s:fi

Welcome

Collateral Frameworks: The Open Secret of Central Banks

Swiss Finance Institute

Nurture Knowledge

Cultivate Talent

Harvest Expertise

Supported by: swiss:finance:institute alumni association

Panelists
Central Banks' Collateral Policies

Mickael Benhaim

- Head of Fixed Income Investment Strategy & Solutions, Pictet Asset Management.

Dr. Andréa M. Maechler

- Member of the Governing Board, Swiss National Bank.

Prof. Kjell G. Nyborg

- Swiss Finance Institute Professor of Finance at the University of Zurich, CEPR.

Moderated by Maren Peters, Economics Editor SRF Radio.

s:fi

SFI Event
Collateral Frameworks: The Open Secret of Central Banks

Professor Kjell G. Nyborg
SFI, UZH, CEPR

22 June 2017

Zunfthaus zur Schmiden

Money is economical power.
-Walter Bagehot (1873)

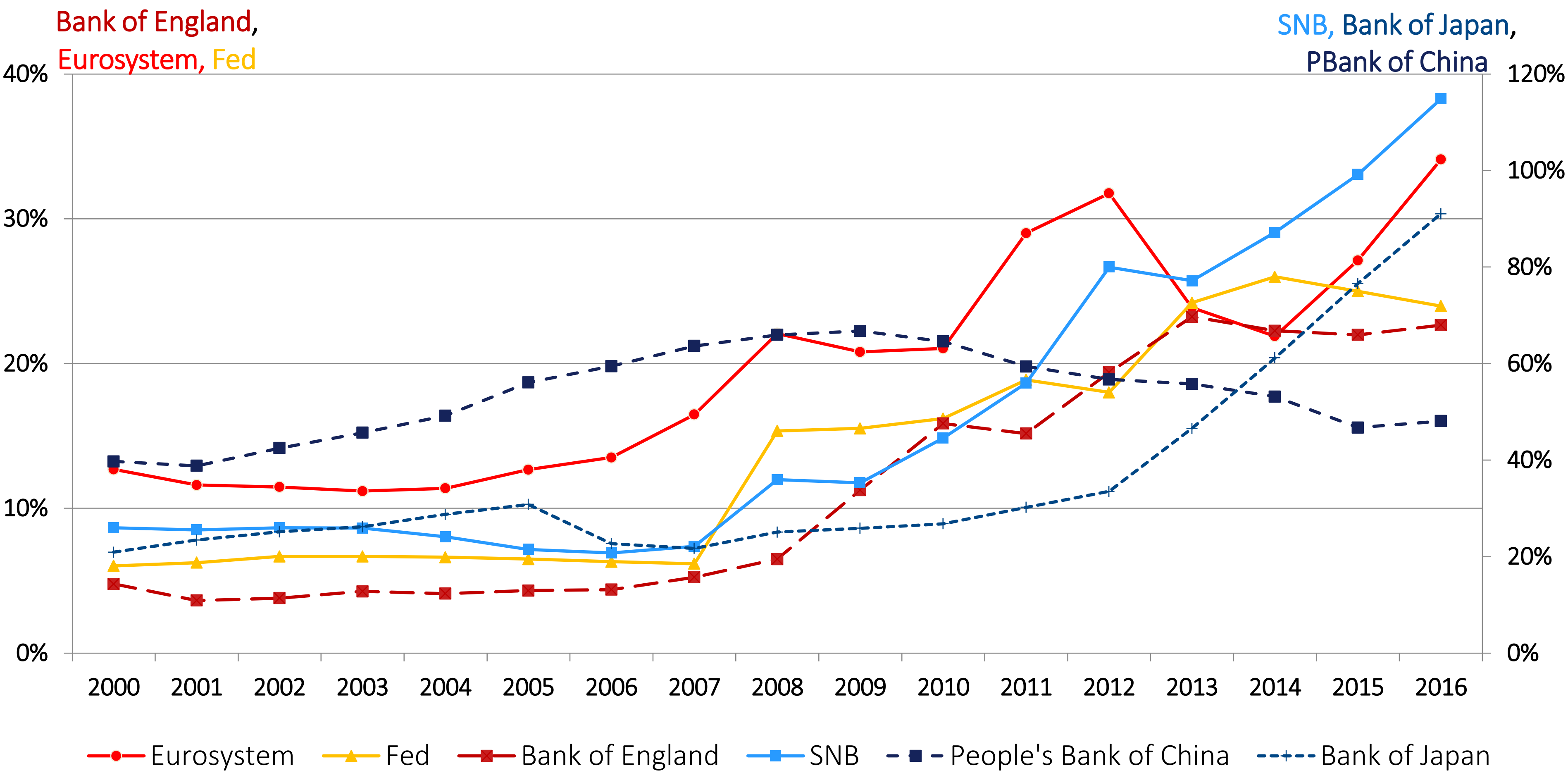
Collateral Frameworks

- At core of modern monetary and financial systems and economies: central bank money (liquidity)
- Money issued against collateral
  – Nature of collateral.
  – Terms of exchange: Collateral policy. Interest rate policy.
- Central bank collateral frameworks
  – Used every day, but opaque.
  – “Forgotten/ignored” element of monetary policy

- Objective: Bring to light functioning, reach, impact of collateral frameworks
- Use Eurosystem’s collateral framework as basis of illustration
- Lever analysis to study euro crisis – role of central banks in society

Central Bank Balance Sheets as % of GDP

Collateral Frameworks



- Investors: Central banks have become a source of risk and uncertainty
  - Slyngstad (head of Norwegian "oil fund")

  "Monetary policy does affect pricing in today's market to such an extent that monetary policy itself has been a risk you have to watch" (April, 2015)

Central Bankers Are Concerned

Collateral Frameworks

"[a]s a result of the measures implemented during the crisis, central banks took much more risk onto their balance sheets, which could potentially lead to substantial losses"
"[t]here is no doubt that central banks have to play a role in an economic crisis at the market level as well as at the level of individual systemically important banks. In order to act appropriately, they need room to maneuver, which implies a sound central bank balance sheet with sufficient equity."
-**Thomas Jordan (2012)**

"The unprecedented expansion of central banks' balance sheets since the start of the crisis is certainly revealing. It shows that central banks' balance sheets are becoming more and more exposed to economic risk and political pressure. Eventually, this may result in a substantial amount of negative capital in a central bank's balance sheet. This is undesirable, because it could undermine a central bank's credibility and independence...An additional concern for central banks is that unconventional monetary policy increasingly comes with some sense of 'public unease' about the role central banks play...The fact that criticism of central banks is creeping more and more into the mainstream debate – whether or not this is justified – implies that the public is looking increasingly critically at central banks. While this may not put central bank independence or central banks' room for maneuver immediately at risk, it does signify that central banks may need to step up their efforts on transparency and accountability."
-**Klaas Knot (2013)**

Collateral Framework

Collateral Frameworks

1. Set of eligible collateral
   – banks can use to obtain central bank money (liquidity)
2. Quantity of central bank money per eligible collateral.
   In central bank repo, quantity is:

$$\boxed{Collateral\ value_{it} = (1 - haircut_{it}) \times Price_{it}}$$

- Central bank provides money. Banks provide collateral.

Euro area

- 30,000 to 40,000 securities on *public list* of eligible collateral
  – From government bonds to asset-backed securities (ABSs)
- 76% do not have market prices
  – Higher for lower quality collateral
- Haircuts updated every three to four years

Collateral Framework: Potential Impact

Collateral Frameworks

Real economy

- If collateral framework favors certain assets, expect more to be produced
- If collateral framework favors illiquid assets
  - May lead to misallocation of funds in real economy towards less liquid assets and investments
- “If central bank money is only available against igloos or igloo-backed securities, igloos will be built”
- Favoring illiquid assets in depressed economy may make it harder for economy to recover

Financial markets

- Haircuts on eligible collateral can affect different securities’ market prices, repo rates, and level of liquidity
  - Lower haircuts imply higher prices (ceteris paribus)

Eurosystem’s Collateral Framework

Collateral Frameworks

1. Little role for market forces or market discipline
   a. E.g. theoretical prices, stale haircuts

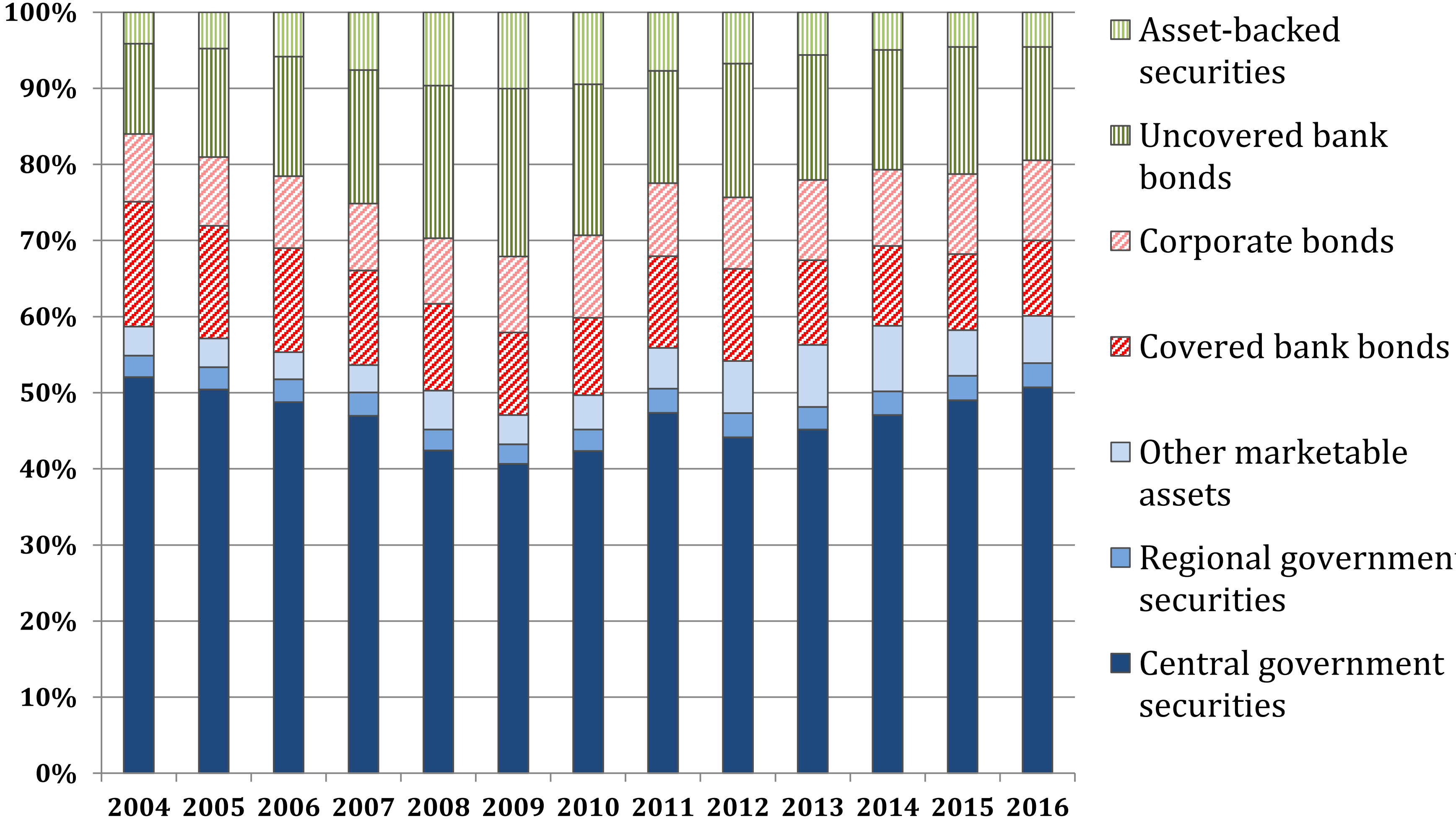
2. Promotes illiquid and risky collateral

3. Important role of ratings and rating agencies
   a. E.g. estimate that high ratings by DBRS has increased collateral values of Italian, Spanish, and Portuguese government bonds by around EUR 200-300 billion

4. Government guarantees used to upgrade collateral and increase collateral values

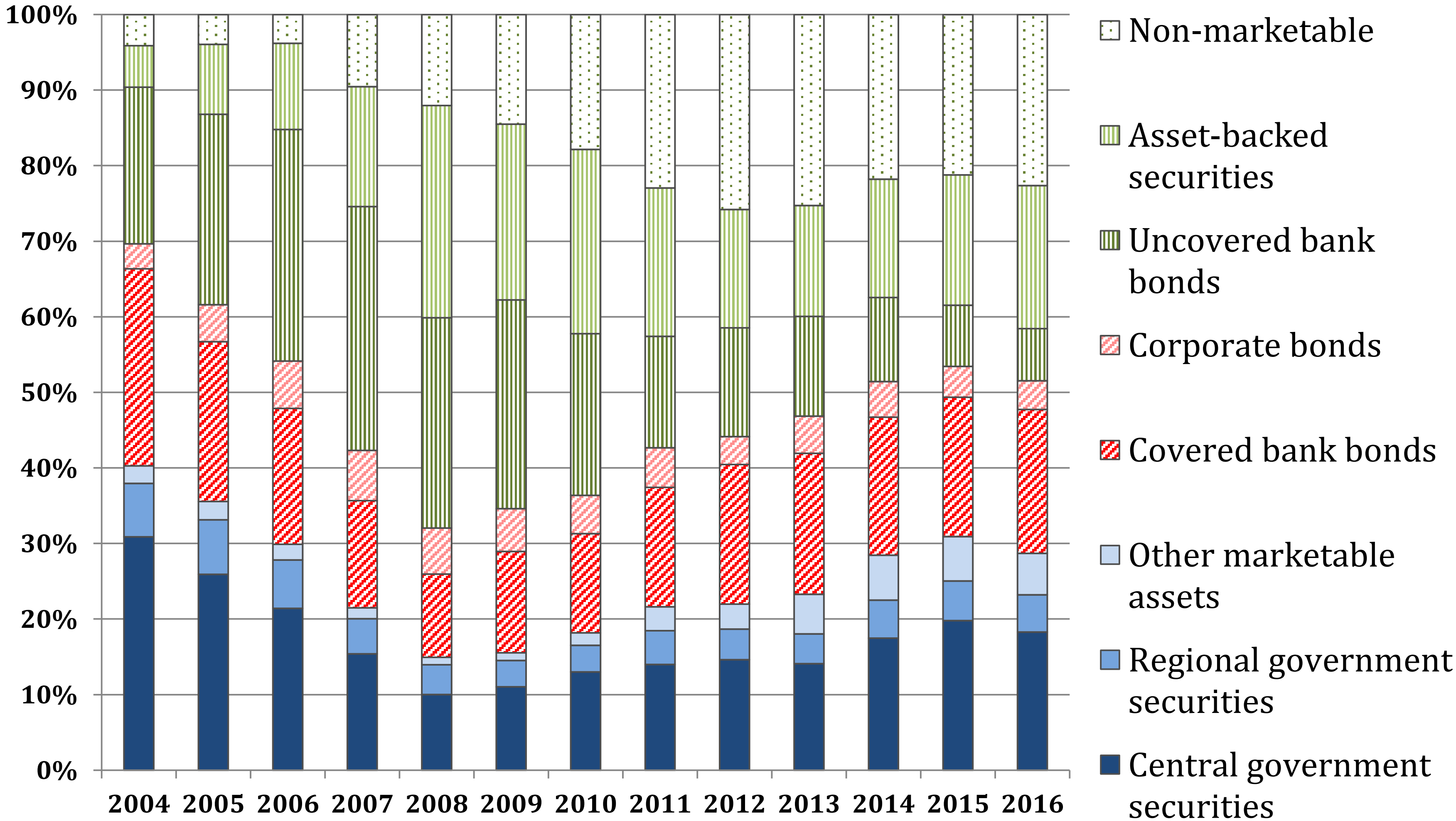
5. Used to facilitate indirect bailouts of banks and sovereigns

Eligible Marketable Assets



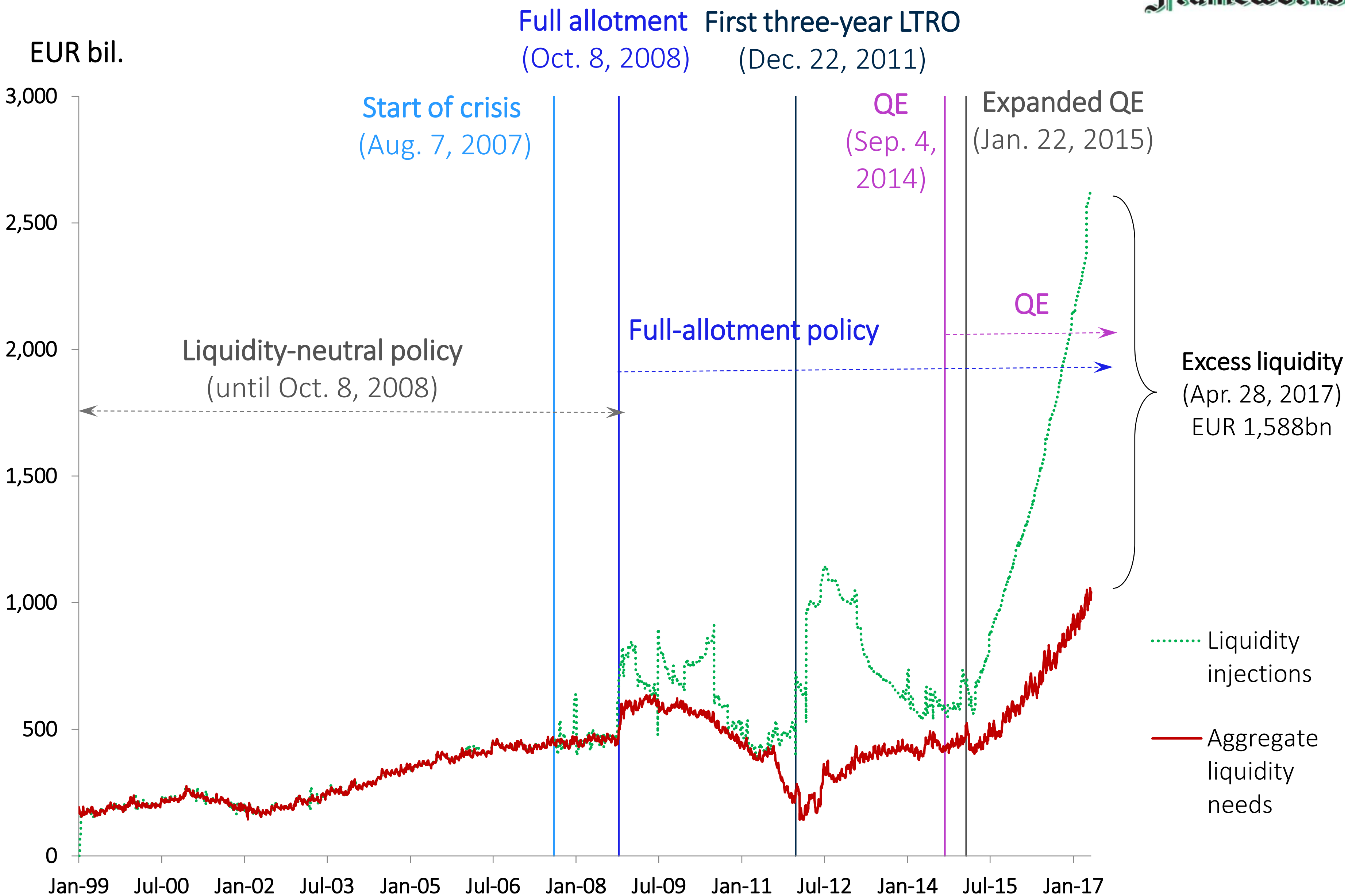
Data source: ECB webpage; collateral data downloaded on June 15, 2017.
Based on nominal amounts (averages of values at end of month, quarters for '12 to '15).

Use of Collateral



Data source: ECB webpage; collateral data downloaded on **June 15, 2017**.
After valuation and haircuts (averages of values at end of month , quarters for '12 and '15).

Excess liquidity (funding?)

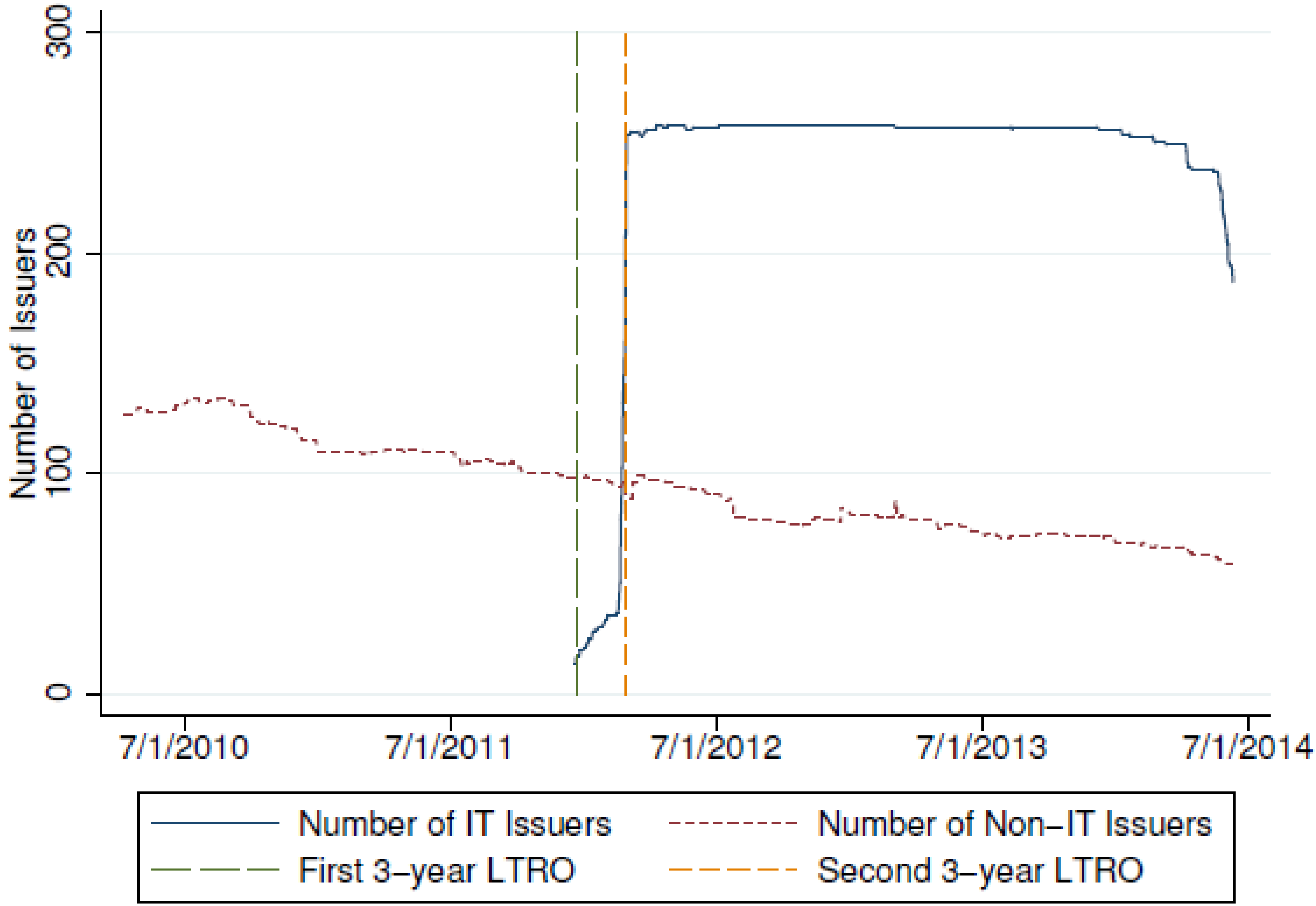


swiss:finance:institute

Issuers with Government-Guaranteed Collateral

Collateral Frameworks

Credit institutions with government guarantees



Concluding Remarks

Collateral Frameworks

- Money matters
- Money is issued against collateral
  - Places collateral framework at the core of the monetary and financial system
  - Potentially wide impact: asset prices, real economy

- Eurosystem's collateral framework
  - Impairs market forces and discipline
  - Favors lower quality collateral
  - Influential role of rating agencies
  - Accommodative – hindrance to market integration

- ECB policies
  - Ever stronger
  - Indirect bailouts of banks and sovereigns