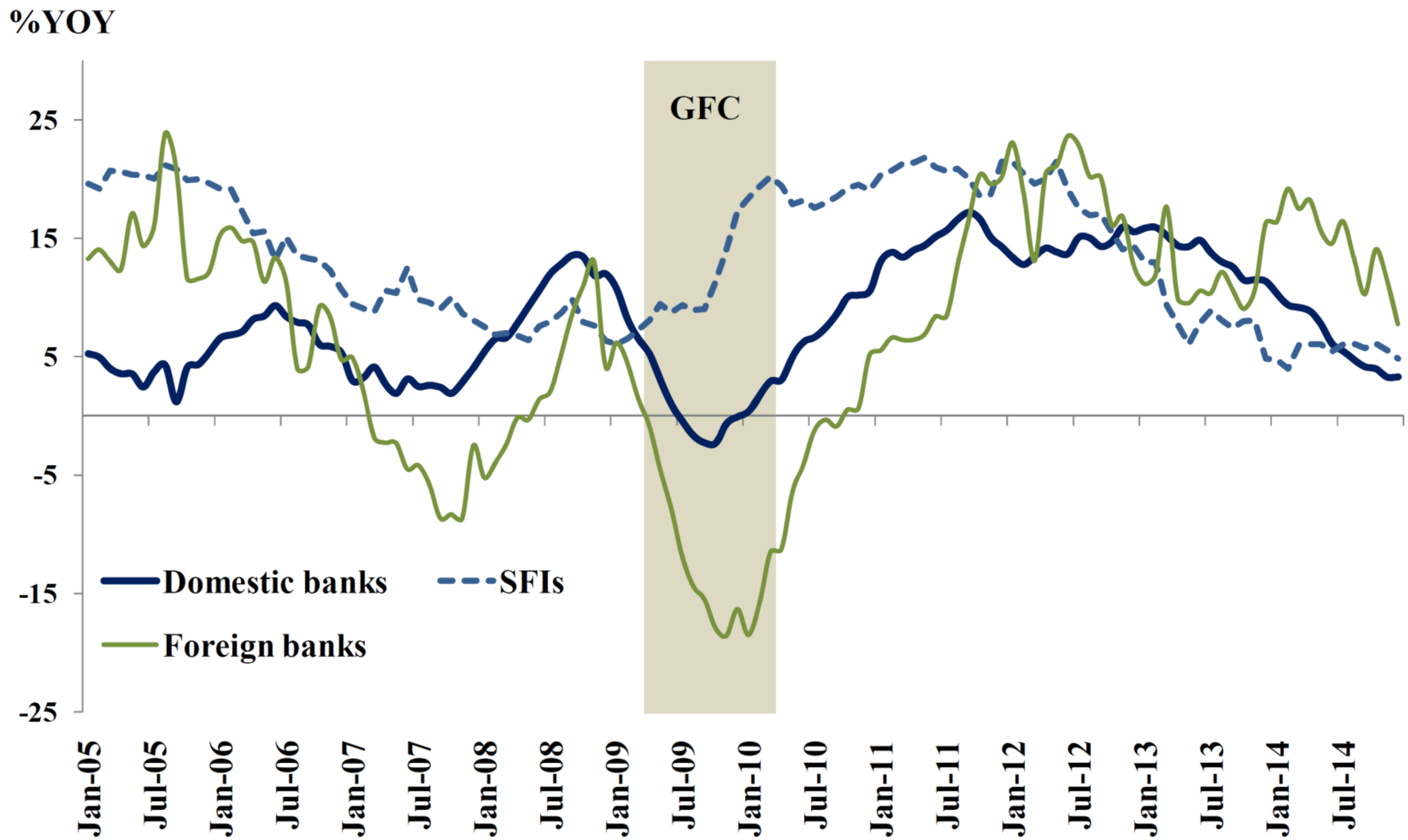
Note: 1. Others include cooperatives, credit unions etc; 2. Calculated from end-of-period outstanding of total assets

Source: Bank of Thailand; BOT staff calculation

Growth of private credits — Graph 3

Source: Bank of Thailand and BIS (2015)

3.RELATIVE IMPORTANCE OF PARTICIPANTS (cont'd)



Note: Private credits refer to credits extended by the banking sector to the corporate, non-depository corporations and household sectors

Source: Bank of Thailand; BOT staff calculation

Source: Bank of Thailand and BIS (2015)

3.RELATIVE IMPORTANCE OF PARTICIPANTS (cont'd)

- The dominance of commercial banks, it is evident that SFIs have managed to increase and maintain their market share, from 18% in 2005 to 21% at the end of 2013.
- The change took place in 2010 when SFIs significantly expanded loans to households and firms, some of whom had been rejected by commercial banks, which had tightened credit standards in response to global economic uncertainty.
- During the GFC, SFIs' private credits sharply accelerated, compensating for a sharp contraction in loans extended by domestic and foreign banks(Graph 3).
- SFIs' lending during this period helped to mitigate some of the negative impacts the Thai economy endured from the GFC.

Source: Bank of Thailand and BIS (2015)

3.RELATIVE IMPORTANCE OF PARTICIPANTS (cont'd)

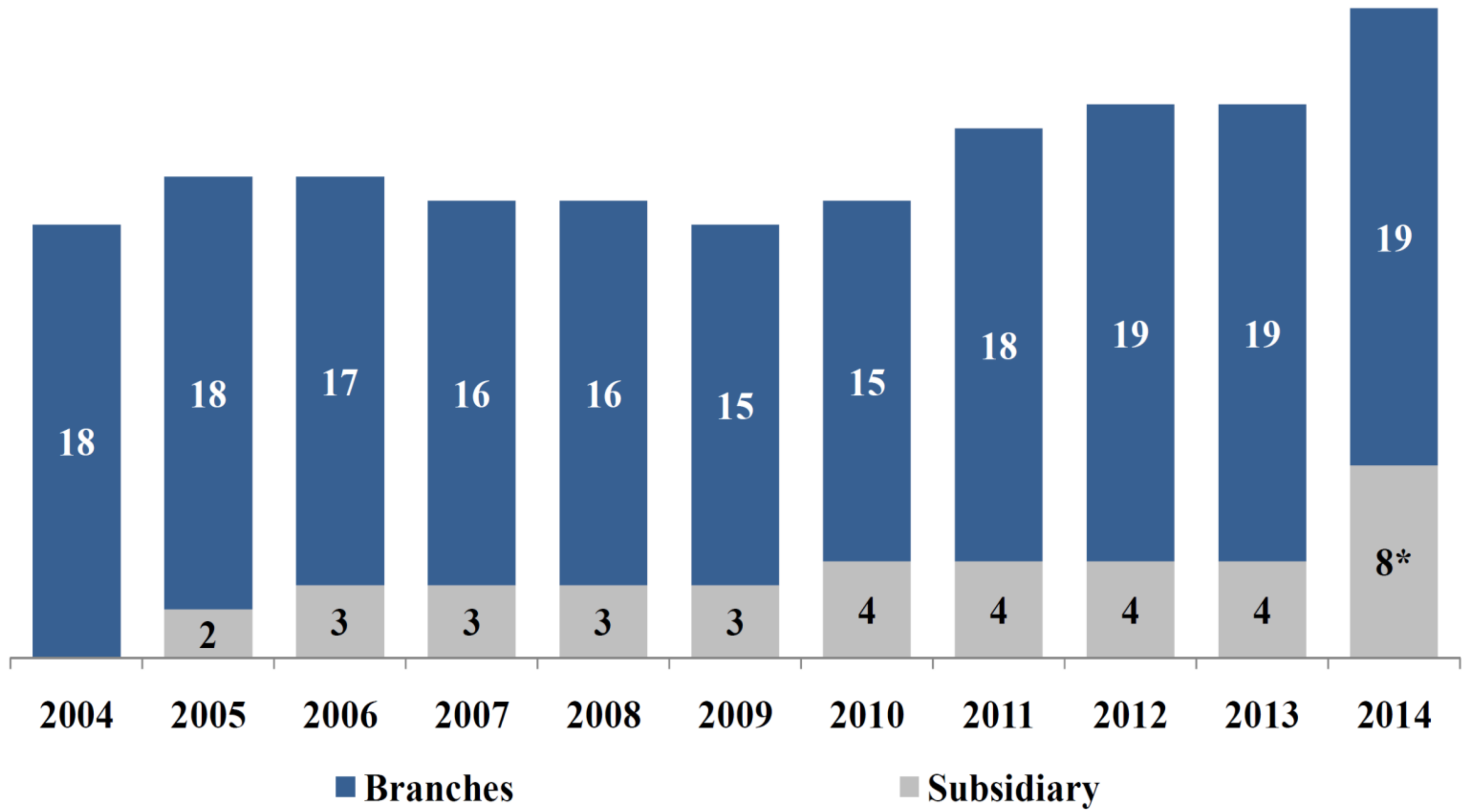
- Following the GFC, partly in support of the government's policies and stimulus measures, the SFIs continued to extend their business by aggressively competing with commercial banks for deposits and extending loans to borrowers who already had access to commercial banks.
- More intense competition from SFIs resulted in a reluctance on the part of commercial banks to adjust their lending and deposit rates following monetary policy easing.
- Nevertheless, the extended domestic economic slowdown since 2013 and the subdued outlook for lending business have reduced competitive pressure across the banking sector. As a result, commercial banks have been more responsive to the recent policy rate cut.

Source: Bank of Thailand and BIS (2015)

3.RELATIVE IMPORTANCE OF PARTICIPANTS (cont'd)

Number of foreign banks' branches in Thailand

Graph 4



Note: *The opening of four new branches in 2014 were owned by Bank of China and Mega International Commercial Bank. Bank of China was upgraded from branch into subsidiary in August 2014

Source: Bank of Thailand; BOT staff calculation

3.RELATIVE IMPORTANCE OF PARTICIPANTS (cont'd)

- Foreign banks remain of limited importance, accounting for just 14% of the banking sector's total assets. In contrast to SFIs and domestic banks, foreign banks participate in retail lending and deposits, the major areas of Thai bank business, only to a small extent.
- With only a small number of branches to facilitate retail lending, foreign banks tend instead to focus on areas where they can bring more expertise and comparative advantage to bear, such as wholesale funding, investment banking and trading services, as well as credit extension to affiliated foreign firms.
- Despite the second phase of the Financial Sector Development Plan (2010–14), which aimed to enhance the level of competition within the banking sector partly via promoting greater foreign participation, competition from foreign banks remains small-scale, with only a marginal increase in the number of foreign bank branches.

Source: Bank of Thailand and BIS (2015)

4.BANKS' BUSINESS MODELS

- Like most banks domiciled in emerging market economies (Roengpitya, Tarashev and Tsatsaronis (2014)), Thailand's domestic banks and SFIs have continued to follow the retail funded business model, categorized by a high share of loans on the balance sheet and high reliance on stable funding sources including household deposits and bills of exchange.
- Domestic loans and stable funding made up 80% and 50% of bank balance sheets at the end of 2013 (see Graph 5), while the loans and household deposits of SFIs comprised 90% and 50% of their balance sheets.
- The declining share of domestic banks' stable funding since 2011 could be explained by a sharp drop in bills of exchange, after their regulatory cost advantage expired, as well as by a continued slowdown in household deposits.

Source: Bank of Thailand and BIS (2015)

4.BANKS’ BUSINESS MODELS (cont’d)

- The business model of foreign banks could be classified as wholesale-funded, as reflected in a much lower reliance on retail deposits and bills of exchange, despite the strong growth of bills of exchange between 2006 and 2010 owing to their regulatory advantages in that period.
- At the end of 2013, loans and household deposits constituted 63% and only 3% of their balance sheets, respectively.
- Even the main source of deposits from businesses made up only 36% of foreign banks’ balance sheets. In terms of funding, foreign banks generally rely on their parent banks operating abroad

Source: Bank of Thailand and BIS (2015)

4.BANKS' BUSINESS MODELS (cont'd)

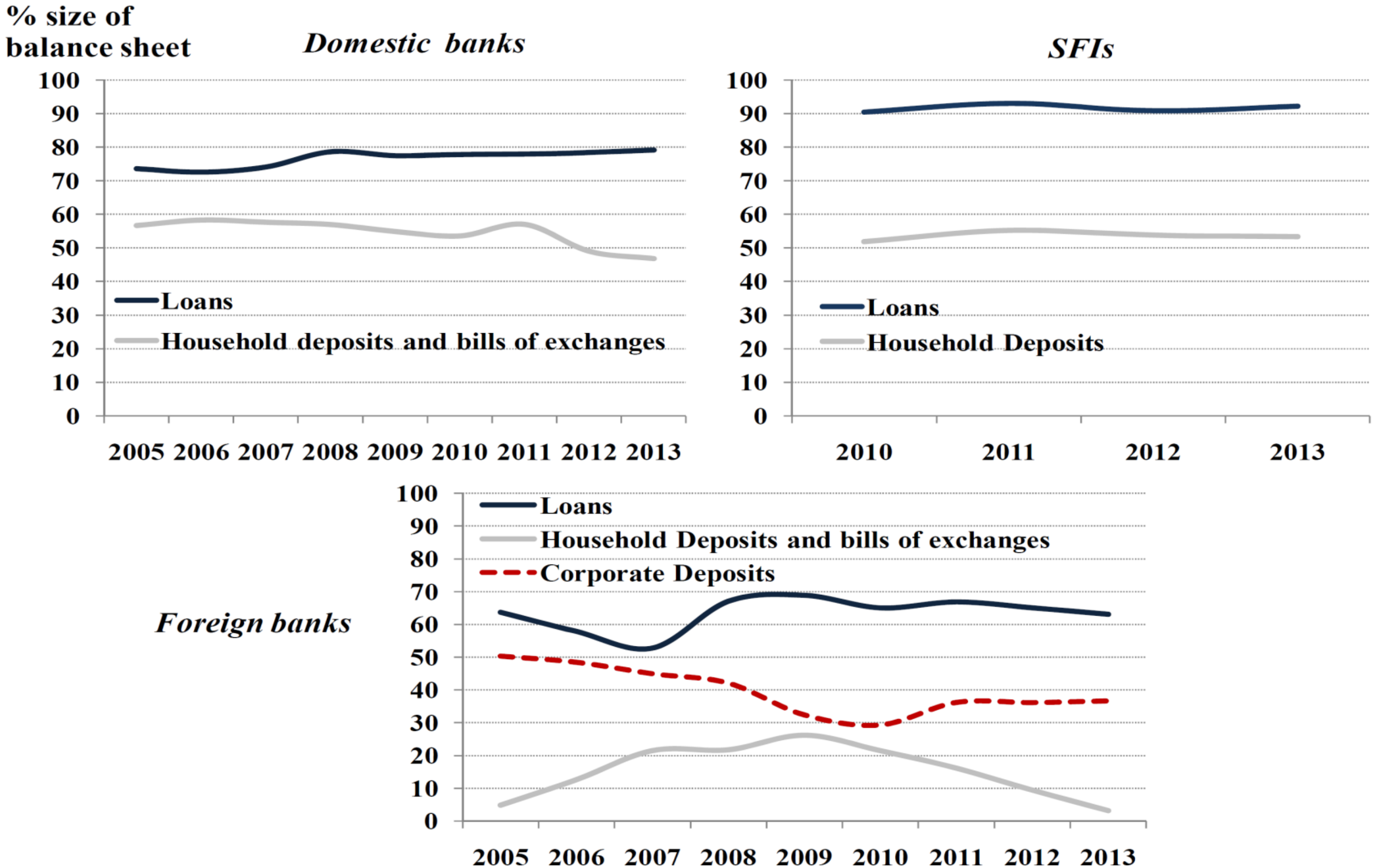
- On the asset side, foreign banks' share of loans has been lower than that of domestic banks as their income generation is more reliant on a wider range of more sophisticated financial products and services.
- During the GFC, the foreign banks' supply of loans contracted more sharply than that of domestic banks, mirroring the more widespread and pronounced effect of the crisis on their global parent banks.

Source: Bank of Thailand and BIS (2015)

4.BANKS' BUSINESS MODELS (cont'd)

Banks' business models

Graph 5



Source: Bank of Thailand; BOT staff calculation

5.FACTORS AFFECTING BANKS' BALANCE SHEETS

- Following the GFC, the source of banks' deposits has gradually shifted away from households to businesses, especially for domestic banks (Graph 6).

- The main reason is a continued deceleration in household deposits as households have switched to other savings products with higher returns than historically low deposit rates. As a result, total deposit growth has been outpaced by loans, resulting in a rise in the loan-to-deposit ratio.

Source: Bank of Thailand and BIS (2015)

5.FACTORS AFFECTING BANKS' BALANCE SHEETS (cont'd)

- On the other hand, domestic banks have managed to maintain a portion of liquid assets close to its historical average, suggesting that liquidity might not be a major constraint on their capacity to extend loans, which generally depends more on the economic outlook and borrower creditworthiness.
- Moreover, the subsidiary companies of domestic banks have also engaged in competition for funds through alternative saving products such as money market funds. This to a certain extent has assured banks' access to liquidity for extending credit as needed

Source: Bank of Thailand and BIS (2015)

5.FACTORS AFFECTING BANKS' BALANCE SHEETS (cont'd)

- Banks' lending structures have developed in an opposite way to that of deposits. The domestic bank loans extended to households have increased their share of total lending since 2009.
- During the GFC, household credit kept expanding at a low rate, in contrast with the sharp contraction in business credits, given that banks were more concerned over the financial health of businesses, particularly those relying on exports.

Source: Bank of Thailand and BIS (2015)

5.FACTORS AFFECTING BANKS' BALANCE SHEETS (cont'd)

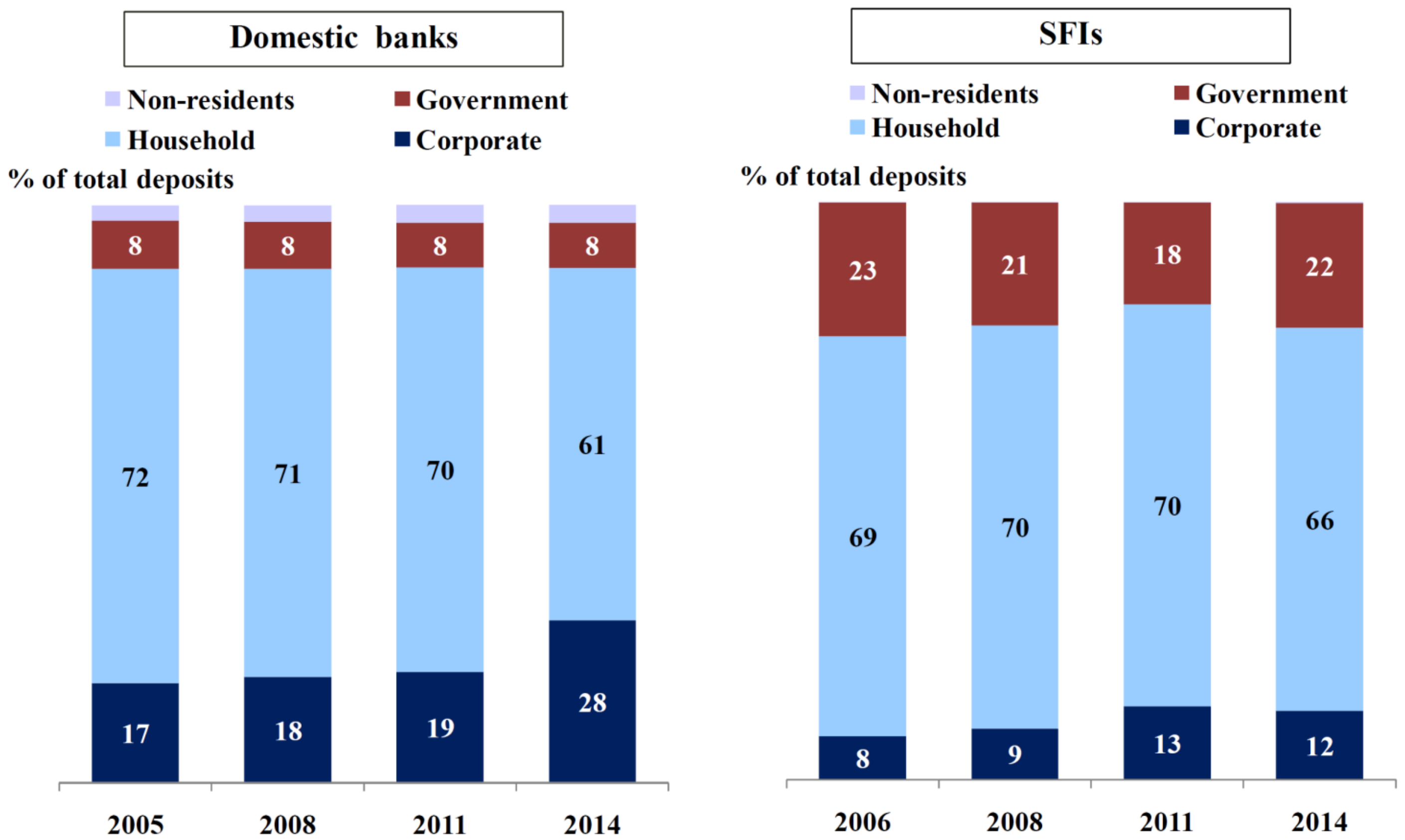
- Until 2013, household loan growth continued to be elevated, particularly for auto leasing and mortgages, buoyed by a strong economic recovery as well as stimulus measures such as a tax rebate scheme for first-time car buyers (2011–12) and property sector stimulus measures (2010).

Source: Bank of Thailand and BIS (2015)

6.FACTOR AFFECTING BANKS' BALANCE SHEETS

Structure of banks' deposits

Graph 6



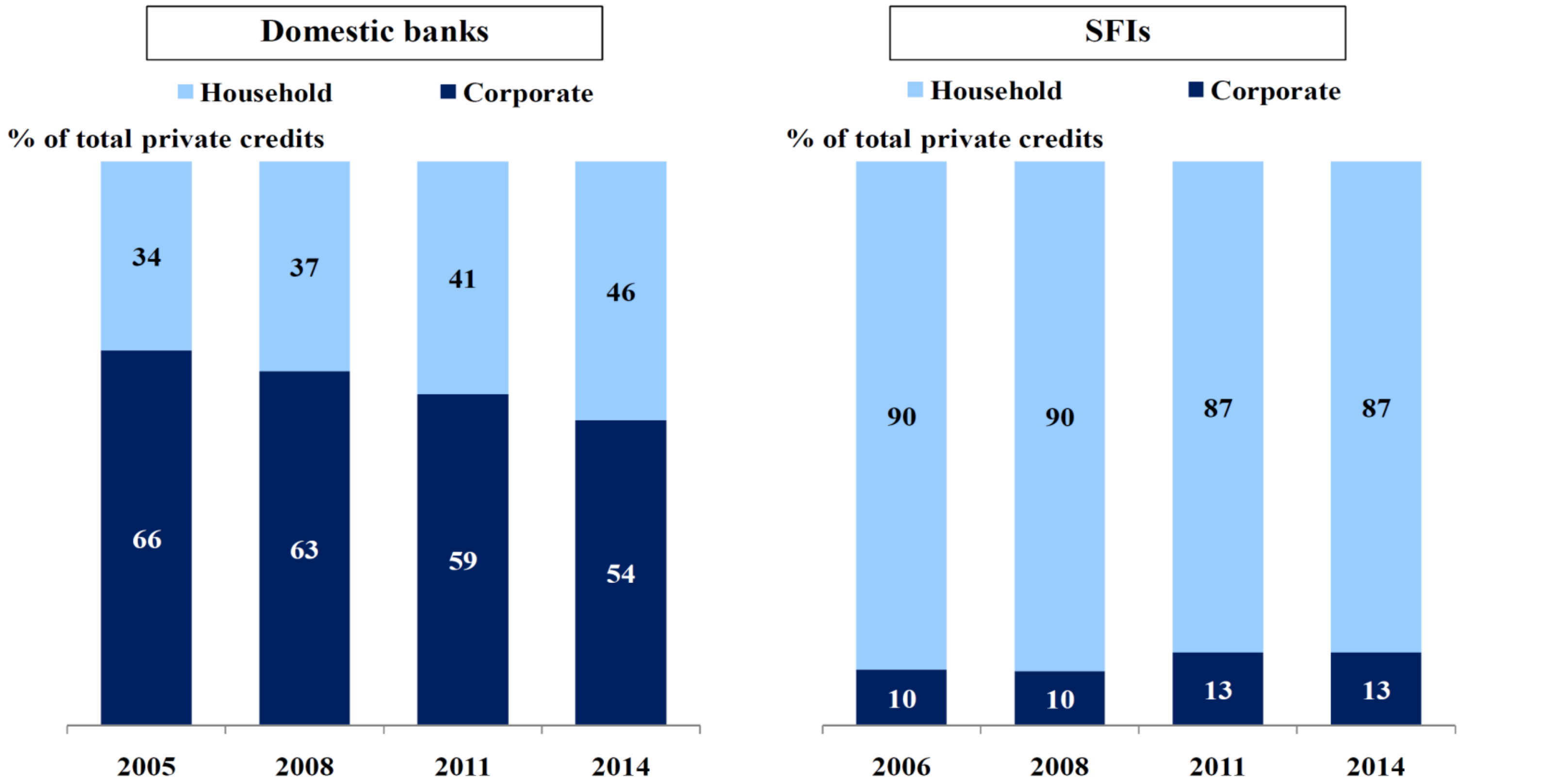
Note: 1. Percents of total deposits excluding those of deposit-taking corporations; 2. SFIs' data beyond 2006 is not available

Source: Bank of Thailand; BOT staff calculation

6.FACTOR AFFECTING BANKS' BALANCE SHEETS (cont'd)

Composition of credits extended to the private sector

Graph 7



Note: 1. Percents of total loans extended to the private sector, including households, businesses and other financial institutions; 2. Data of SFIs beyond 2006 is not available

Source: Bank of Thailand; BOT staff calculation

6.FACTOR AFFECTING BANKS' BALANCE SHEETS (cont'd)

- SFIs have also been a major contributor to credit growth since the GFC due in part to state-imposed commercial incentives. Since the GFC, SFIs have rapidly expanded their lending to household and business credits both expanded, and a spectacular growth in business credit for rebuilding after the 2011 floods increased their overall share.

- Variable-rate lending, broadly represented by mortgage and business loans, accounted for 84% of commercial banks' total lending at the end of 2014.The remaining 16% of loans was mainly fixed rate. The structure has been more or less stable over the period.

Source: Bank of Thailand and BIS (2015)

6.FACTOR AFFECTING BANKS' BALANCE SHEETS (cont'd)

- Over the past 10 years, the business outlook and cash flow of potential borrowers have been key considerations in domestic banks' credit decisions.

- Domestic banks are quick to adjust their lending standards in line with changing economic conditions.
- This was evident during the GFC, when they significantly tightened credit standards, particularly for businesses, leading to a marked drop-off in business loans.

Source: Bank of Thailand and BIS (2015)

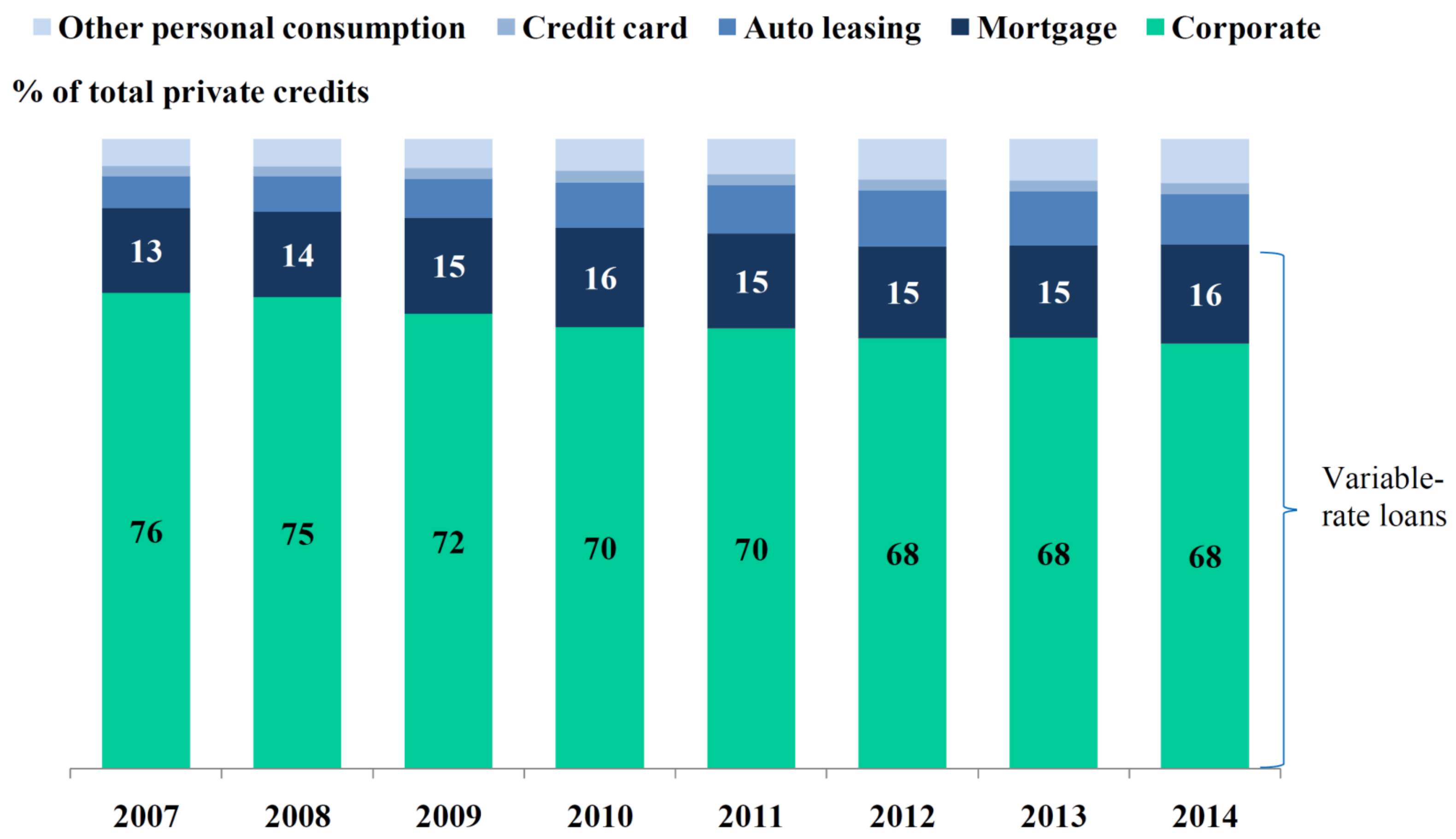
6.FACTOR AFFECTING BANKS' BALANCE SHEETS (cont'd)

- More recently, elevated household indebtedness and slow income growth have induced domestic banks to reduce their lending particularly to low income households and to small and medium businesses.
- On the other hand, the case for SFIs may differ from that of domestic banks, as their credit standards have appeared to be looser across time, in part owing to their mandate to promote greater access to the formal financial system, particularly for low-income households and small firms.

Source: Bank of Thailand and BIS (2015)

6.FACTOR AFFECTING BANKS' BALANCE SHEETS (cont'd)

Composition of commercial banks' private credits Graph 8



Source: Bank of Thailand; BOT staff calculation

6.FACTOR AFFECTING BANKS' BALANCE SHEETS (cont'd)

- With regard to banks' external exposure, following the GFC, commercial banks' foreign liabilities have continued to grow, mainly due to the funding requirements of Thai firms investing abroad, an increase in non-residents' demand for bank equities, and the response of banks to an increase in demand for currency hedging from exporters.
- Offshore borrowing has increased (see Graph 9), mainly as foreign banks have borrowed foreign currencies from their headquarters to meet increased demand from domestic banks for foreign currencies.

Source: Bank of Thailand and BIS (2015)

6.FACTOR AFFECTING BANKS' BALANCE SHEETS (cont'd)

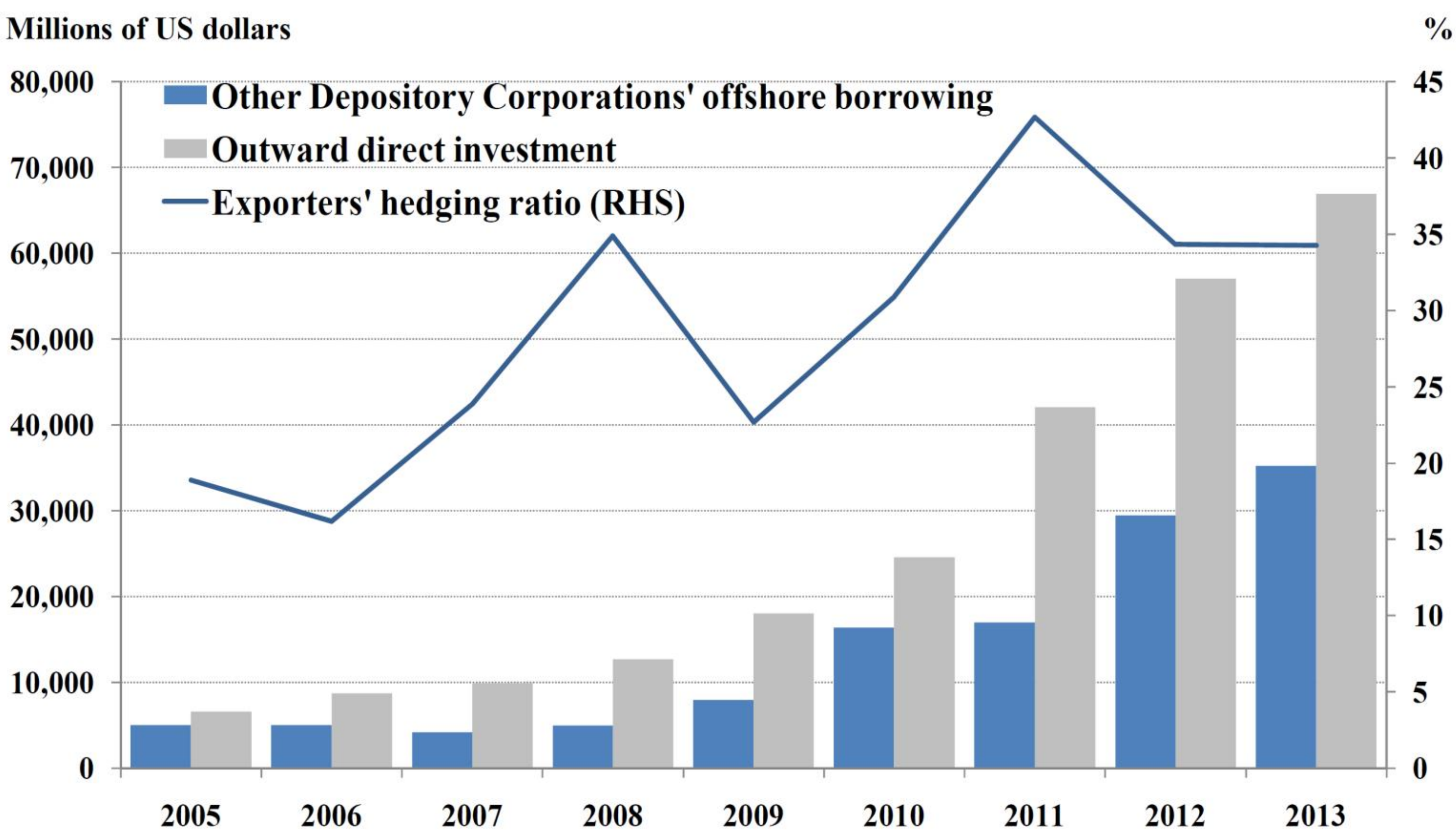
- Foreign currencies are used by domestic banks to square their foreign currency forward contracts with exporters and to fund outward direct investment by Thai corporations, which has significantly expanded since 2010. The latter resulted in an increase in foreign currency loans to the Thai corporate sector.

Source: Bank of Thailand and BIS (2015)

6.FACTOR AFFECTING BANKS' BALANCE SHEETS (cont'd)

Other Depository Corporations' external loans*, Thai outward direct investment*, and Thai exporters' hedging ratio

Graph 9



Note: * International Investment Position data (Outstanding), while outward direct investment was made by all residents

Source: Bank of Thailand; BOT staff calculation

6.FACTOR AFFECTING BANKS' BALANCE SHEETS (cont'd)

- Greater investment abroad by Thai firms can be attributed to a combination of factors, including slow domestic demand growth, tightening in the Thai labour market, a rise in minimum wages and business relocation after the 2011 flood.
- Regulations also supported this change. In its Capital Account Liberalization Master Plan announced in October 2010, the Bank of Thailand deregulated outward direct investment by Thai firms seeking to expand their business base and enhance their competitiveness.

Source: Bank of Thailand and BIS (2015)

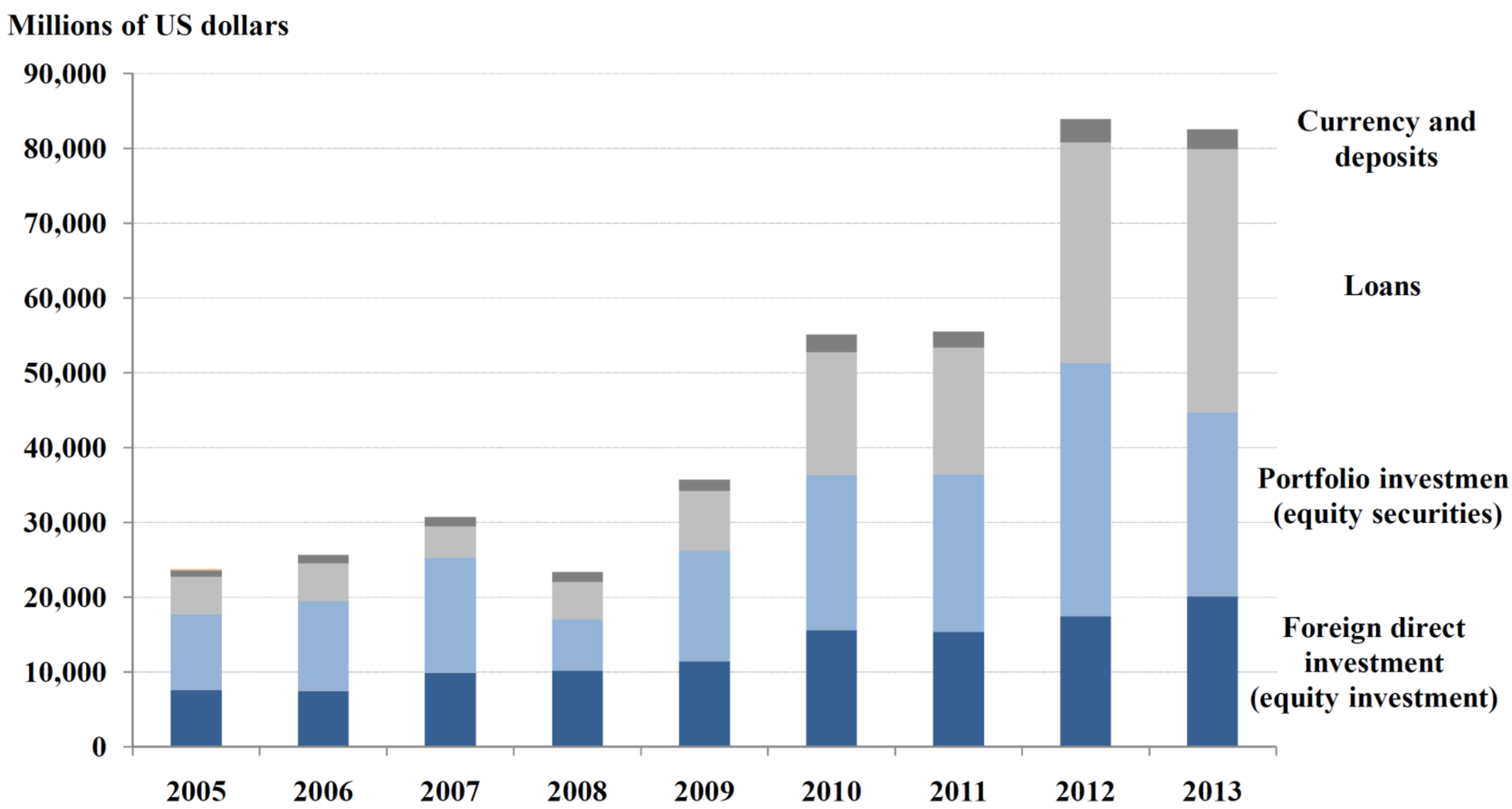
6.FACTOR AFFECTING BANKS' BALANCE SHEETS (cont'd)

- Another noticeable change is a marked increase in equity securities investment (Graph 10), arising partly from non-residents' demand for bank equities in search for- yield behavior driven by the exceptionally low returns in advanced economies
- This foreign demand has coincided with an increase in banks' equity issuance in conformity with the Basel III regulations.
- Foreign direct investment by banks has also risen, reflecting greater foreign ownership of domestic banks mainly via mergers. Higher foreign control of domestic banks might have future implications for banks' business models toward the wholesale funded type, though the change has not been evident to date.

Source: Bank of Thailand and BIS (2015)

6.FACTOR AFFECTING BANKS' BALANCE SHEETS (cont'd)

Other Depository Corporations' foreign liabilities* Graph 10



Note: * International Investment Position data (Outstanding)

Source: Bank of Thailand; BOT staff calculation

6.FACTOR AFFECTING BANKS' BALANCE SHEETS (cont'd)

- During the GFC, the limited international exposure of commercial banks helped them weather the crisis. Only marginal losses were sustained, owing in part to the banks' low holdings of subprime-related assets.
- Since the GFC, commercial banks have increased their foreign assets and liabilities, but only to a moderate 5.6% and 8.4% of their balance sheets at the end of 2013, respectively.
- Moreover, risks to banks' solvency arising from maturity and currency mismatches have not been evident. Future tightening in global monetary conditions might have implications for bank balance sheets.

Source: Bank of Thailand and BIS (2015)

6.FACTOR AFFECTING BANKS' BALANCE SHEETS (cont'd)

- But thanks to their limited external exposure and strong financial positions, the commercial banks should be able to absorb changes in monetary conditions and continue to effectively perform their role of financial intermediation.
- Representing as it does an additional source of financing for both the public and private sectors, the development of the bond market has been a priority for the Thai authorities since the 1997 crisis, as reflected in the Bond Market Development Plan I (1998–2004), Plan II (2005–08) and the Capital Market Development Master Plan that ran until 2014.

Source: Bank of Thailand and BIS (2015)

7.THE ROLE OF THE BOND MARKET

- High levels of global liquidity and an extended period of accommodative domestic monetary policy have contributed to the Thai bond market's growing relevance in financial intermediation.
- This, nevertheless, poses a set of challenges for domestic policymakers in dealing with any future changes in the monetary policy of major central banks.

Source: Bank of Thailand and BIS (2015)

8.STRUCTURE OF THE BOND MARKET IN THAILAND

- Post-crisis, the Thai bond market has continued to grow at an average annual growth of 10% during 2009–13 (Graph 11). This was partly spurred by continued capital inflows in the wake of the ultra-loose monetary policies of advanced economies.
- Foreign investors have thus continued to increase their bond holdings, which currently comprise about 10% of domestic bonds outstanding at the end of 2013. A prolonged period of low domestic interest rates has also contributed to the market's expansion.

Source: Bank of Thailand and BIS (2015)

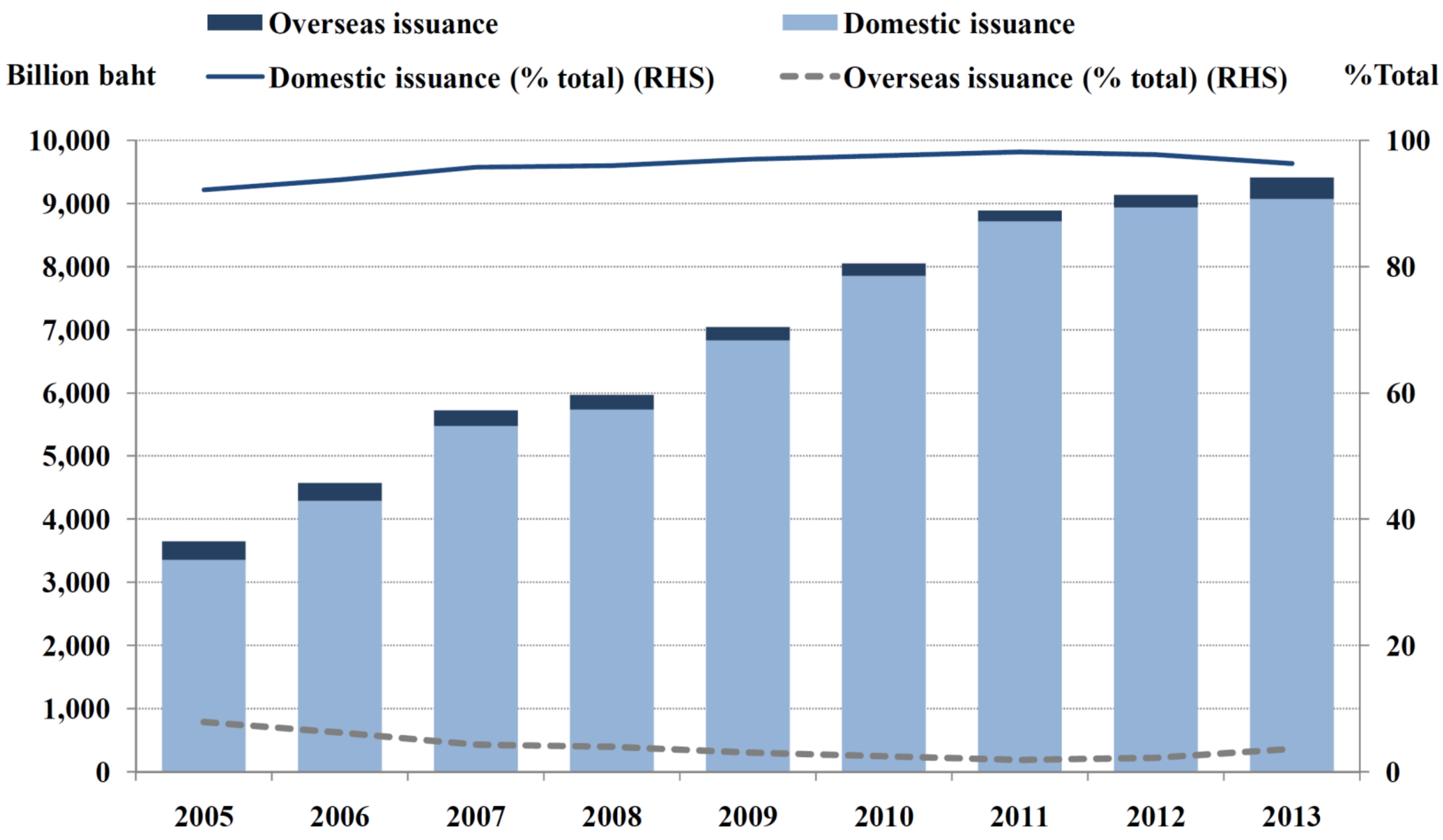
8.STRUCTURE OF THE BOND MARKET IN THAILAND (cont'd)

- New issuance of Thai corporate bonds increased remarkably in 2014, totaling THB 308 billion, up from THB 134 billion in 2013, as large firms locked in low interest rates in part to refinance banking loans with the aim of cutting debt servicing costs.

Source: Bank of Thailand and BIS (2015)

8.STRUCTURE OF THE BOND MARKET IN THAILAND (cont'd)

Debt securities outstanding (by residency of borrower) Graph 11

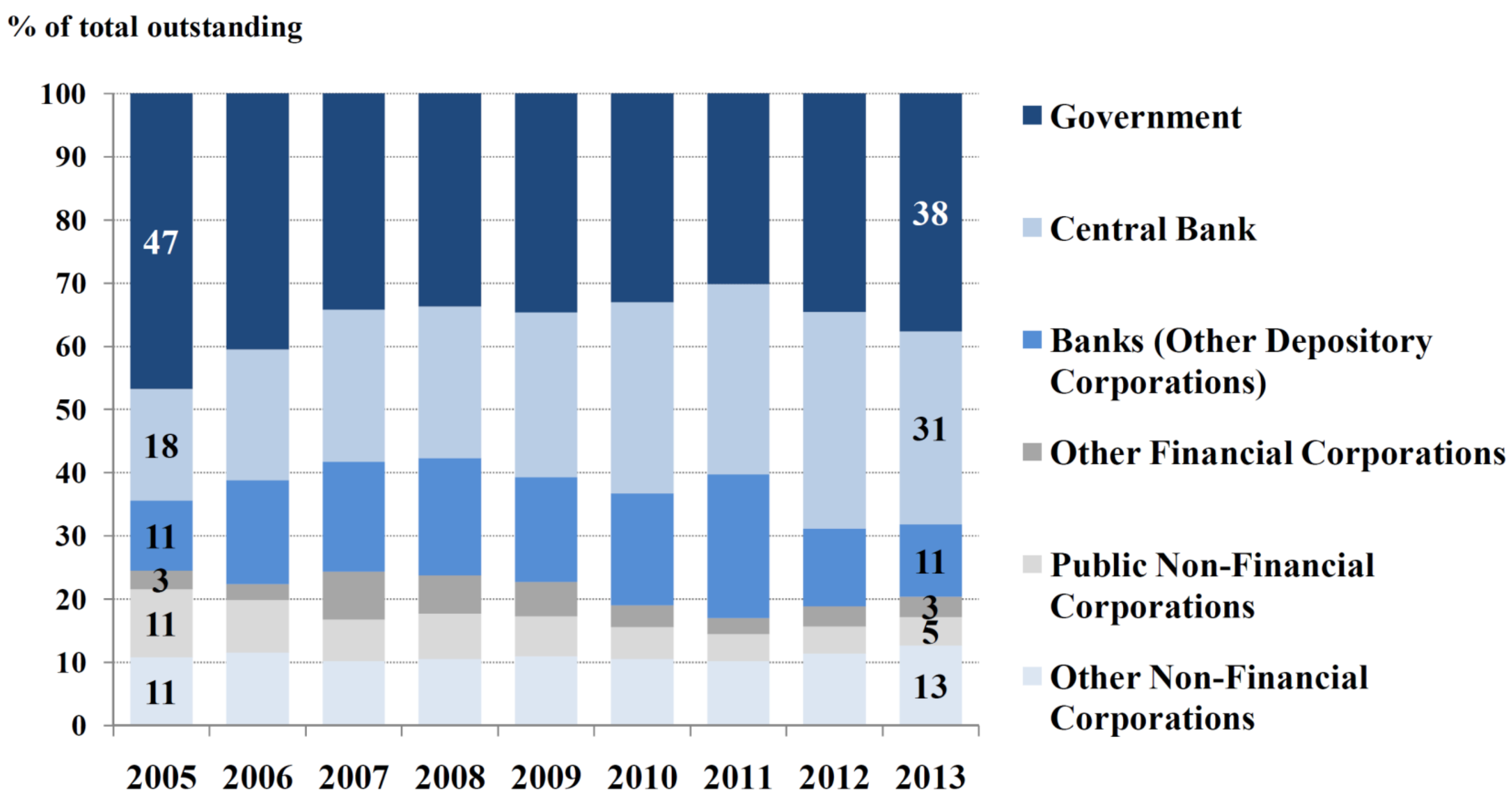


Source: Bank of Thailand; BOT staff calculation

8.STRUCTURE OF THE BOND MARKET IN THAILAND (cont'd)

Debt securities outstanding classified by sectors (by residency of borrower and domestic issuance)

Graph 12



Source: Bank of Thailand; BOT staff calculation

8.STRUCTURE OF THE BOND MARKET IN THAILAND (cont'd)

- Overall, the bond market's structure has not changed significantly over the past decade. In terms of borrowers, the government has continued to be the main issuer (Graph 12), in order to finance public expenditures, particularly large-scale programs.
- Meanwhile, Thai corporate issuance has remained relatively small – it does not yet amount to a "spare tire" for the banking system – making up about 16% of total domestic bonds outstanding in 2013. In term of lenders, domestic banks and contractual savings institutions are the largest holders of domestic bonds.

Source: Bank of Thailand and BIS (2015)

8.STRUCTURE OF THE BOND MARKET IN THAILAND (cont'd)

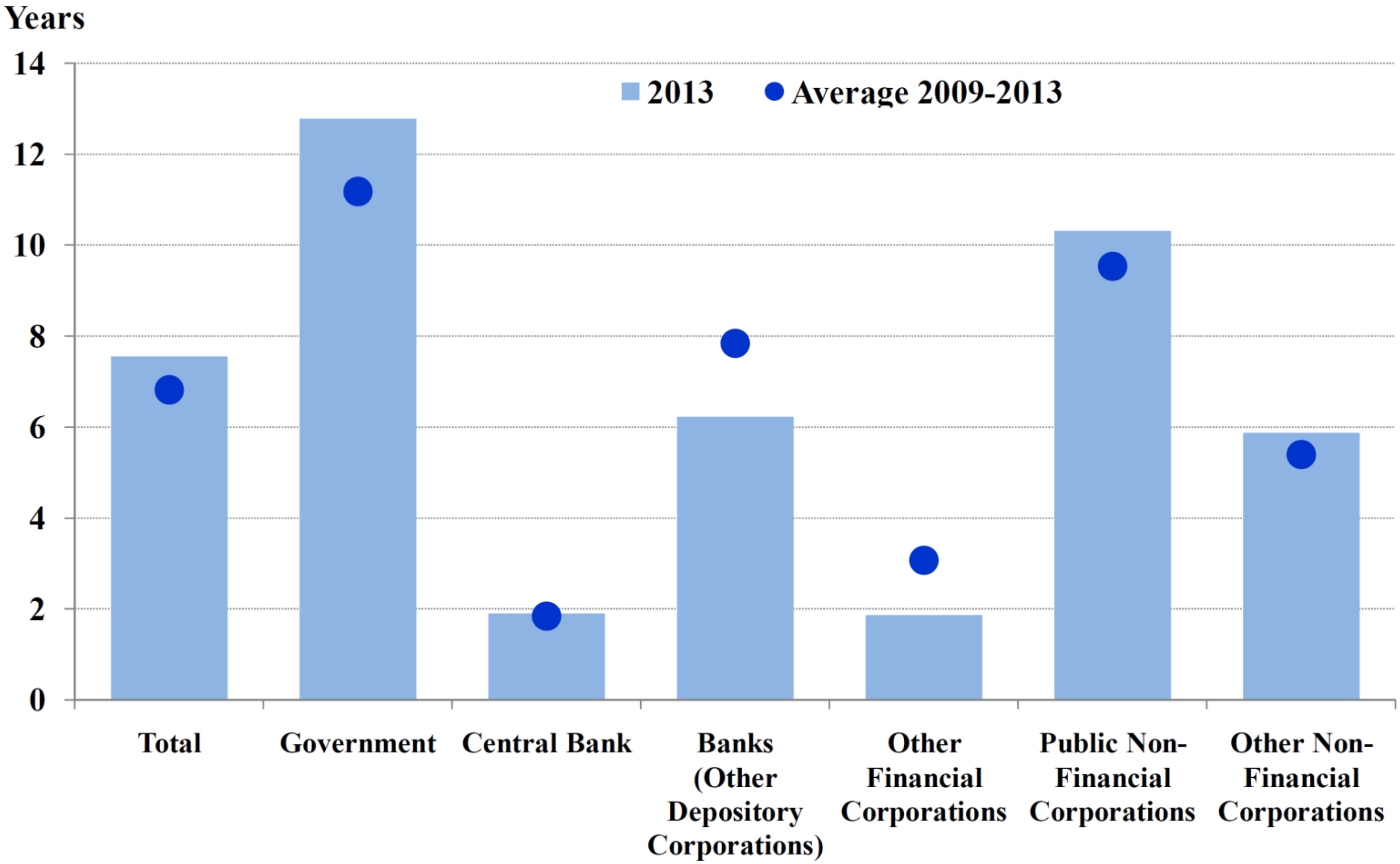
- With regard to maturity, bonds have been issued at medium- to long-term maturities, currently at an average of 13 and six years for the government and nonfinancial corporations, respectively. This is consistent with the aims of most issuers, namely to fund long-term projects(Graph 13).
- In addition, fixed rate bonds still account for the largest share of bonds outstanding (Graph 14). Regarding the choice of currency, 99% of domestic bonds outstanding were issued in the Thai baht.

Source: Bank of Thailand and BIS (2015)

8.STRUCTURE OF THE BOND MARKET IN THAILAND (cont'd)

Average maturity at issuance

(by residency of borrower and domestic issuance) Graph 13

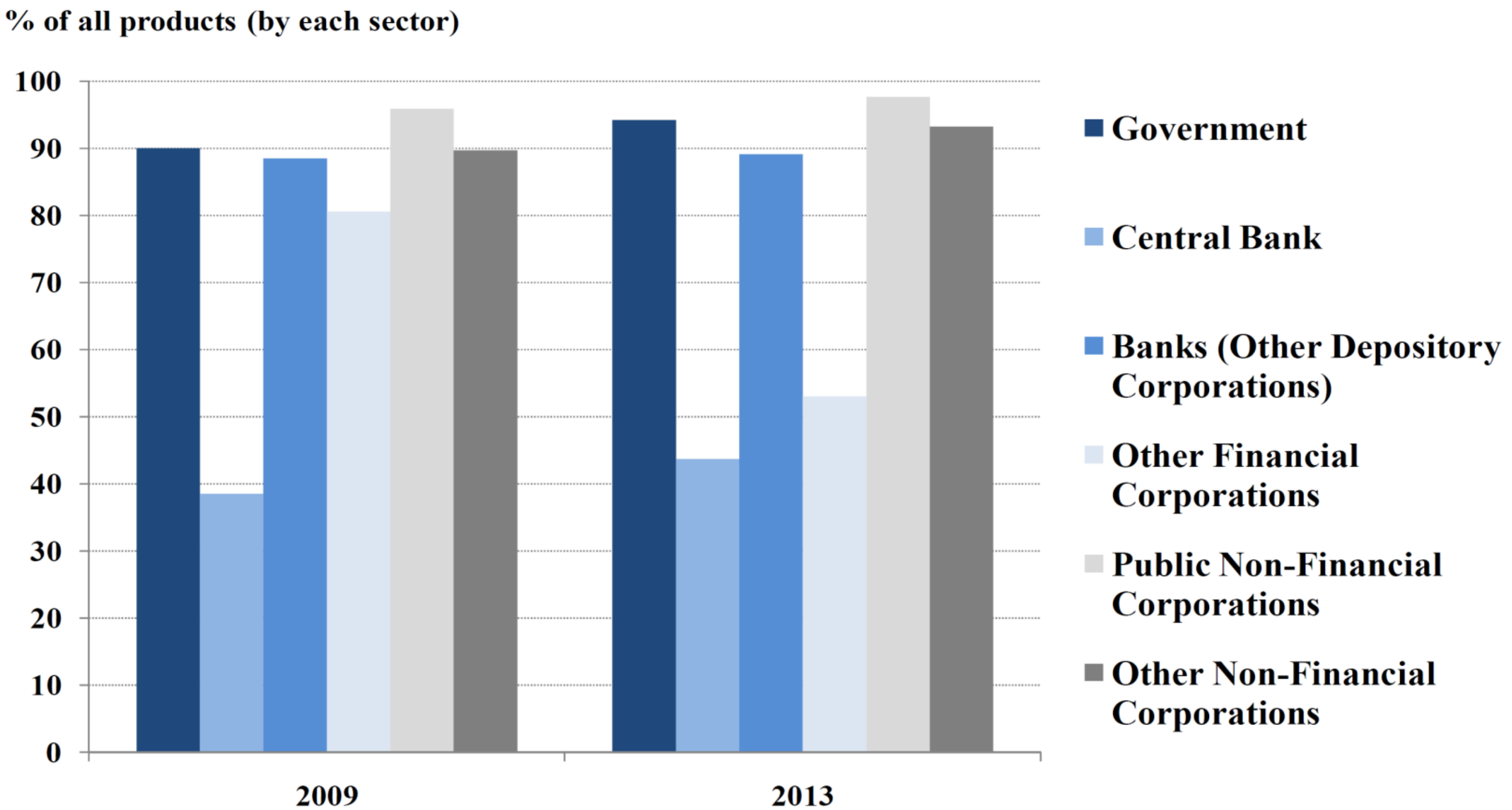


Source: Bank of Thailand; BOT staff calculation

8.STRUCTURE OF THE BOND MARKET IN THAILAND (cont'd)

Share of fixed interest rate products*

(by residency of borrower and domestic issuance) Graph 14



Note: * Share of fixed interest rate products divided by all fixed, floating, and non-interest rate products of each sector

Source: Bank of Thailand; BOT staff calculation

9.GLOBAL FINANCIAL LINKAGES

- Notwithstanding the greater participation of Thai firms in the domestic bond market, a prolonged period of exceptionally low global interest rates and compressed risk premium have not significantly increased overseas bond issuance by Thai firms.
- As shown in Graph, issuance of overseas bonds by Thai firms has been relatively low, making up about 2% of total bonds outstanding over the past five years, due mainly to lower borrowing costs at home.
- Most of the Thai firms intending to raise funds abroad bear higher costs in large part from the higher risk premium required by foreign investors.

Source: Bank of Thailand and BIS (2015)

9.GLOBAL FINANCIAL LINKAGES (cont'd)

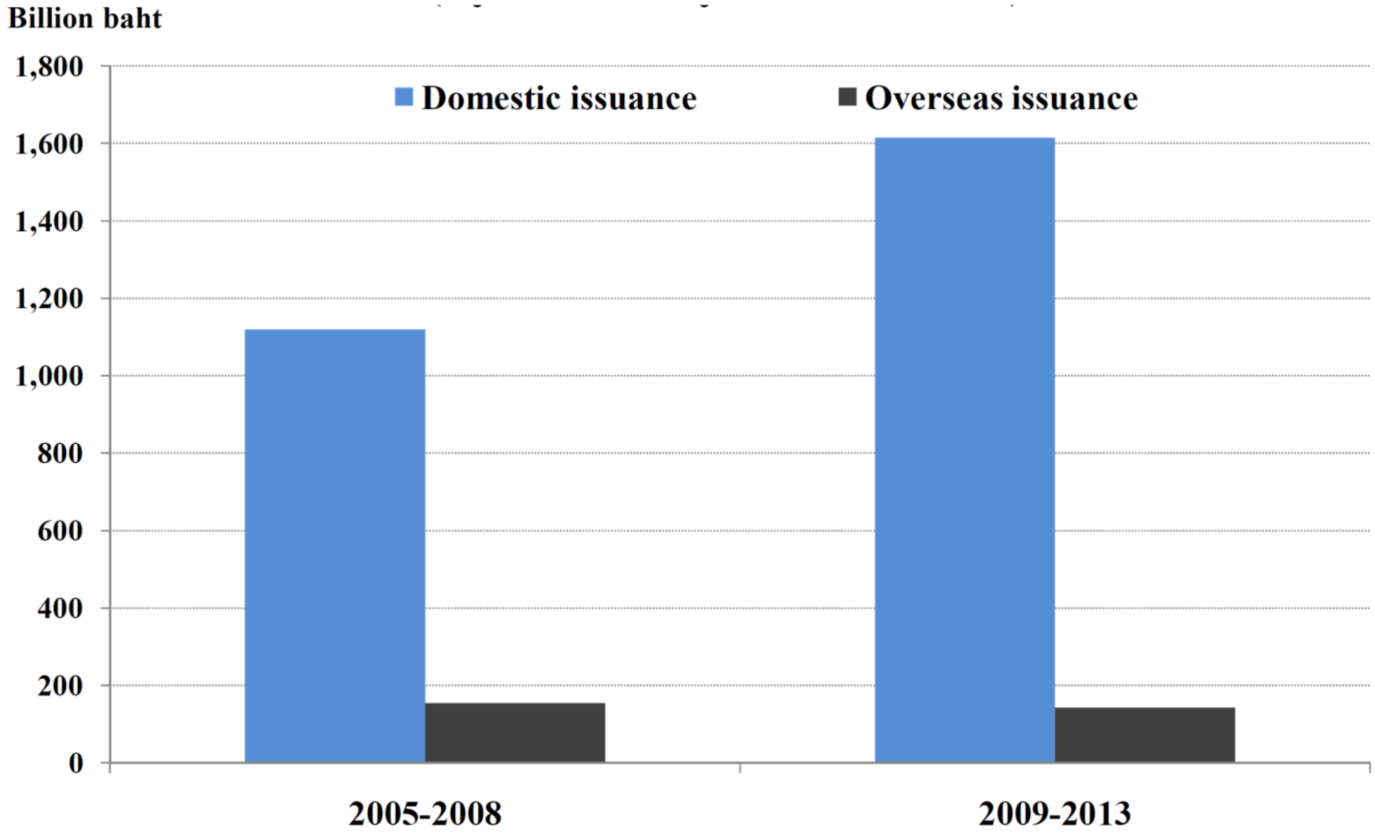
- Firms that use foreign currency denominated funds to finance domestic activities also need to absorb additional costs from currency hedging, making it less attractive overall to raise funds abroad.
- In addition, a large number of Thai firms remain unable to access cross-border finance due to the difficulty of obtaining an international credit rating, thus compromising their creditworthiness from the foreign investors' perspective.
- Typically, Thai corporations access international markets by borrowing from offshore banks, although this funding method remains minimal in size compared to loans extended domestically.

Source: Bank of Thailand and BIS (2015)

9.GLOBAL FINANCIAL LINKAGES (cont'd)

Bonds outstanding of the corporate sector and public non-financial corporations*

(by residency of borrower) Graph 15



Note: * The corporate sector includes Other Financial Corporations and Other Non-Financial Corporations

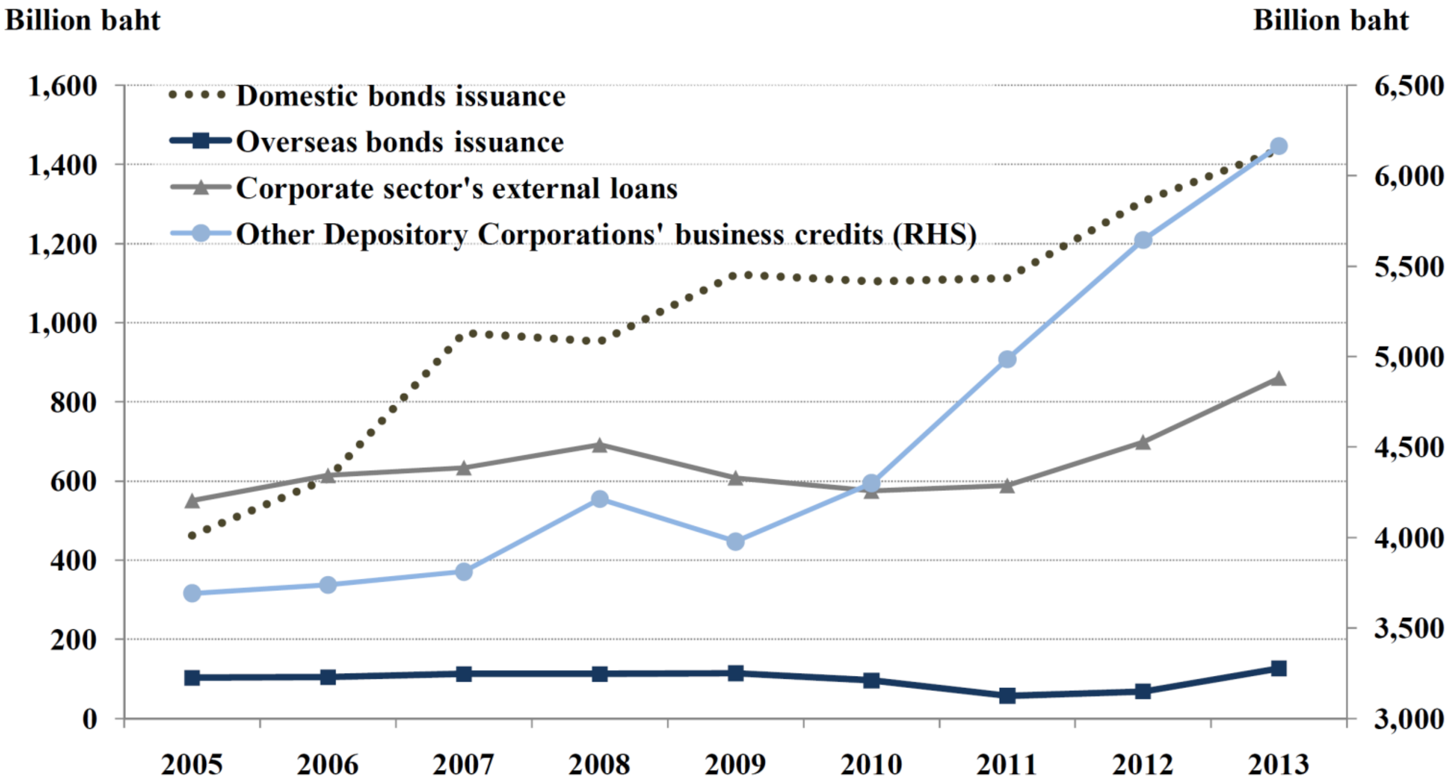
Source: Bank of Thailand; BOT staff calculation

9.GLOBAL FINANCIAL LINKAGES (cont'd)

The corporate sector* debt outstanding

(by residency of borrower)

Graph 16



Note: * The corporate sector includes Other Financial Corporations and Other Non-Financial Corporations

Source: Bank of Thailand; BOT staff calculation

9.GLOBAL FINANCIAL LINKAGES (cont'd)

- Any anticipated tightening in global financial conditions could have implications for the Thai economy, but risks to financing, economic and financial stability should be contained.
- Among the possible channels, the most significant impact is likely to be transmitted through bond returns.
- Particularly post-crisis, monetary conditions in the advanced economies have influenced those in emerging markets via domestic bond yields, as reflected in the more synchronous term spreads in the US and Asian economies (Graphs 17 and 18).
- In addition, the adjustments during the taper tantrum episodes have not brought risk premiums back to their pre-crisis level, and long-term interest rates remain low.

Source: Bank of Thailand and BIS (2015)

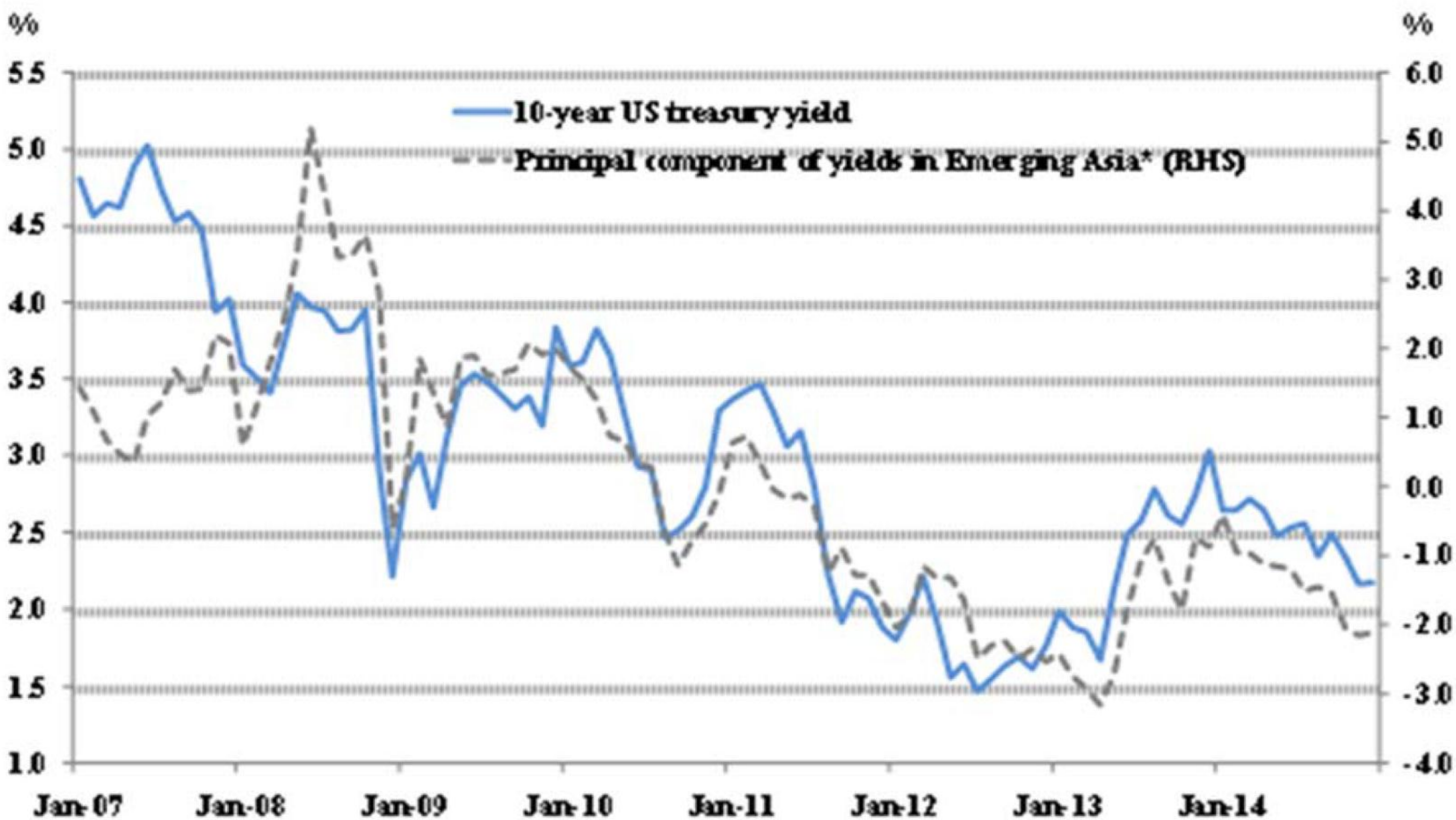
9.GLOBAL FINANCIAL LINKAGES (cont'd)

- The impending US policy normalization is therefore likely to bring about further market adjustments, potentially pushing up US treasury and Thai government bond yields, with repercussions for Thai firms through higher financing costs and tighter funding conditions.
- Overall, the degree of capital flight from emerging country bond markets will depend to a high degree on foreign investors' perceptions towards fundamentals and the economic outlook for specific economies.
- For Thailand, foreign holdings of domestic bonds have been relatively small to date, thus mitigating asset price adjustment effects triggered by foreign investors.

Source: Bank of Thailand and BIS (2015)

9.GLOBAL FINANCIAL LINKAGES (cont'd)

10-year sovereign yields | Graph 17



Note: * The principal component of 10-year sovereign yields of Indonesia, South Korea, Malaysia, the Philippines, and Thailand

Source: Bloomberg; BOT staff calculation

9.GLOBAL FINANCIAL LINKAGES (cont'd)

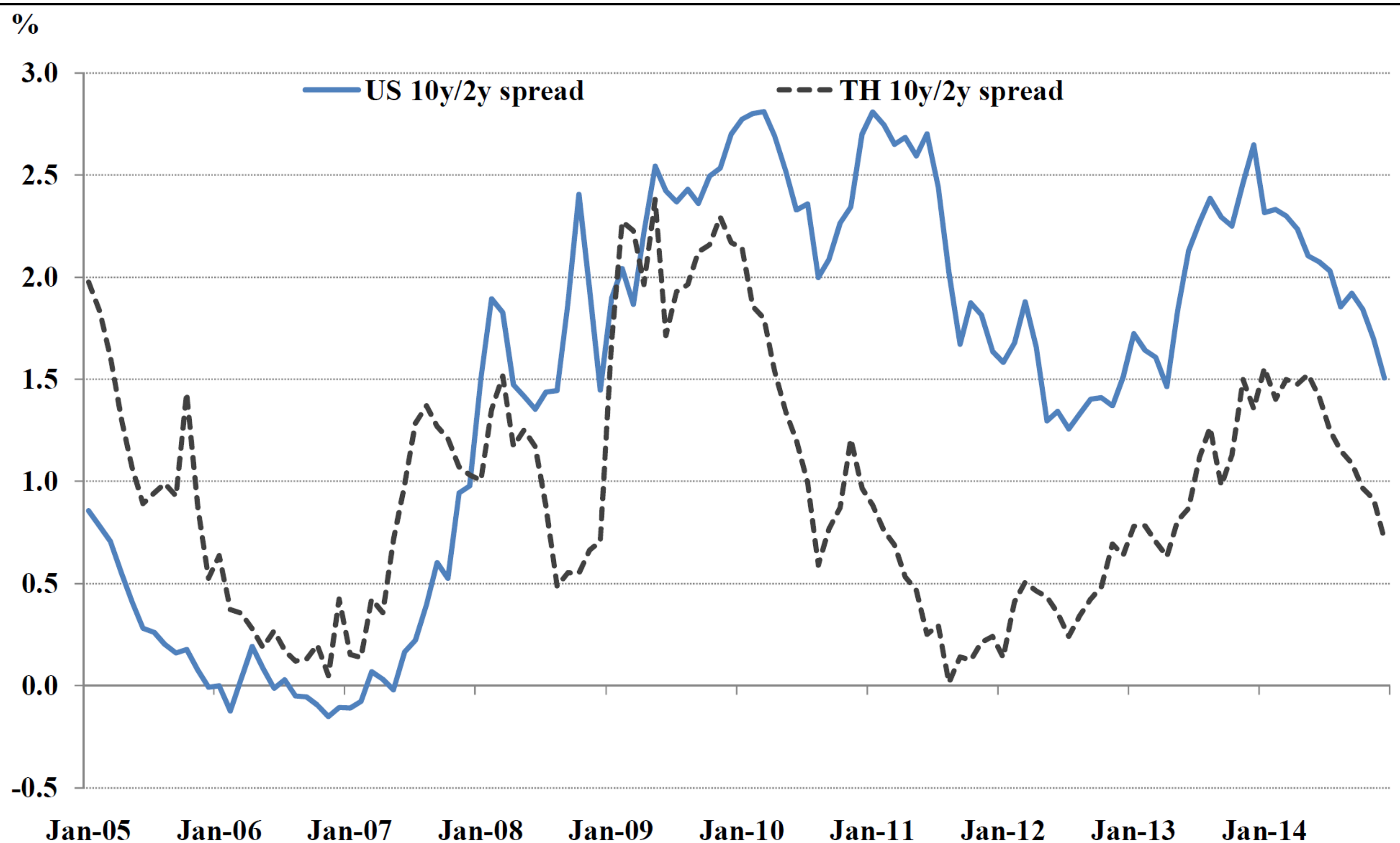
- Other possible channels work directly through firms' and banks' balance sheets.
- First, borrowers that have issued foreign currency-denominated debt or have borrowed abroad could be exposed to an increase in global interest rates and foreign exchange volatility.
- Unless full hedges are in place, corporate debt service capacity might be weakened by a rise in the debt burden and accelerated currency depreciation.
- Weaker corporate balance sheets could trigger negative spillovers to domestic banks from deteriorating credit quality and the possible withdrawal of deposits to repay debt.

Source: Bank of Thailand and BIS (2015)

9.GLOBAL FINANCIAL LINKAGES (cont'd)

US and Thailand term spread

Graph 18



Source: Bloomberg; Thai Bond Market Association (Thai BMA); BOT staff calculation

9.GLOBAL FINANCIAL LINKAGES (cont'd)

- The second channel concerns the liquidity of commercial banks, particularly those relying on deposits from firms that have raised funds via offshore borrowing.
- Provided that commercial banks are willing to increase their foreign asset positions, deposits originating from offshore borrowing to take advantage of international rate differentials should lead to an increase in domestic liquidity.
- Hence, the unwinding of such positions when interest rate differentials narrow might create difficulties for banks' liquidity management

Source: Bank of Thailand and BIS (2015)

9.GLOBAL FINANCIAL LINKAGES (cont'd)

- For instance, firms' exposure to rollover and foreign currency risks could subject banks to volatile and sudden deposit withdrawals.
- Nonetheless, this impact is unlikely to be significant as commercial banks in Thailand seem to merely play a role in facilitating exchange of currencies between counterparties rather than taking foreign asset positions themselves.
- As evidenced in Graph, strong post-crisis capital inflows have not accelerated broad money growth as the banks did not take foreign asset positions.
- Moreover, the offshore borrowing and overseas bond issuance of Thai firms have remained low.

Source: Bank of Thailand and BIS (2015)

9.GLOBAL FINANCIAL LINKAGES (cont'd)

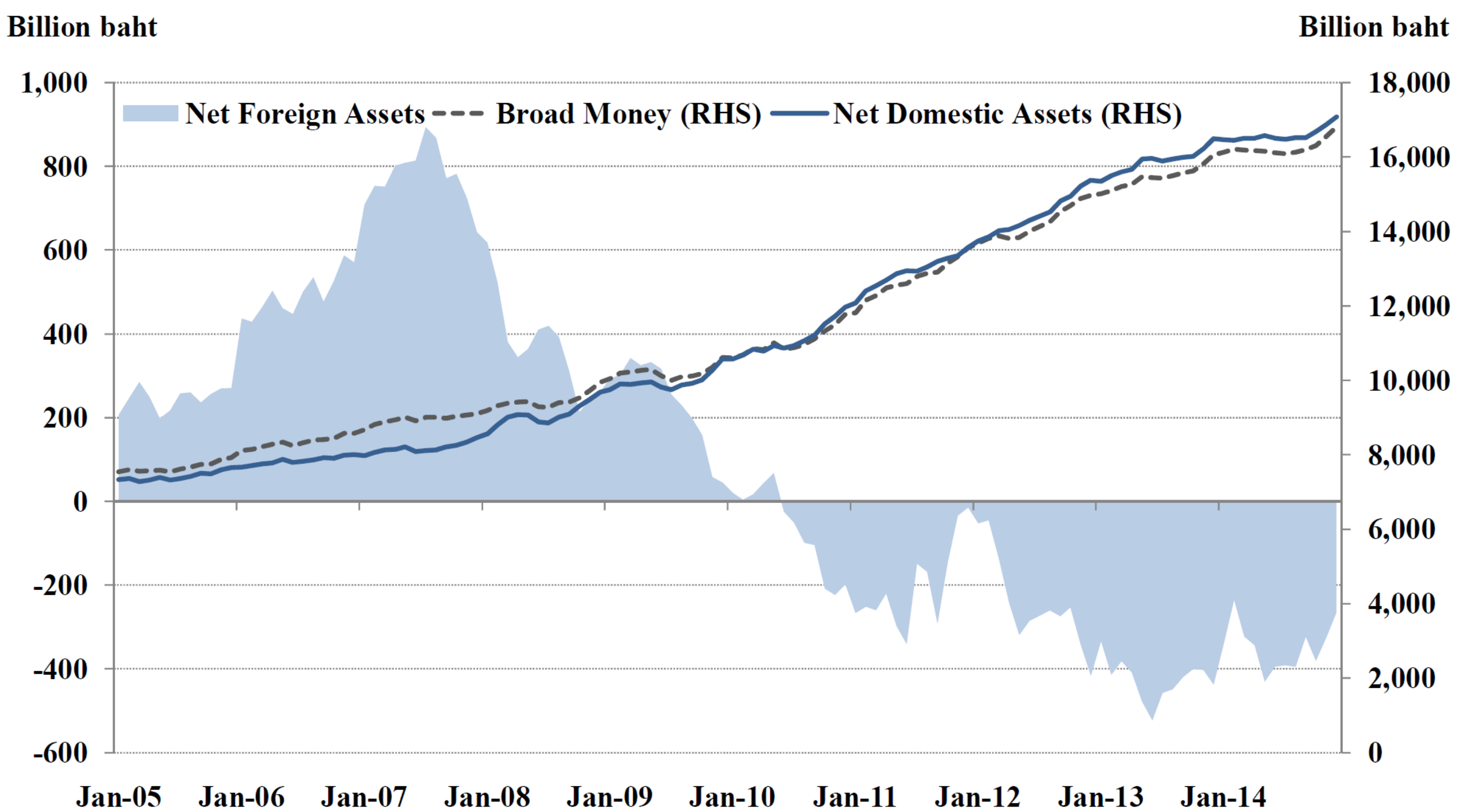
- Overall, since the international exposure of Thai firms is fairly limited, the impact of these possible scenarios is expected to be manageable.
- Unless markets adjust abruptly, an increase in domestic financing costs should be gradual and well anticipated.
- Nevertheless, as uncertainties surrounding the global financial markets abound, developments in the financial markets warrant close monitoring as well as appropriate and timely policy responses as the situation unfolds.

Source: Bank of Thailand and BIS (2015)

9.GLOBAL FINANCIAL LINKAGES (cont'd)

Liquidity in the financial system

Graph 19



Note: net foreign assets data for Other Depository Corporations

Source: Bank of Thailand; BOT staff calculation

10.IMPLICATIONS FOR MONETARY POLICY

- Since the private sector's sources of financing are highly dependent on the banking sector, monetary policy is mainly passed on to the real economy through the bank interest rate channel. To a large extent, policy effectiveness depends on the size and speed of commercial banks' rate adjustments as well as the sensitivity of credits and deposits to changes in policy rates.
- Overall, the interest rate channel has been effective since the adoption of the inflation targeting framework in 2000.
- An event based study reveals that, within one month after the Monetary Policy Committee announces a policy rate change, commercial banks on average adjust their deposit and lending rates with a magnitude of 50–80% of the change in the policy rate (Graph 20).

Source: Bank of Thailand and BIS (2015)

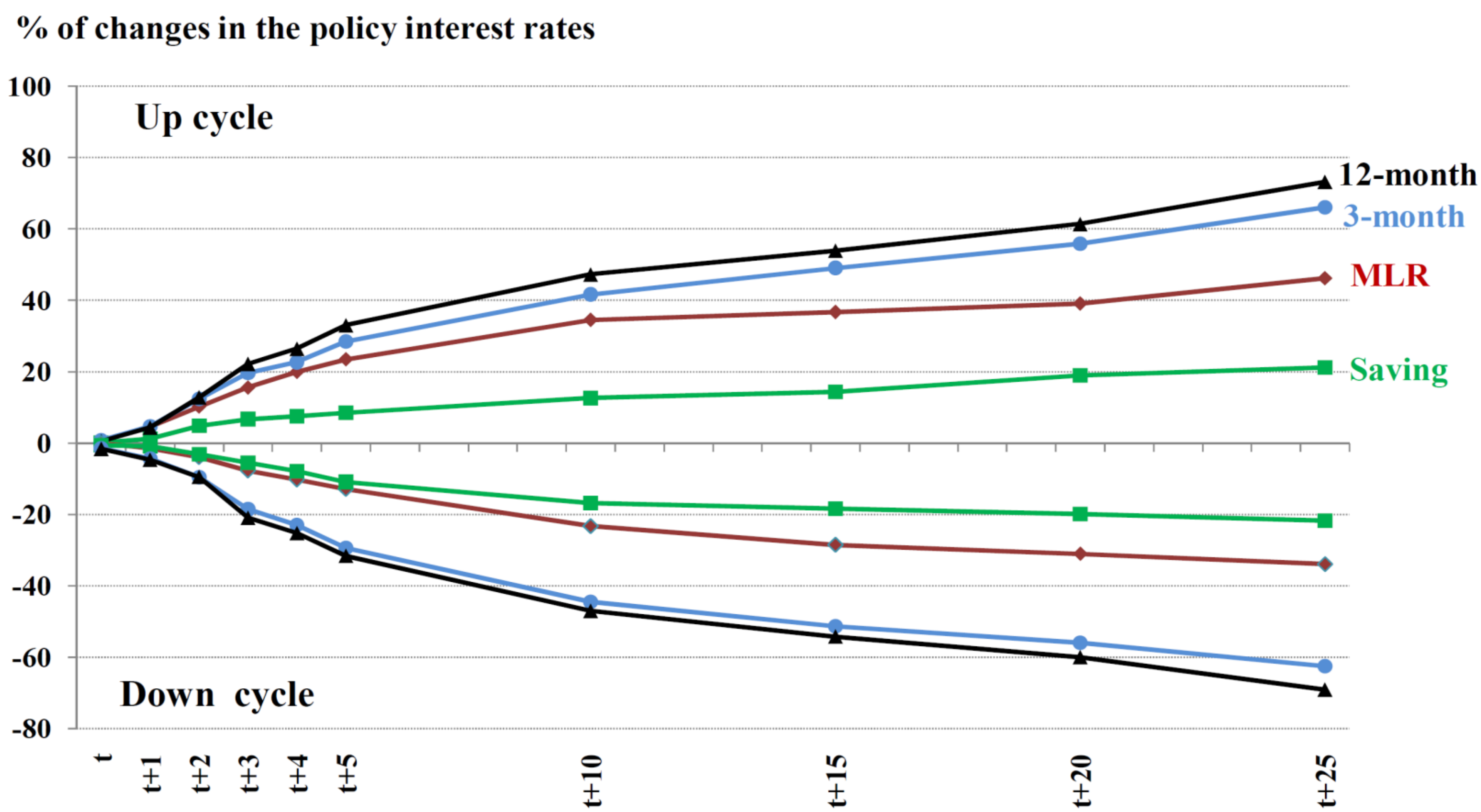
10.IMPLICATIONS FOR MONETARY POLICY (cont'd)

- The size of banks is relevant here. Smaller banks tend to adjust more slowly, as they wait for the leaders to make their rate adjustments, but smaller banks change their rates to a larger degree, reflecting their need to compete with the big banks (Graph 21).
- In addition, foreign banks are much less responsive to changes in the policy stance than their domestic counterparts (Graph 22), in part as their business models are less tied to domestic factors.

Source: Bank of Thailand and BIS (2015)

10.IMPLICATIONS FOR MONETARY POLICY (cont'd)

Reactions of domestic bank rates | Graph 20

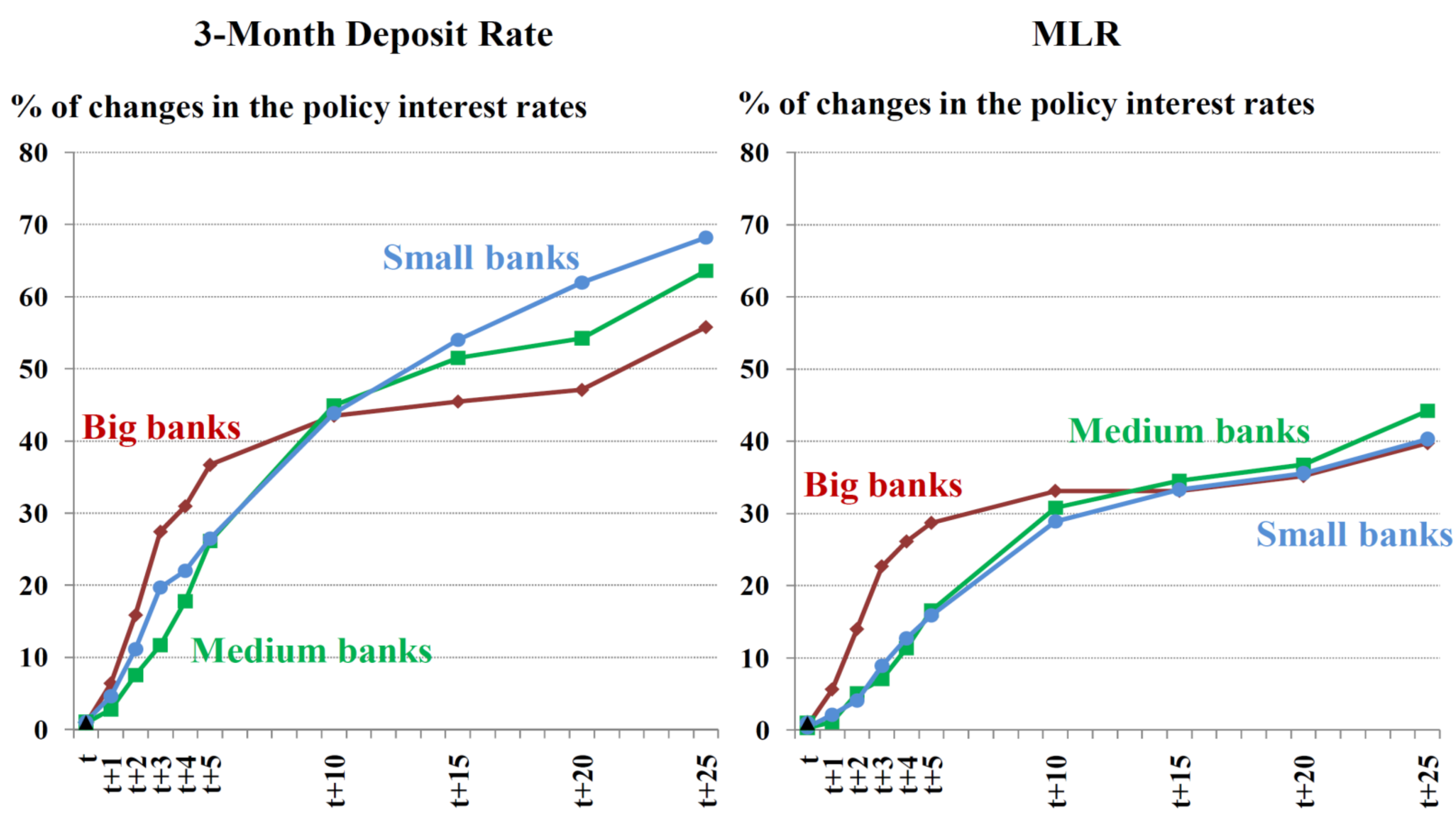


Note: t = MPC meeting date

Source: Bank of Thailand; BOT staff calculation

10.IMPLICATIONS FOR MONETARY POLICY (cont'd)

Banks' rate adjustment by size of banks — Graph 21



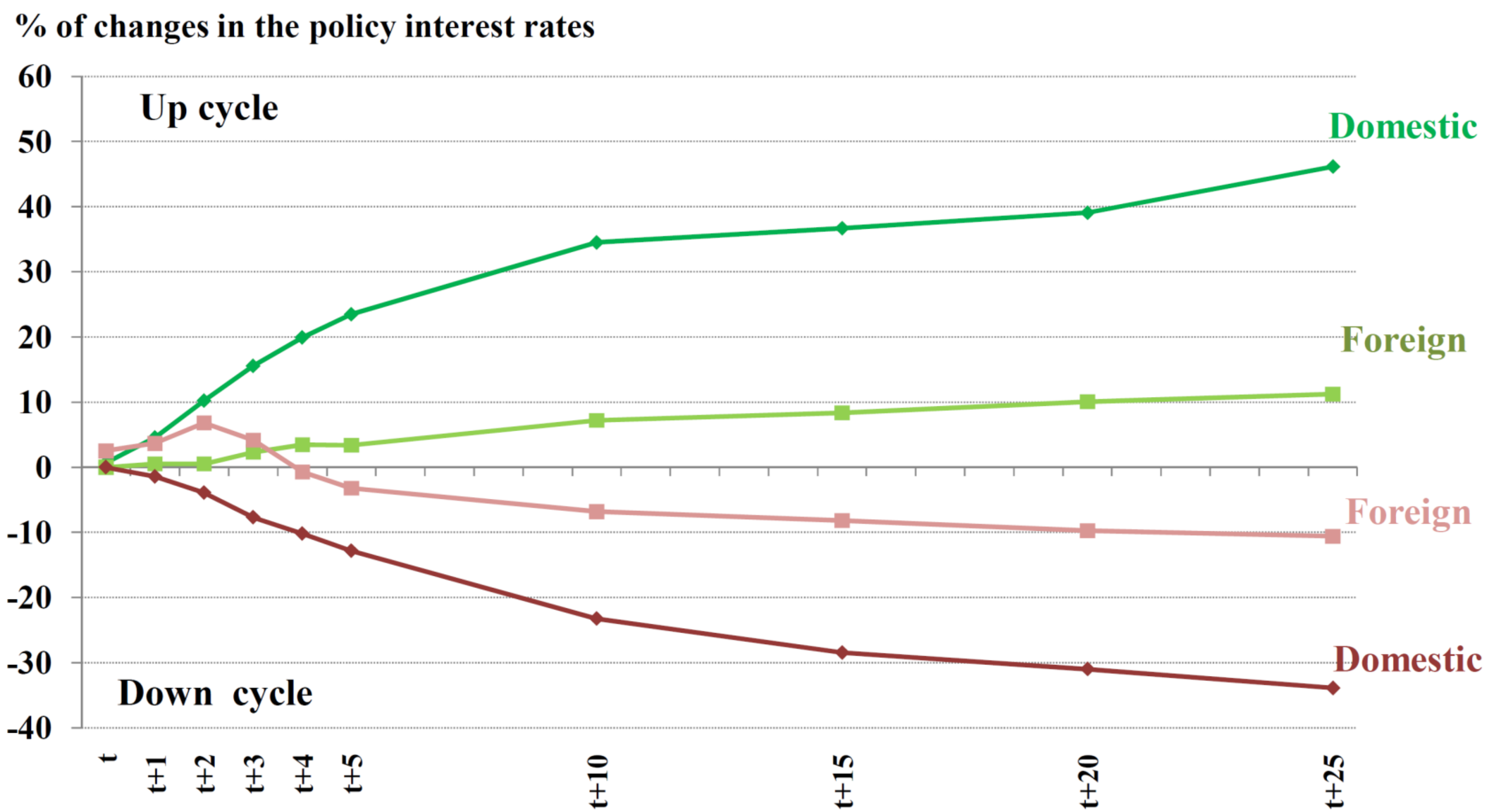
Note: t = MPC meeting date

Source: Bank of Thailand; BOT staff calculation

10.IMPLICATIONS FOR MONETARY POLICY (cont'd)

MLR Reaction between domestic and foreign banks

Graph 22

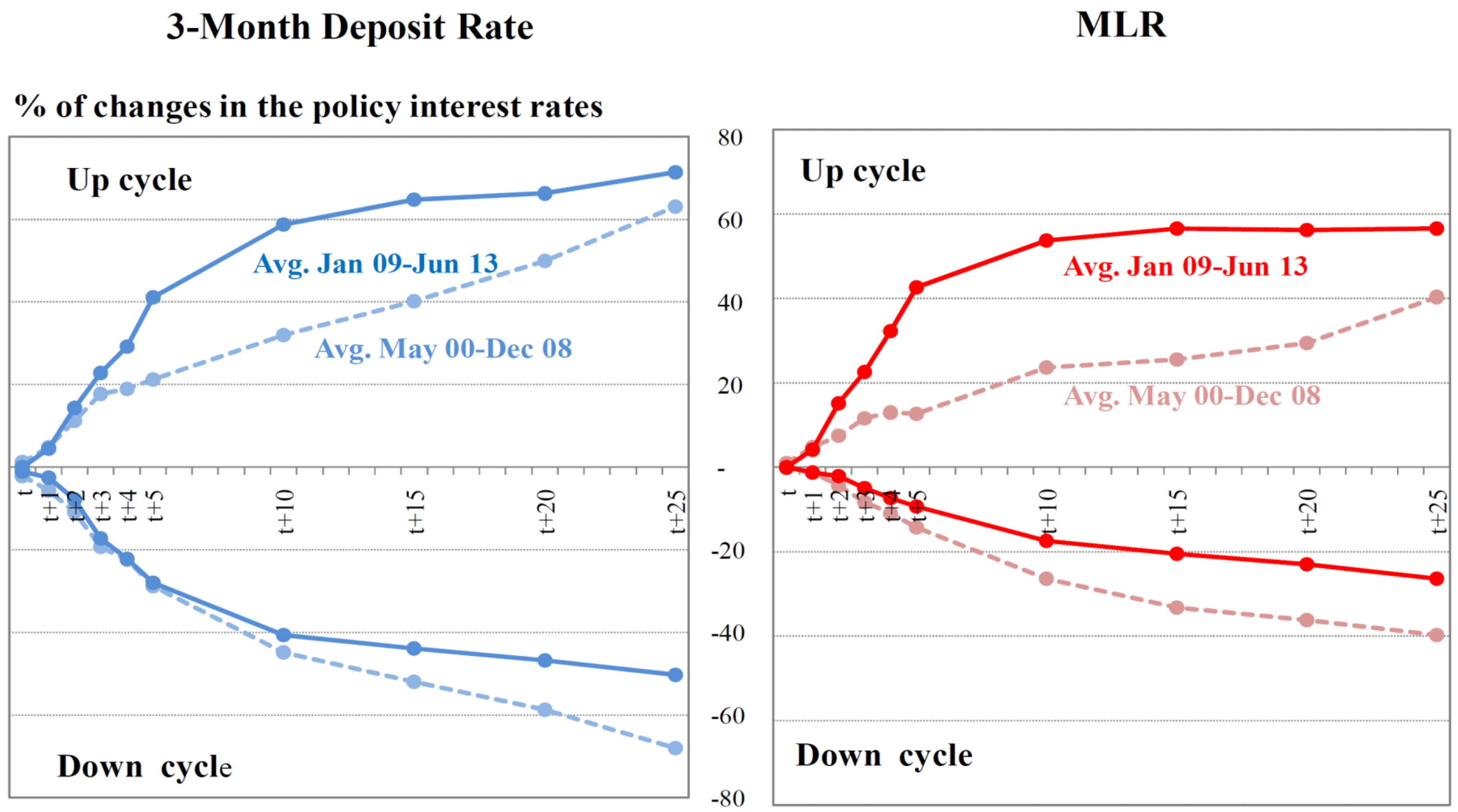


Note: t = MPC meeting date

Source: Bank of Thailand; BOT staff calculation

10.IMPLICATIONS FOR MONETARY POLICY (cont'd)

SFIs' impact on domestic bank rate adjustment — Graph 23



Note: t = MPC meeting date

Source: Bank of Thailand; BOT staff calculation

10.IMPLICATIONS FOR MONETARY POLICY (cont'd)

- Domestic bond yields, particularly short- and medium-term, normally adjust in response to changes in the policy interest rates.
- As to business and household debt service capacity, since a large proportion of loans are made on a variable rate basis, changes in banks' rates might have implications for the private sector's debt service ratio.
- Nevertheless, the magnitude of any change in the policy rate would have to be significant if it were to make a material impact on the ratio.

Source: Bank of Thailand and BIS (2015)

10.IMPLICATIONS FOR MONETARY POLICY (cont'd)

- Developments in the financial sector have affected the effectiveness of monetary policy transmission.
- First, the increasing relative importance of SFIs caused banks to respond asymmetrically to policy rate changes.
- During 2010–12, when SFIs were aggressive in mobilizing deposits and extending loans in part to support the government's large-scale investment plans, domestic banks tended to respond more to an increase than a decrease in policy rates as they were competing with SFIs to retain and attract deposits (Graph 23).

Source: Bank of Thailand and BIS (2015)

10.IMPLICATIONS FOR MONETARY POLICY (cont'd)

- The lower responsiveness of domestic banks to policy easing was taken into account in policy formulation during that period.
- This concern, however, has been mitigated as the economic slowdown since 2013 has reduced competition across the banking sector, albeit with a slight pickup in line with the economic upturn since the second half of 2014.
- Monetary policy transmission has also been affected by the growing domestic bond market, in two opposite ways.

Source: Bank of Thailand and BIS (2015)

10.IMPLICATIONS FOR MONETARY POLICY (cont'd)

- On the one hand, monetary policy can exert a greater influence on the financial system through policy communication and by signaling to influence market expectations for future short-term rates and bond yields.
- On the other hand, domestic monetary conditions may have become less susceptible to monetary policy measures at home as Thai bond yields are closely linked to yields in the main financial centers, especially the United States.

Source: Bank of Thailand and BIS (2015)

10.IMPLICATIONS FOR MONETARY POLICY (cont'd)

- Under the flexible inflation targeting framework, the policy interest rate is still the Monetary Policy Committee's main policy tool for maintaining price and economic stability as well as for signaling the policy stance to the public.

- Currently, the monetary policy priority is to ensure adequate support for the incipient economic recovery amid a subdued outlook for inflation.

Source: Bank of Thailand and BIS (2015)

10.IMPLICATIONS FOR MONETARY POLICY (cont'd)

- As in the case of many central banks, rising global financial market volatility has posed challenges for policymakers, who are giving additional weight to the potential repercussions of global factors on Thai financial markets and domestic financial stability.
- Risks to financial stability have been contained so far. Policy tools need to be carefully evaluated for the trade-off between their effectiveness and potential side effects.

Source: Bank of Thailand and BIS (2015)

10.IMPLICATIONS FOR MONETARY POLICY (cont'd)

- Macroprudential policy is considered as complementary to rather than a substitute for interest rate policy in the pursuit of price, output and financial stability aims.
- Introduced in Thailand following the 1997 crisis, macroprudential tools were used to address domestic financial imbalances, predominantly through the imposition of the loan-to-value (LTV) ratio.
- Most measures were narrowly targeted on risks in specific sectors so that overall monetary transmission tended not to be materially altered. As financial stability considerations gain importance in monetary.

Source: Bank of Thailand and BIS (2015)