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# Reserves Management in the New Interest Rate Environment – The RBA Experience

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# Overview

- The interest rate environment
- Strategic changes in RBA's benchmark portfolio
- Tactical investment strategies
- The risk versus return trade-off

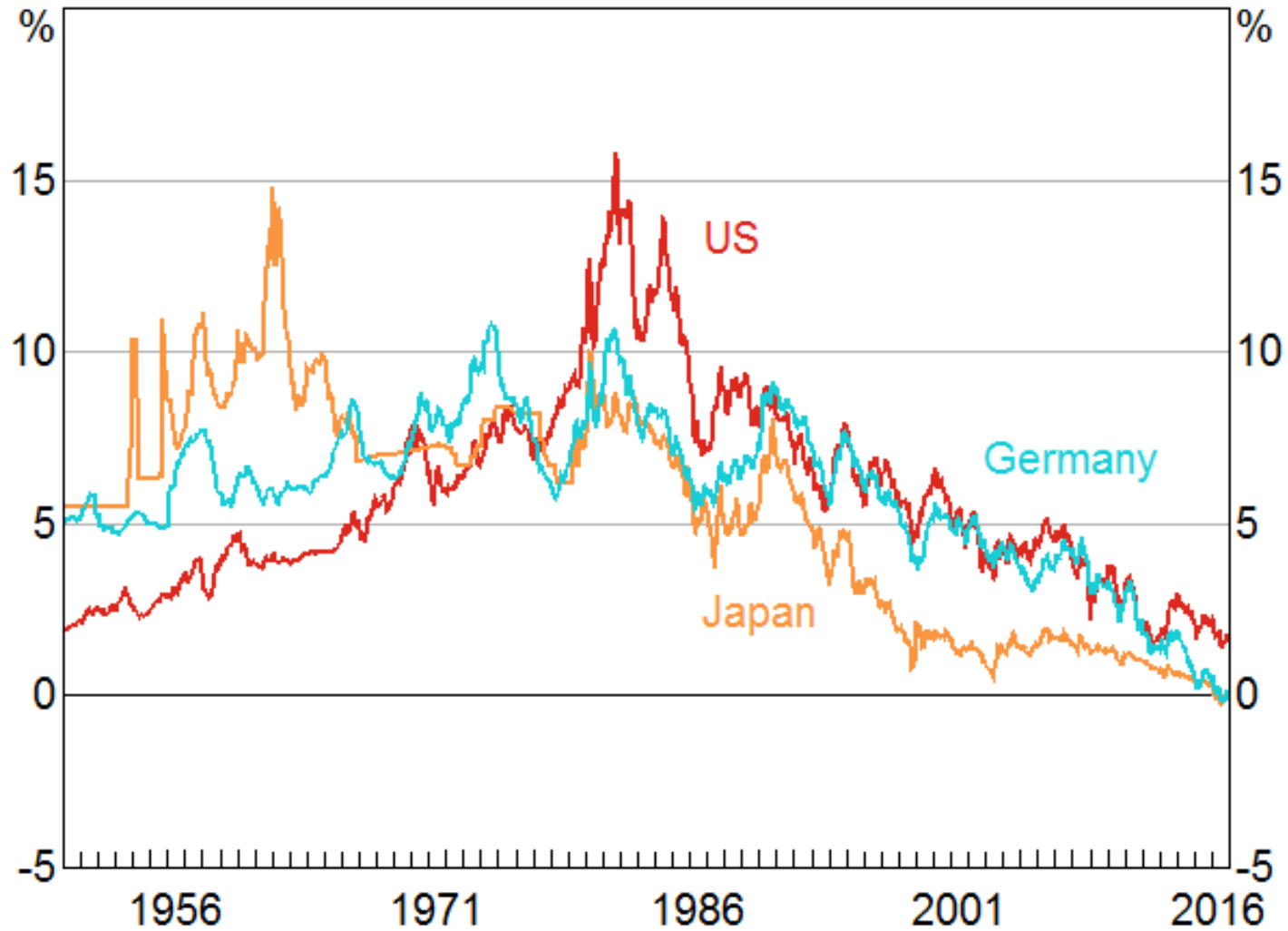


# The Interest Rate Environment

- Global bond yields in key markets are at extremely low levels, reflecting:
  - Low (or negative) policy rates
  - Extraordinary central bank policy interventions
  - Disinflationary pressures since GFC



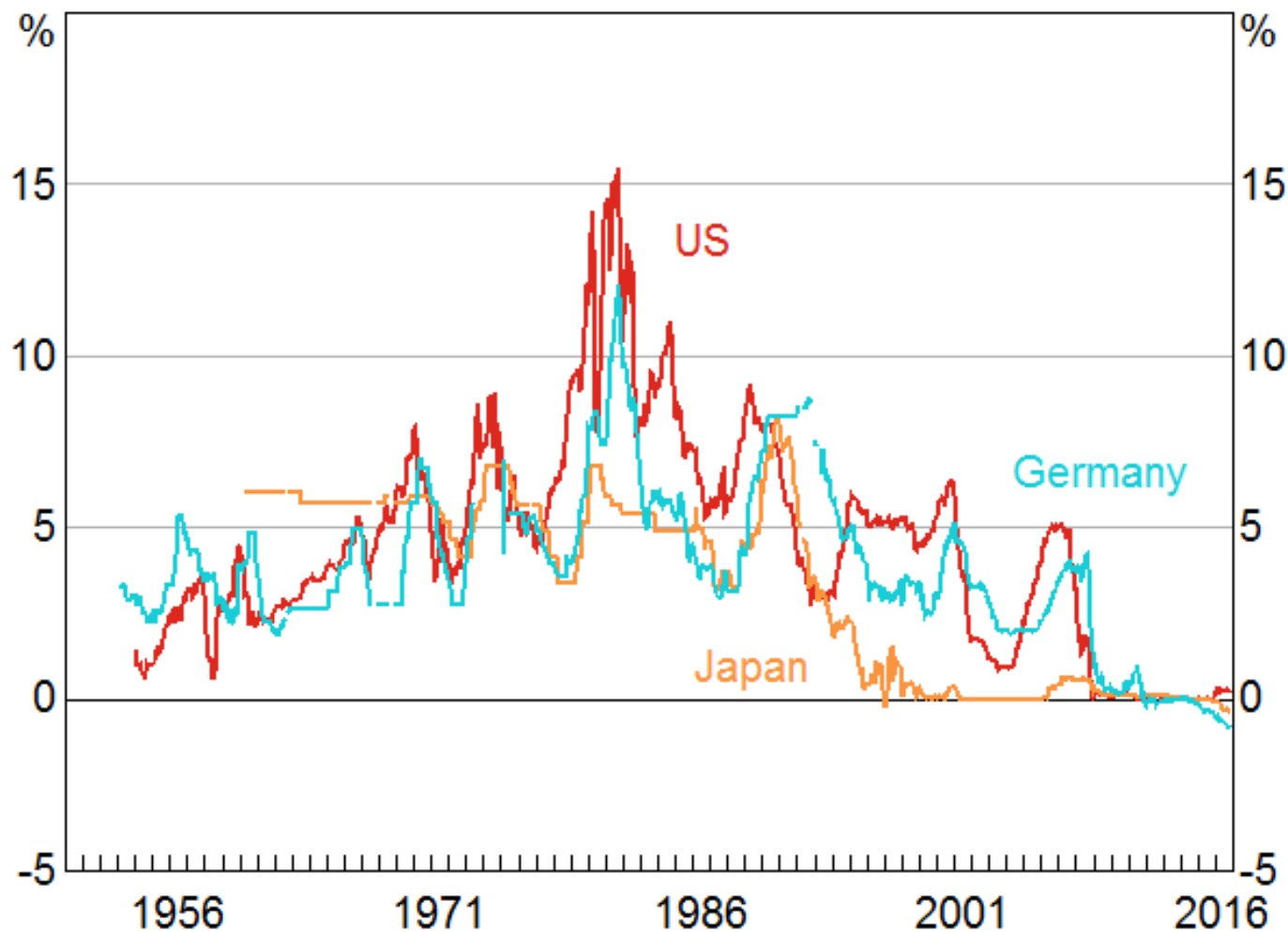
# 10-year Government Bond Yields



Sources: Bloomberg; Global Financial Data; RBA



## 3-month Government Bill Yields

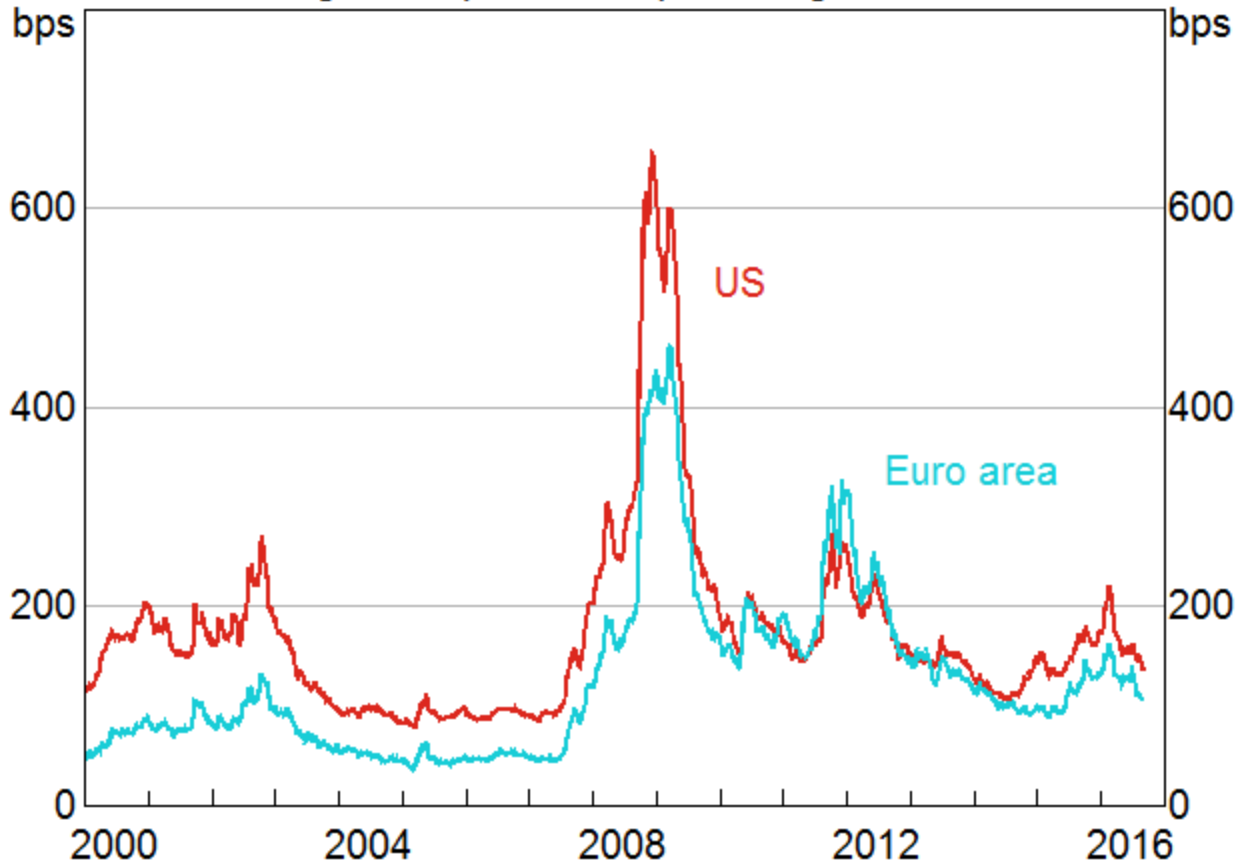


Sources: Bloomberg; Global Financial Data; RBA



# Corporate Bond Spreads

Investment grade; spread to equivalent government bonds



Sources: Bank of America Merrill Lynch; RBA; Thomson Reuters



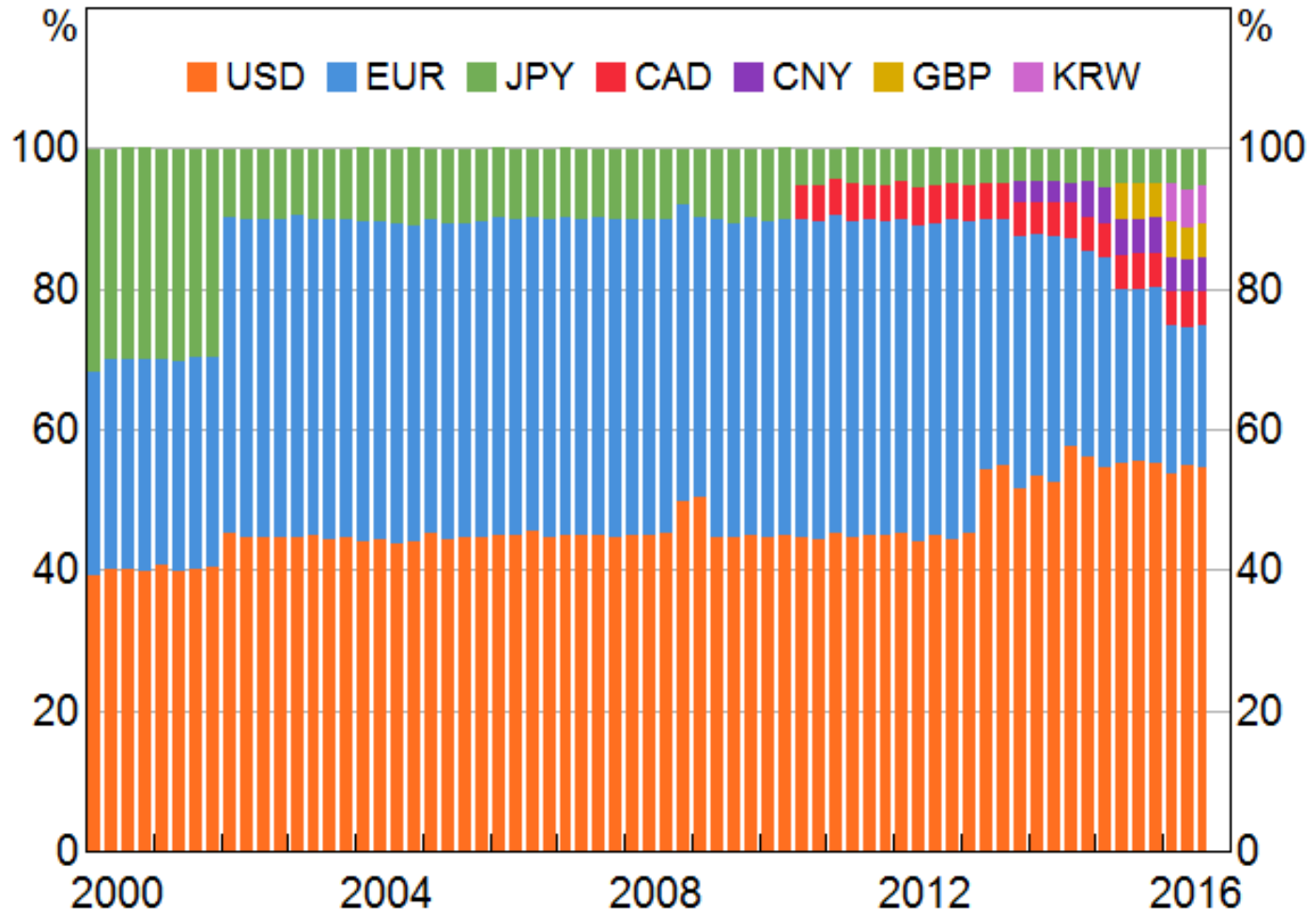
# Investment Strategy

- Strategic changes to benchmark portfolio
  - Composition
  - Duration
- Tactical trading strategies



# Net Foreign Reserve Assets

## Composition



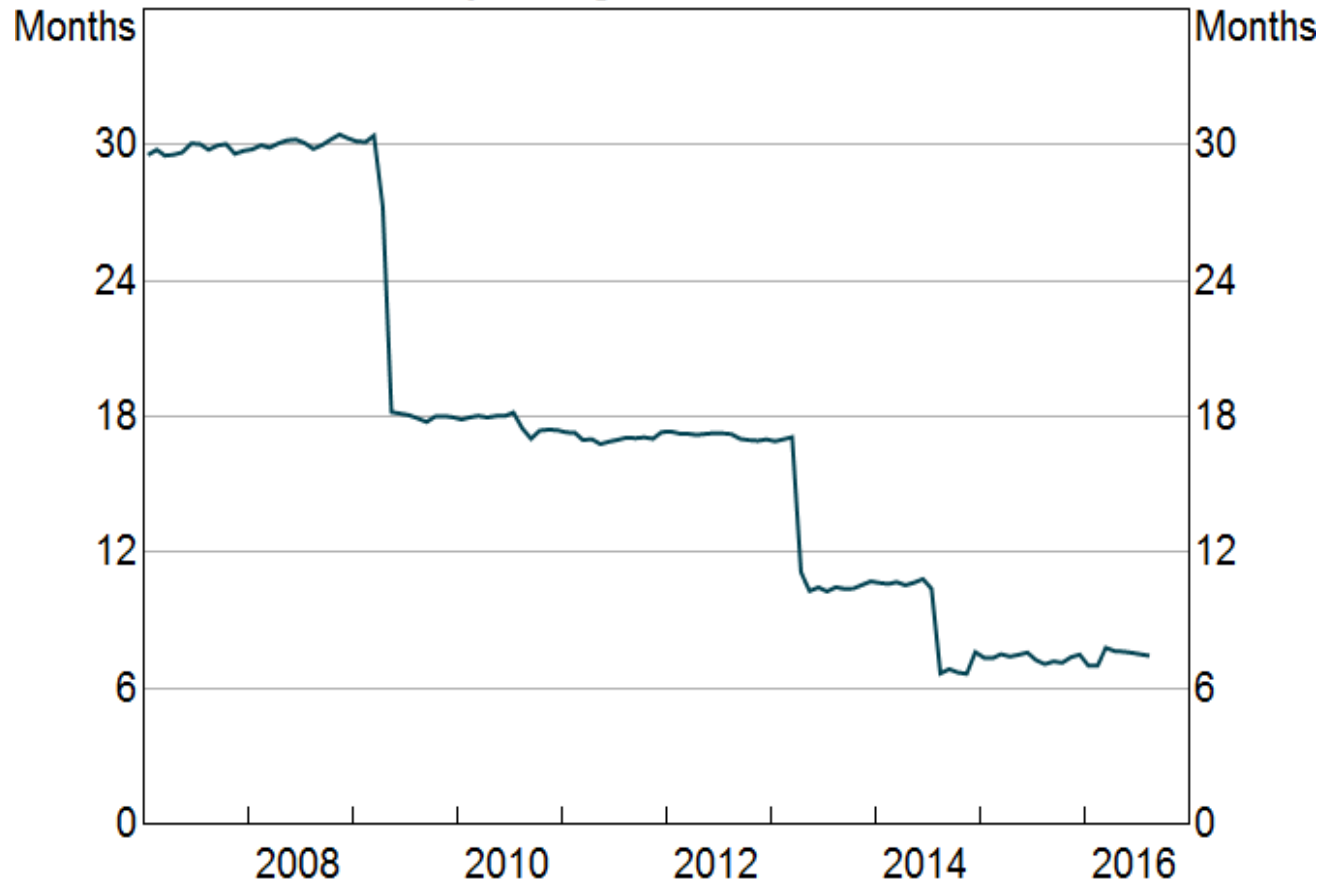
Source: RBA





# Weighted Duration of Actual Foreign Portfolio\*

Daily average over each month



\* Based on net reserves

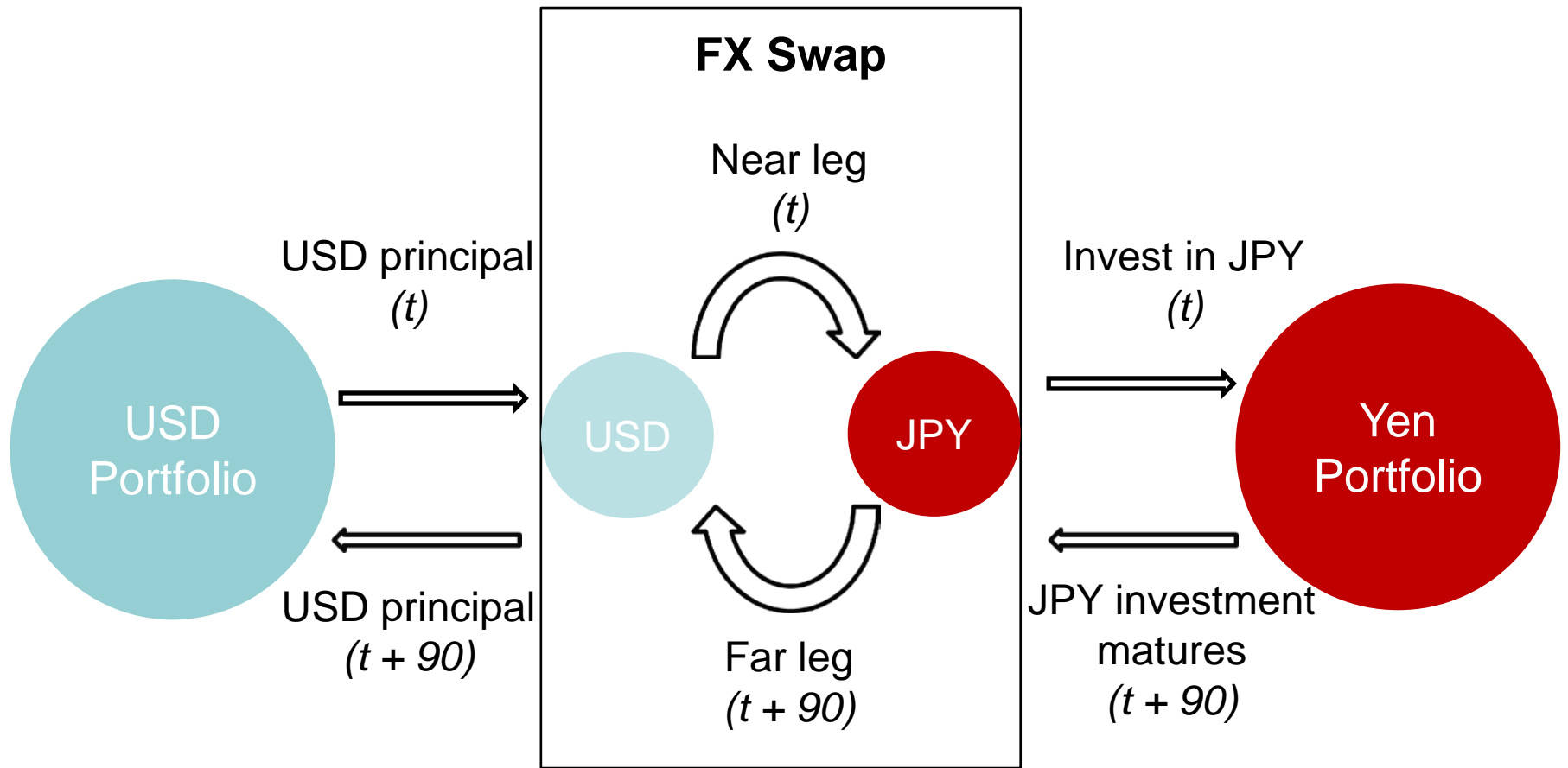
Source: RBA



# Tactical Trading Decisions

- Swap USD, EUR, GBP, CAD into JPY on a fully hedged basis.

# S/B USD Yen Swap Flows



# Covered Interest Parity

$$r_{JPY} = \frac{f}{s} (1 + r_{US}) - 1$$

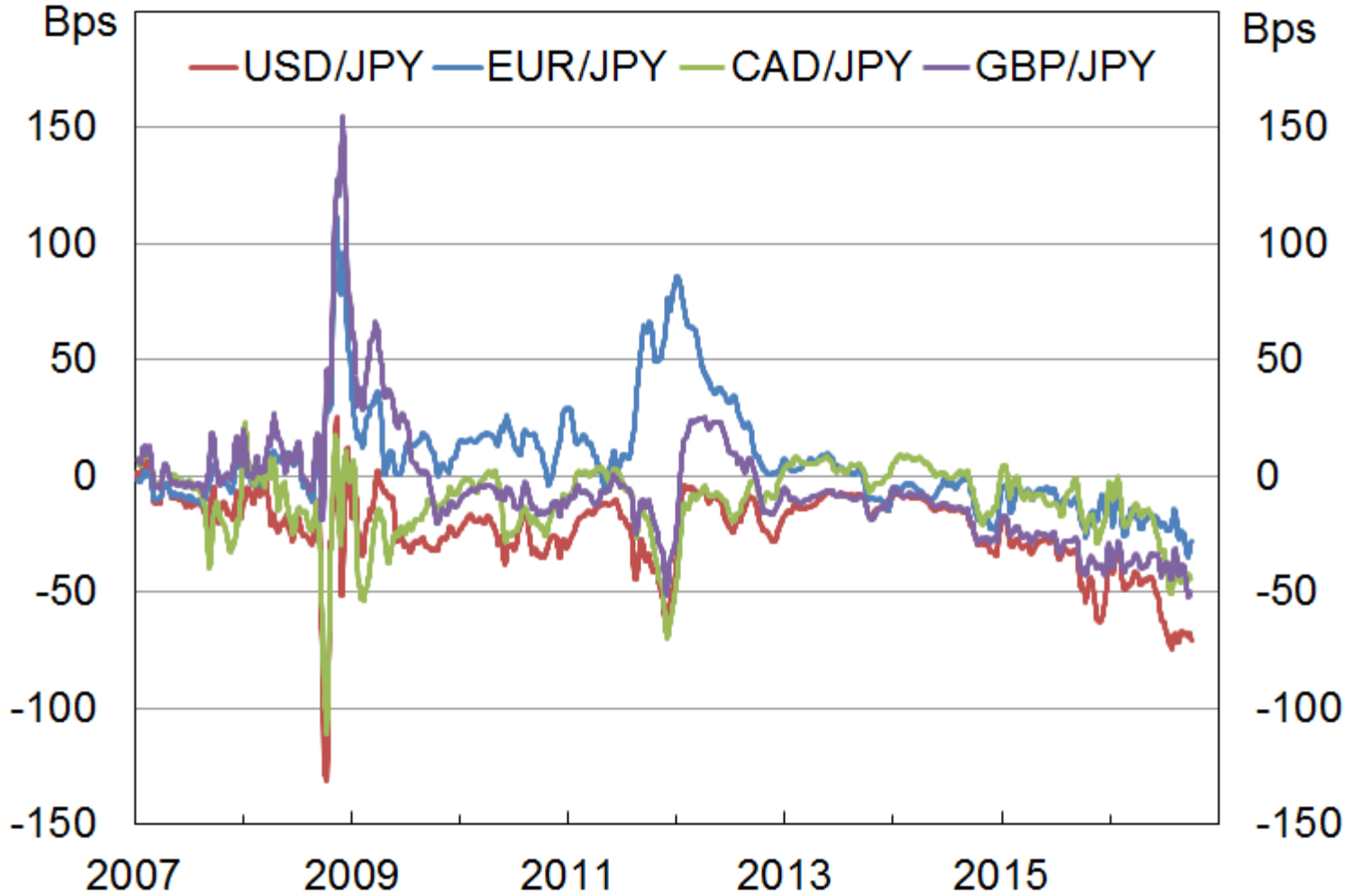
$$\text{basis} = \frac{f}{s} (1 + r_{US}) - 1 - r_{JPY}$$

where  $r_{JPY}$  = JPY Libor;  $r_{US}$  = USD Libor;

$s$  = spot rate;  $f$  = forward rate



# 3-month Cross-Currency Basis Spreads\*



\* Two-week moving average.  
Source: Bloomberg

# S/B USD/JPY Return Calculation

**Return = Net USD lending rate - Net JPY borrowing rate**

Where:

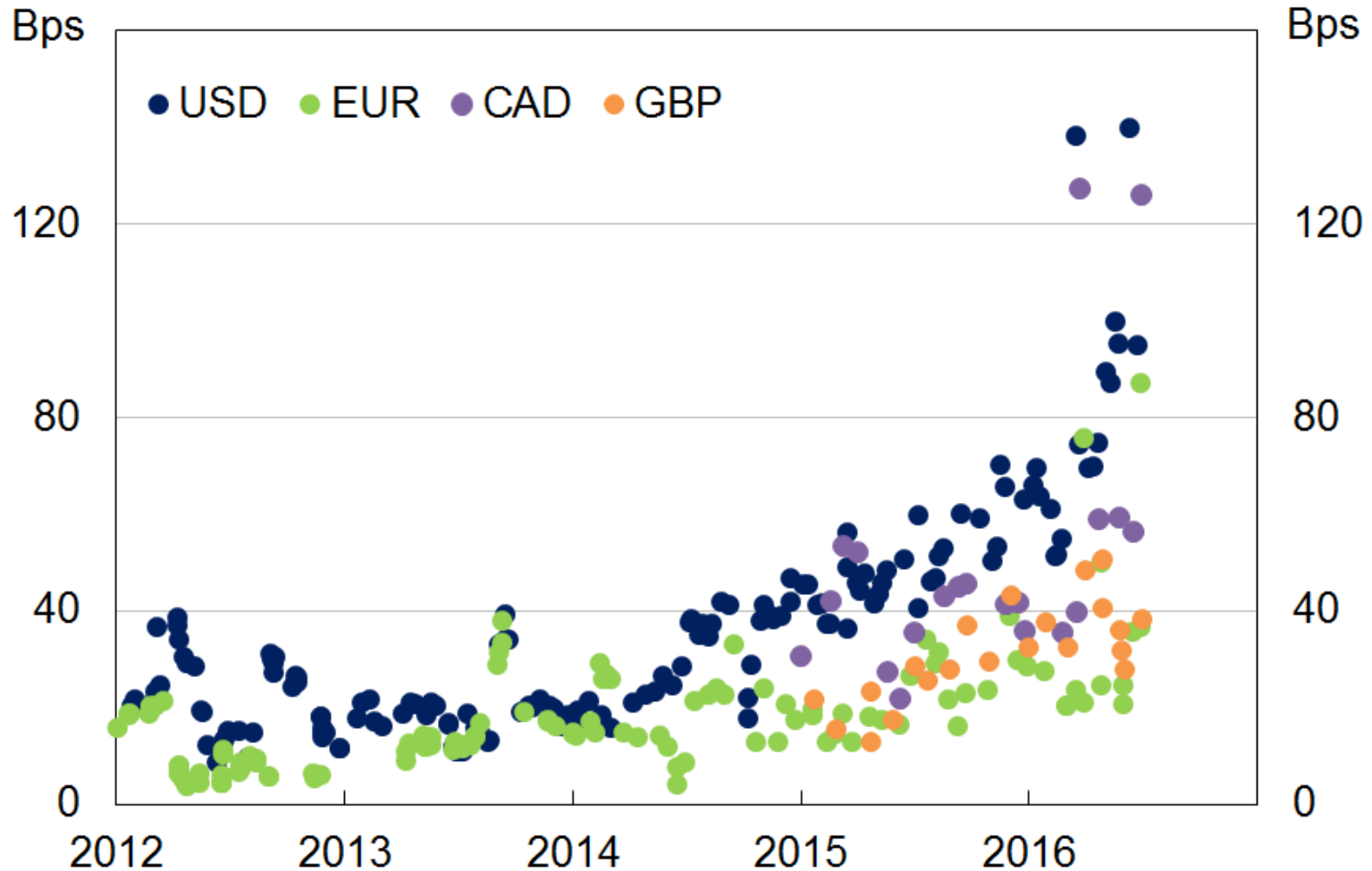
Net USD lending rate = USD LIBOR – USD T-bill rate

Net JPY borrowing rate = JPY LIBOR + USD/JPY FX basis – JPY bill rate



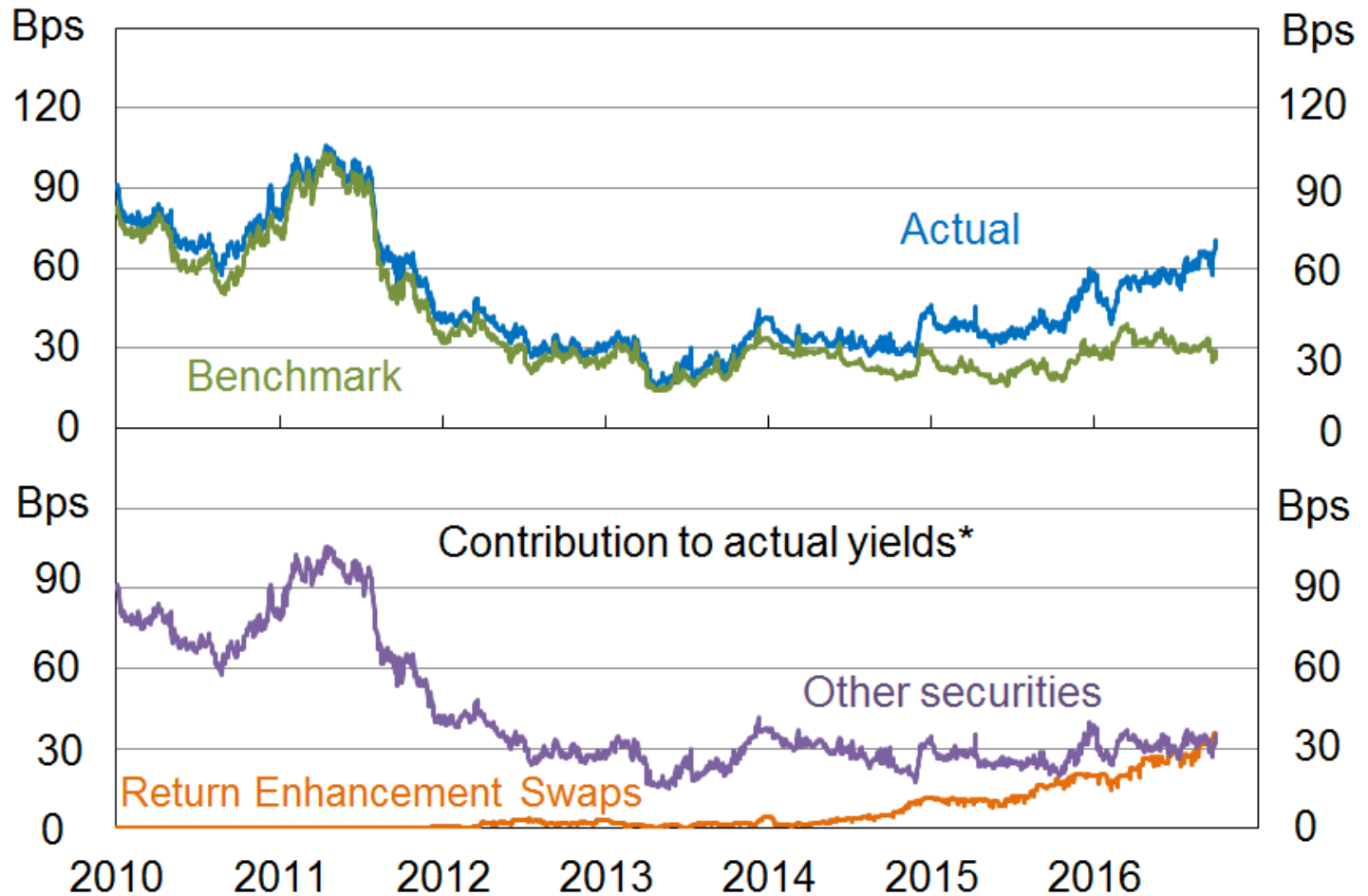
# Return Enhancement FX Swaps

Spread to benchmark rate\*



\* Spread between the implied lending rate in the swap relative to the benchmark rate in the local market.

# Total Portfolio Running Yield

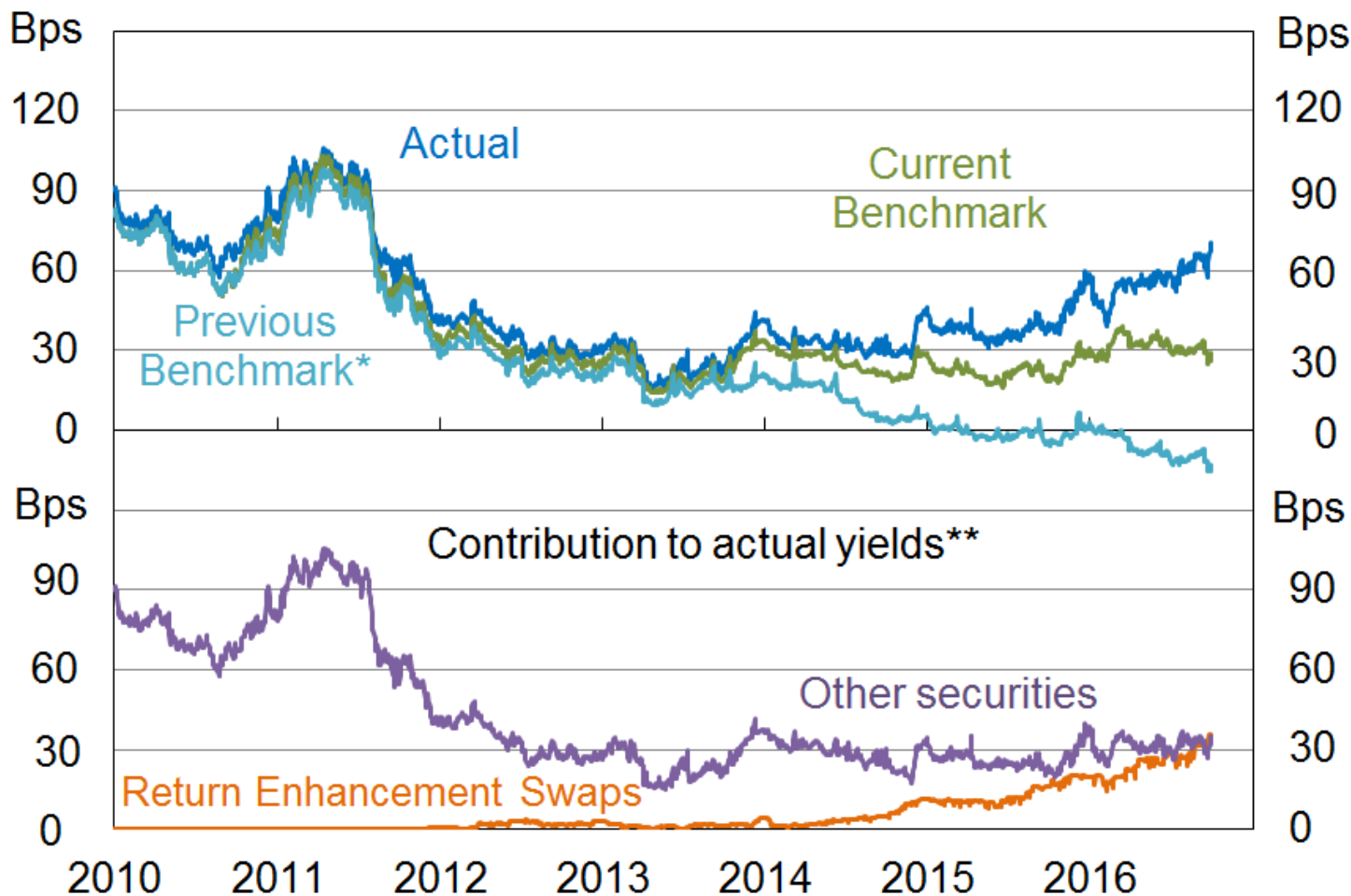


\* Contributions from 'Return Enhancement Swaps' and 'Other Securities' can be summed to obtain the actual portfolio running yield.





# Total Portfolio Running Yield

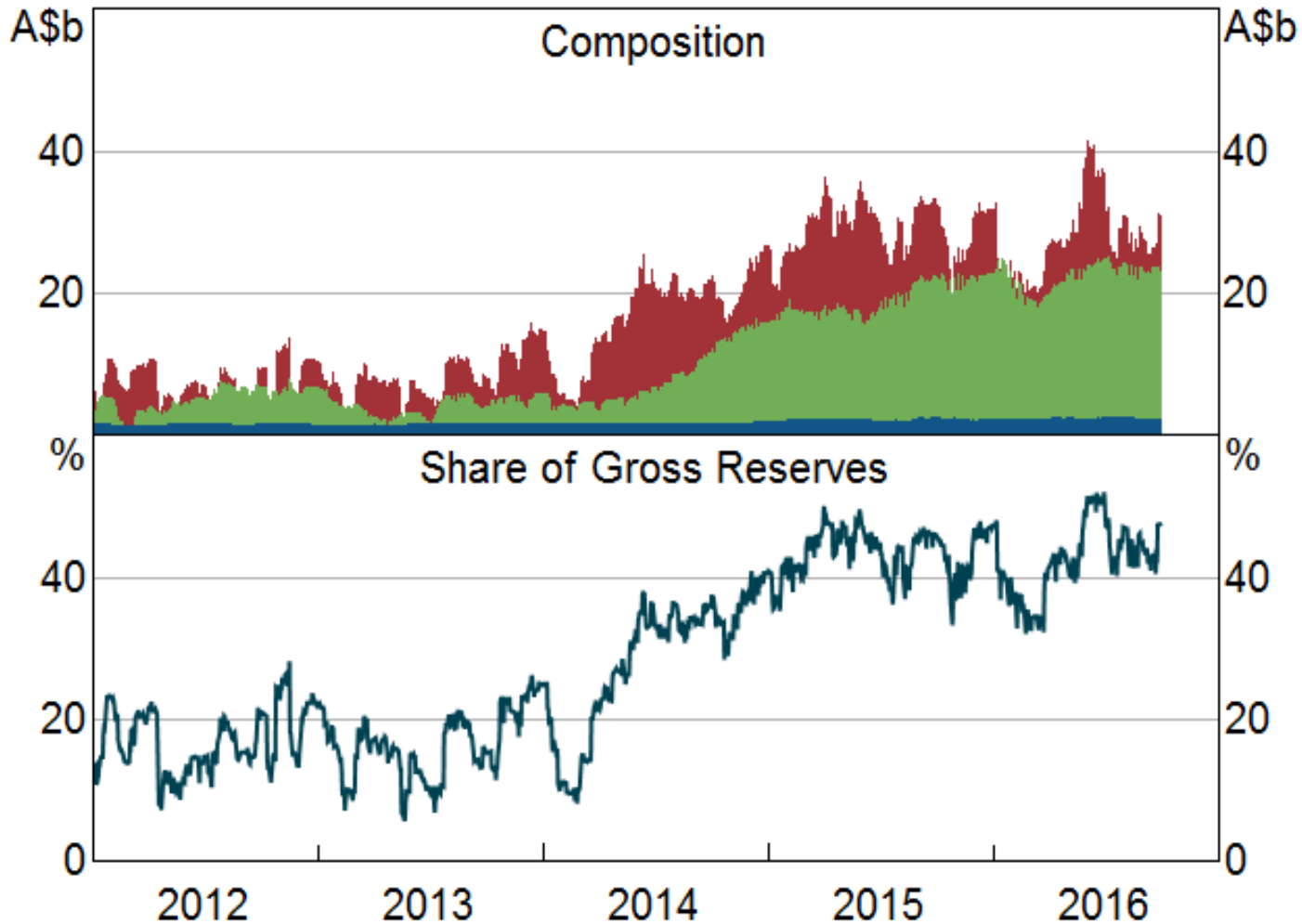


\* Benchmark running yield assuming 45 per cent of reserve assets are invested in USD and EUR respectively, with 10 per cent invested in JPY.  
 \*\* Contributions from 'Return Enhancement Swaps' and 'Other Securities' can be summed to obtain the actual portfolio running yield.



# Gross JPY Reserve Assets

- Domestic Liquidity Swaps
- Net Reserves
- Return Enhancement Swaps



Source: RBA

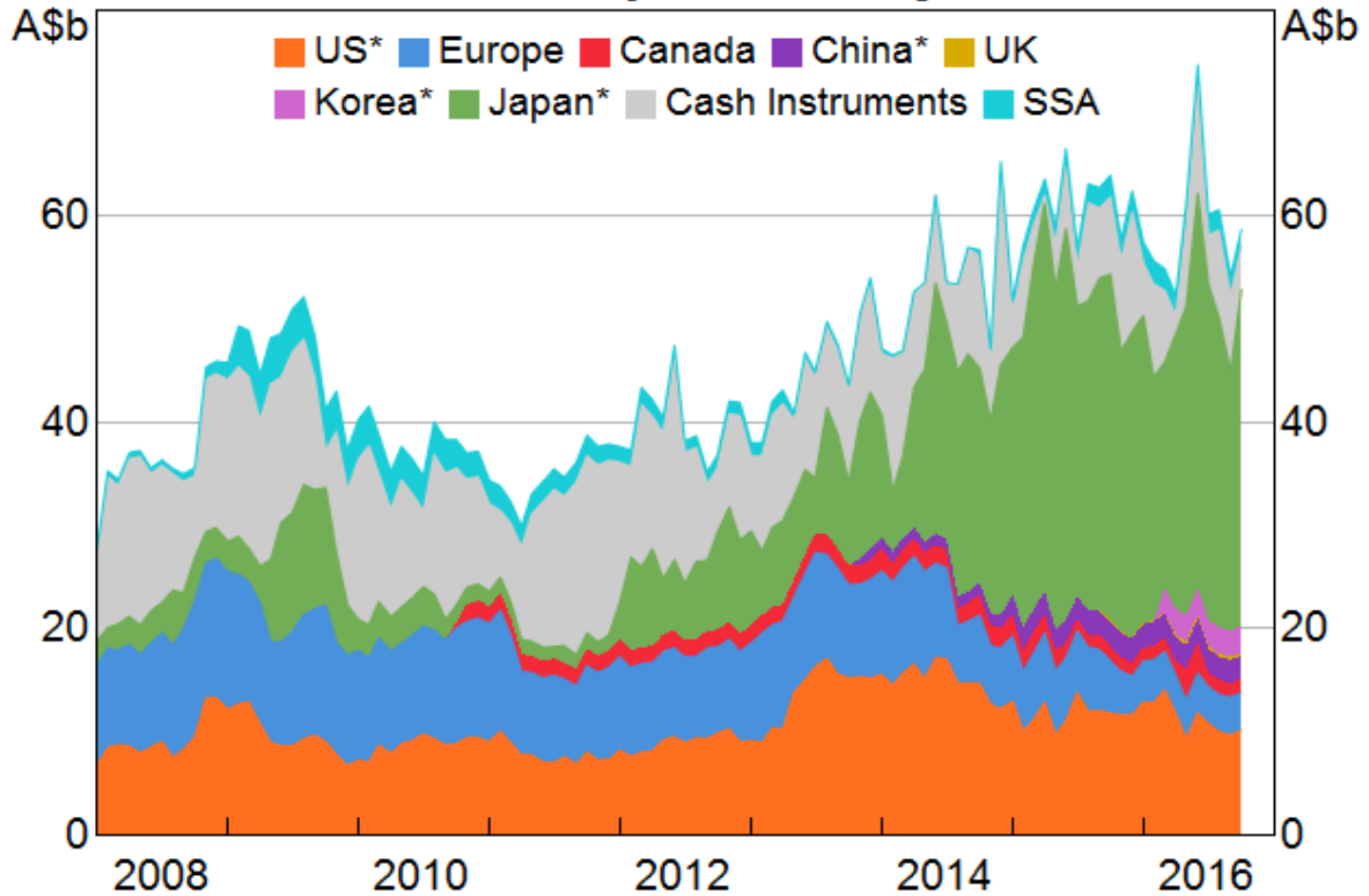


# Tactical Trading Decisions

- Swap USD, EUR, GBP, CAD into JPY on a fully hedged basis.
- To a lesser degree, desks have been holding some exposure to supranational securities to earn a yield pick up. However, since the crisis, the range of eligible supranational securities is quite limited and subject to binding limits.



# Portfolio Composition by Issuer



\* Includes overnight deposits and nostro account balances with the FRBNY and the BOJ. Includes securities issued by the PBOC and the BOK.

Source: RBA



# Risk Versus Return – Free Lunch?

- Sovereign risk?

## Sovereign Issuer Credit Ratings

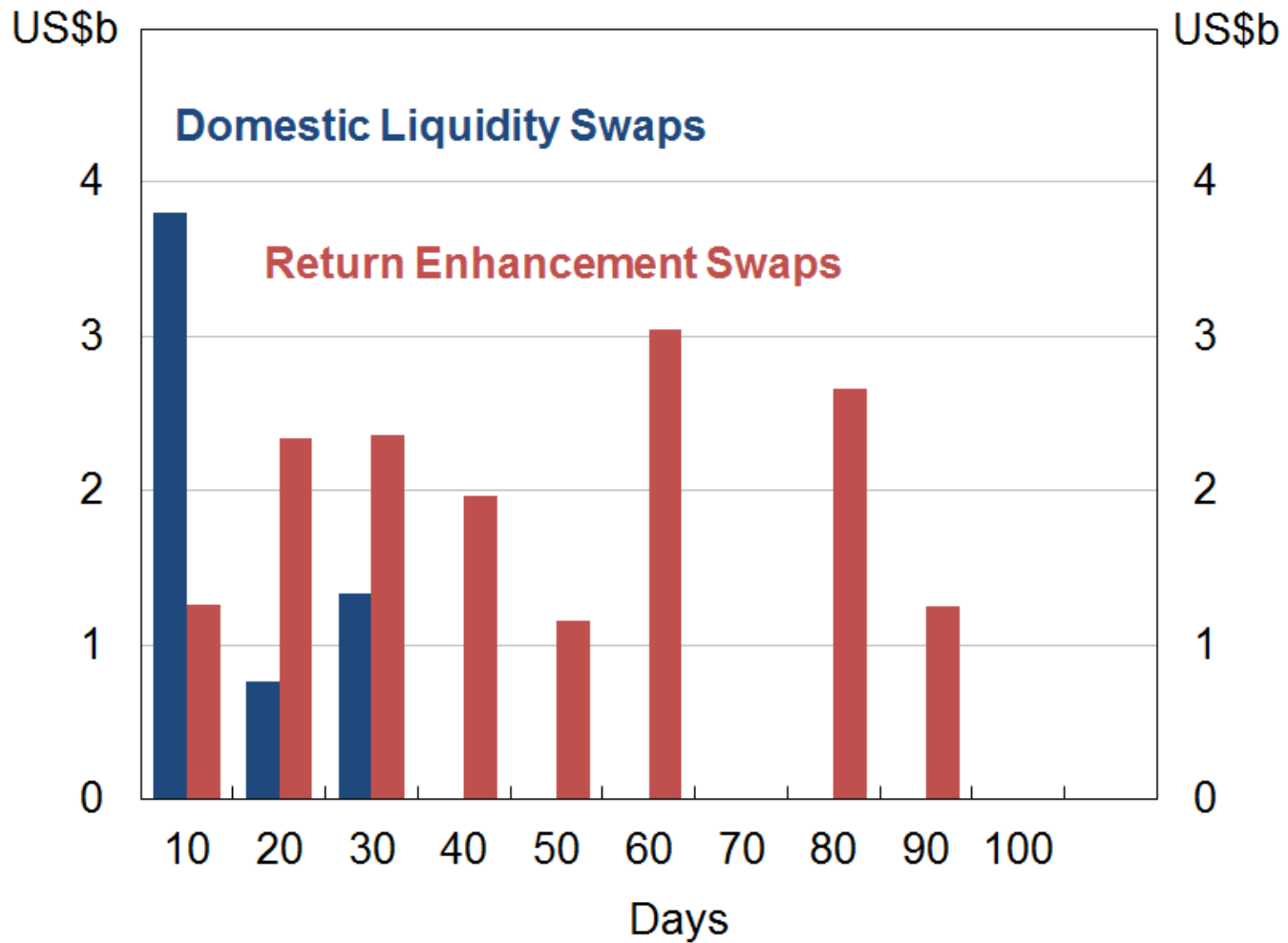
Moody's equivalent long-term average rating

	September 2016	Share of Gross Foreign Exchange Reserves (%)
Japan	A1	58.6
China	Aa3	4.0
Korea	Aa2	4.6
France	Aa2	0.0
UK	Aa2	0.5
Netherlands	Aaa	0.0
Canada	Aaa	2.4
Germany	Aaa	6.5
US	Aaa	18.3

\* Includes overnight deposits and nostro account balances with the FRBNY and the BOJ. Includes securities issued by the PBOC and the BOK.



# Japanese Yen Swaps Maturity Profile\*



\* Positive figure indicates a JPY outflow; flows based on the maturity of the second leg of the swap.



# Risk Versus Return – Free Lunch?

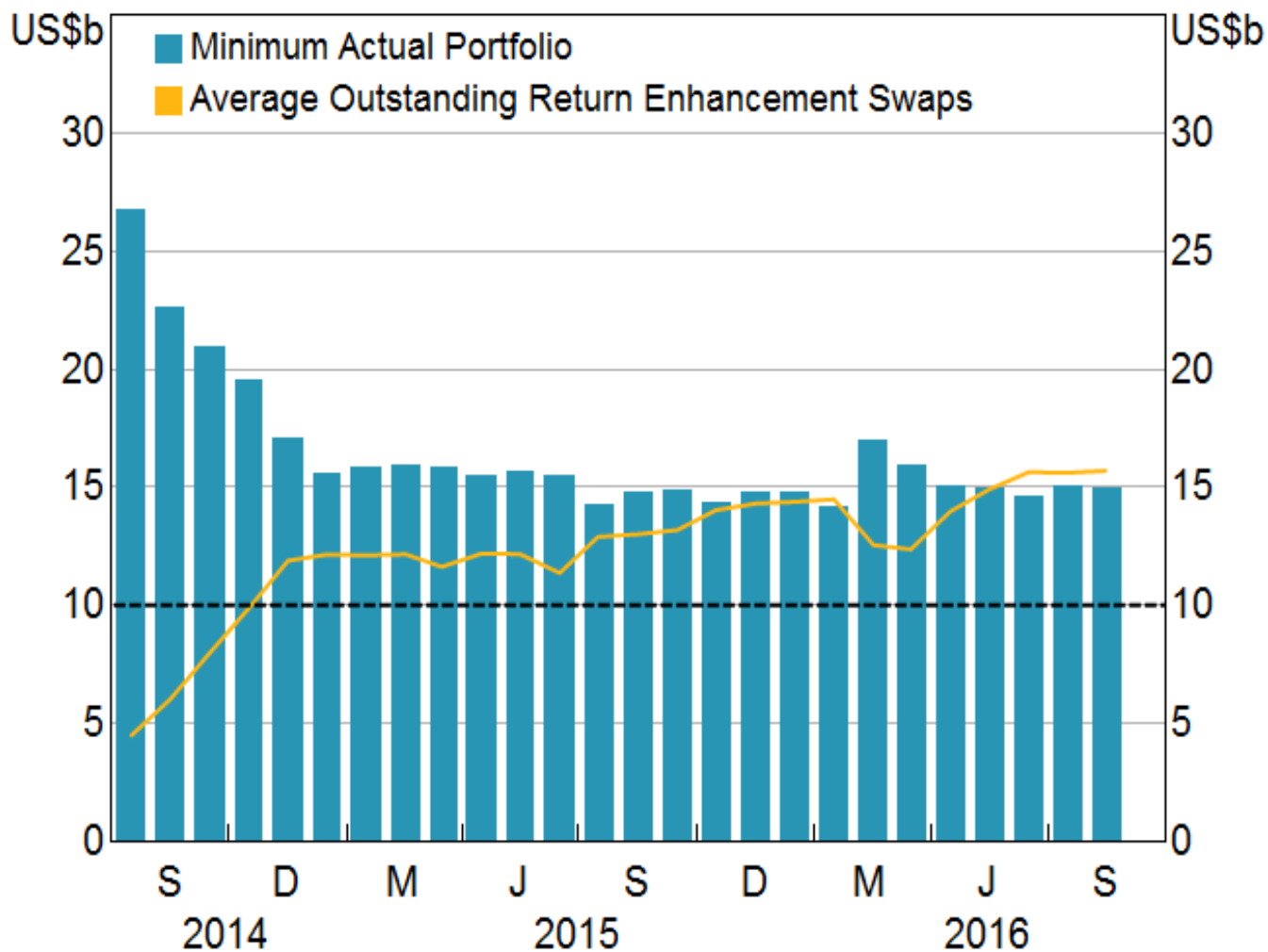
- Sovereign risk?
- Liquidity risk?





# Foreign Reserves Portfolio Liquidity

As at T+5



Source: RBA



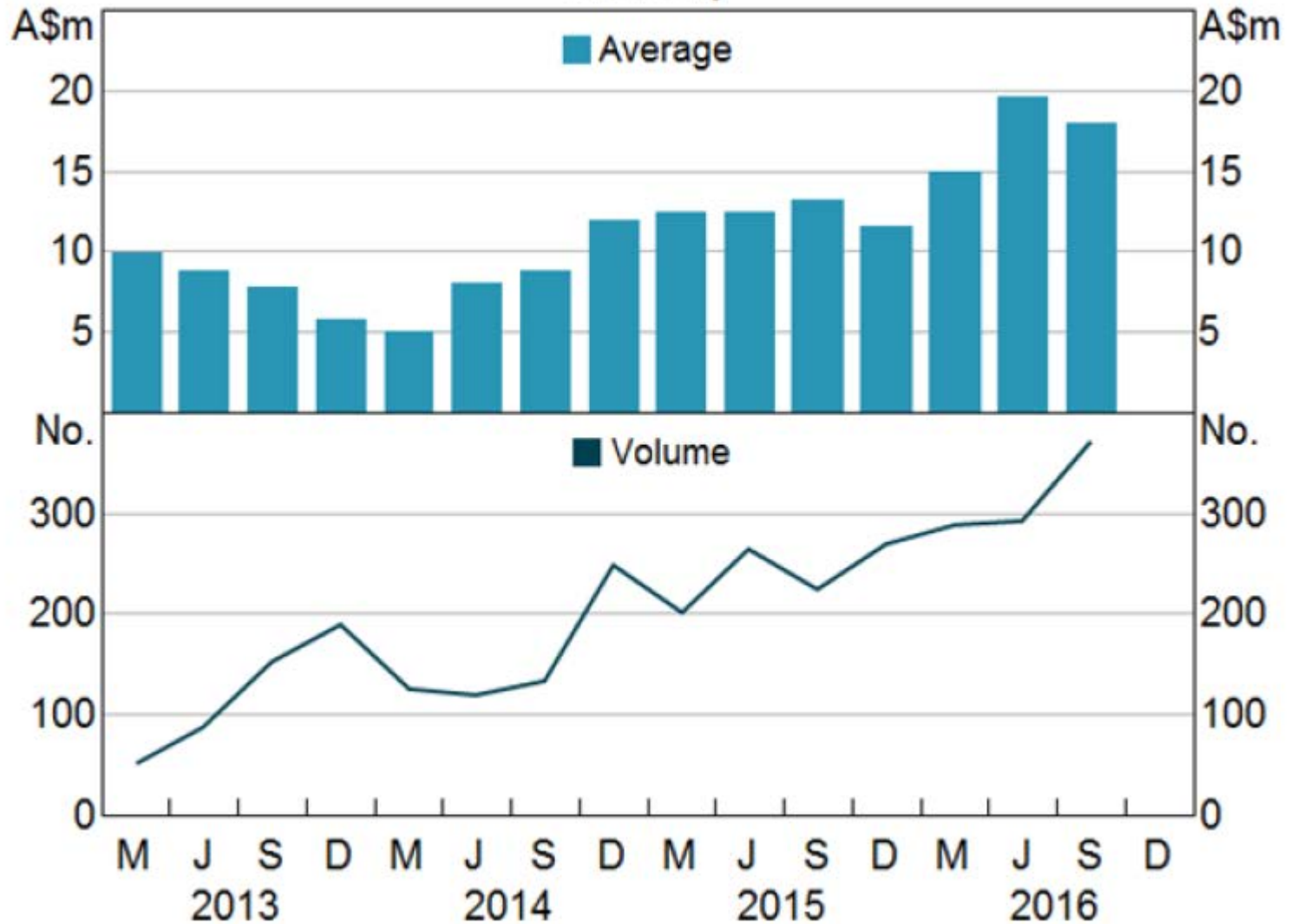
# Risk Versus Return – Free Lunch?

- Sovereign risk?
- Liquidity risk?
- Counterparty risk (on FX Swaps)?



# CSA Margin Calls

Quarterly



Source: RBA



# Risk Versus Return – Free Lunch?

- Sovereign risk?
- Liquidity risk?
- Counterparty risk (on FX Swaps)?
- Settlement (Herstatt) risk – as with any FX transaction (RBA not a member of CLS Group)



# Thankyou for your attention

Questions?

