



# Foreign Currency Funding Challenges for Japanese Banks

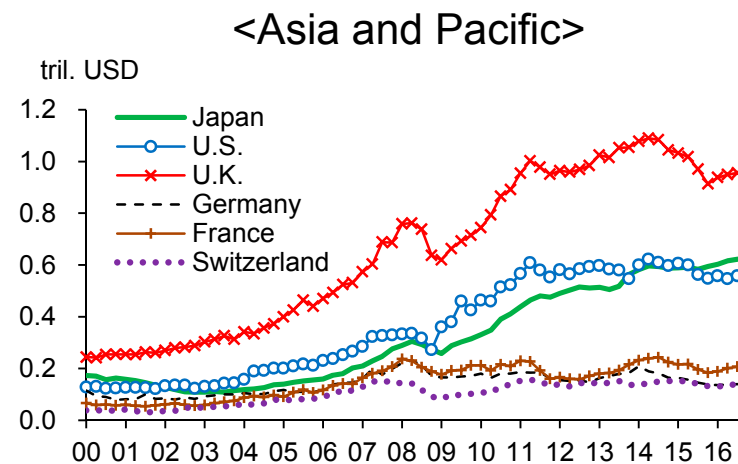
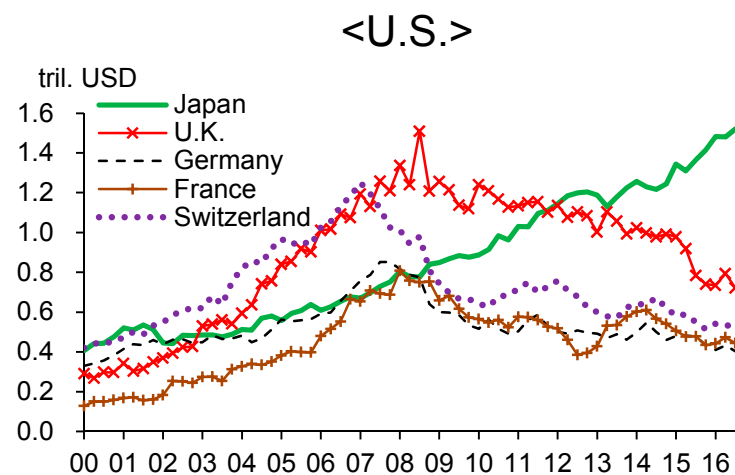
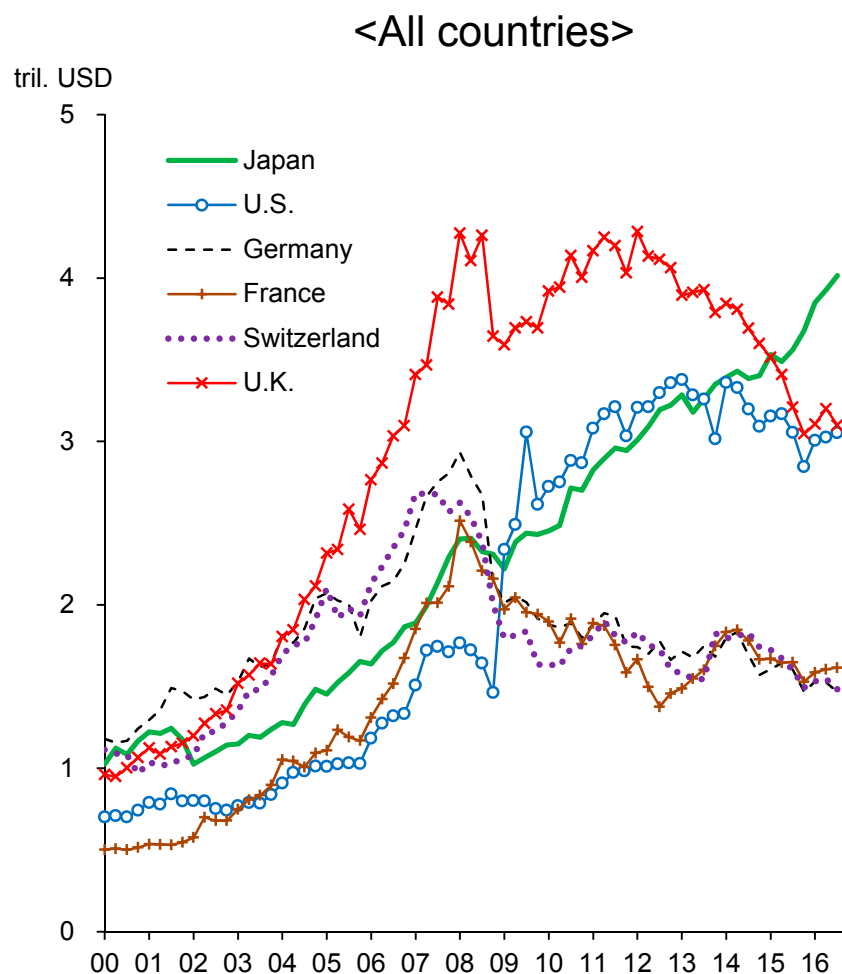
Hitotsubashi University and the IMF Joint Seminar  
on the Future of International Monetary System for Asia

March 8, 2017

Shigeto Nagai  
Bank of Japan

# Japanese banks go global

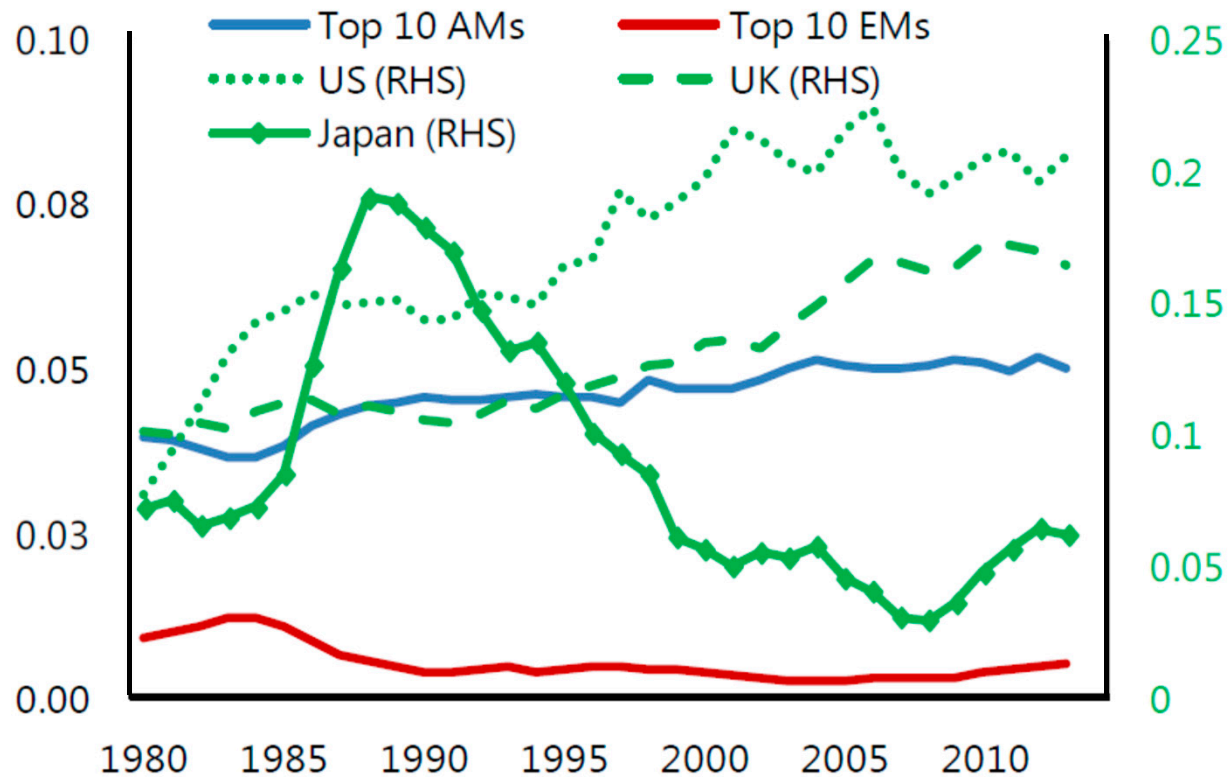
## International claims from each country's FIs



Notes: 1. The latest data are as of end-September 2016.  
 2. For Germany and France, claims on euro area are excluded.  
 Source: BIS, "Consolidated banking statistics."

# Gradually restoring its presence in global banking

## Banking system centrality



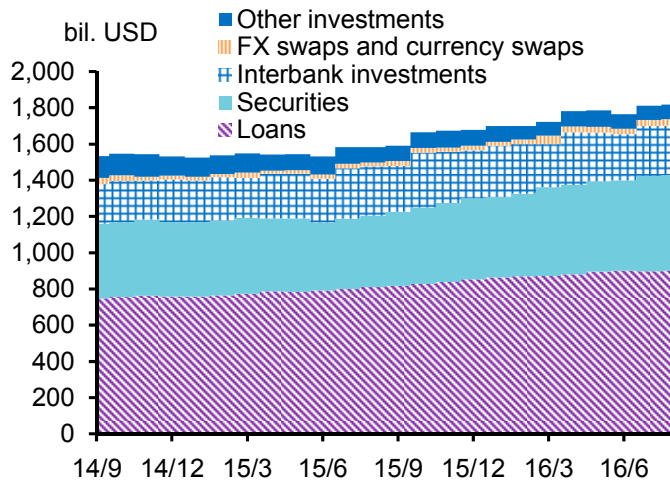
Note: The graph shows each country's importance in the network measured by the eigenvector centrality, which captures how connected the country is by giving a higher weight to connections to more connected counterparties in terms of bank credit.

Source: IMF (2016), "Adequacy of the Global Financial Safety Net."

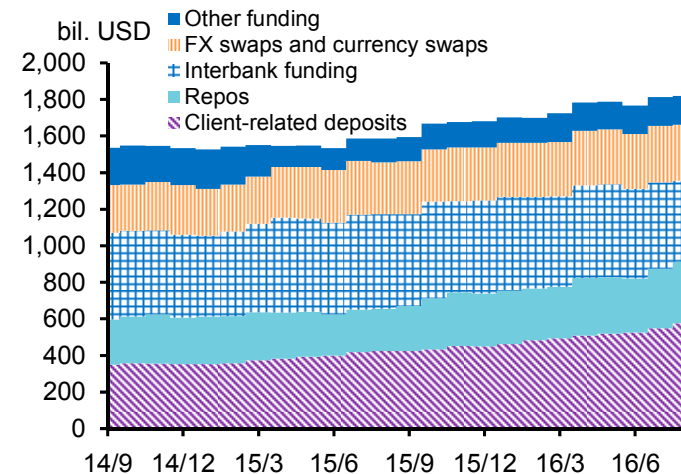
# Foreign currency funding by Japanese banks

## Structure of foreign currency funding and investments by major Japanese banks

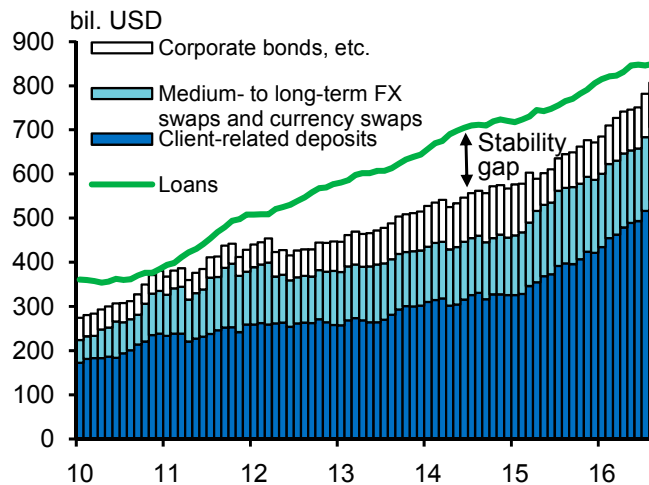
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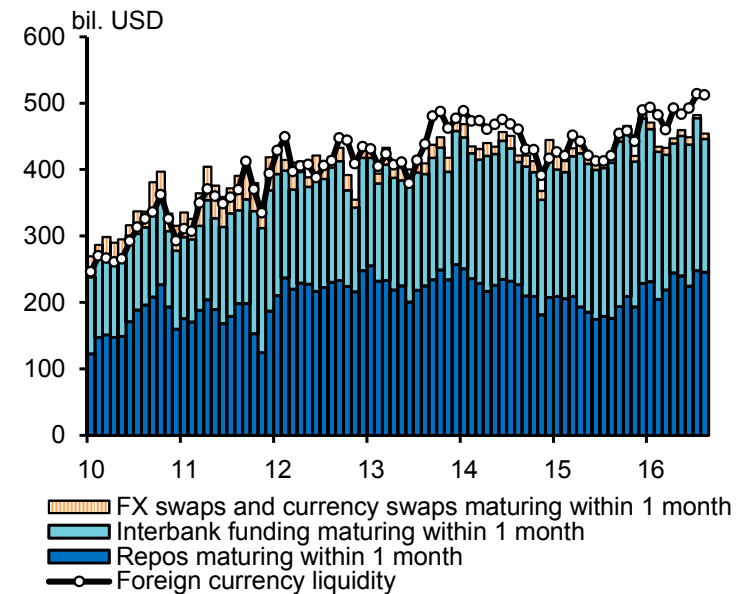
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### Stability gap among major Japanese banks



### Resilience to foreign currency liquidity stress among major Japanese banks

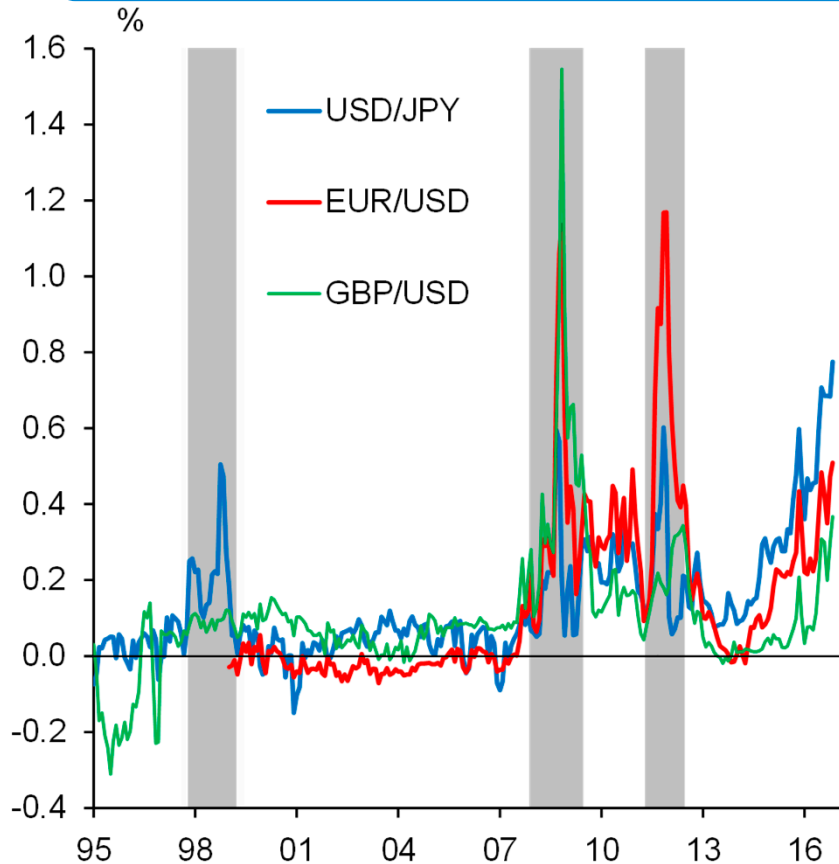


Note: The latest data are as of end-August 2016.

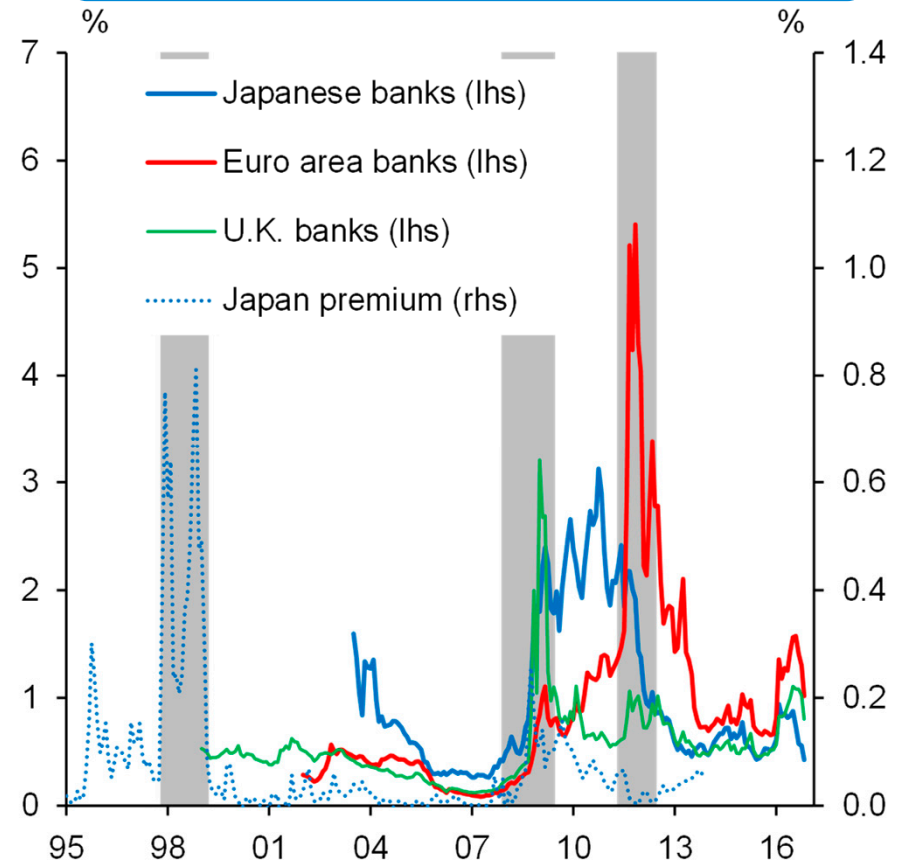
Source: BOJ, *Financial System Report*, October 2016.

# FX swap implied USD funding rates and banks' creditworthiness

FX swap implied USD funding rates  
(Deviation from USD LIBOR)



Non-U.S. banks' default probability  
(Expected Default Frequency)



Notes: 1. The latest data are as of November 2016.

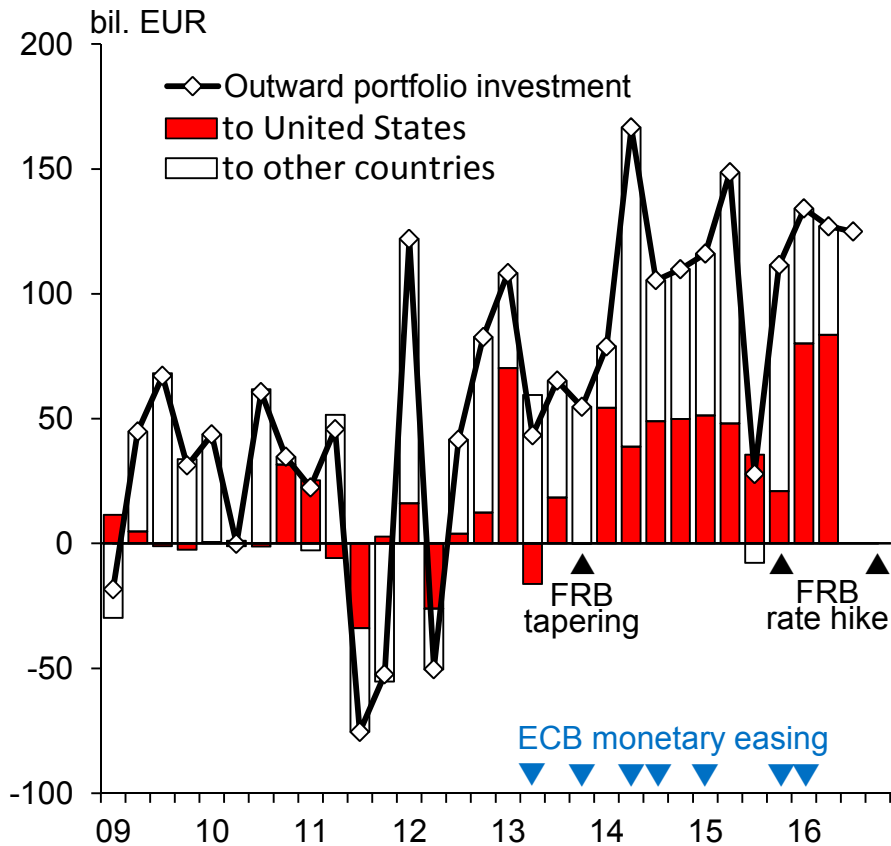
2. The shaded areas correspond to Japan's financial crisis (November 1997 through March 1999), the global financial crisis (December 2007 through June 2009), and the Eurozone sovereign debt crisis (May 2011 through June 2012).

3. Non-U.S. banks' default probability is the average of the EDF (Expected Default Frequency) of G-SIBs that are headquartered in each jurisdiction. "Japan Premium" is calculated as 3-month USD TIBOR less 3-month USD LIBOR.

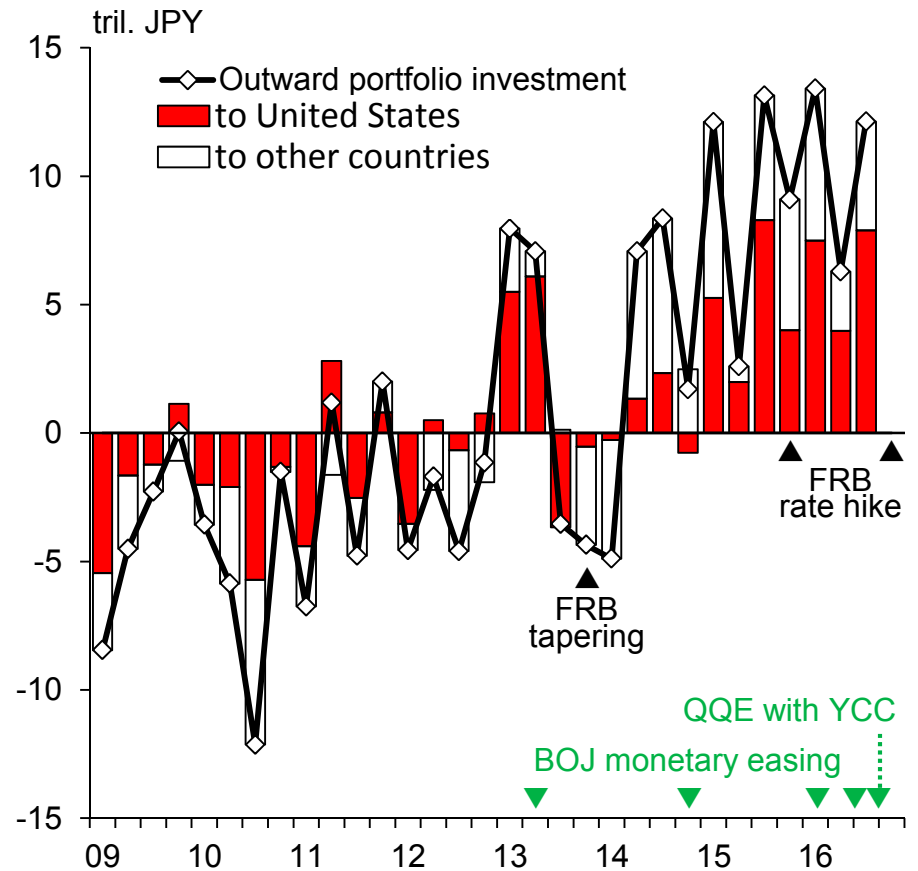
Sources: Bloomberg; Moody's; BOJ.

# Outward portfolio investment (Euro area and Japan)

## Euro area



## Japan



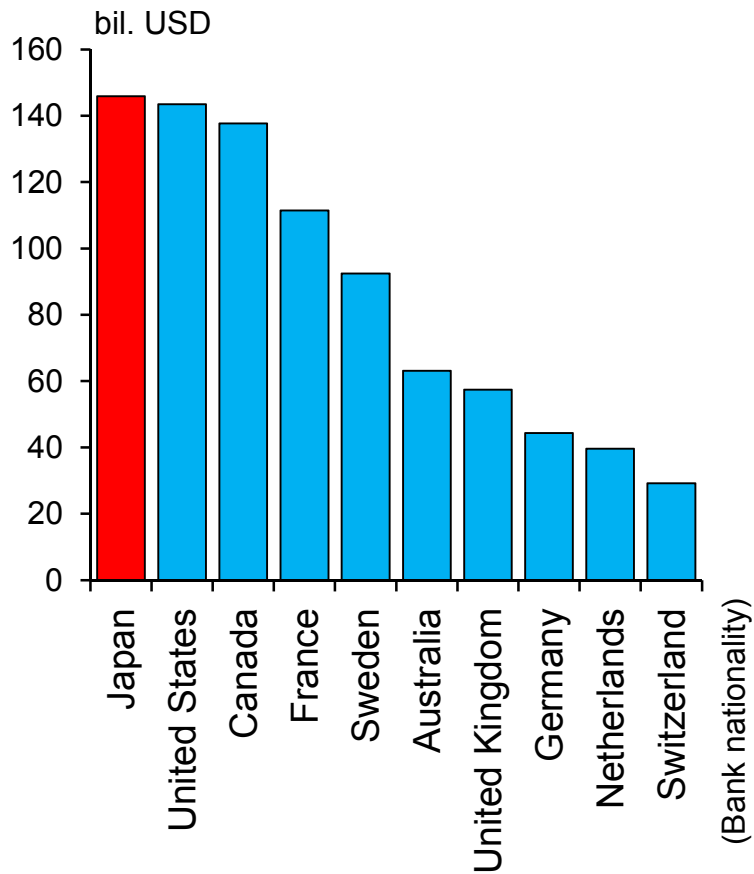
Notes: 1. The latest data are as of end-September 2016.

2. In each chart, ▲/▼ indicates the timing and direction of monetary policy changes since 2013.

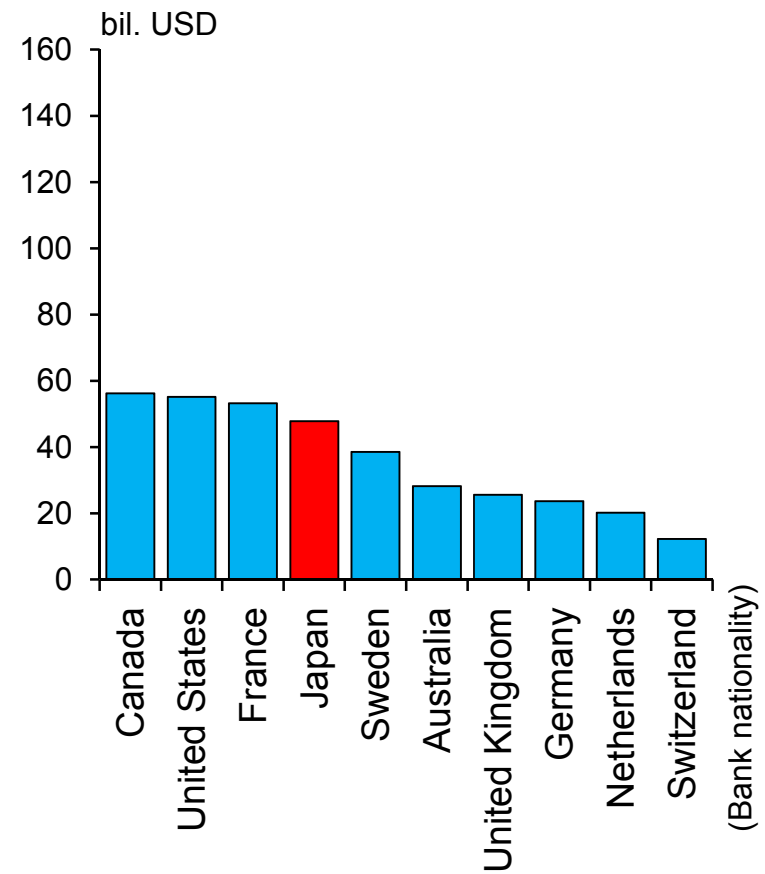
Sources: ECB; Ministry of Finance; BOJ.

# Prime MMF holdings of bank related securities

As of end-June 2016



As of end-October 2016

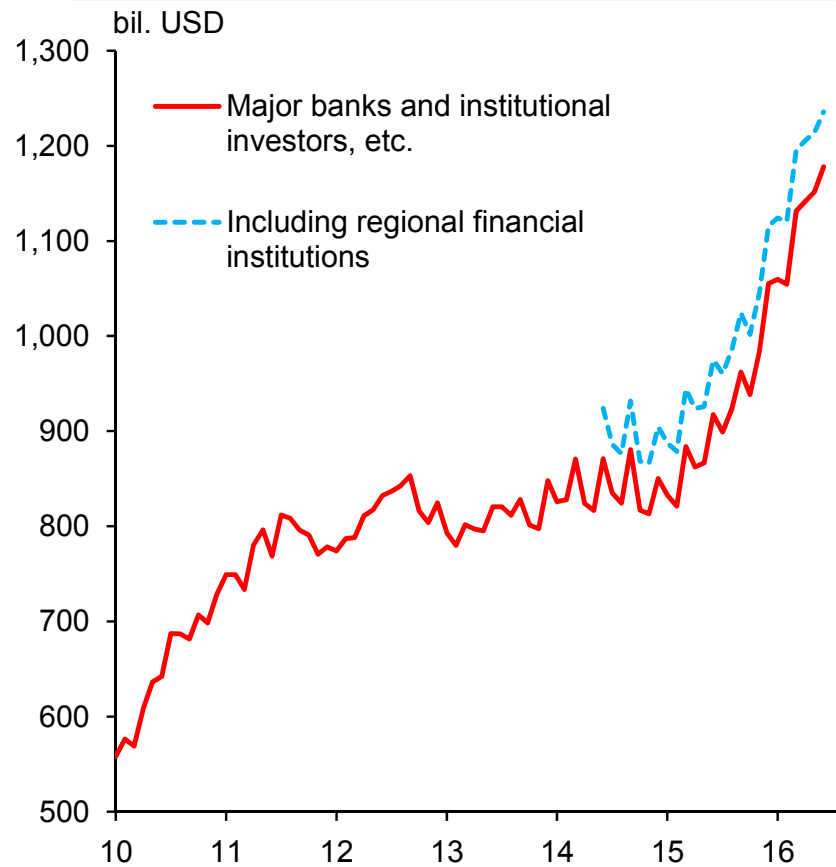


Note: Prime MMF holdings of bank related securities are aggregated by country based on the location of banks' global headquarters.  
 "Australia" includes New Zealand.

Source: SEC.

# Amount of foreign currency funding and FX swap transaction volume

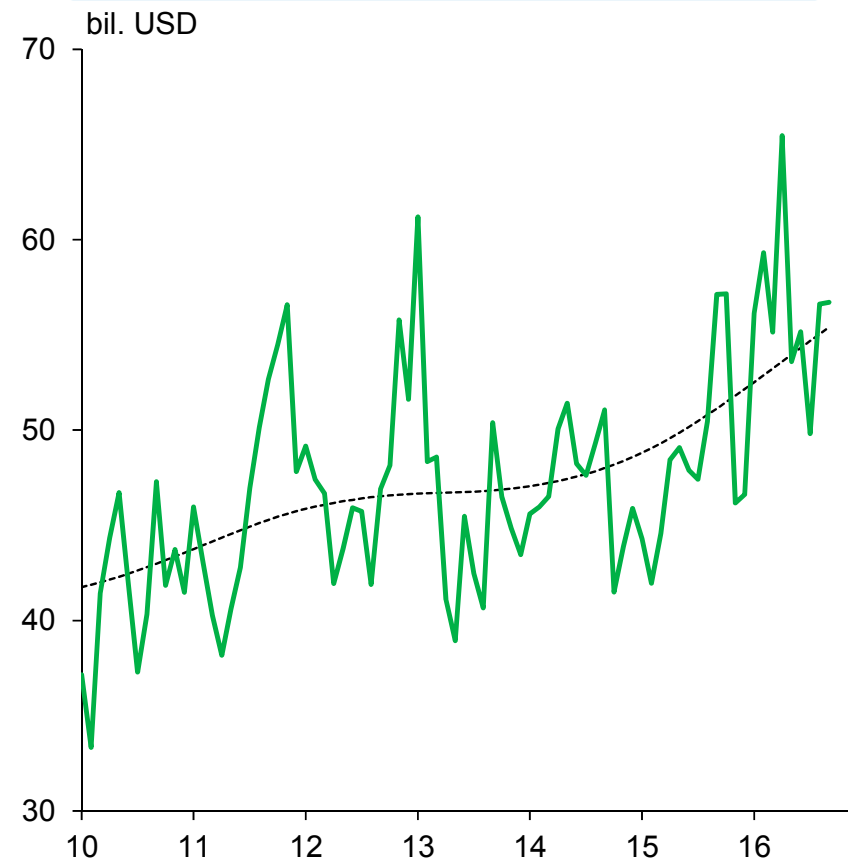
Amount of foreign currency funding via FX swaps and currency swaps by Japanese financial institutions



- Notes: 1. Estimates by the BOJ. The latest data are as of end-September 2016. The data are taken from fiscal year.  
 2. "Major banks and institutional investors, etc." includes major banks, depository institutions with a particular focus on market investment, and life insurance companies.

Sources: Bloomberg; The Life Insurance Association of Japan; Published accounts of each company; BOJ.

Transaction volume in the FX swap market (USD/JPY) via Tokyo FX market brokers

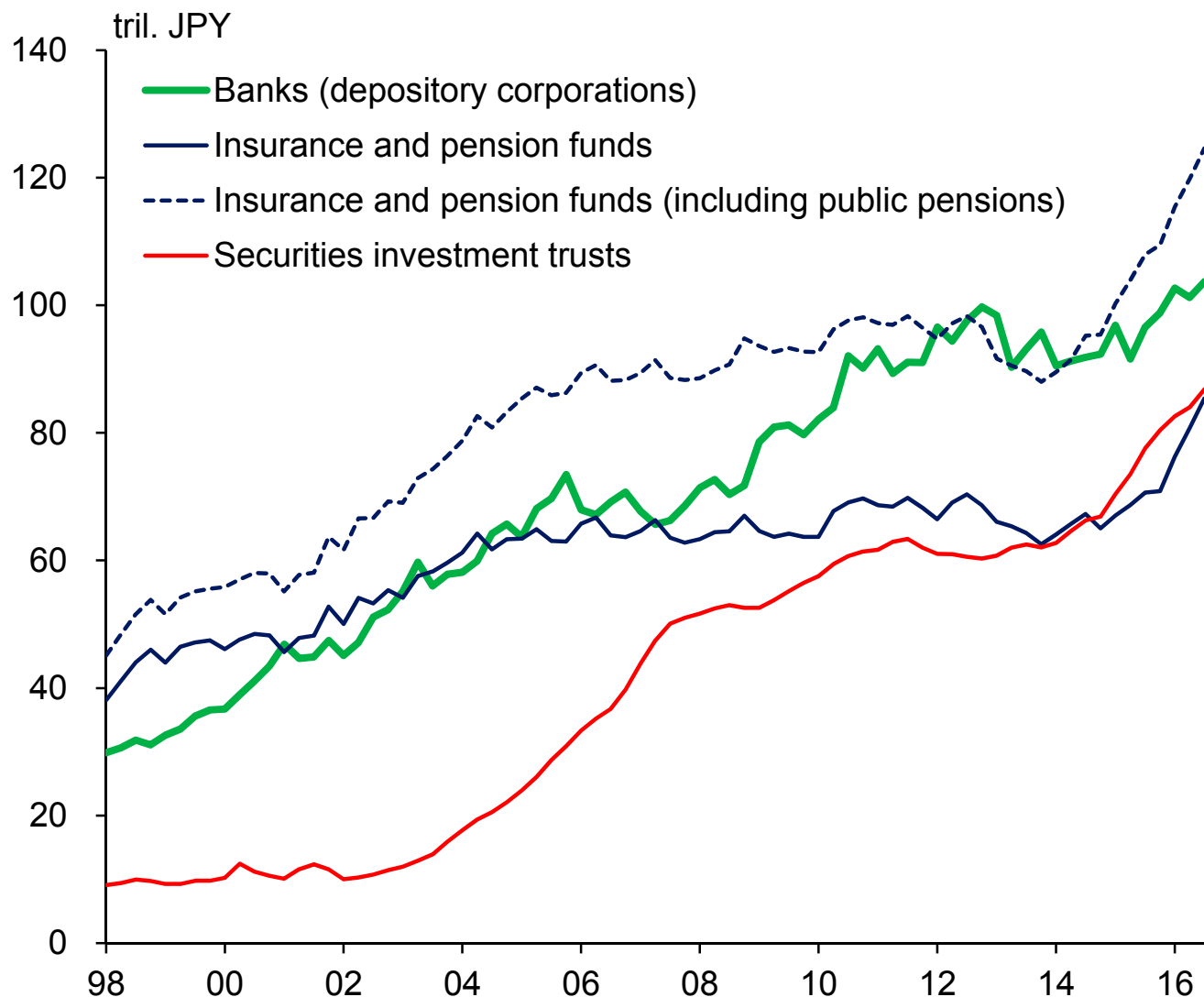


- Notes: 1. The latest data are as of September 2016.  
 2. Average transaction volume for each business day (includes outright forwards).  
 3. Trends are calculated using the two-sided HP filter.

Source: BOJ.



# Japanese financial institutions' outward investments in foreign securities



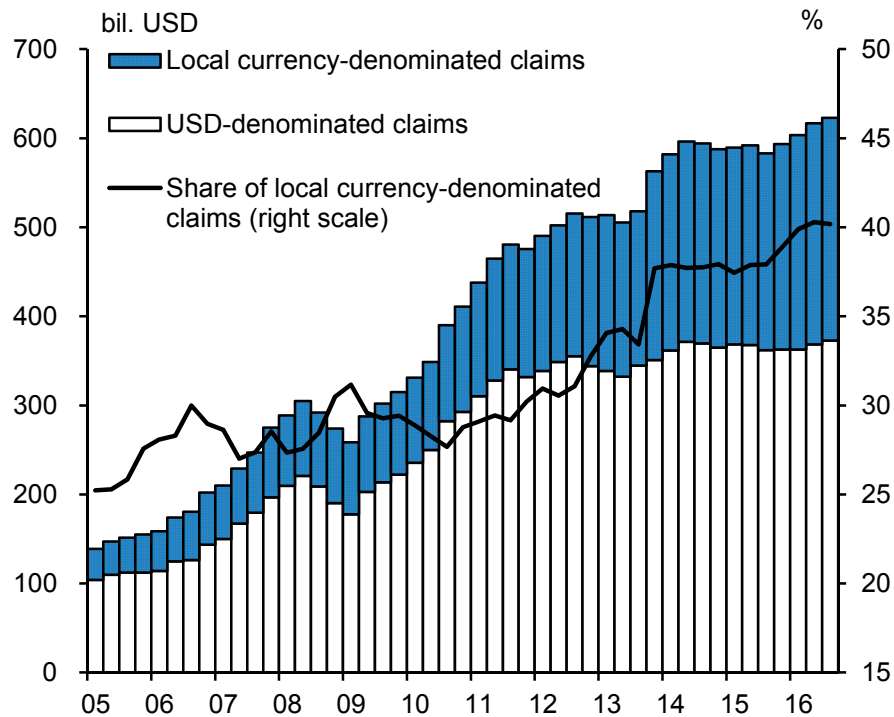
Notes: 1. The latest data are as of end-September 2016.

2. The amounts are calculated by adding the flow during each period to the stock as of end-December 1997, to adjust for the impact of exchange rate fluctuations.

Source: BOJ.

# Increasing need for local currency funding

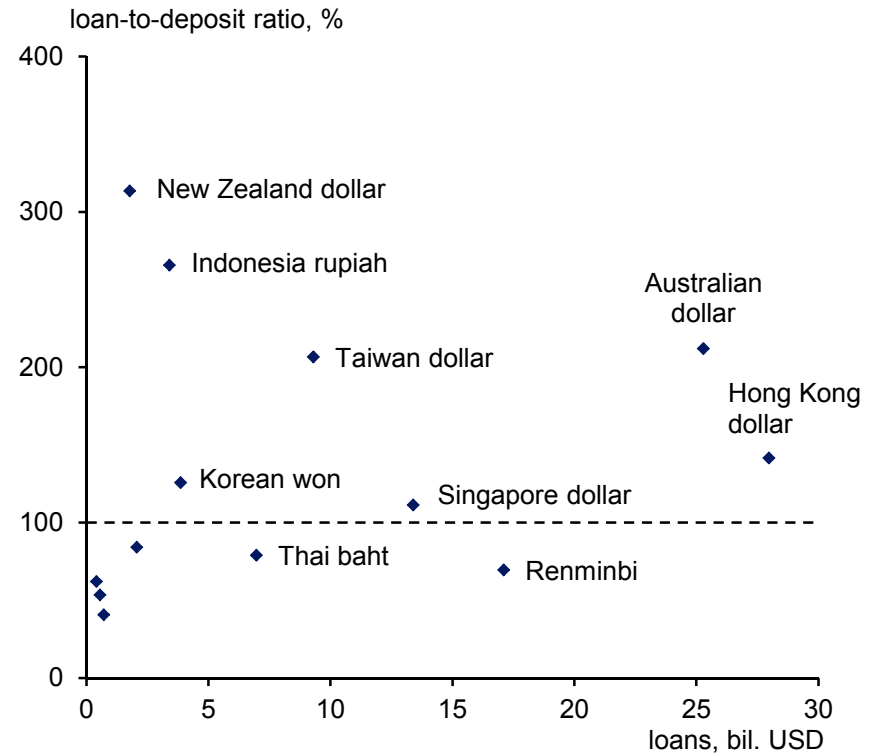
## Increasing share of local currency-denominated loans



Notes: 1. "USD-denominated claims" include claims denominated by foreign currencies other than local currencies.  
2. The latest data are as of end-September 2016.

Source: BIS, "Consolidated banking statistics."

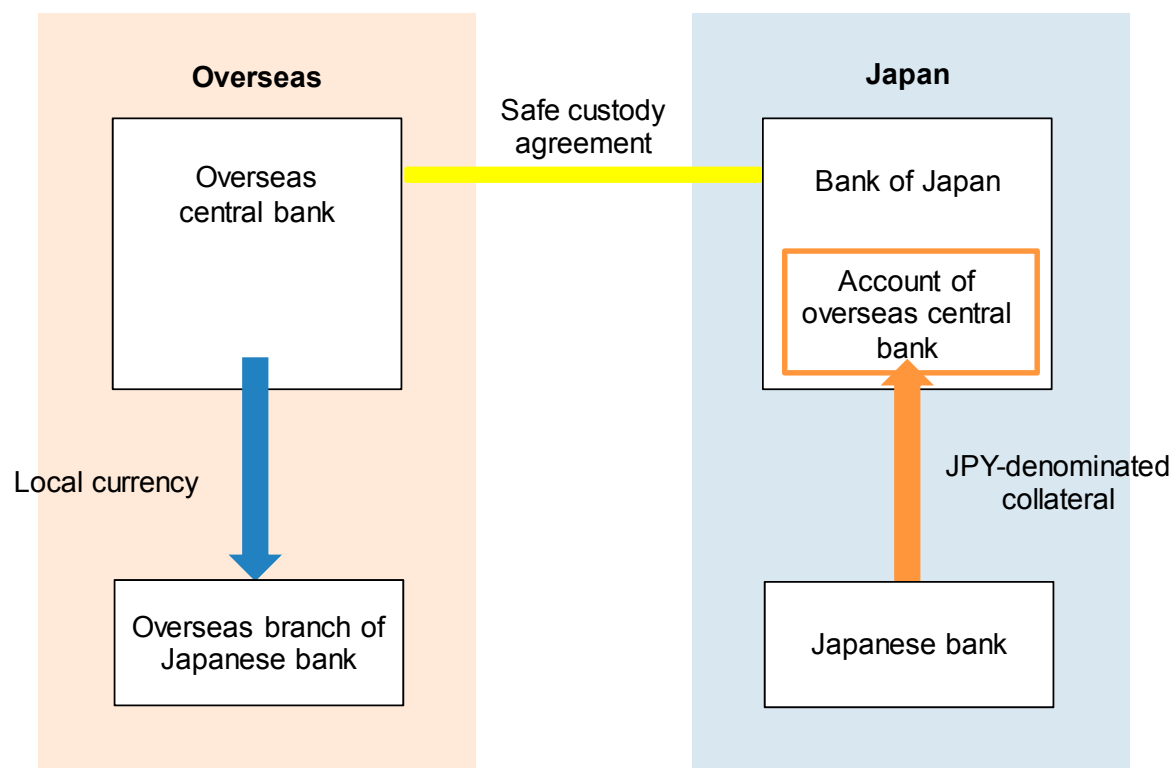
## Loans outstanding and loan-to-deposit ratio by currency



Notes: 1. The data are the total of loans by five major banks.  
2. The data are as of end-September 2015.

Source: BOJ, *Financial System Report*, April 2016.

# Cross-border collateral arrangements (CBCA)

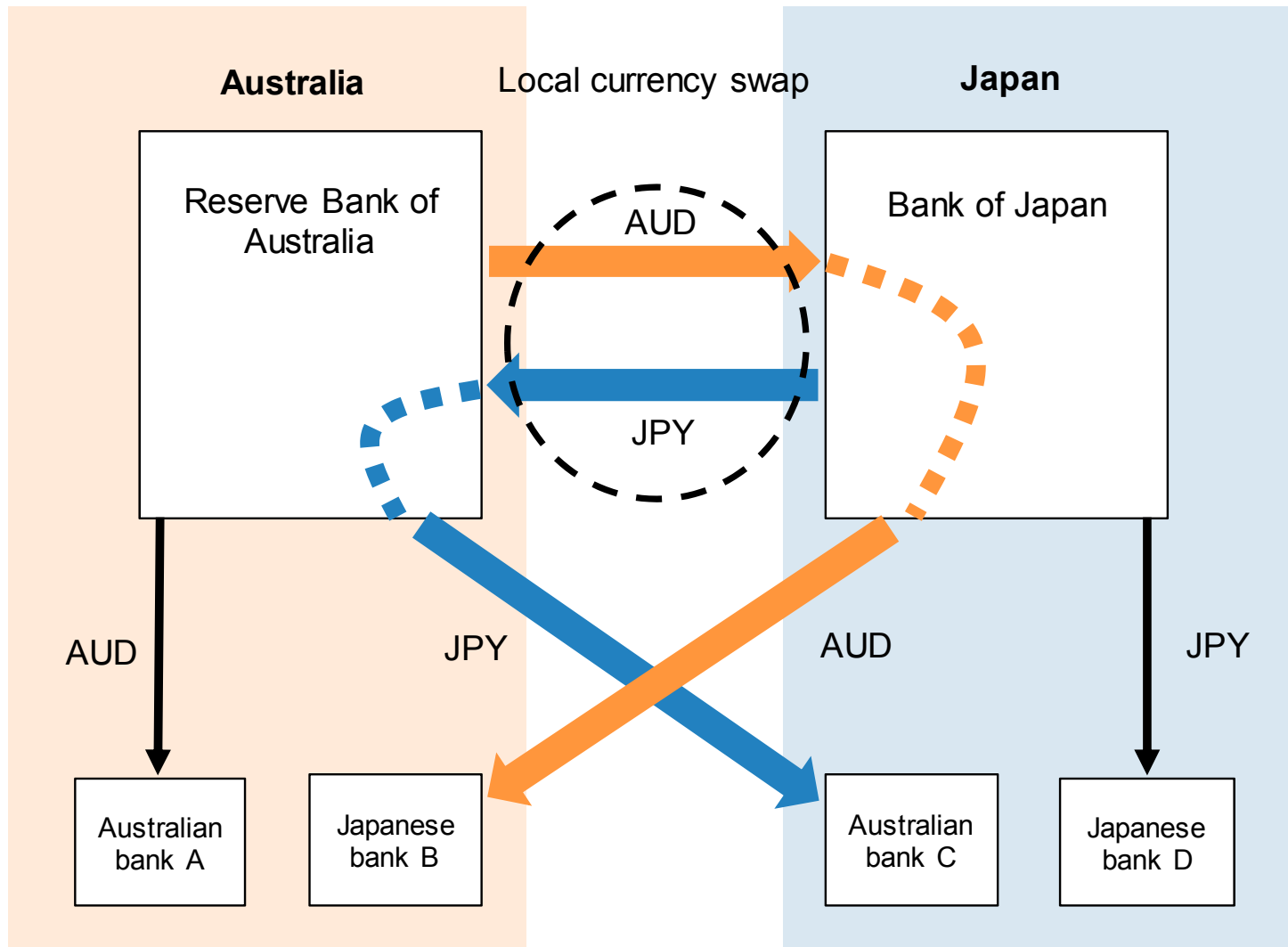


Counterparts	Dates of agreement	Eligible collaterals
Bank of Thailand (BOT)	Nov. 2011	JGBs, JPY cash (since May 2012)
Monetary Authority of Singapore (MAS)	Jul. 2013	JGBs, JPY cash (since May 2015)
Bangko Sentral ng Pilipinas (BSP)	Feb. 2015	JPY cash (since Aug. 2016)
Bank Indonesia (BI)	Dec. 2013	JGBs (in preparation)

Note: This slide shows how overseas central banks allow banks operating in that country to access local currency liquidity against their JGBs or Japanese Yen holdings in case of emergency or liquidity shortage.

# Swap arrangements for financial system stability

Bilateral local currency swap agreement with the Reserve Bank of Australia





**Thank you for your attention.**

**Views expressed in this presentation are personal views  
and do not necessarily reflect those of the Bank.**