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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# What is collateral?

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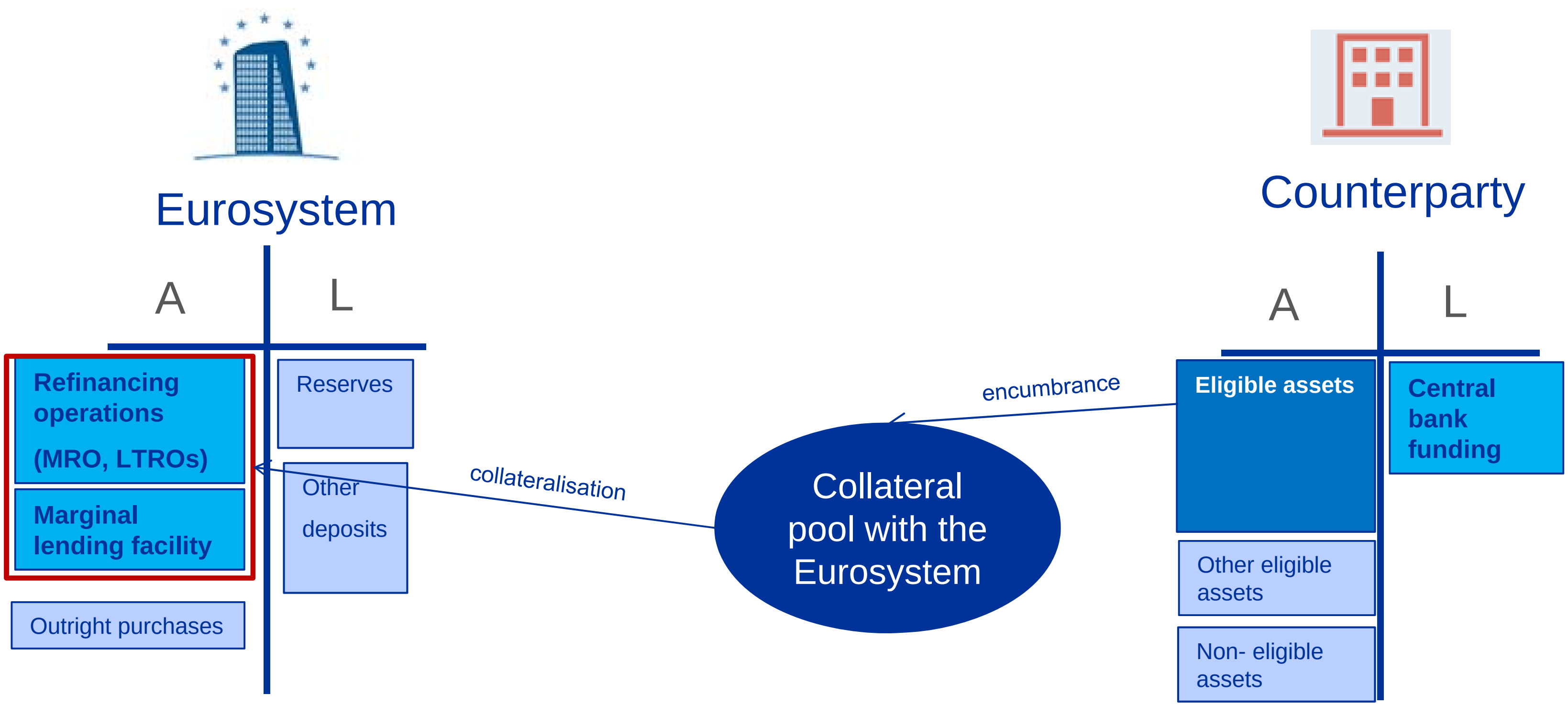
Definition of COLLATERAL: *property (such as securities) pledged by a borrower to protect the interests of the lender*
*Source: Merriam-Webster dictionary*



# 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** 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

| | |
|---|---|
| **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 | marketable: Government bonds; Unsecured bank bonds; Covered bank bonds; Corporate bonds; ABS<br>non-marketable: Credit claims; Fixed-term deposits/cash | marketable: Government bonds; Unsecured bank bonds; Covered bank bonds; Corporate bonds; ABS<br>non-marketable: Credit claims; Fixed-term deposits/cash<br>Additional credit claims (ACC)<br>Additional short-term debt |
| Structure | fixed and unconditional principal amount<br>accepted coupon structures<br>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)

<table>
<tr><th></th><th>Permanent framework</th><th>Temporary framework</th></tr>
<tr><td>Place of establishment of the issuer, debtor, guarantor</td><td colspan="2"><table>
<tr><td rowspan="2">marketable</td><td>EEA</td><td>issuer/guarantor/ABS entities</td></tr>
<tr><td>non-EEA G10</td><td>issuer</td></tr>
<tr><td>non-marketable</td><td>euro area</td><td>debtor/guarantor</td></tr>
</table></td></tr>
<tr><td>Credit assessment sources (CAS)</td><td colspan="2">Moody’s, Fitch, S&P and DBRS (ECAIs)<br>Other CAS are available<br>for unrated marketable assets and debtors of non-marketable assets</td></tr>
<tr><td rowspan="3">Credit standards</td><td colspan="2">ECAI rating must be equal to or above BBB-<br>Other CAS: 1-year probability of default < 0.4%</td></tr>
<tr><td>ABS: at least two credit ratings at A-</td><td>ABS: at least two credit ratings at a BBB-</td></tr>
<tr><td></td><td>Assets issued or guaranteed by central governments of countries under a EU/IMF program</td></tr>
<tr><td rowspan="2">Currency</td><td colspan="2">EUR</td></tr>
<tr><td></td><td>USD, GBP, JPY</td></tr>
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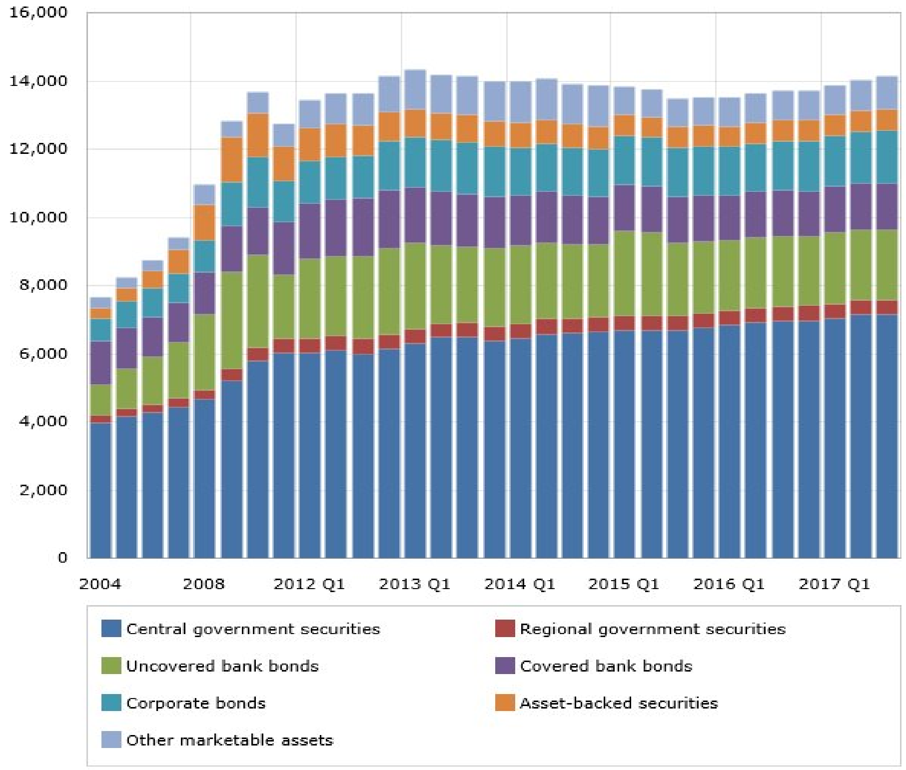
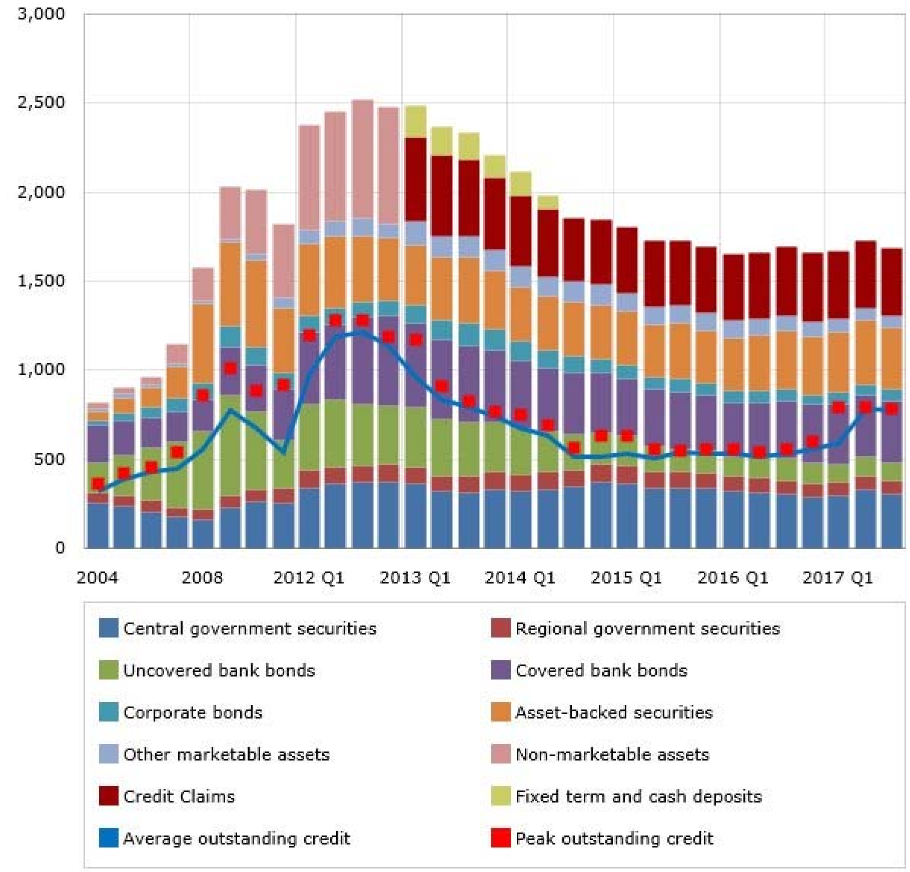
# Amounts of eligible and mobilised collateral




**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".

# Collateral does not eliminate credit, market and liquidity risks

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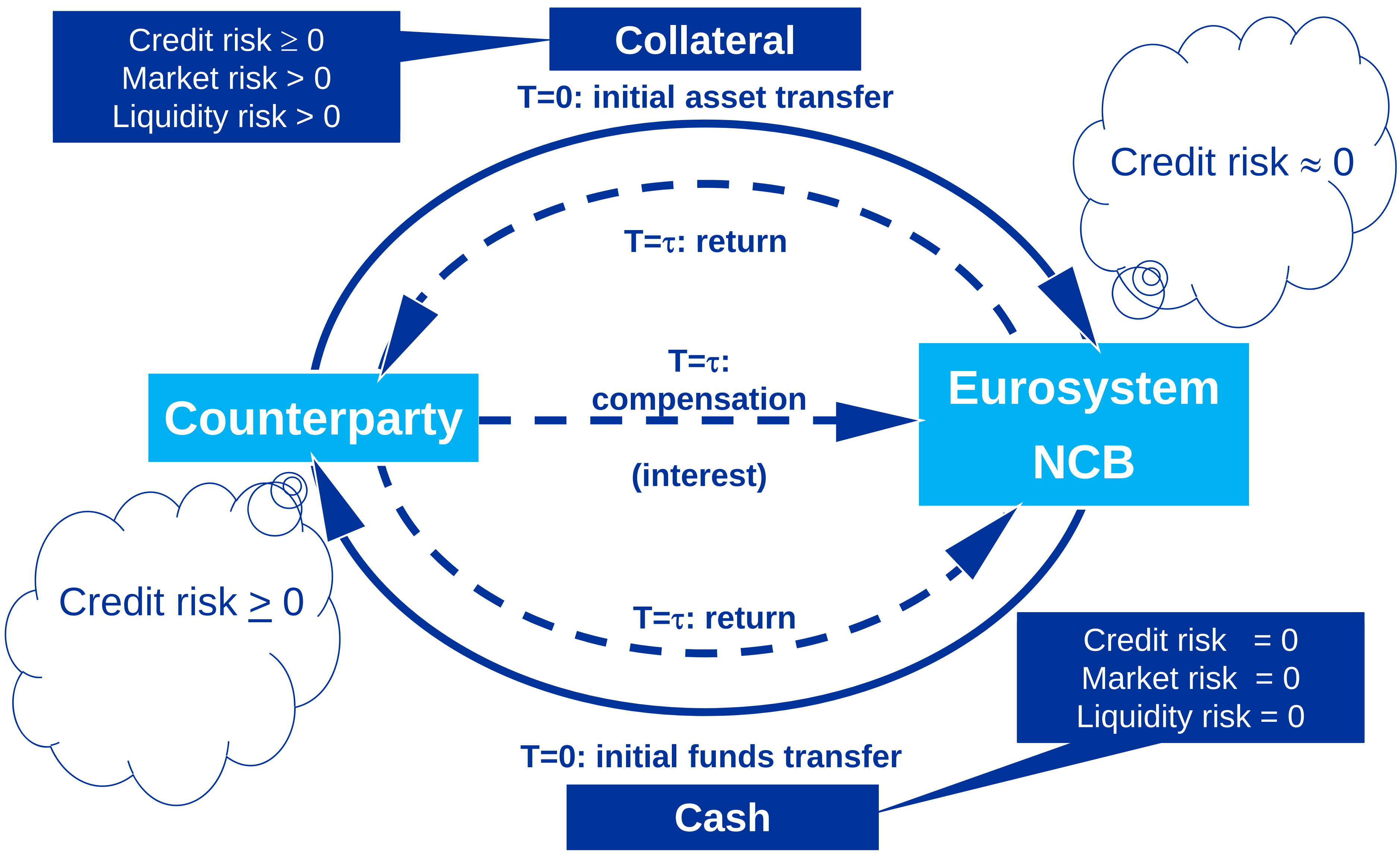

# Risk mitigation framework

## CREDIT ASSESSMENT FRAMEWORK

ECAIs (S&P, Fitch, Moody's, DBRS) –for marketable assets

In-house credit assessment systems (operated by NCBs)

Counterparties' IRB systems (approved for use in monetary policy operations)

Rating tools

## VALUATION

Valuation of eligible marketable assets performed by the Common Eurosystem Pricing Hub (CEPH)

Use of the most representative price on the business day preceding the valuation date

Use of theoretical price for illiquid assets which do not have direct and reliable market quotes

## HAIRCUTS

Dependent on the type of asset and issuer, residual maturity/weighted average life, coupon type and credit quality

Additional haircuts applied to own-used covered bonds, theoretically priced assets and foreign currency denominated assets

Also concentration limits, valuation markdowns and margin calls are applicable

# Haircuts are strongly differentiated across liquidity and credit quality

| | Credit quality | Minimum haircut | Maximum haircut |
|---|---|---|---|
| **Marketable assets** [1)] | CQS 1-2 ("AAA – A") | 0.5% | 25.5% |
| | CQS 3 ("BBB") | 6% | 38% |
| **Credit claims (fixed interest payments)** [2)] | CQS 1-2 ("AAA – A") | 12% | 45% |
| | CQS 3 ("BBB") | 19% | 63% |
| **Additional credit claims (ACCs) (minimum haircut schedule)*** [3)] | CQS 1-2 ("AAA – A") | 12% | 45% |
| | CQS 3 ("BBB") | 19% | 65% |
| | CQS 4 ("BB+") | 42% | 80% |
| | CQS 5 ("BB") | 54% | 85% |
| **Greek government-related bonds after reinstatement of the waiver** [4)] | Government bonds | 15% | 71% |
| | Government-guaranteed bonds | 23% | 81% |

* Example of the application by the Central Bank of Ireland. ACCs' eligibility and risk control measures are established by NCBs, as laid down in the Guidelines of the ECB (ECB/2014/31) of 9 July 2014 on additional temporary measures relating to Eurosystem refinancing operations and eligibility of collateral.
Sources: 1) Guideline ECB/2015/35, as amended by Guideline 2016/32, Annex , Table 2; 2) Guideline ECB/2015/35, as amended by Guideline ECB/2016/32, Annex , Table 3[25];
3) http://www.centralbank.ie/mpolbo/mpo/Documents/Supplementary%20Documentation%20on%20Monetary%20Policy%20Instruments%20and%20Procedures%202014.pdf;
4) Decision (EU) 2016/1041 of the ECB of 22 June 2016 on the eligibility of marketable debt issued or fully guaranteed by the Hellenic Republic and repealing Decision (EU) 2015/300, Annex[26].

Source: Bindseil et al. (2017)

# Close-links between counterparty and collateral issuer are prohibited

- A counterparty cannot **use assets issued or guaranteed by itself or closely-linked entities** (“own-use”):
  - Exception for CRR – compliant covered bonds
  - Since March 2015, government-guaranteed bank bonds (GGBBs) can no longer be own-used

- A counterparty cannot have more than 2.5% of its collateral pool composed of **uncovered bank bonds issued by the same banking group** (i.e. a credit institution and its closely-linked entities):
  - does not apply to covered bonds and GGBBs
  - does not apply if the total amount is below EUR 50 million

# Collateral management in the Eurosystem

- Principle of **decentralised implementation** of monetary policy (with respect to collateral)
  - Legally and operationally counterparties of NCBs, not ECB
  - Collateral management is performed by NCBs, i.e. acceptance of assets as collateral, valuation, risk control measures, margin calls etc.

- Legal and operational set-up differs between NCBs. In most cases:
  - Legal: **Collateralised loans** (rather than ‘repurchase agreements’): Counterparties pledge or assign assets to NCBs. They remain legal owners of collateral until counterparty default
  - Operational: **Pooling system** (rather than earmarking): the same collateral pool is used to collateralise all monetary policy (credit) operations and intraday credit in T2

# Comparison with other central banks



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



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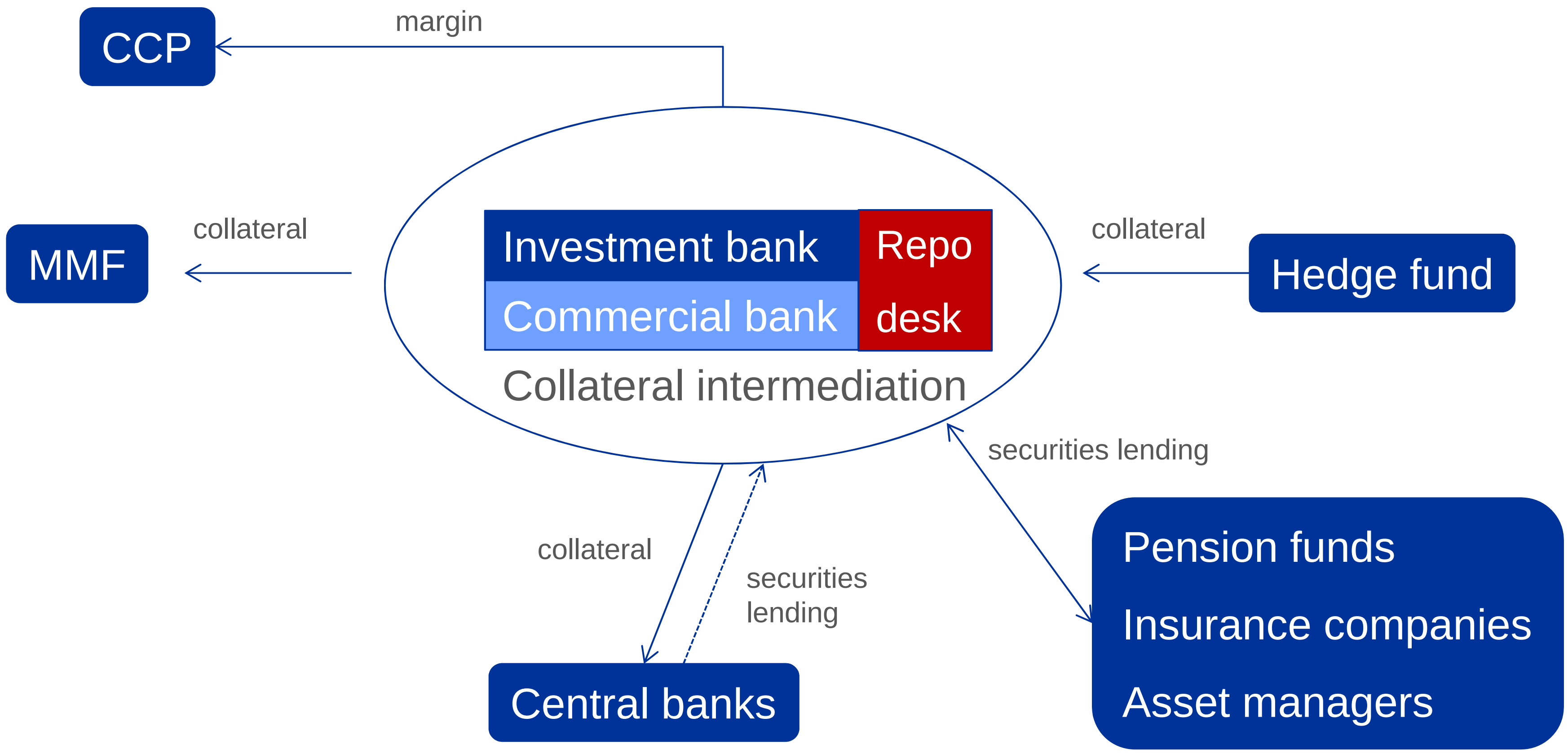
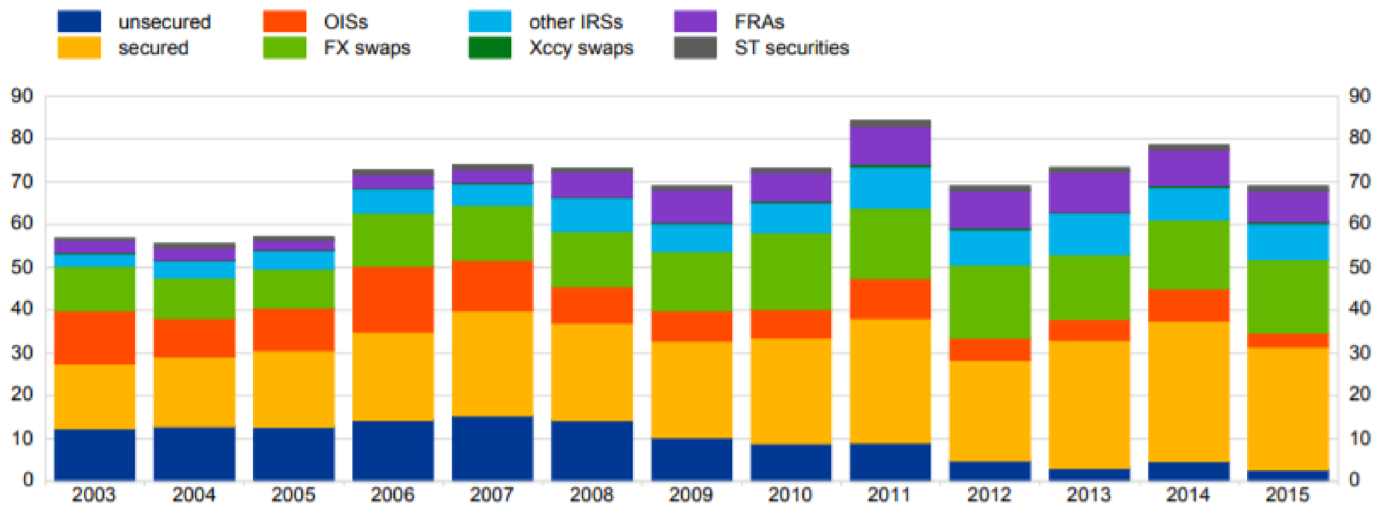
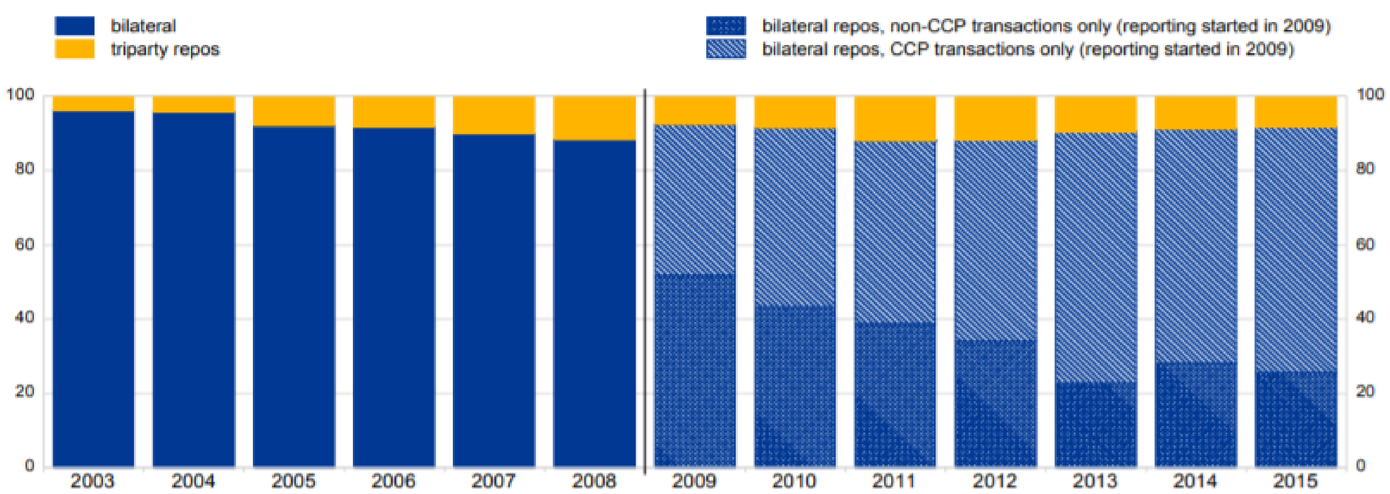
# Repo/ securities lending markets is where collateral is priced, sourced and mobilised



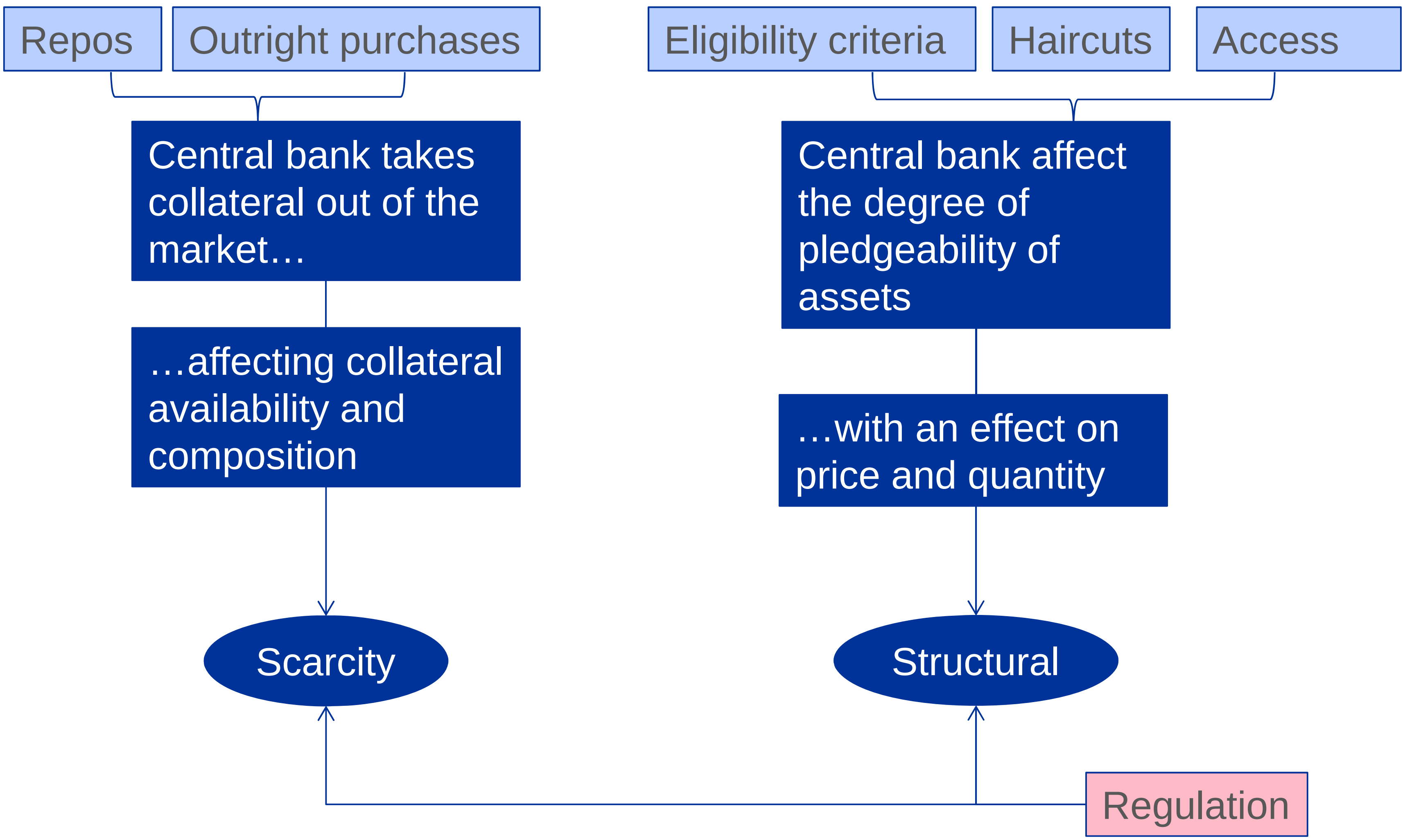
# European secured transactions are mostly via bilateral CCP repos




Source: ECB Money market survey (2015)

# Scarcity and structural channels



# 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