A new global liquidity crunch?

ANDRÉ ICARD AND PHILIP TURNER

Presentation of a draft report by Robert Triffin International:

Managing global liquidity as a global public good

Robert Triffin International (RTI) and the Reinventing Bretton Woods Committee

St Regis Hotel, Washington D.C.

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Former Deputy General Manager of the BIS and former Deputy Head of its Monetary and Economic Department respectively.

G7 monetary policies

Excessive global liquidity and the next financial crisis

Hannoun and Dittus (2017):

“G7 central banks are perpetuating extreme monetary stimulus and are sowing the seeds of the next systemic crisis.”

White (2016):

“Worse than in 2007 ... central banks have incubated ... a classic 1930s Fisherite debt-deflation … next task … is to manage debt write-offs.”

An urgent international policy challenge

Financial risks

- Abundant global liquidity
- Greater currency and maturity mismatches
- Systemic absence of global LOLR

No one "killer statistic" but several indicators suggest

- High or increasing vulnerabilities
- Risks of destabilising market dynamics

Policy responses need to be international … but present decline in international and multilateral cooperation

Global liquidity

Two components

Official liquidity … monetary policy, fiscal policy

Private liquidity ... many policies, notably regulatory

Indicators

Quantities … macroeconomic and microeconomic

Prices

LOLR

In the GFC, private liquidity imploded … Lender of Last Resort (LOLR)

Post-GFC, CBs countered a Global Liquidity Freeze
Domanski and Turner (2011), Allen (2013)

No global LOLR

Boorman and Icard, Editors (2011), Nakaso (2018 and 2019), RTI (2015).

Official liquidity of the G3

Central bank balance sheets as % of GDP

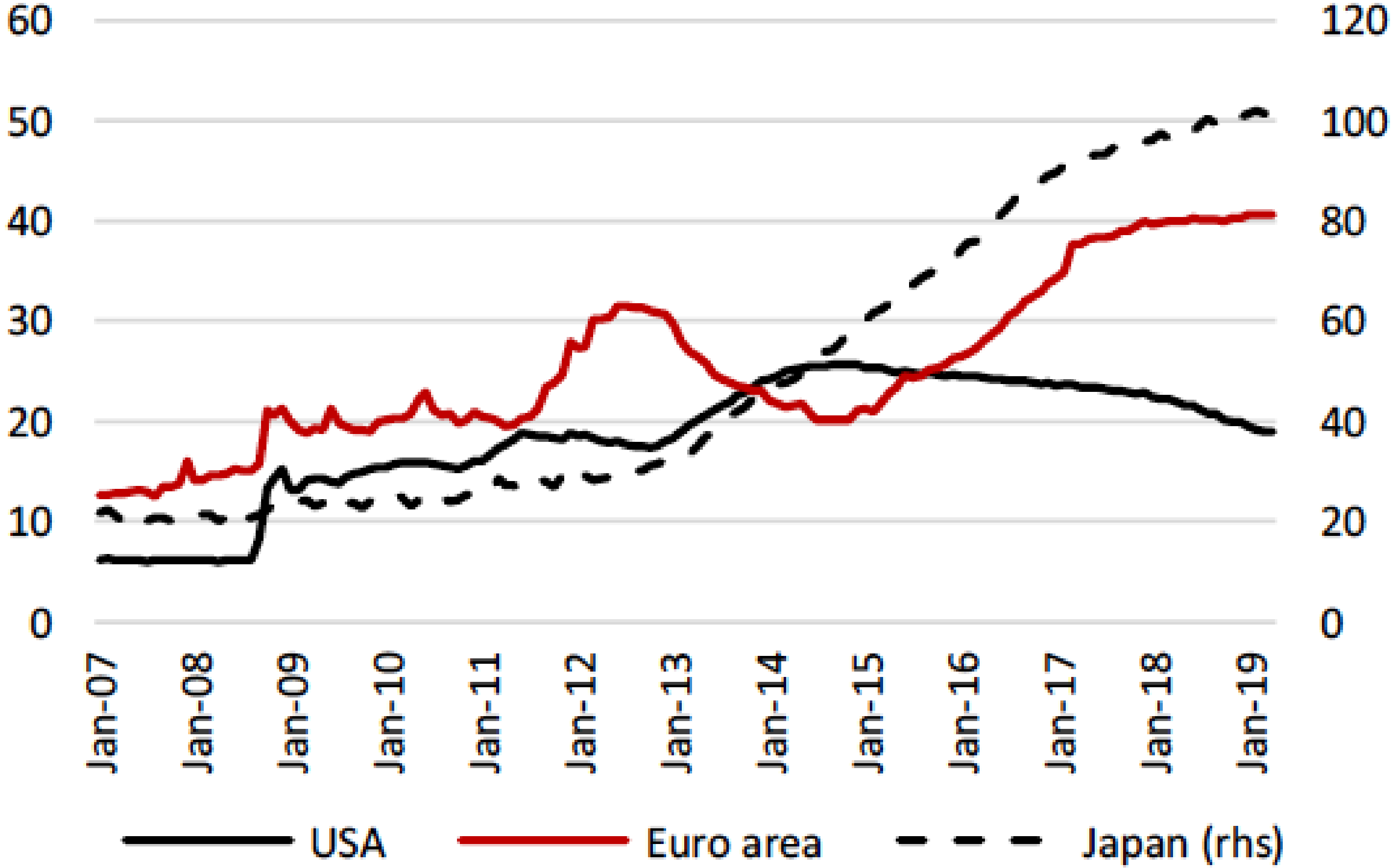
2008 to 2014: Fed expansive while ECB restrictive

From 2014: Fed gradually restrictive while ECB expansive

Shift in relative balance sheets increases foreign lending in € (up 7% last year) and lowers lending in $ (Tran (2019))?

Other dimensions: maturity, credit exposures etc

Central bank balance sheet - Major Central Banks
(as a percentage of GDP)



Last Observation: Apr-19

Source: BIS Annual Report, June 2018 (updated)

GFC: a Global Liquidity Crunch

Quantity of private liquidity

Global interbank claims fall by $3 trillion in 2008 and 2009

Surge in demand for liquid assets especially $ (Moessner and Allen (2015))

Price of private liquidity

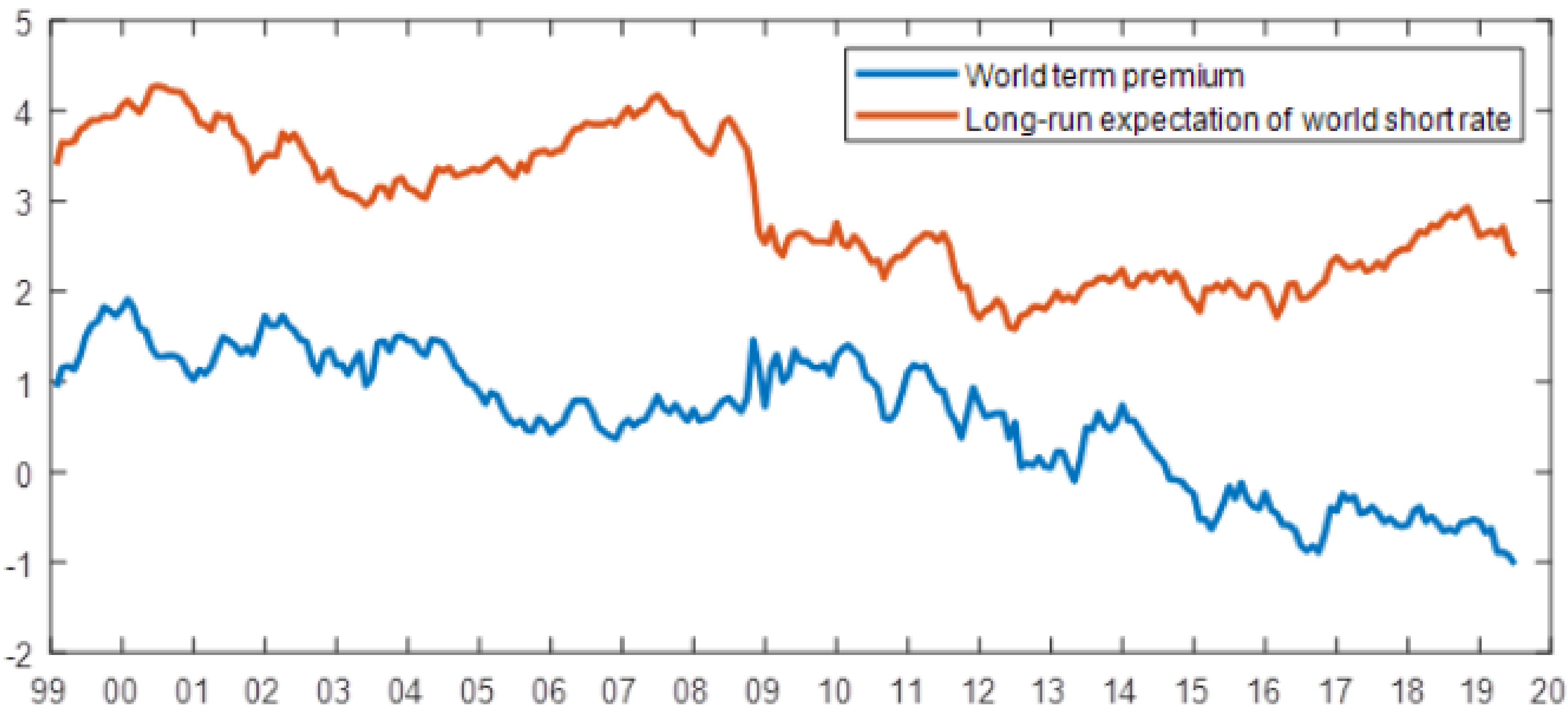
IMF indicator of price of liquidity in short-term wholesale markets rose by 2009 to 5 standard deviations above normal (Chen et al (2012))

Term premium in global bonds rises until 2011 as recession deepens

Bank regulations on liquidity reinforce the surge in the demand for liquid assets

In the worst crisis since WW2, surge of official liquidity and monetary expansion saved the financial system – right response but with a hard-to-manage financial legacy (Pringle (2014), Turner (2019) and (2017))

“World” long-term interest rate



Source: Hördahl et al (2016) updated

Global liquidity and risk

Borrowing side

Foreign currency credit (usually $) to non-resident non-banks

Non-banks borrowing foreign currency face currency mismatches

Lending side

Banks outside the US have $ debts of $15 trillion – which exceeds the total liabilities of banks operating within the US (Cecchetti and Schoenholtz (2014))

International hunger for liquid $ debt.

Liquidity pyramid upon too narrow US treasuries as safest collateral (Ghymers (2019))

Supply of ultimate safe asset of US Treasuries is too small ... so markets create new but riskier alternatives (Landau (2017))

More fundamentally, lack alternative safe assets which do not add to the debt for reserve currency-issuing countries

"Dollar intermediation that lacks a clear LOLR – a vacuum that could generate a problem "

BIS General Manager, Agustin Carstens (Hinge (2019)

LOLR in a new global liquidity crunch?

Federal Reserve

Recent Fed warnings about $ exposures of non-US banks - political uncertainties about the willingness to implement large swap lines (in the GFC 600 bn dollars only)

Geithner's Per Jacobsson's Lecture (2016): Dodd-Frank has constrained Fed's LOLR powers

Global dimension

Hidden risks in bilateral currency swaps (Iwata (2018))

Three quandaries (Nakaso (2018) updating BIS (2017)):

1. Liquidity shortages affecting several jurisdictions simultaneously
2. Trap of transparency: simultaneous disclosure of all liquidity support could be counter-productive
3. Capital market intermediation: limits on what assets CBs could buy or accept as eligible collateral: e.g., bonds issued by foreigners?

Landau Report

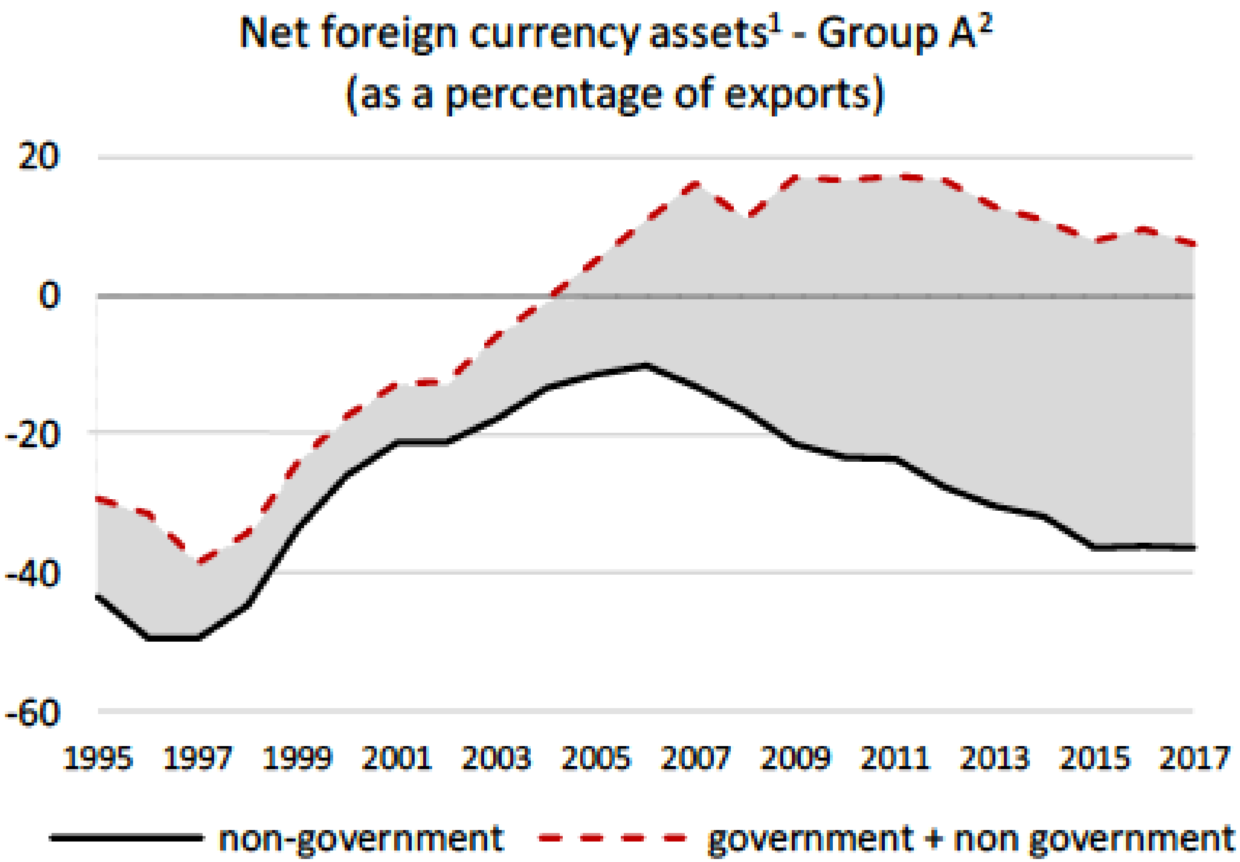
Governors commission review of global liquidity (BIS (2011))

- Decade of low rates encourages expansion in foreign currency credits.
- Vulnerabilites: currency mismatches and maturity mismatches in foreign currency
- Local central banks: a liquidity crisis in foreign currency
- Leveraging by private institutions creates, and deleveraging destroys, private liquidity which is thus highly pro-cyclical

Currency mismatches

EME currency mismatches grow from 2009

- *Official sector:* Positive net foreign currency asset balance so that its balance sheet improves as currency depeciates
- *Private sector:* Even firms without dollar earnings borrow dollars. Net foreign currency liabilities of medium-sized EMEs reach 40% of their annual exports -- 10% pre-crisis (Chui et al (2018))
- Share of debt in dollars exceeds US trade weight



[1] For net foreign currency assets, outstanding positions at year-end.
[2] Calculated with aggregates of Brazil, Chile, Colombia, the Czech Republic, Hungary, Indonesia, Malaysia, Mexico, Peru, the Philippines, Poland, South Africa, Thailand and Turkey

Source: M Chui, E Kuruc and P Turner (2016)

Currency mismatches: destabilising market dynamics weaken growth

Bond market turbulence coincides with forex market turbulence
Local firms with $ debts buy $ when the local currency falls, adding to depreciation

$ rise hits firms with $ debts, lowering business investment (Avdjiev et al (2019))

A new risk factor for foreign investors (Carstens and Shin (2019))

Epicentre of next crisis may be in the EMEs and in bond markets

New policy imperatives for EME central banks?

Integrated inflation targeting ... forex intervention and capital controls (Agénor and Pereira da Silva (2019))

Forex-related macroprudential policies (Kim and Lee (2017), Mizen (2018))

Balance sheet policies (Gagnon and Turner (2018))

Measures of global liquidity: quantity and nature

Foreign currency credit to non-resident non-banks ... growing by 5% a year post-GFC

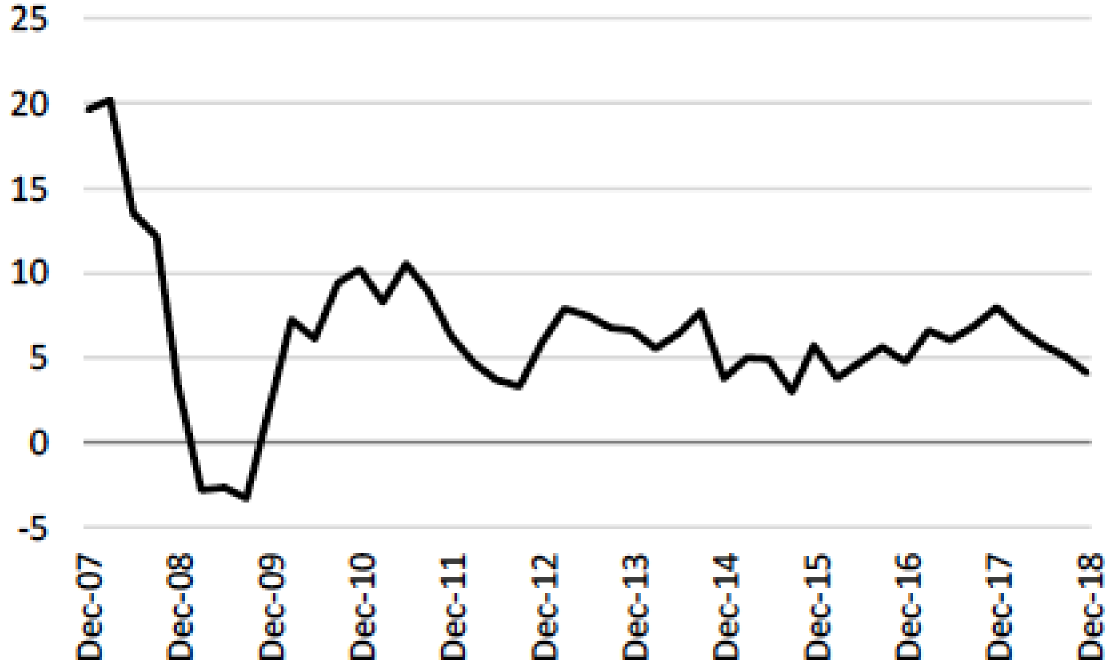
US dollar credit to non-banks outside the US

- ***$11.8 trillion 2019 Q1 – about 14% of world GDP from 10% in 2007***
- New risks as capital markets overtake bank loans

But recently non-$ credit growth exceeds $ credit growth

- $ credits up 4% since last year
- € credits up 7% to $3.7 trillion
- Yen credits up 13% to $0.5 trillion

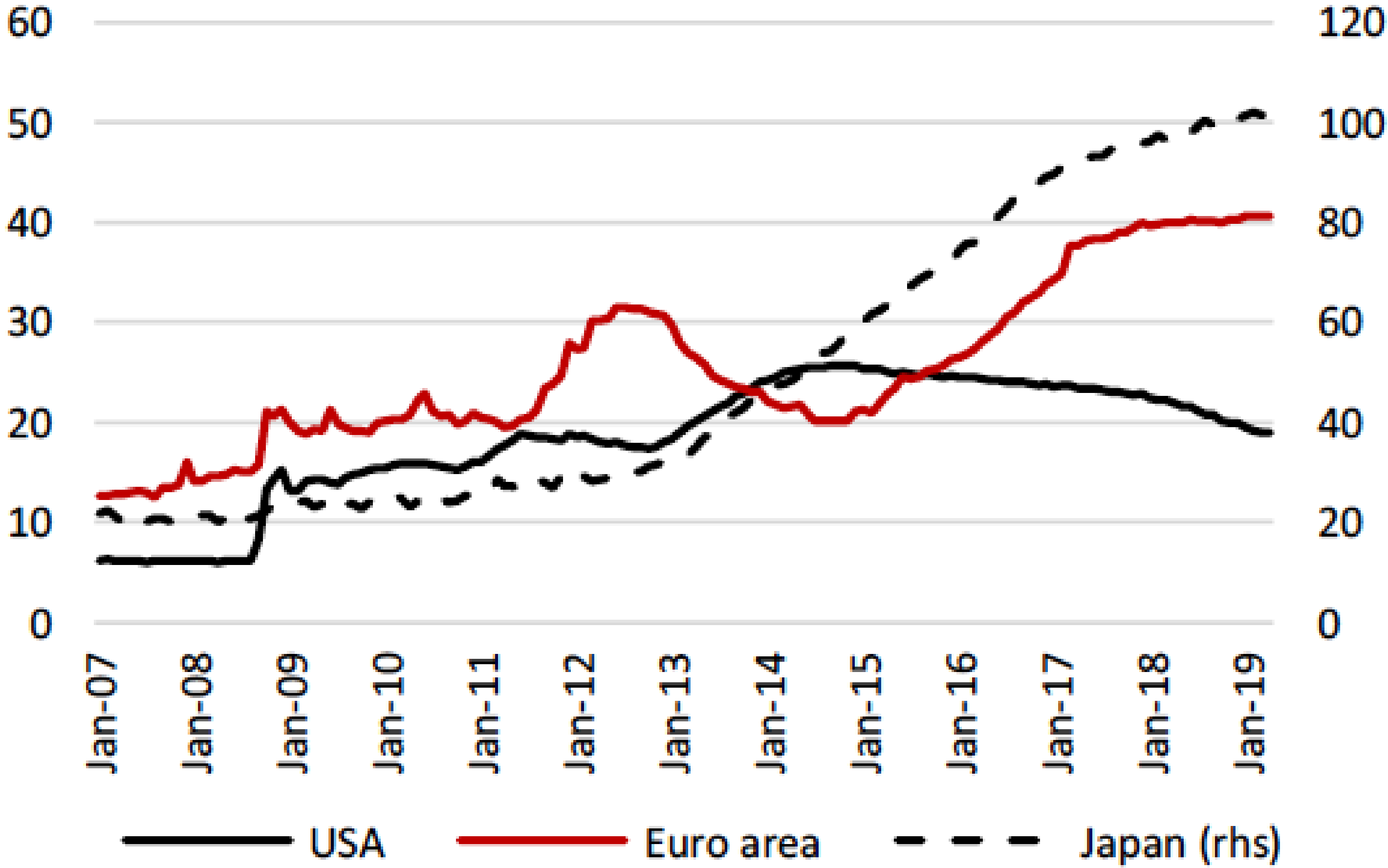
Growth of foreign currency credit to non-resident non-banks[1] (%) - *aggregate*



[1] Percentage change weighted by shares of dollar, euro and yen credit at end-2013. Last observation: Dec-18

Source: BIS, Global Liquidity Indicators

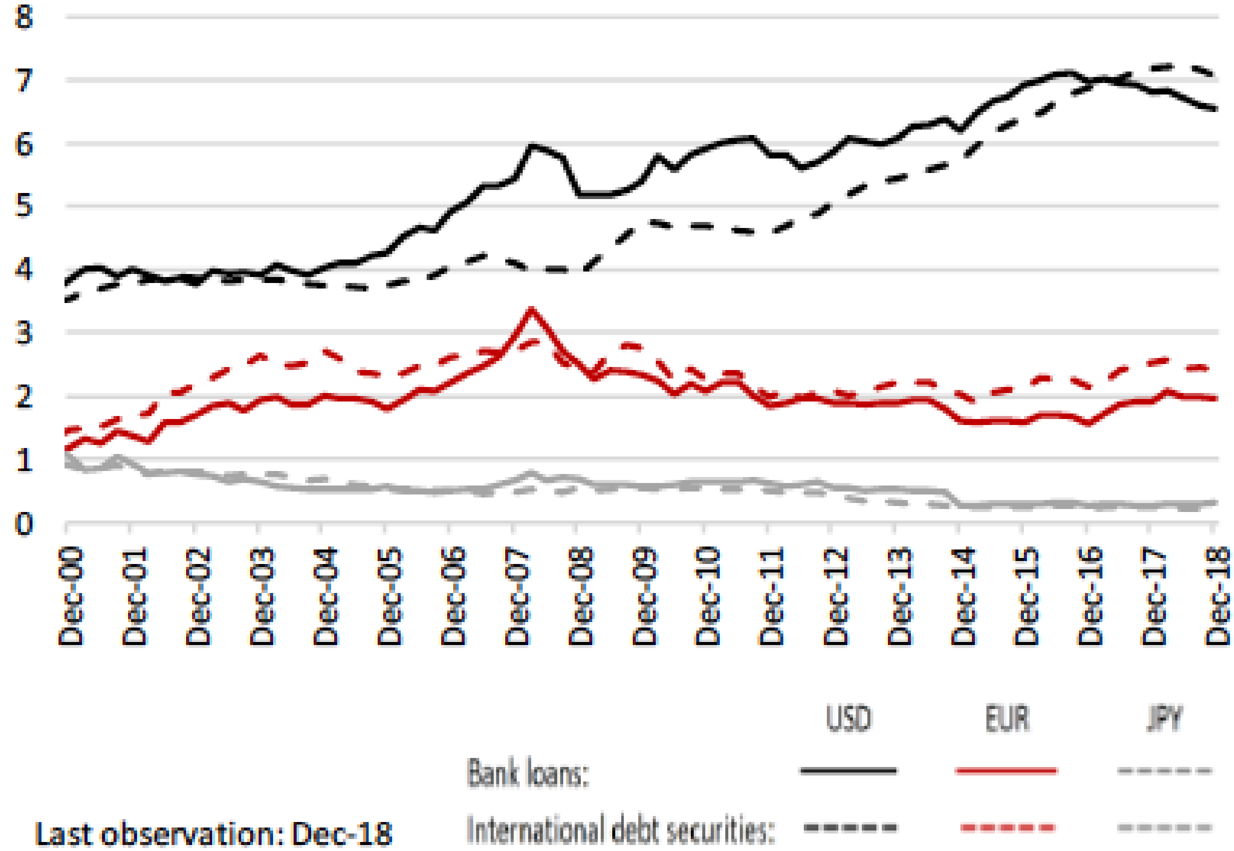
Central bank balance sheet - Major Central Banks
(as a percentage of GDP)



Last Observation: Apr-19

Source: BIS Annual Report, June 2018 (updated)

International credit to non-residents non-banks
(as a percentage of global GDP)



Source: BIS, Global Liquidity Indicators

Bond finance rises faster than bank finance

Share of international banks in $ credits

Rise pre-GFC from 50% to 60%

Falls post-GFC

Tripling of $ bonds issued by non-banks outside the US: now $6 trillion from just over $2 trillion in 2007

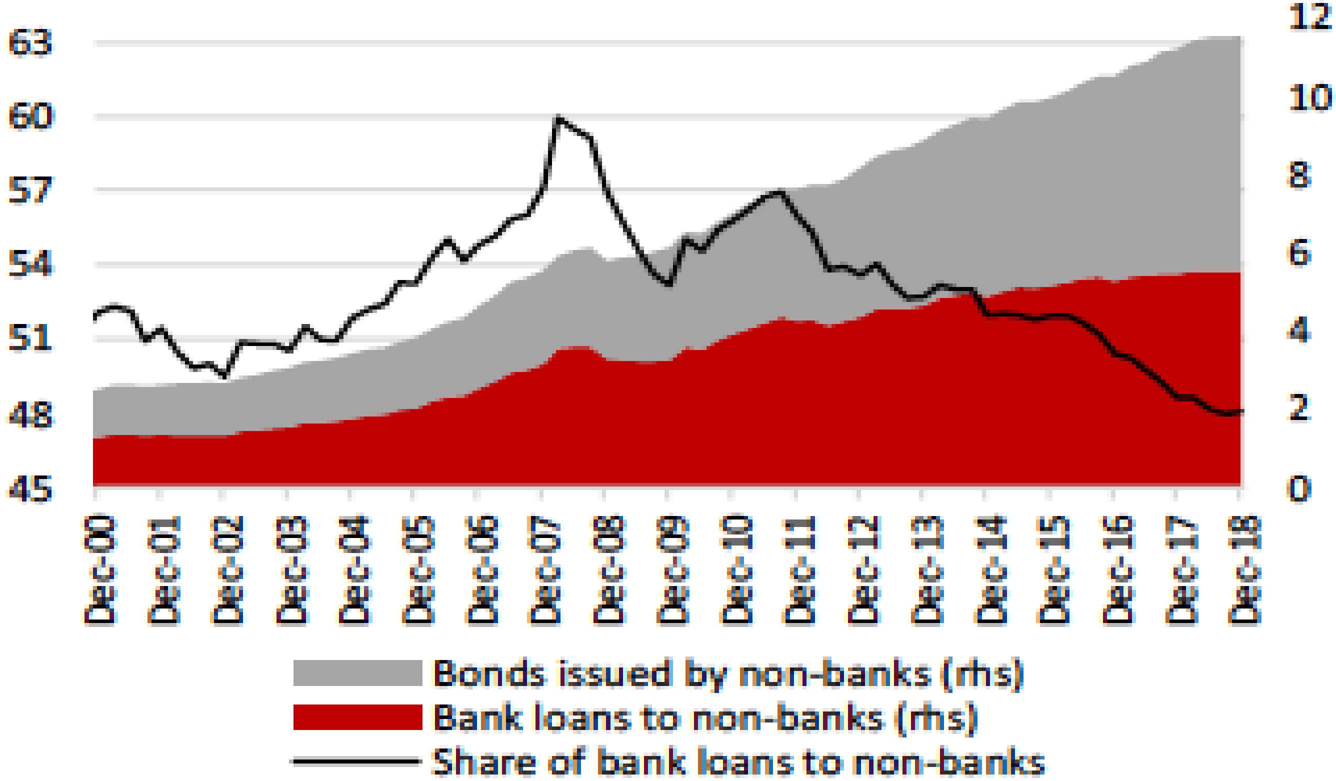
Average yield in global bond market now 1.7%

World long-term rates, not short rates, key for global spillovers (Clark et al (2018))

Local banks: EME companies with $ debts cut their local bank deposits when global liquidity tightens (Turner (2014))

A recipient EME with greater macro-financial vulnerabilities most affected by spilloovers (Mehotra et al (2019))

US-dollar denominated credit to non-banks outside the USA
(lhs: per cent; rhs: USD trillions)



Last observation: Dec-18

Source: BIS, Global Liquidity Indicators

Bond finance: worries and policies

At least four worries (See OECD (2019), Tran (2019))

Maturity of bonds rises – investors face greater risk from higher rates

Credit quality on non-financial corporate bonds deteriorates

Structured products. Rise in floating-rate leveraged loans. Outstanding in US and Europe exceeds $2 trillion, above 2007 peak. Packaged into CLOs. Covenants diluted (OECD (2019))

Liquidity illusion. Instant access funds with a daily price but illiquid underlying assets

Policies

Macroprudential policies do not address maturity mismatches and leverage in non-banks (Mizen et al (2018), Tran (2019))

September 2019: sudden stress in $ repo markets

Hung Tran (2019):

Fed, caught by surprise, forced to add liquidity via overnight repos for the first time since 2009.

Non-banks rely heavily on repos to fund portfolios of risky bonds

Role of foreign banks in repo operations? ... Poznar (2019)

Have regulations driven a pro-cyclical increase in bond duration?

Recent regulations (accounting rules, Solvency 2, Basel III) have driven banks, pension funds to hold more government bonds (Ramaswamy and Turner (2018)

Have they also lead to a **pro-cyclical increase in bond duration as LT rates declined?**

- Buy longer-dated paper to maintain yield
- React to expectations of even lower future yields
- Rise in the PDV of long-dated liabilities.

Increased stock + longer maturity = Portfolios more sensitive to changes in the LT rates

Price indicator of global liquidity

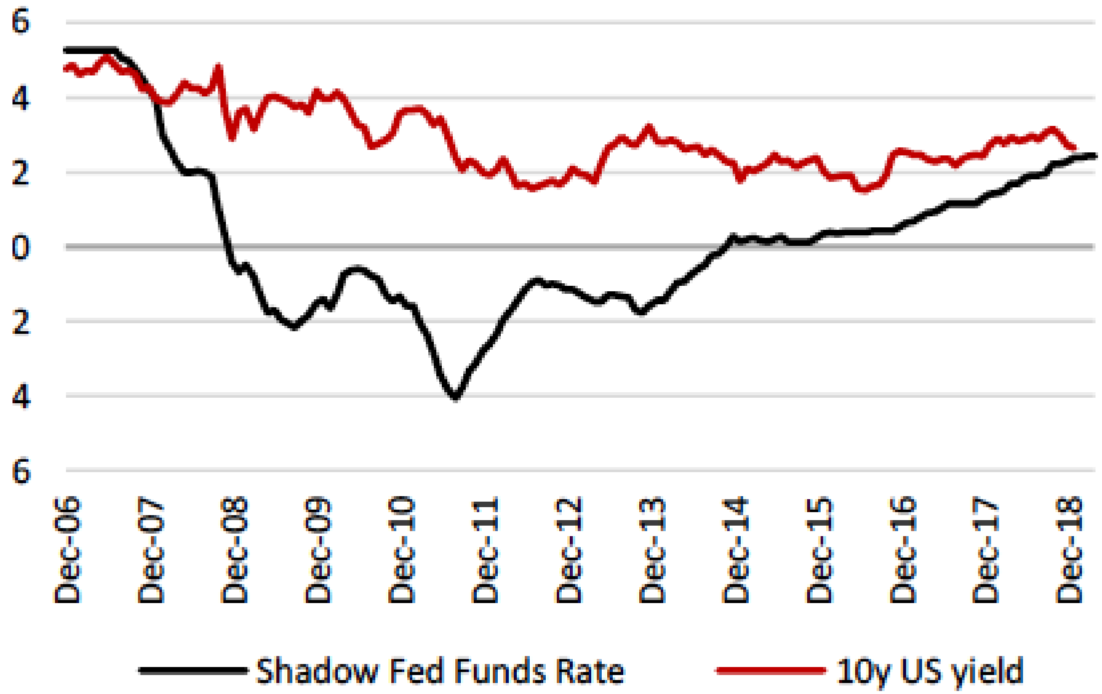
Keynes: liquidity preference

Long-term rate depends on investors' willingness to assume liquidity and maturity risks

US 10-year treasury yield has not been dominated by recent changes in Fed monetary policy but has been held down by low euro yields

Dollar still the benchmark but global borrowers move away from the dollar when $ LT rates exceed € LT rates

Benchmark dollar interest rates[1]
(%)



[1] Between Nov-2008 and Jul-2015, the "shadow" FFR of Lombardi and Zhu (2014) is shown. Last observation: Apr-19 for Shadow FFR, Jan-19 for 10y US yield

Source: Lombardi and Zhu (2014) updated

Price indicator of global liquidity

“World” long-term rate

Common movements in \$, € and £

Decomposition by a macrofinancial model

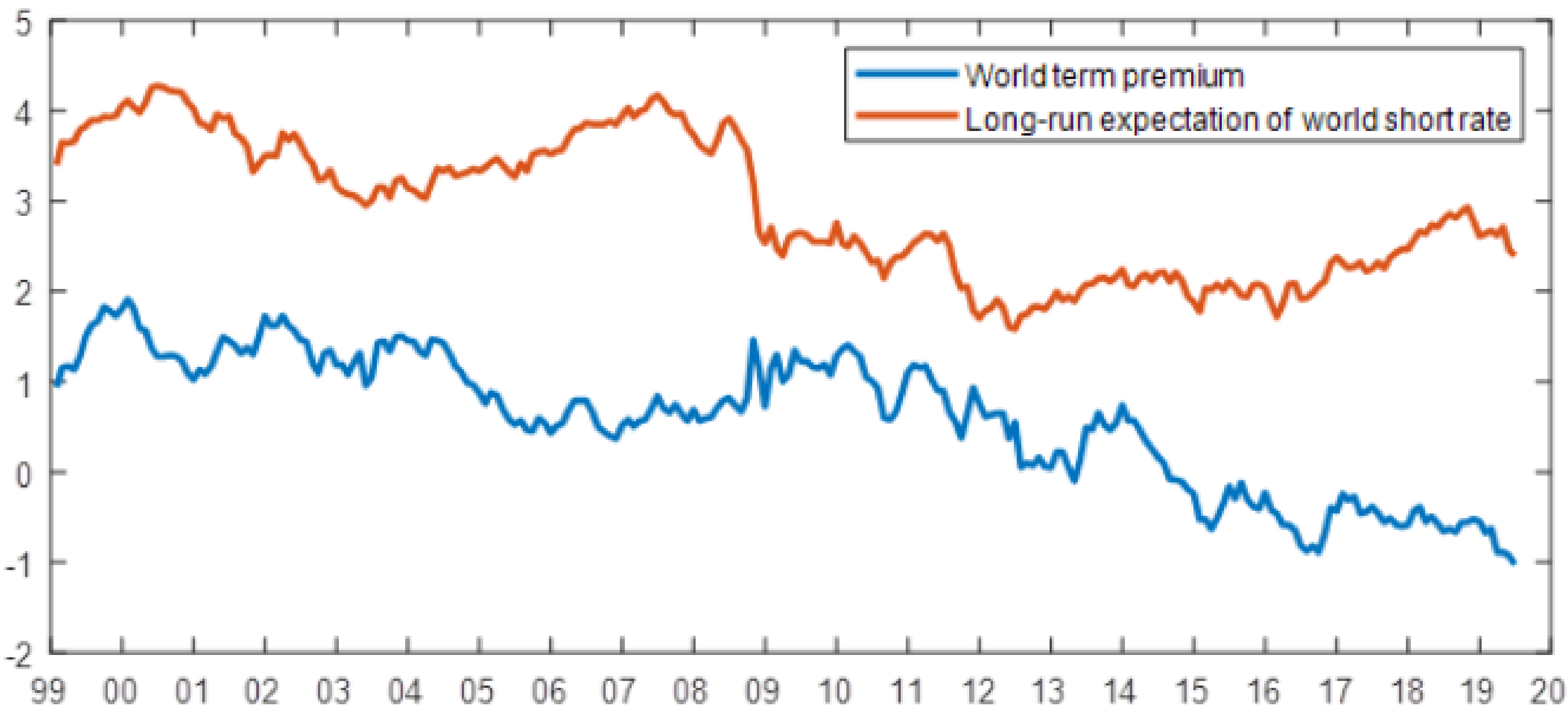
Expected future short-term rates (red line)

Term premium (blue line) ... a residual

- Inflation risk premium
- Real interest rate risk premium
- Liquidity risk premium

Does a term premium of negative 100 basis points suggest a snap-back risk?

“World” long-term interest rate



Source: Hördahl et al (2016) updated

Global liquidity: a statistical recap

No one “killer statistic”

Many indicators suggest high or increasing vulnerabilities

- $ debt of non-banks outside US: 14% of world GDP (10% in 2007)
- $ liabilities of banks outside US: $14 trillion
- $ bond debt of non-US non-banks (especially in EMEs) rise 3-fold

Destabilising market dynamics

EME currency mismatches now in the private sector

Foreign investors in EME bonds know that forex risks are multiplicative

Epicentre of next crisis?

GFC: banks and in AEs

Next: bond markets? EMEs?

A pragmatic policy framework for managing global liquidity

Key elements

- Policy responsibility shared between many official bodies
- Better statistics needed
- Analytical framework
- Need for a global LOLR
- International arrangements: common elements in recent proposals
- Regular reporting by the Financial Stability Board (FSB) to the G20

Managing global liquidity: a shared responsability

- Central banks, Treasuries, regulatory bodies and the IMF all have a role to play
- No institution can manage global liquidity alone but each has a degree of influence
- A co-operative approach adapted to the structures of the International Financial System is needed
- Need for a regular review of global liquidity at the highest level

Statistical frameworks need improvement

- IMF statistics are complementary to those of the BIS
- The IMF should resume publishing its series of core and non-core bank liabilities and update in view of publication its price indicators of liquidity

- IMF and BIS should work together:

    Jointly producing a more coherent and comprehensive set of indicators
    Completing information and analysis about the influence of non-bank institutions on global liquidity
    Developing indicators on currency mismatches

- OECD's statistics and analysis are also invaluable

Analytical frameworks: scenarios and stress tests

Look beyond purely domestic vulnerabilities: a global perspective allowing for international financial linkages and feedbacks as all countries hit by a *global liquidity shock*

Scenarios

Repeat the CGFS scenarios for all major currencies as long-term interest rate developments unfold (next slide for example based on $)

Global market surveillance

BIS, IMF and OECD: value in diverse sources of analysis

Stress tests

IMF should conduct global liquidity stress tests (Jeanne (2018))

Coordinated CB scenarios for bond yields to 2027

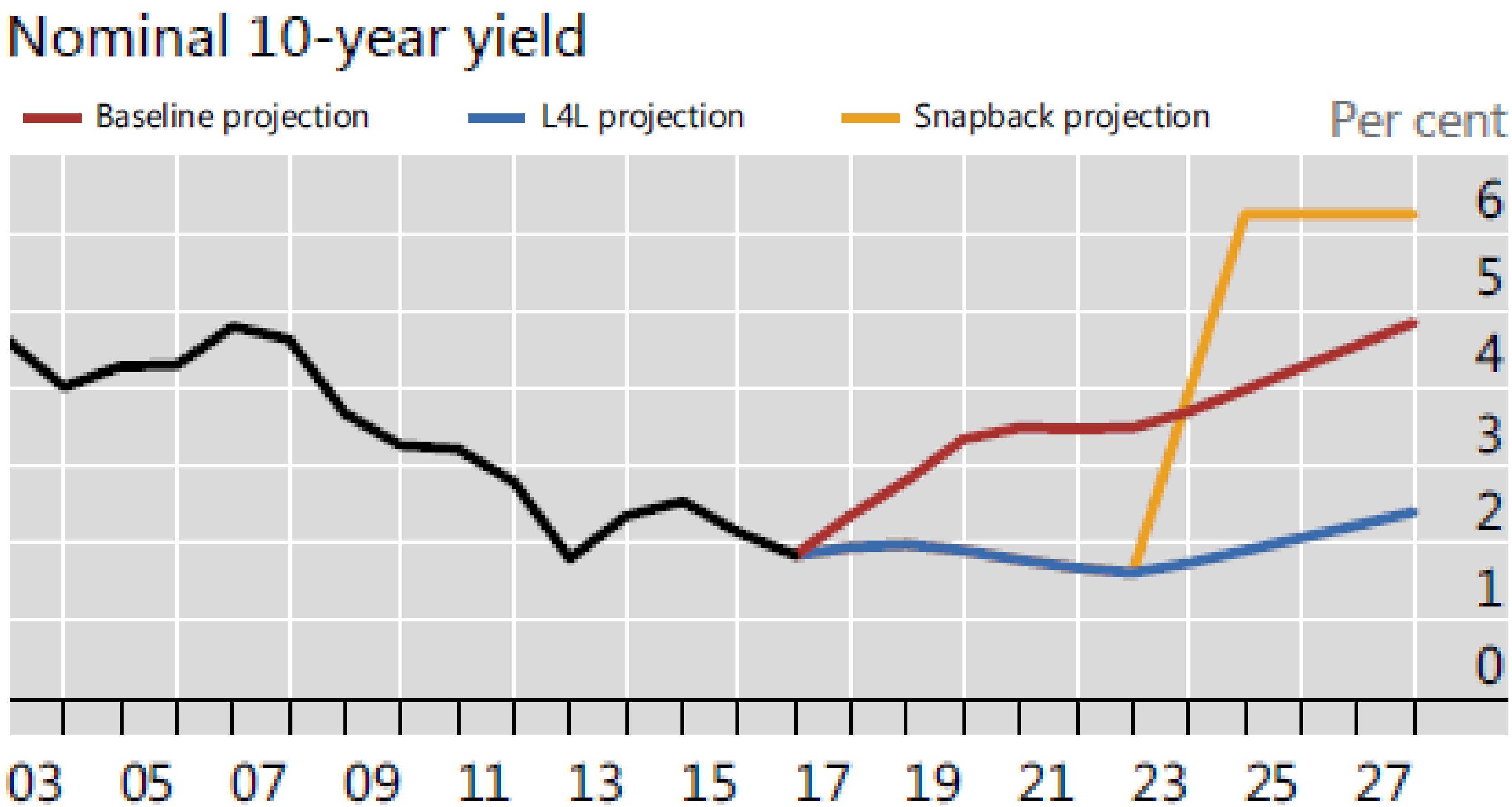
Scenarios for long-term rates for all major currencies

Scenarios allowing for international financial linkages by a CGFS group.
(BIS (2018))

Analysed 3 scenarios in depth (e.g. 10-year US Treasuries by 2027):

- **Baseline** endpoint 4.8%: "a smooth portfolio rebalancing out of long-term assets" and a repricing of credit risks (red line)
- **Low-for-long** endpoint 2.4%: "considerable solvency risk for funds" (blue line)
- **Snap-back** endpoint 6.2%: banks hit hard by "valuation losses on their long-term securities, higher funding costs" and losses on credit risks (yellow line).

US interest rate scenarios



Source: BIS (2018). *CGFS Papers no 61. July.*

What international arrangements in view of « Managing global liquidity as a global public good? »

First best solution : a multilateral reserve currency issued by a global central bank but out of reach in today’s world

Any future reform of the international monetary system should incorporate a point on global liquidity.

For the time, given the need for urgent action, a rapid and pragmatic solution should be considered.

Recent reform proposals (1)
Michel Camdessus and Anoop Singh (2016):
Reforming the IMS -- a sequenced agenda

-Tailor the IMF's methods and instruments to the reality of today and strengthen its legitimacy and governance

- In particular enhance the role of the IMFC to the point that it would become the G20 ministerial organ

- Preferably simultaneously, or as a second step, create a group of major central bankers to report periodically to the IMFC on global liquidity conditions.

- Use the SDR more widely (see also RTI (2015).

- This second step could be considered only after reform of the IMS

Recent reform proposals (2)
Three recent converging proposals on SDRs

- RTI report (2015): *Using the SDR as a lever to reform the IMS*
- J-C Trichet (July 2019): Strengthening and deepening the international financial architecture
- J. Gagnon (2019): SDR bonds and SDR payment system would make the IMS more symmetric

Putting the SDR at the centre of the IMS would considerably change the prospect for managing global liquidity (symmetry, no Triffin dilemma, LOLR…)

A pragmatic and easy-to-implement solution (1)

-The perceived vulnerabilities press for a rapid initiative

-A proposal, fully in line with the recommandations of the EPG and the report of the IMF's IEO

-The FSB would report regularly and publicly on the level, the nature and trends of global liquidity

-Report based on enhanced and harmonised statistics, completed by IMF and BIS comments

-Report and comments submitted to the G2O Ministers and Governors meeting for consideration and possible action (regulatory, monetary, LOLR...)

A pragmatic and easy-to-implement solution (2)

-Report and comments made public

-Proposal aims to get financial risks from global liquidity developments taken seriously by the authorities and by analysts, without having to consider any institutional reform

-Just a new item on the agenda

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