EUROPEAN CENTRAL BANK
EUROSYSTEM

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The Eurosystem collateral framework and the functioning of collateral markets

ECB Central Banking Seminar

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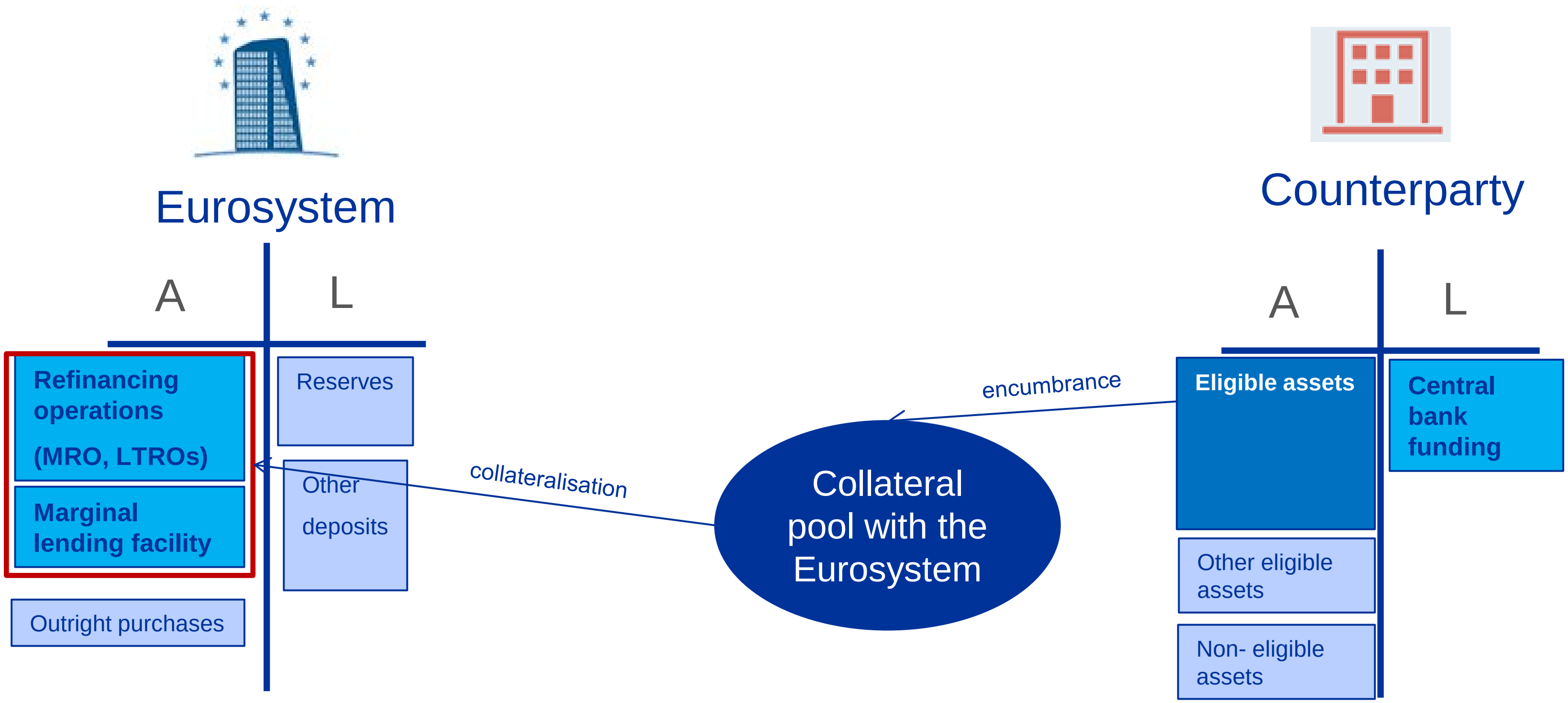
The views expressed in this presentation do not necessarily reflect those of the ECB/Eurosystem

Overview

What is collateral?

Definition of COLLATERAL: *property (such as securities) pledged by a borrower to protect the interests of the lender*

Source: Merriam-Webster dictionary



Uncollateralised lending does not fit the central bank's role, expertise and constraints

- Unsecured lending is subject to high **credit risk**
  - Not central bank's area of **expertise**
  - Too high discretion might endanger **accountability**
  - **Uniform application of interest rates** does not compensate for credit risk
  - Higher probability of losses >> **reputational loss**
  - **Counterparties with different credit risk**

- Central banks need to **act quickly**
  - Regular operations
  - Extraordinary interventions (financial stability)

- **High number of counterparties**

Adequate collateral protects the Eurosystem and ensures transmission of monetary policy

- Article 18.1 of the Statute of the ESCB requires all credit operations to be based on **“adequate collateral”**
  - collateral must be able to protect the Eurosystem from incurring losses in its credit operations
  - there must be sufficient collateral available to ensure that the Eurosystem can carry out its tasks
- Hence, a **broad range of assets** is accepted as collateral in all credit operations since inception (effective choice during crisis)
- Same type of collateral accepted in **all credit operations** (monetary policy and intraday credit)
- ‘**Single list**’ of marketable collateral for the whole Eurosystem since 2007
- A **broad range of counterparties** is eligible to Eurosystem operations and has therefore a collateral pool with the Eurosystem

Guiding principles of the Eurosystem collateral framework

Main objectives	Support smooth conduct of monetary policy
	Protect the Eurosystem against losses in case of counterparty default
Main constraints	Consistency with broad set of counterparties
	Flexibility combined with continuity over time
	Market neutrality
	No adverse impact on financial stability
Secondary objectives	Cost efficiency
	Operational efficiency
	Simplicity
	Transparency

Eligibility criteria determine which assets can be used as collateral (1)

	Permanent framework	Temporary framework
Asset type	Government bonds	
	Unsecured bank bonds	
	Covered bank bonds	
	Corporate bonds	
	ABS	
	Credit claims	
	Fixed-term deposits/cash	
		Additional credit claims (ACC) Additional short-term debt
Structure	fixed and unconditional principal amount accepted coupon structures non-subordination	
Type of issuer/ debtor/guarantors	NCBs, public sector, private sector, international and supranational institutions	
Place of issuance (marketable)	EEA*	
Accepted markets (marketable)	Admitted to trading on EU regulated market or non-regulated markets accepted by Eurosystem	

Eligibility criteria determine which assets can be used as collateral (2)

	Permanent framework	Temporary framework
Place of establishment of the issuer, debtor, guarantor	EEA* *[issuer; guarantor; ABS entities] (marketable)*	
	non-EEA G10 *[issuer] (marketable)*	
	euro area *[debtor/ guarantor] (non-marketable)*	
		euro area *(ST debt)*
Credit assessment sources (CAS)	Moody's, Fitch, S&P and DBRS **(ECAIs)** Other CAS are available for unrated marketable assets and debtors of non-marketable assets	
Credit standards	ECAI rating must be **equal to or above BBB-** Other CAS: 1-year probability of default < 0.4%	
	ABS: at least **two** credit ratings at **A-**	ABS: at least **two** credit ratings at a **BBB-**
		Assets issued or guaranteed by central governments of countries under a **EU/IMF program**
Currency	EUR	
		USD, GBP, JPY

* : with exceptions

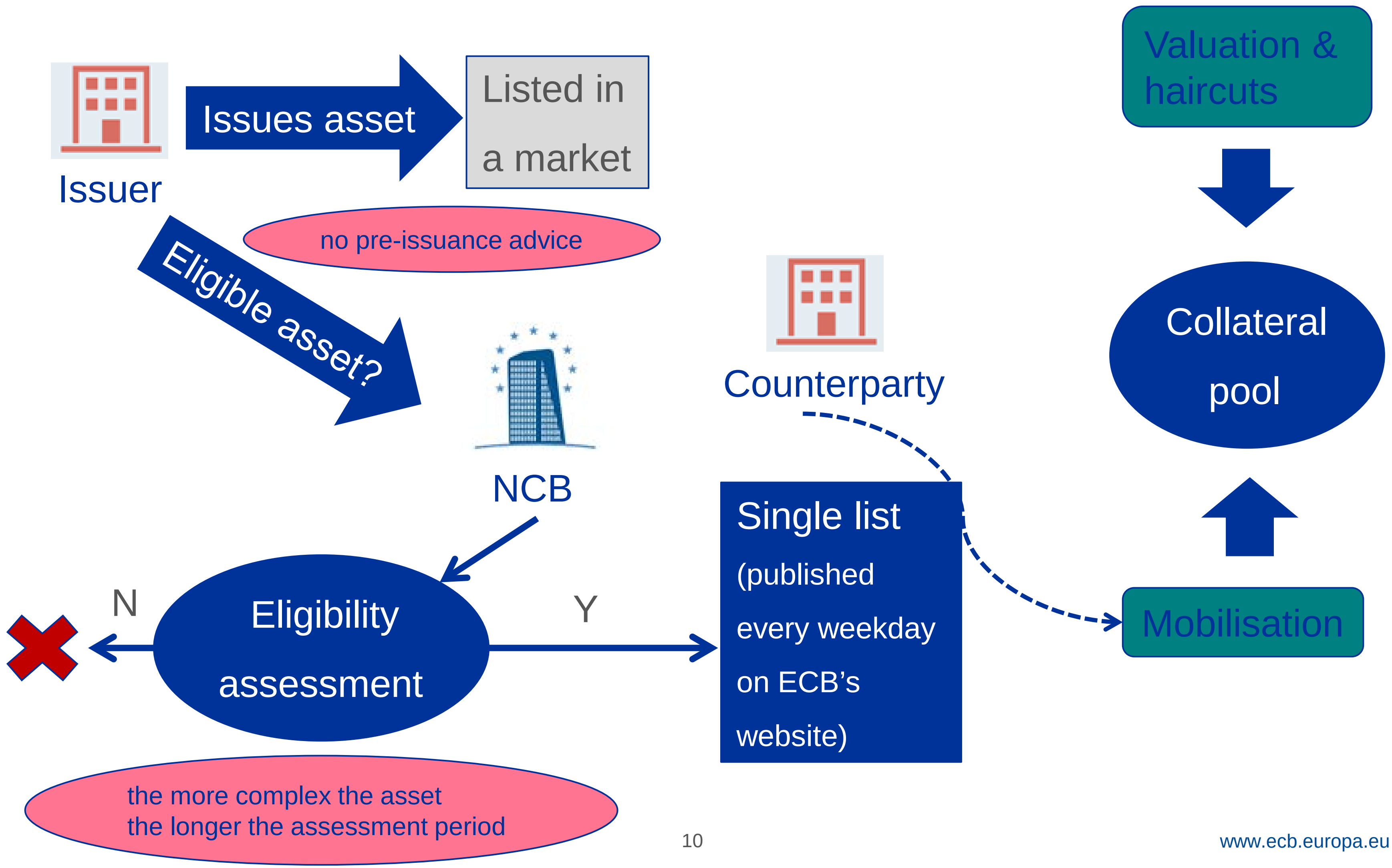
Eligibility criteria are not sufficient to protect from risks

- Eligibility (including credit assessment)
- Valuation
- Risk control measures (e.g. haircuts)
- Close-links prohibition

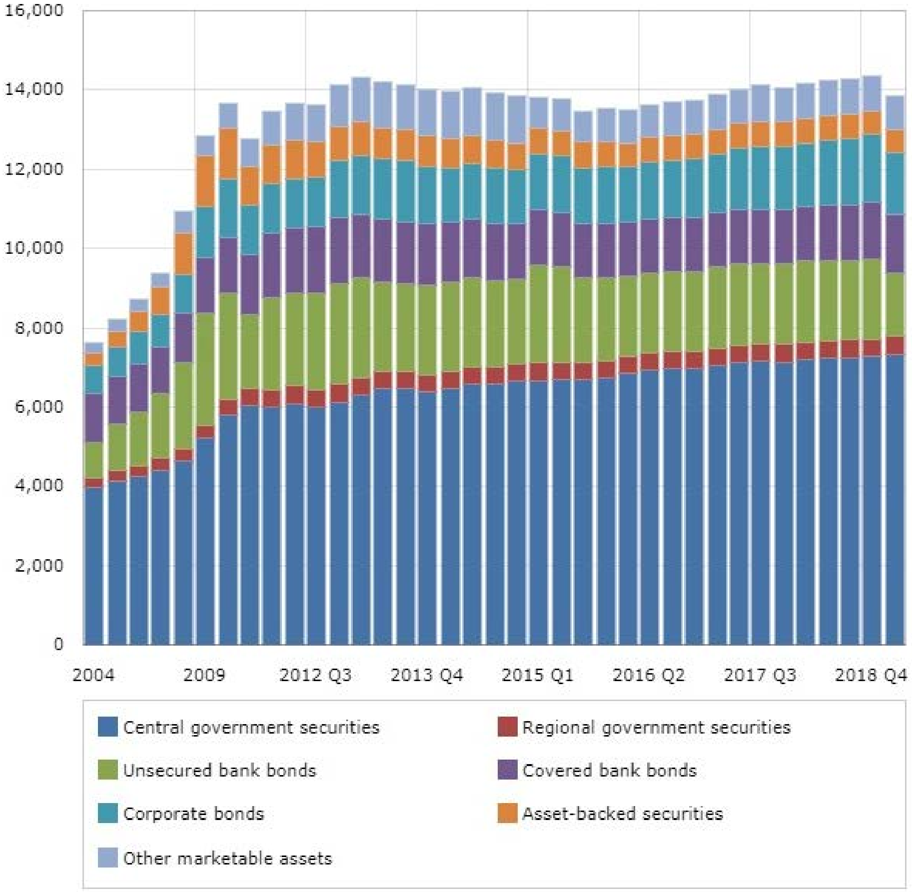
example

- *Bank A mobilises an eligible bond AAA-rated*
- *The CEPH assigns a market or theoretical price (P)*
- *The NCB applies an haircut, leaving Value*P*(1-h) available as collateral*
- *Bank A cannot use assets issued/guaranteed by itself or a closely-linked entity*

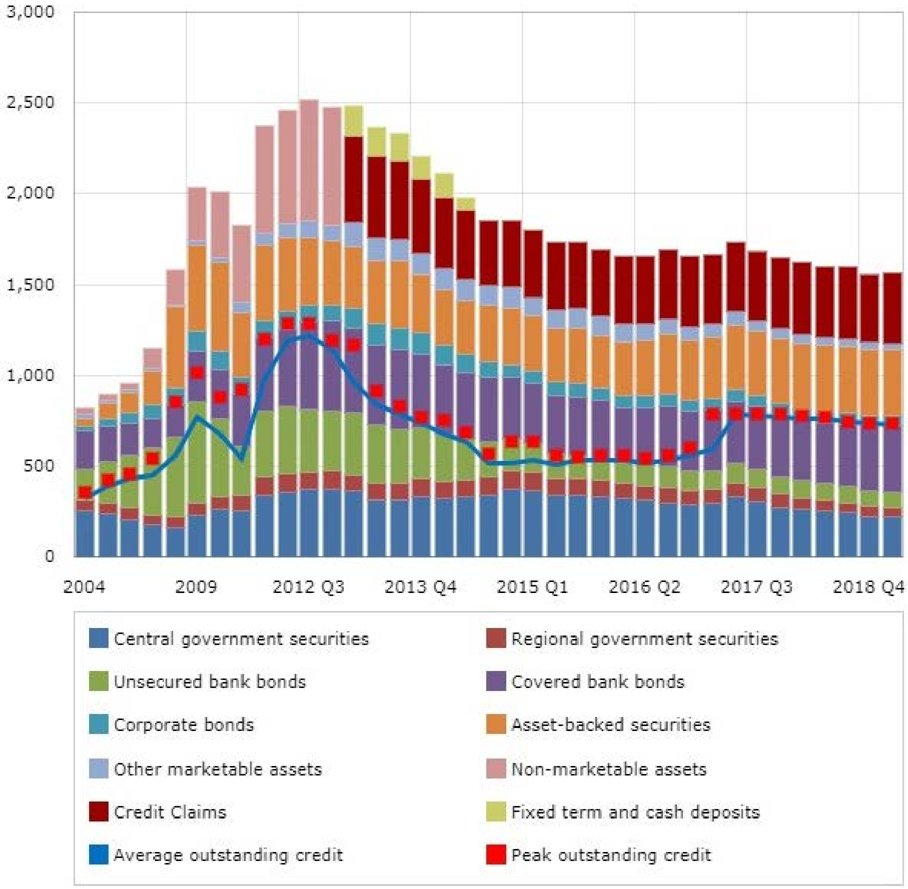
NCBs assess marketable assets' eligibility after issuance



Amounts of eligible and mobilised collateral



Eligible marketable assets.
EUR billion, nominal amounts, averages of end of month data over each time period shown

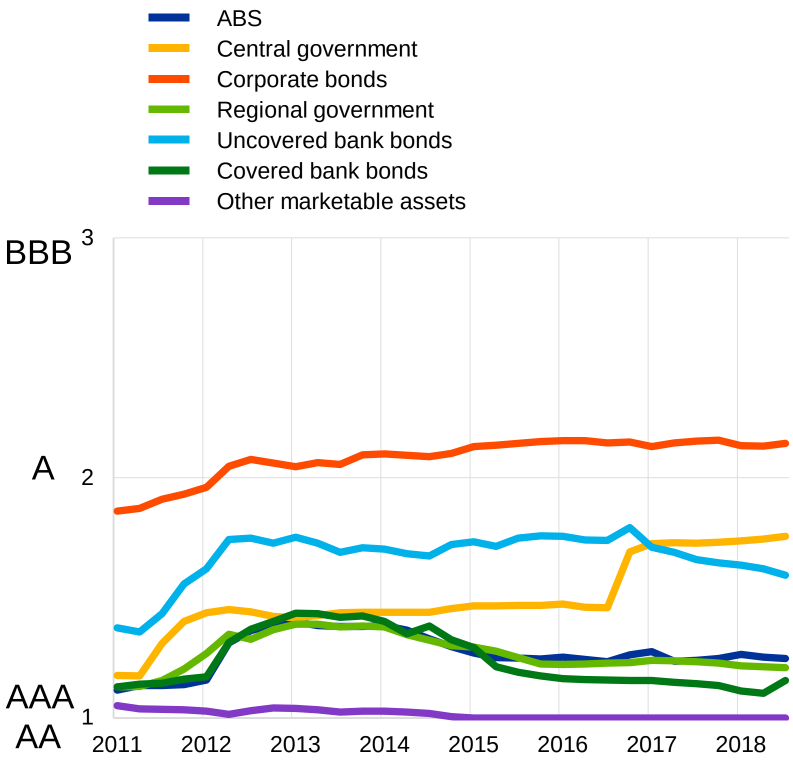


Use of collateral: averages of end of month data over each time period shown . EUR billion, after valuation and haircuts
Since Q1 2013, the category "Non-marketable assets" is split into two categories: "Fixed term and cash deposits" and "Credit claims".

Source: ECB and own calculations

The credit quality of mobilised collateral has consistently been fairly above the Eurosystem minimum requirements

Weighted average credit quality step, by asset class



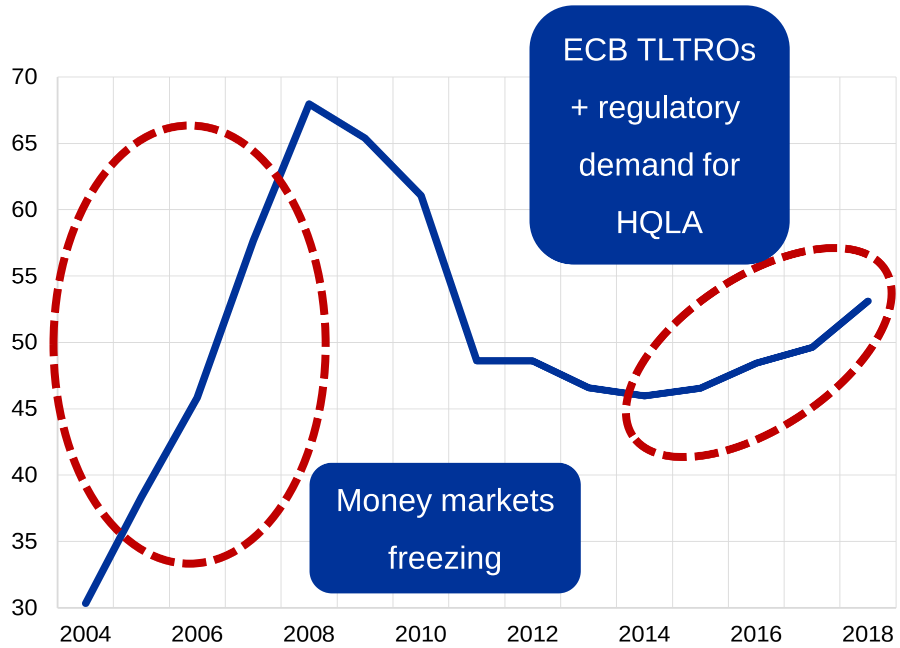
asset class	*haircut category*	*2011*	*2013*	*2016*	*2018*
Central government	I	1.18	1.42	1.47	1.74
Regional government	II	1.13	1.39	1.22	1.22
Other marketable assets	II	1.05	1.04	1.00	1.00
Covered bank bonds	II (Jumbo) / III (traditional and other)	1.13	1.44	1.16	1.13
Corporate bonds	III	1.86	2.05	2.16	2.14
Uncovered bank bonds	IV	1.37	1.75	1.76	1.62
ABS	V	1.12	1.40	1.25	1.25

Source: ECB and own calculations
Note: data are based on quarterly averages. Numerical translation of ratings: AAA-AA=1; A=2; BBB=3
Last observation: 2018 Q4

The mobilisation of less liquid assets is direct consequence of their opportunity cost

Share of less liquid mobilised collateral

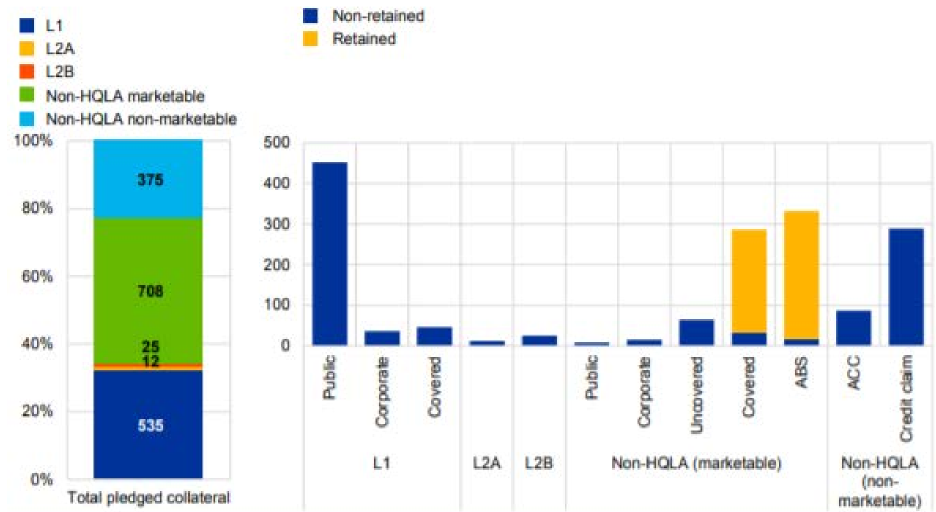
(in percentages)



Source: ECB and own calculations
Notes: less liquid instruments include unsecured bank bonds, ABSs and non-marketable credit claims.

HQLA classification of mobilised collateral and asset type distribution

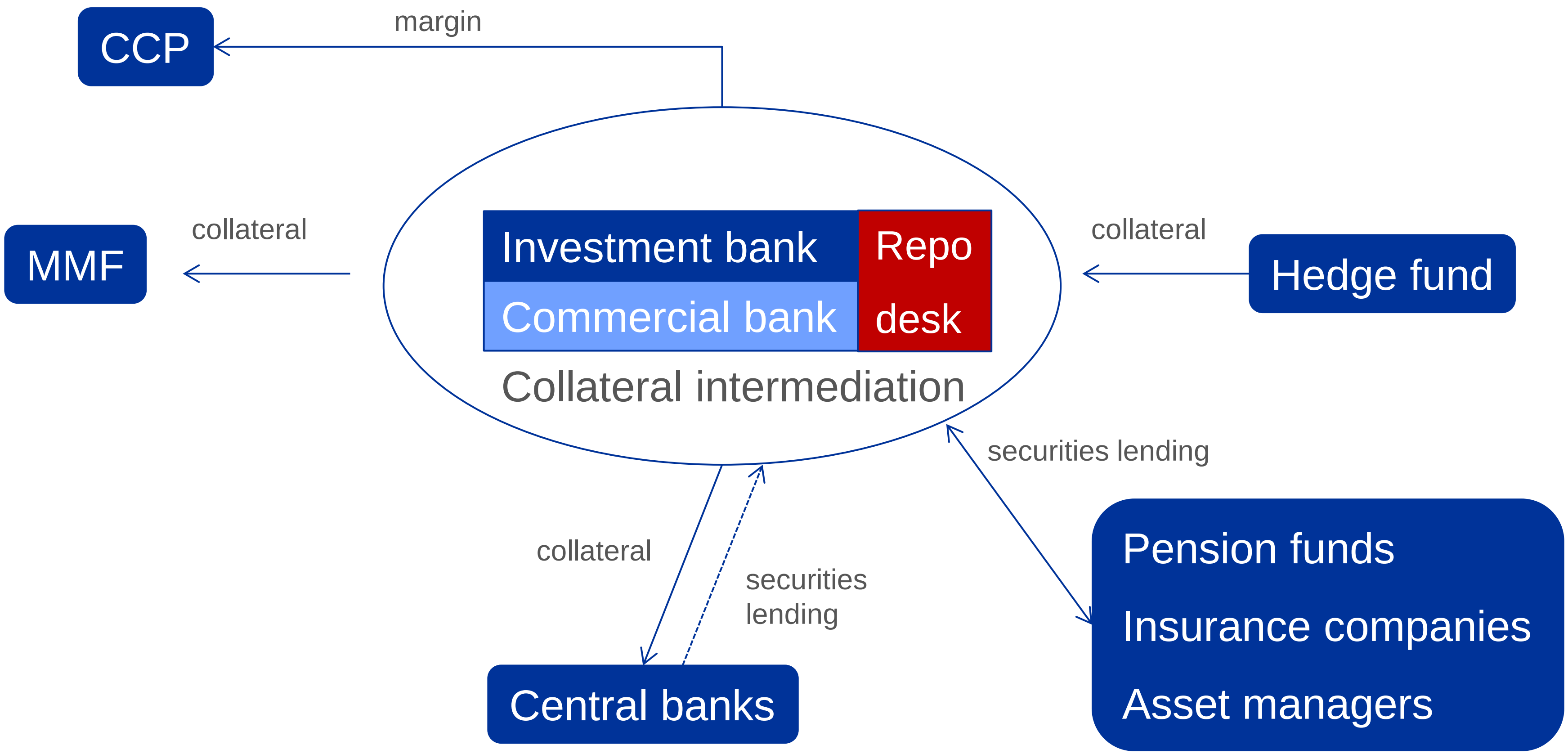
(EUR-billions; end-Q3 2017)



Sources: EADB for securities classification, the Use of Collateral Database (UCDB) for outstanding amount and the Register of Institutions and Affiliates Database for information on retained assets.
Note: Retained assets are assets originated by the bank that pledges these assets as collateral.

Source: Grandia et al (2019)

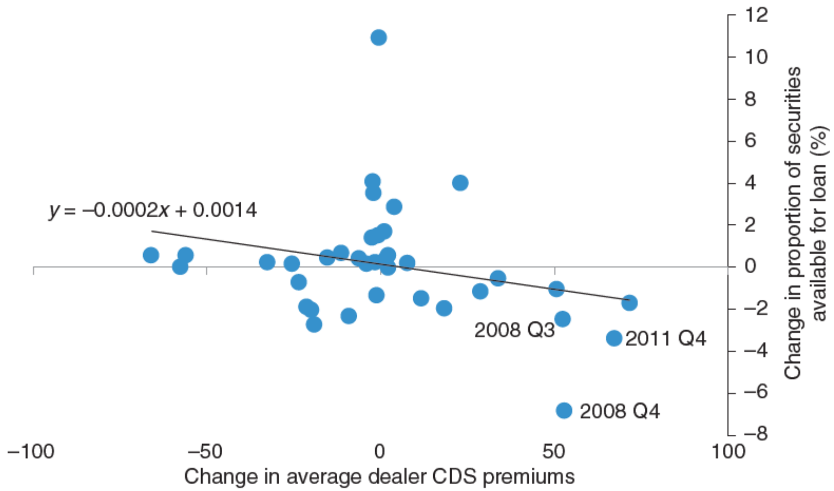
Repo/ securities lending markets is where collateral is priced, sourced and mobilised



Collateral demand and supply might vary with market stress

Change in average dealer CDS premia vs. change in share of HQLA available for loan

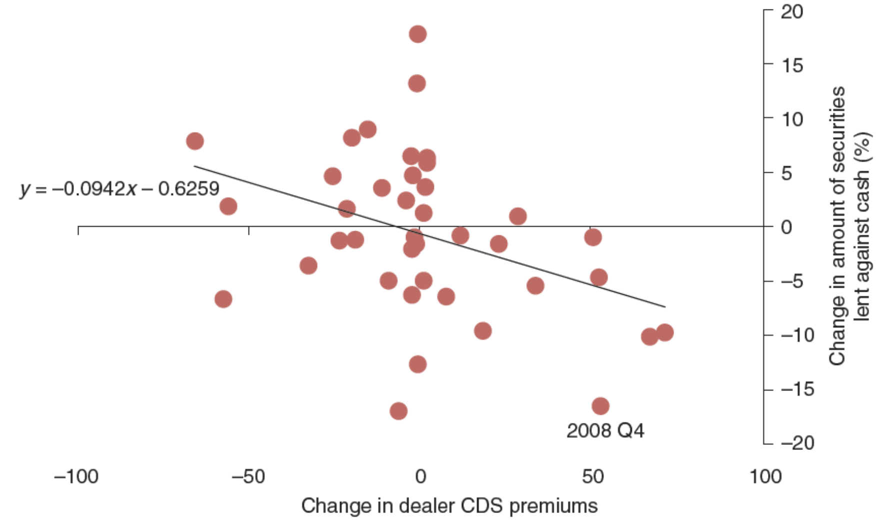
(in percentages)



Source: BIS, SIFMA, ECB and Data Explorers.

Change in amount of securities lent against cash vs. change in average dealer CDS premia

(in percentages)



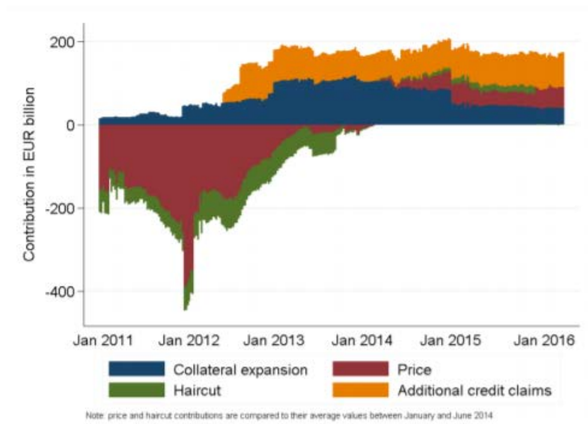
Source: Bloomberg and Data Explorers.

Source: Baranova et al (2016)

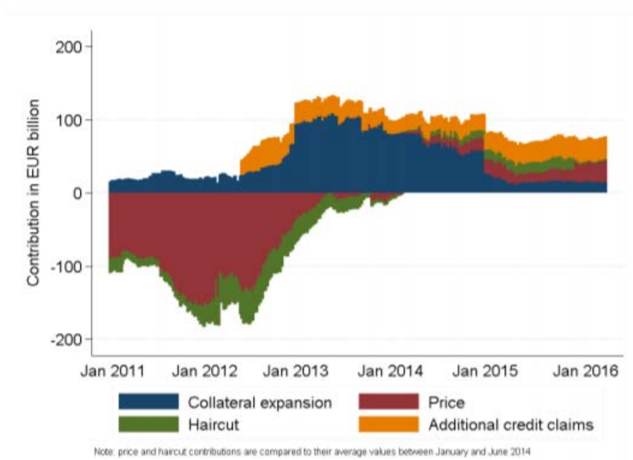
The collateral expansion offset the tightening effect of prices and haircuts

Fig.10: Shocks on the outstanding amount of collateral

Panel A: Euro area



Panel B: Peripheral countries only



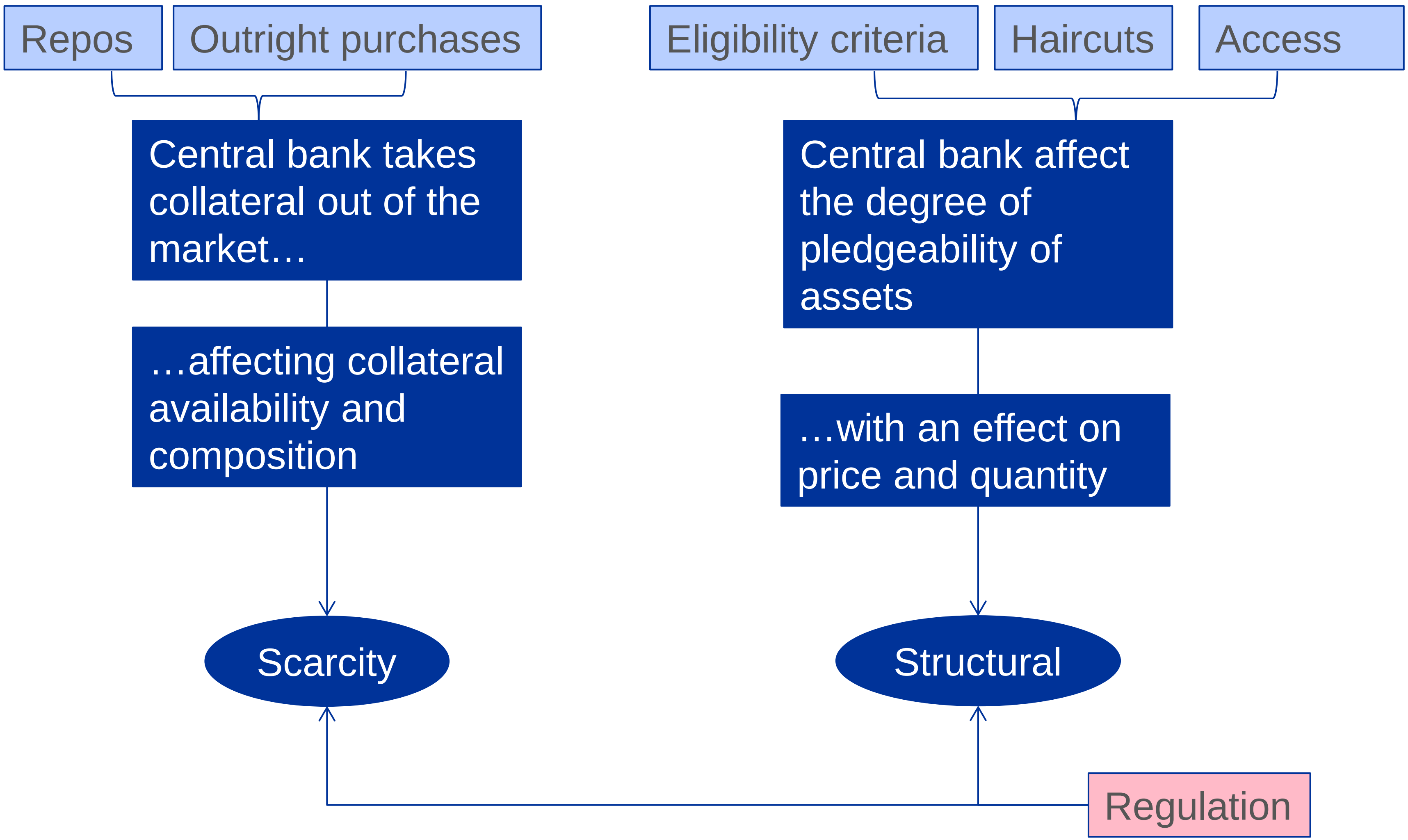
Source: Barthélemy et al (2018)

Comparison with other central banks

	Collateral sets	Breadth	Pooling	Counterparties
Eurosystem	Uniform	Wide	Yes	1749 (OMO) 1979 (MLF) 2455 (DF)
Federal Reserve	Differentiated	Narrow (OMO) Wide (SF)	Yes (SF) No (OMO)	23 primary dealers
Bank of England	Differentiated	3 levels depending on the facility	Yes	93 (OMO) 187 (SF) 146 (DW)
Bank of Japan	Uniform	Wide	Yes	51(repo) 271 (pooled coll)

Source: ECB [Bindseil at al (2017)]; Federal Reserve website; Bank of England website; Bank of Japan report Market Operations in Fiscal 2016

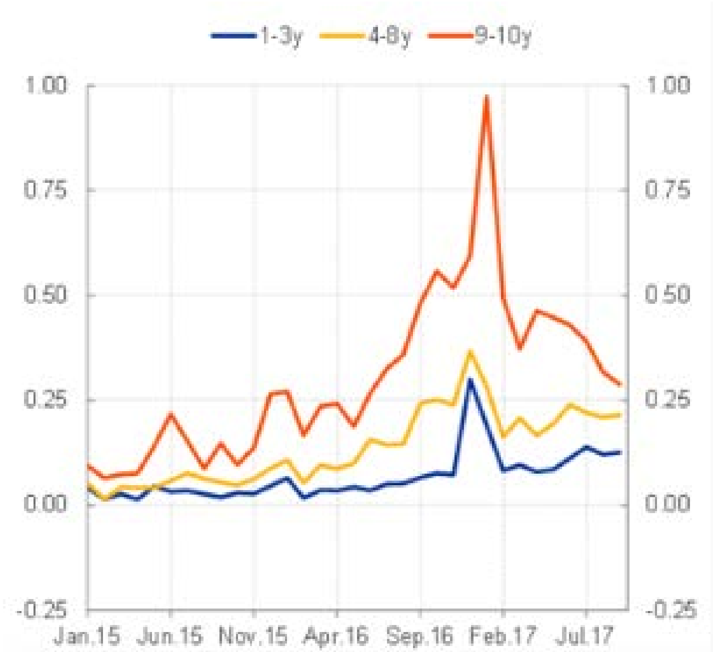
Scarcity and structural channels



Repo specialness and eligibility premia

Specialness premia by bond maturity bucket for German bonds

(in percentages)

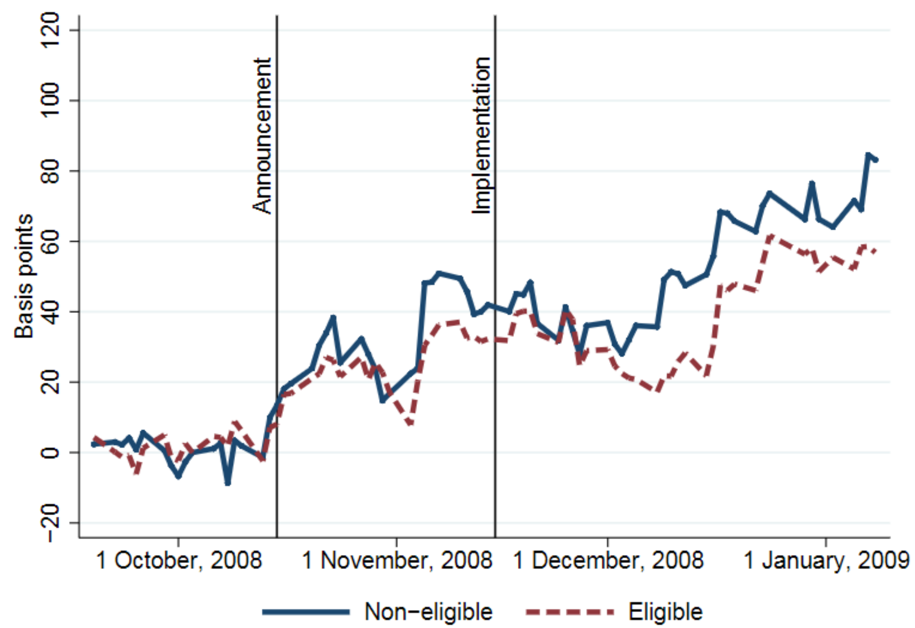


Source: ECB, BrokerTec, MTS.
Notes: Specialness premia are computed as difference between GC rates and special rates. They correspond to monthly volume-weighted averages within each maturity bucket. The maturity buckets refer to the remaining maturity. Last observation: October 2017.

Source: Coeuré (2018)

Eurosystem collateral eligibility expansion: yield impact on affected bonds

(in percentages)



Source: Corradin and Moreno (2016)
Notes: The figure plots the averages for the eligible US dollar-denominated group (red line) and the non-eligible US-dollar denominated group (blue) minus the respective pre-announcement average.

Changes to the financial market environment

- Capital Ratios
- LR
- LCR
- NSFR
- BRRD / MREL

- Disincentive large balance sheet & market making
- Higher asset encumbrance
- Changed dynamics money markets (e.g. less unsecured)
- Additional demand for HQLA

- Interaction between regulatory liquidity ratios and availability of eligible non-HQLA assets increasingly important
- Current demand for credit operations and collateral usage influenced by APP

Liquidity Coverage Ratio (LCR) and liquidity transformation by the Eurosystem:

- Central bank reserves count as HQLA for the LCR
- LCR, together with other changes to the financial market environment, provide **stronger incentives for banks to mobilise less liquid collateral** than pre-crisis

Thank you

References

- Baranova et al. (2016), The role of collateral in supporting liquidity
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