

Central Bank Swap Lines (Bahaj and Reis)

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March 2019

Impact of Federal Reserve Swap Lines

- Worked as a 'lending facility, similar to conventional discount window, but used by foreign banks': remote control, foreign CBks are 'agents'
- Lowering the swap line rate lowered CIP deviations for swap countries (and vis a vis non-swap countries): some issues with selection of control countries
- Swaps lowered funding costs and in doing so increased funding to firms across borders: bond market evidence
- Banks in countries benefiting from swaps AND with US office have higher returns (share price – access also to TAF?, size of bank?)
- A lot of stress on 30 November 2008 swap rate change

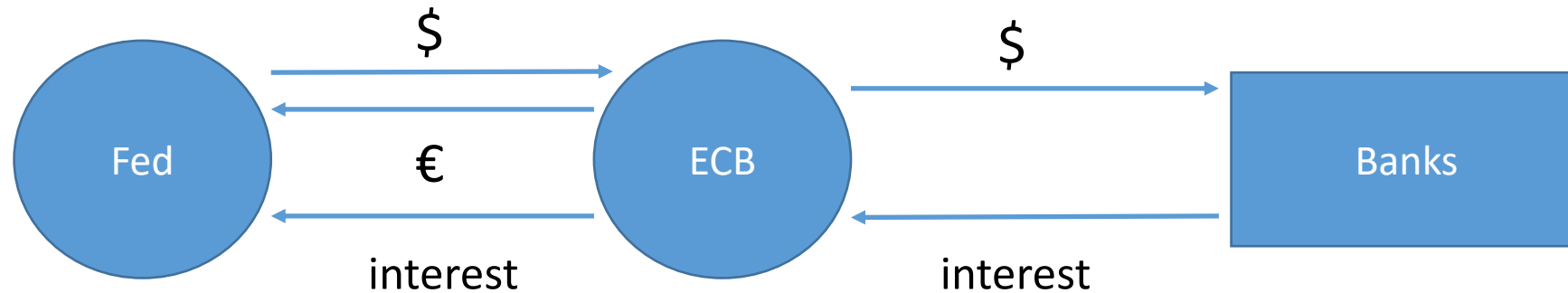
Motivation for Swaps = outcome

- ECB do not want Fed swap to start with
- ECB will only willing accept a swap if Fed starts Dollar Term Auctions in 2007
- Problem:
 - European banks seek \$ in morning, Fed Funds rate opens too high (2007)
 - European Banks borrowing in dollar LIBOR market and pushing that rate up (2008)

“Improved conditions in European dollar trading would guard against the spillover of volatility in such trading to New York trading and could help reduce term funding pressures in U.S. markets”: Bernanke FOMC

- Replaces use of reserves (unpredictable to Fed, don't want CBks to sell US Treasury or agency paper)
- Important symbolic/psychological effect of central bank cooperation
- G10 + Aus, NZ: Terms for EMEs are different (Mex, BRA, SKor, Sing)

These swaps not like previous swaps



Same as Fed lending to banks, but ECB takes the collateral and repayment risk
Not used to prop up exchange rates like Bretton Woods

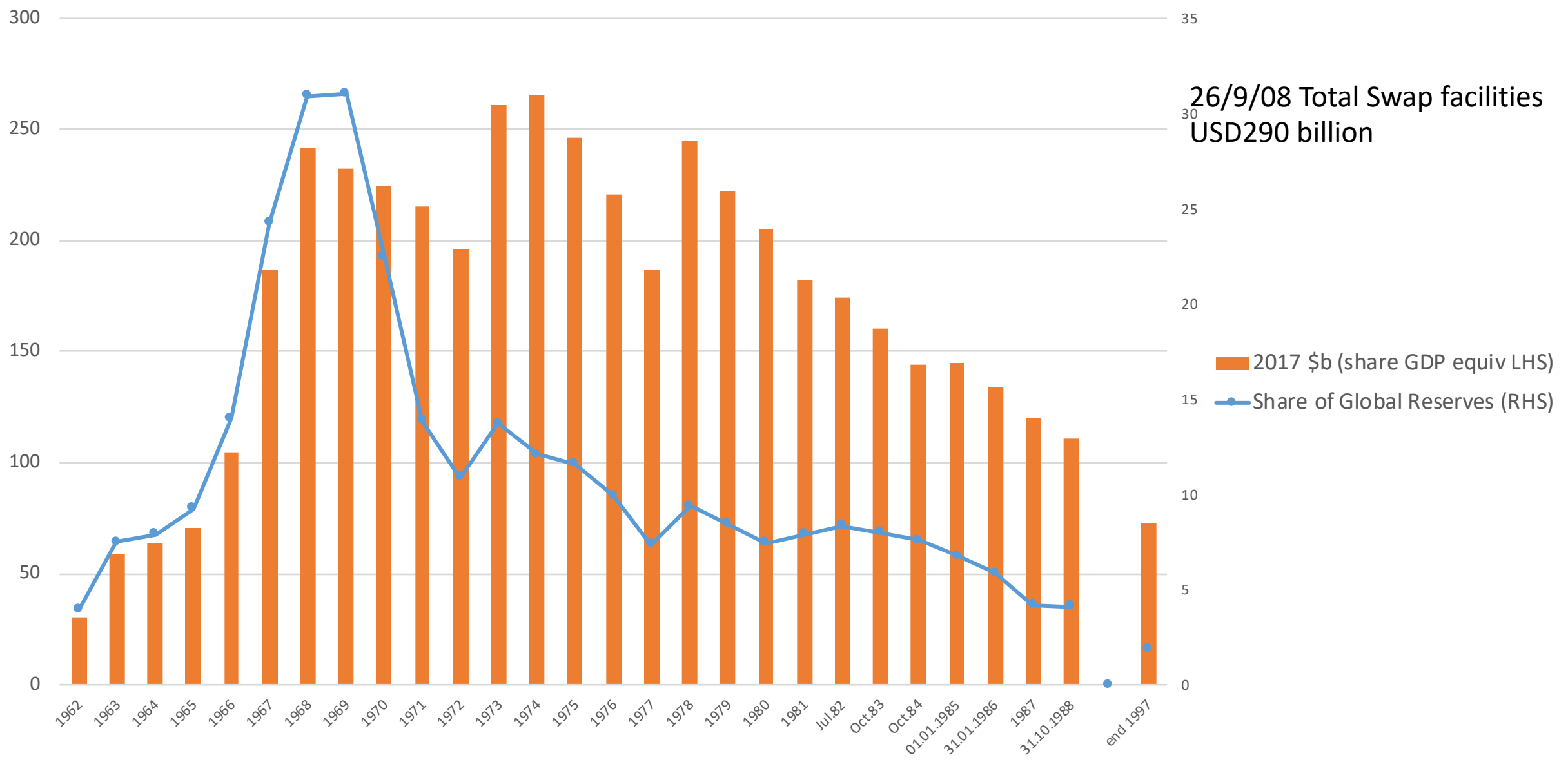
Important message – Fed Swaps were activated to support US policy (not a charitable act for foreign banks or central banks) not for FX intervention
[SNB uses Fed swap to buy assets from an individual bank in 2008]

Is this new? Not entirely

Bretton Woods Swaps

- Bank of England, France don't really want them in 1962
- Expected to hold the dollars (not to sell them – a way to prop up the dollar not the recipient country currency ie self-interest)
- Original use includes intervening in offshore money market (Eurodollar market)
- 1962: Coombs (Fed) 'had no fixed ideas on what they would do with the francs' arising from a swap although they 'might use them to **support the dollar**' He went on to describe the swap 'as a **symbolic transaction** and likened it to "**Basle assistance**". He felt that operations of this kind could be used to provide a groundwork to cope with **seasonal payments movements** and with **hot money swings**'

FED Reciprocal Swap Arrangements: LARGE – CLOSE to 2008 VALUE

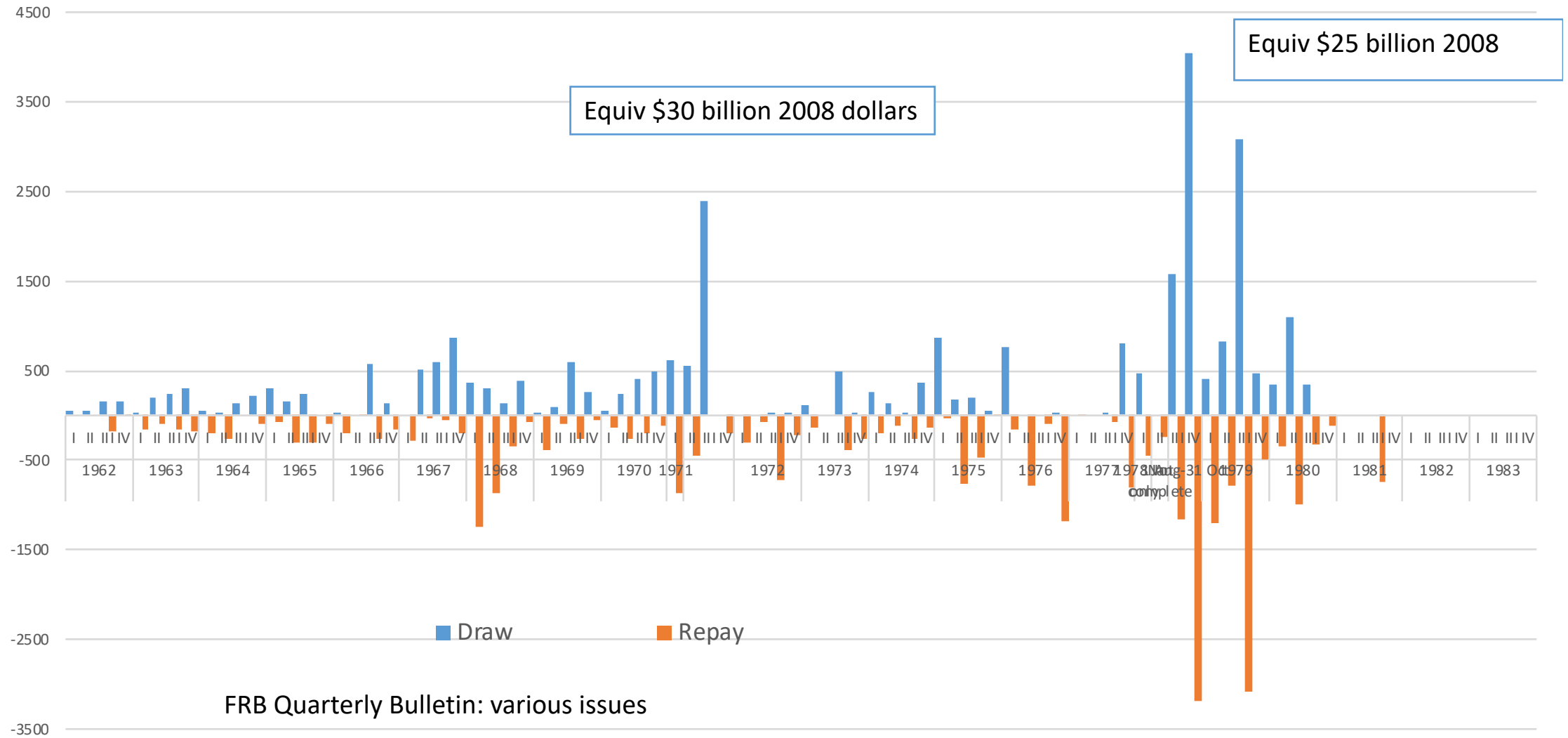


26/9/08 Total Swap facilities
USD 290 billion

2017 \$b (share GDP equiv LHS)
Share of Global Reserves (RHS)

Fed High Frequency Initiation and repayment of Swaps: Quarterly Data

Fed's Gross Total Drawings and Repayments of Central Bank Swaps (US\$m)

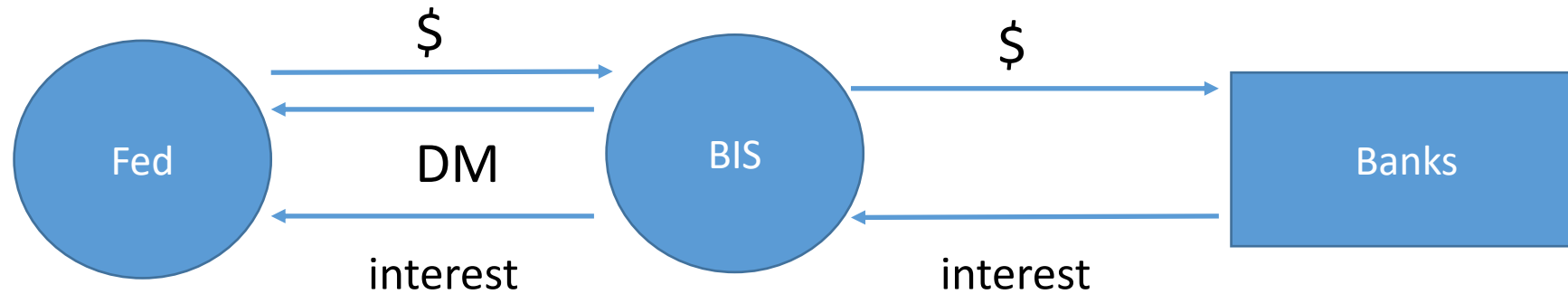


Historic Swaps ALSO used to support US monetary policy by providing liquidity to banks overseas

- 1965-1973 Fed swaps used to ease interest rate in offshore dollar market – dollars supplied to BIS or Central Banks to place in banks to meet overseas banks' demands for dollar liquidity
- Eurodollar rate impinges on US money market/Fed rates (LIBOR)
- Swaps used to push down the offshore dollar rate

- In 1966 liquidity through swaps = 2.8% of offshore dollar market
- In 2008 liquidity through swaps = 5.2% of offshore dollar market

Swaps – e.g. 1966

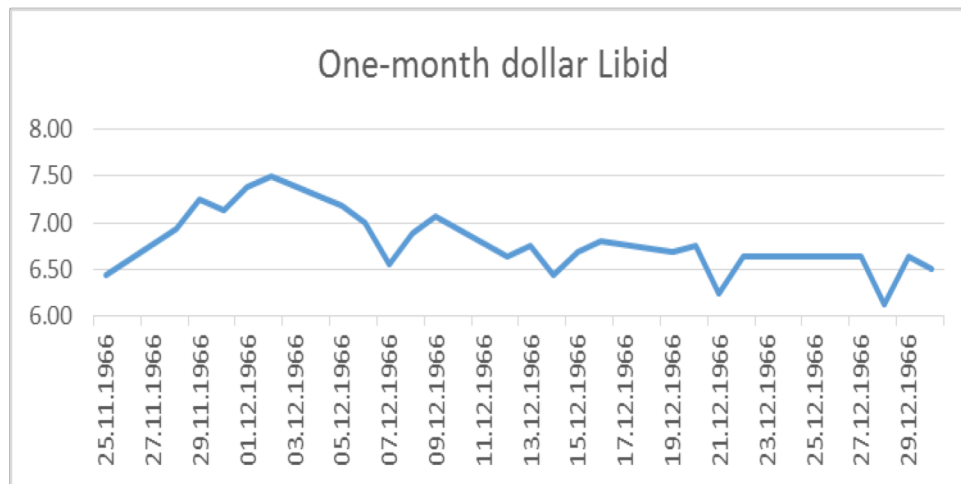
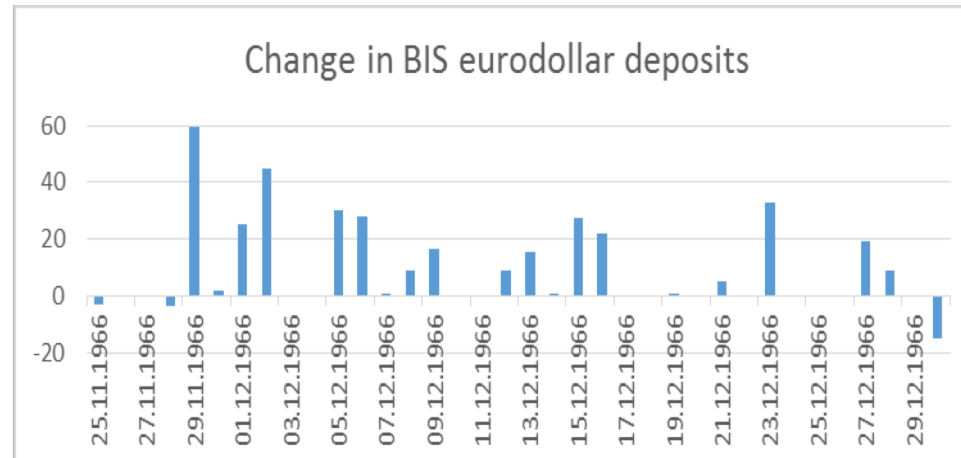


US - Wants to relax domestic monetary policy, needs to offset end of year tightening in offshore dollar rates

- FED Swap \$200m with BIS – dollars expressly to be put into offshore dollar market to affect rates
- SNB Swap \$160m with BIS
- BIS total deposits in Eurodollar market = \$649 million

TOTAL = 5% of Offshore dollar market in 1966; FED swaps = 5.2% in 2008

November/December BIS eurodollar deposits depress USD rate in offshore markets



Swap system as a network: missing multilateral dimension?

- Is it likely that banks accessed funds in the US, UK and ECB simultaneously? (different duration, collateral haircuts..)?
 - Swap funds more expensive than TAF (Goldberg 2010)
- Denmark, Sweden in a control group for FED swap but had ECB € swap. Australia, NZ, Denmark, Sweden, Norway in control group but have access to Fed Swaps (2008)
- One week data only – different for 28/84 days? European banks draw on US and European TAF for longer
- All central bank swaps not the same (e.g. RMB funding of trade) and political backlash against Fed swaps – need rehabilitation

German Bank Drawings on US TAF 2007-2009

Bank	Total NY TAF 2007-09 (billion)	German Banks' Share of Total
Dresdner	123.33	12.41%
Bayerische Landesbank	108.19	
Deutsche Bank	76.88	
Commerzbank	51.16	
DZ Bank	39.48	
Bayerische Hypo	34.49	
Landesbank Bn. Wuerttemberg	22.58	
EuroHypo	13.26	
Landesbank Hessen-Thurin	4.55	

Swap system as a network: missing multilateral dimension?

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- All central bank swaps not the same (e.g. RMB funding of trade) and political backlash against Fed swaps – need rehabilitation (too late?)

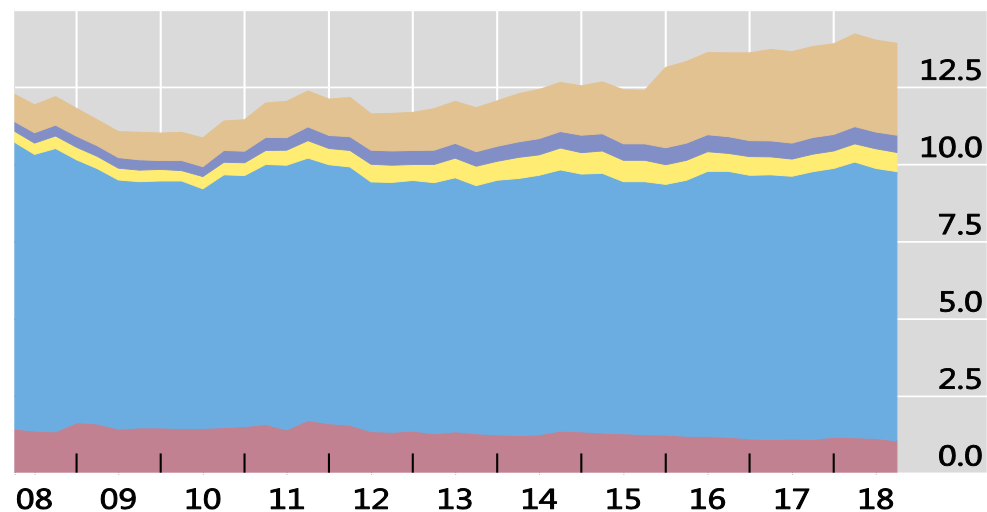
Reach of Fed swaps Shrinking: non swap partners' share rising

US dollar positions booked by banks outside of the US, by parent nationality¹

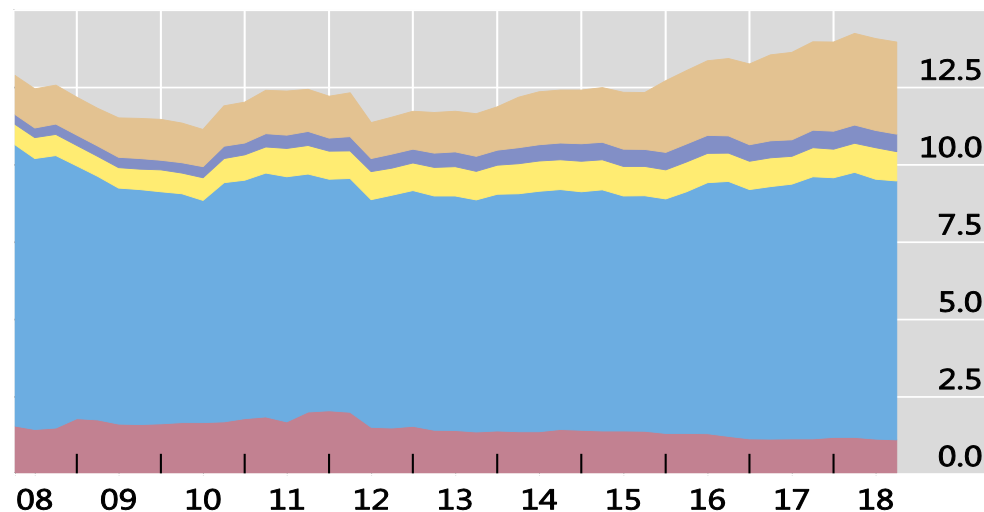
In trillions of US dollars

Graph 1

Claims



Liabilities



■ US
■ Core (Canada, UK, Euro area, Japan, Switzerland)
■ Other advanced (Australia, Denmark, Norway, Sweden)

■ Selected EMs (Brazil, Korea, Mexico, Singapore)
■ Other

¹ Due to missing data, positions of Danish and Norwegian banks located in the US are estimated as a constant fraction of respective bank'' total USD claims and liabilities. The fraction is calculated as claims and liabilities by Danish and Norwegian banks located in the US over claims and liabilities by Danish and Norwegian banks located in all reporting countries. In addition, claims and liabilities of Mexican banks in the United States are assumed to be zero. Missing data for Singaporean banks located in the United States over a few periods are linearly interpolated.

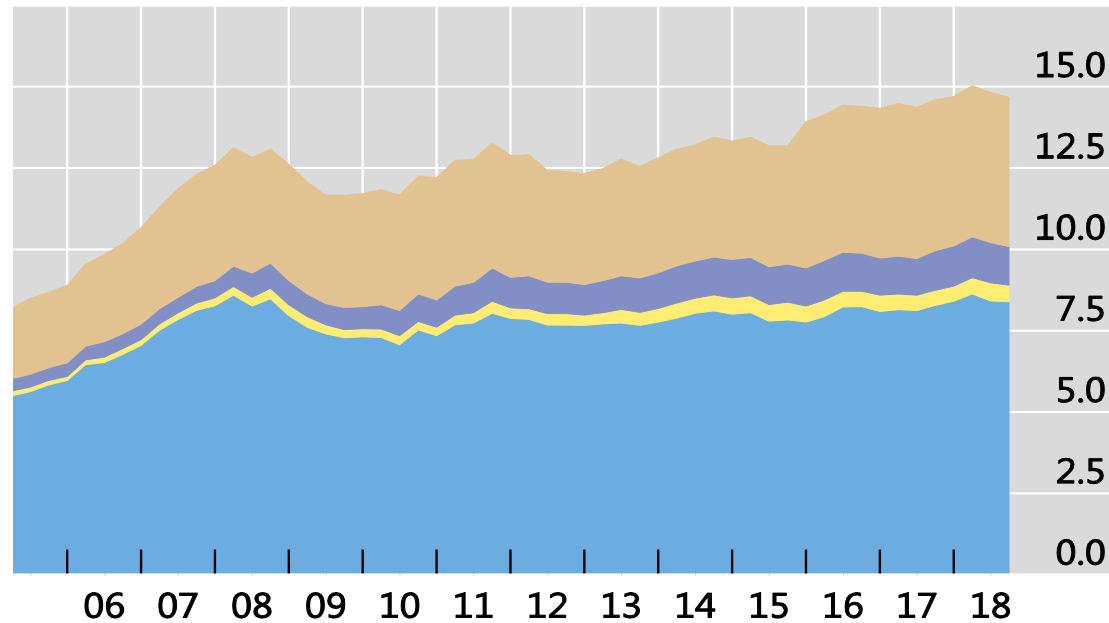
Source: BIS locational banking statistics.

Claims and liabilities in USD booked by banks outside of the US, by bank residence

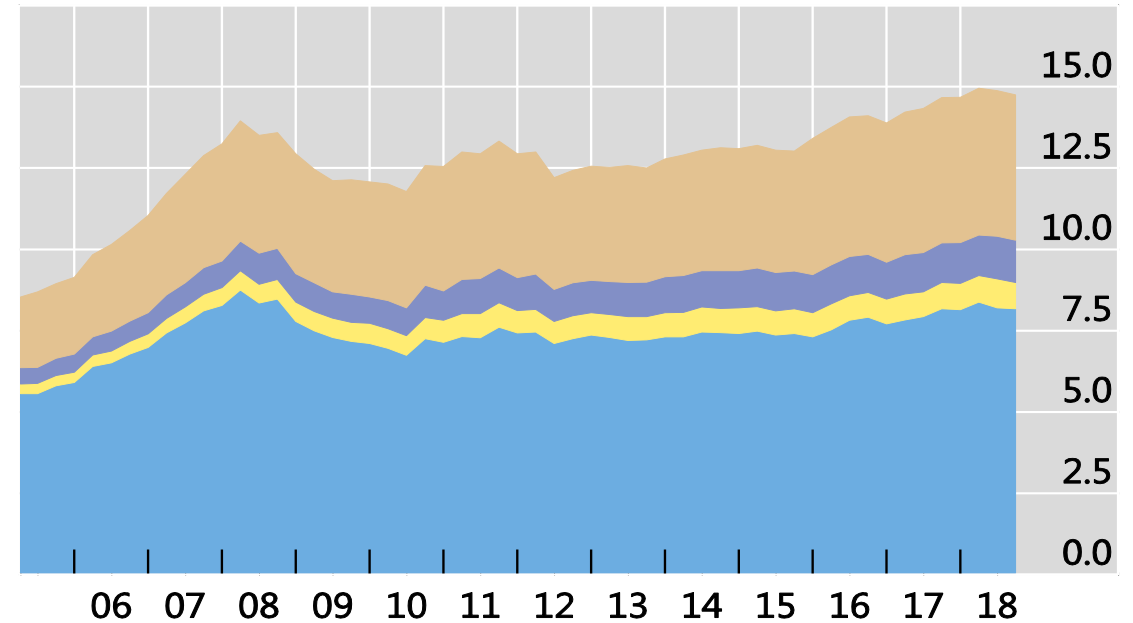
In USD trillion

Graph 2

Claims



Liabilities



Core (Canada, UK, Euro area, Japan, Switzerland)
Other advanced (Australia, Denmark, Norway, Sweden)

Selected EMs (Brazil, Korea, Mexico, Singapore)
Other (excl. US)

Note: "Other (excl. US)" group includes China and Russia as reporting countries as of end-December 2015.

Source: BIS locational banking statistics.