



# EBA REPORT ON ASSET ENCUMBRANCE

SEPTEMBER 2015



**EBA**

EUROPEAN  
BANKING  
AUTHORITY

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## Executive summary

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An analysis of asset encumbrance is critical for supervisors to assess the ability of institutions to handle funding stress, and to switch from unsecured to secured funding under stressed conditions. In 2015 the EBA started receiving data on asset encumbrance based on the implementing technical standards published in October 2013. This report is based on the first data received for December 2014 and March 2015 for a sample of almost 200 EU banks.

The overall weighted average encumbrance ratio, i.e. all encumbered assets and collateral received relative to total assets and collateral in the EU in March 2015 was 27% but with a wide dispersion across institutions and countries. The highest values of above 80% and even 90% are mostly reported by specialized mortgage institutions. When the weighted averages are computed at country level, the asset encumbrance ratio ranges from close to 0% for Estonia to 44% in the case of Denmark and Greece. In countries with relatively high levels of asset encumbrance this is for example driven by large and established covered bond markets (notably Denmark and Sweden); by a high share of central bank funding in countries severely affected by the sovereign debt crisis (e.g. Greece); and by a high share of repo financing and collateral requirements for over-the-counter derivatives (e.g. the UK and Belgium).

Not all unencumbered assets can be used to generate funding. A proxy for the marketability of unencumbered assets, also under stressed conditions, can be the eligibility for central bank funding. In total the encumbrance of central bank eligible assets stayed approximately constant over the two quarters at 45% but again with a high dispersion across countries.

The main sources of asset encumbrance, i.e. balance sheet liabilities for which collateral was posted by institutions, across the sample are repos, covered bonds issued and over-the-counter derivatives. In particular the use of asset and collateral in central bank funding shows a strong variation across countries. The highest values are mostly reported by countries severely affected by the sovereign debt crisis.

Based on a comparison of the results of this report with an analysis of the ESRB in 2011, there is no indication for an increase in the level of asset encumbrance over the last years. However, the trend in the level of total asset encumbrance and in particular the availability of collateral for central bank funding as well as the use of central bank funding should be carefully monitored going forward.

This report may exhibit some data quality issues that should be resolved once the reporting of asset encumbrance data is fully established. The report should therefore be seen as a first and preliminary analysis. Longer time series and better data should also allow expanding the analysis. The EBA intends to publish a regular monitoring on the asset encumbrance analysing levels and the sources of assets encumbrance on an annual basis starting in 2016 based on data as of December 2015.

# Introduction to the first edition of the report

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## Background

In October 2013 the EBA published final draft implementing technical standards (ITS) on asset encumbrance reporting under Article 100 of Capital Requirements Regulation (CRR)<sup>1</sup> which was adopted and published by the European Commission in December 2014<sup>2</sup>. Article 100 of the CRR requires the institutions to report to the competent authorities the level of their repurchase agreements, securities lending and all forms of asset encumbrance, and mandates the EBA to include this information in the implementing technical standards on COREP and FINREP reporting (Regulation (EU) No 680/2014 – ITS on supervisory reporting of the institutions). The data reported first provides a harmonised measure of asset encumbrance across institutions, which will allow supervisory authorities to compare the reliance on secured funding and the degree of structural subordination of unsecured creditors and depositors across institutions. Second, it allows supervisors to assess the ability of institutions to handle funding stress, and of the ability of switching to secured funding. Third, it can be incorporated into crisis management, as it will allow for a broad assessment of the amounts of assets available in a resolution situation.

In addition to the mandate in the CRR, the recommendations by the European Systemic Risk Board (ESRB) on the funding of credit institutions (ESRB/12/2)<sup>3</sup>, published in February 2013, also cover the topic of supervisory reporting on asset encumbrance. More specifically, recommendation C recommends that the EBA to issue guidelines on harmonised templates and definitions in order to facilitate the monitoring of asset encumbrance, in accordance with its established consultation practices. The ITS, consequently, also served the purposes of complying with the ESRB recommendation. The ESRB recommendation also specifies that the EBA should monitor the evolution of asset encumbrance in the Union, on the basis of information gathered and provided by the national supervisory authorities (recommendation C4). Last, the EBA is also recommended to assess whether there are financial instruments other than covered bonds that generate encumbrance which would benefit from the identification of best practices in national frameworks (recommendation E4). For covered bonds the EBA already published the EBA report on EU covered bond frameworks and capital treatment in response to the Commission's call for advice of December 2013 related to Article 503 of the Regulation (EU) No 575/2013 and to the ESRB Recommendation E on the funding of credit institutions (ESRB/12/2)<sup>4</sup>.

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<sup>1</sup> <http://www.eba.europa.eu/-/eba-publishes-final-draft-technical-standards-on-asset-encumbrance>

<sup>2</sup> Commission Implementing Regulation (EU) 2015/79

<sup>3</sup> [https://www.esrb.europa.eu/pub/pdf/recommendations/2012/ESRB\\_2012\\_2.en.pdf?3ae29ff65b8e72d244b706068a8577e2](https://www.esrb.europa.eu/pub/pdf/recommendations/2012/ESRB_2012_2.en.pdf?3ae29ff65b8e72d244b706068a8577e2)

<sup>4</sup> <http://www.eba.europa.eu/documents/10180/534414/EBA+Report+on+EU+Covered+Bond+Frameworks+and+Capital+Treatment.pdf>

It should be noted that besides the ITS on asset encumbrance the EBA also issued Guidelines on the disclosure of encumbered and unencumbered assets<sup>5</sup>. They are the first step towards a harmonised disclosure framework of asset encumbrance in the EU and have been drafted in accordance with Recommendation D of the ESRB. These Guidelines include a set of principles and templates that will enable the disclosure of all information on encumbered and unencumbered assets including central bank operations conducted by institutions.

Institutions have implemented the Guidelines in a variety of ways, both for the quantitative templates, and the qualitative information. In addition, besides disclosures along the Guidelines, institutions also provide other disclosures in their financial statements or their risk reports that cover some aspects of asset encumbrance. In the absence of common formats and definitions though, these disclosures tend to be not harmonised and might present comparability challenges. Given the significance of asset encumbrance, in particular in stressed funding conditions, which is confirmed by this report, a further improvement of disclosures and their consistency may be warranted.

## Objective and limitations of this report

The objective of this report is to begin a regular monitoring of the extent of and the changes in the levels of asset encumbrance on EU-level as well as the sources for asset encumbrance in a way which helps supervisors and policy makers make decisions about their institutions and the sector. A second objective is to create transparency on aggregate core asset encumbrance metrics for market participants. The report also serves the purpose to comply with the ESRB recommendations mentioned above.

Since the publication of the ITS, the EBA received data on asset encumbrance as part of the regular quarterly supervisory reporting for December 2014 and March 2015. This report is based on the first reported data. Accordingly, the current report may exhibit some data quality issues and missing data for selected banks. Both issues should be resolved once the reporting of asset encumbrance data is fully established. Also, a data history of two quarters is not sufficient to allow a meaningful interpretation of trends. Given these data constraints the report constitutes a first and preliminary monitoring report. It is planned to publish a monitoring report on an annual basis from now on based on quarterly data and based on data collected until the fourth quarter in every year. The first full report will therefore be published in 2016 based on data as of December 2015. While the main metrics used in this report will continue to be reported, additional analyses are likely to be added once the data quality has been confirmed. This will then also allow a deeper analysis of the drivers of differences in the level of asset encumbrance across institutions and countries.

## The asset encumbrance ratio

The core metric applied in this report is the asset encumbrance ratio. The metric used as basis for all analyses unless stated otherwise is the asset encumbrance ratio as defined in the Commission

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<sup>5</sup> <http://www.eba.europa.eu/-/eba-publishes-guidelines-on-disclosure-of-encumbered-and-unencumbered-assets>

Implementing Regulation (EU) 2015/79<sup>6</sup>. The asset encumbrance ratio is defined as equal to the encumbered assets of an institution and collateral received by the institution re-used and therefore encumbered over total assets and collateral received:

$$AE\% = \frac{\textit{Total encumbered assets} + \textit{Total collateral received re – used}}{\textit{Total assets} + \textit{Total collateral received available for encumbrance}}$$

Collateral received was added in the definition since it can be assumed that it is usually available to be re-used for refinancing transactions. Here assets are measured at the carrying amount, while collateral is measured at fair value. Additional selected analyses apply the same calculation for assets or collateral only. An asset is treated as encumbered if it has been pledged or if it is subject to any form of arrangement to secure, collateralise or credit enhance any transaction from which it cannot be freely withdrawn. This definition covers but is not limited to:

- secured financing transactions, including repurchase contracts and agreements, securities lending and other forms of secured lending;
- various collateral agreements, for instance collateral placed for the market value of derivatives transactions;
- financial guarantees that are collateralised;
- collateral placed at clearing systems, CCPs and other infrastructure institutions as a condition for access to service;
- central bank facilities;
- underlying assets from securitisation structures, where the financial assets have not been de-recognised from the institution's financial assets;
- assets in cover pools used for covered bond issuance.

Further details on the definition of different metrics and the data reported can also be found in Annex III of the Commission Implementing Regulation (EU) 2015/79.

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<sup>6</sup> Paragraph 9-11 of Annex III

# Analysis of the asset encumbrance of European banks

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## Sample

This report is based on the full sample of banks for which the EBA receives data on asset encumbrance as part of the EU-wide supervisory reporting data. The harmonised supervisory reporting framework based on the EBA implementing technical standard (ITS) on supervisory reporting came into force during 2014<sup>7</sup>. The EBA started collecting harmonised supervisory data based on the ITS from 195 banks from 29 EEA countries as of March 2015.<sup>8</sup> The sample of banks covers at least three banks from each country and in addition all large banks. In particular the set of banks for which the EBA receives supervisory reporting data includes all institutions which fulfil at least one of the following criteria:

- The institution is one of the three largest institutions in a Member State, including banking groups on the highest level of consolidation and subsidiaries of foreign banking groups, measured by total assets. This criteria selects the top institutions on a country level and allows the analysis of average country level data also in countries in which banks are mostly subsidiaries of foreign institutions;
- The institution's total assets are in excess of €30 billion, both for institutions that represent the highest consolidation level of any given banking group and for non-EEA banking group subsidiaries. This criteria selects the largest banks on an EU-level;
- The institution's 4 year average of total assets is in excess of 20% of the 4 year average of a Member State's GDP, both for institutions that represent the highest consolidation level of any given banking group and for non-EEA banking group subsidiaries. This last relative criterion ensures that institutions which are particularly relevant for a country are included in the sample independent of the other two.

Other institutions may be added to the reporting sample by the EBA or by competent authorities.

Data for banks is generally included in this report at the highest level of consolidation in the EU. In country analyses also subsidiaries of banks from other Member States of the EU were included. It should be noted that subsidiaries of EU parent institutions therefore appear for both countries, i.e. the country of the parent and that of the subsidiary in all country level analyses in this report but not in EU aggregates.

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<sup>7</sup> <http://www.eba.europa.eu/regulation-and-policy/supervisory-reporting>

<sup>8</sup> Data for 3 banks for December 2014 and 6 banks for March 2015 could not be included in this report.



## Scope of the report

The banks covered in the report account for EUR 37.6 trillion of assets and additional 5.6 trillion of collateral received in March 2015. The composition of assets and collateral received across the sample is shown in Figure 1 and Figure 2. The report covers data for two quarters from December 2014 to March 2015. The cut-off for data updates received from banks is 24 September 2015.

Figure 1: Distribution of total assets (encumbered and unencumbered) – by asset type, Mar 2015

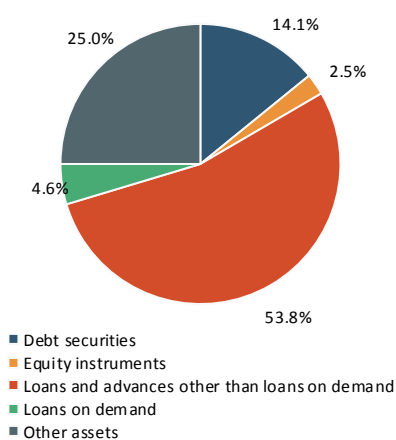
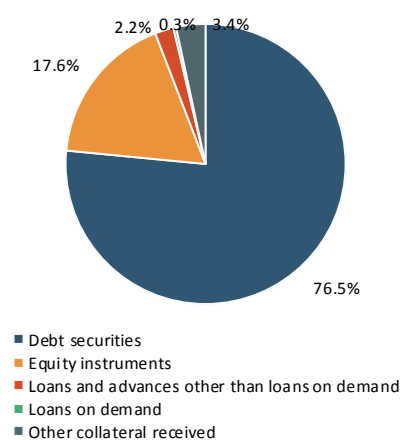


Figure 2: Distribution of total collateral received available for encumbrance (encumbered and unencumbered) – by collateral type, Mar 2015

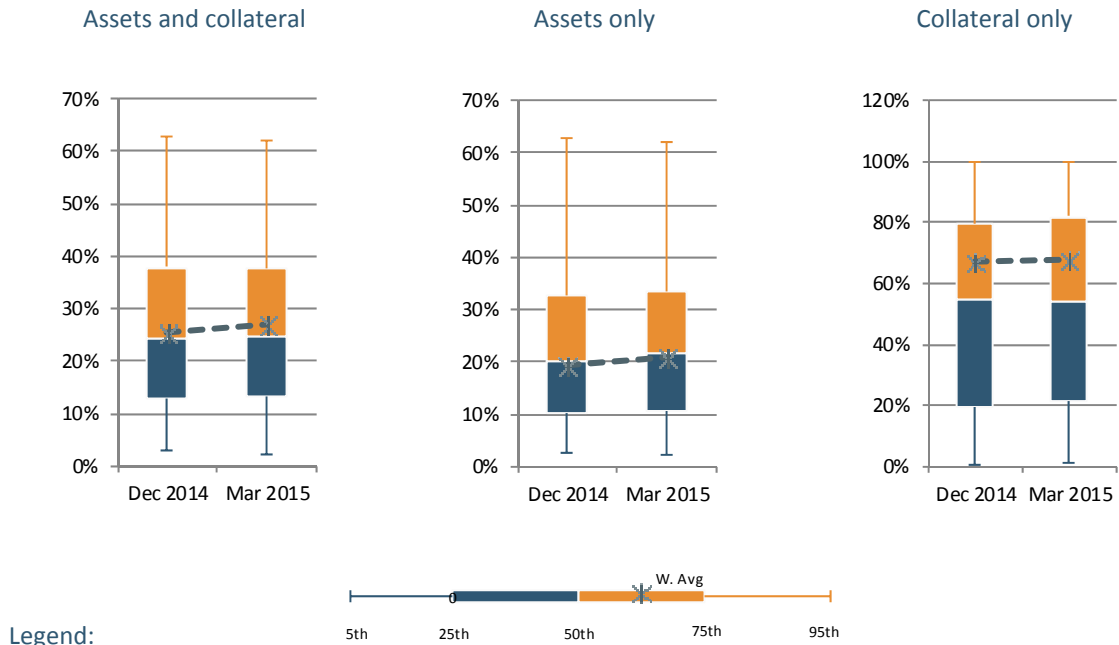


## Total encumbrance

The total weighted average asset encumbrance<sup>9</sup> including assets and collateral received in the sample is 27.1% in March 2015 – a slight increase from 25.5% in December 2014. What is visible from Figure 3 is that there is a wide dispersion across banks. Five percent of banks show values below approximately 2% respectively values above 60%. The highest values of above 80% and even 90% are mostly reported by specialized mortgage institutions. Encumbrance for collateral received is significantly above encumbrance for assets only. However, the increase in the overall encumbrance ratio was solely driven by assets. In absolute EUR 7.9 trillion of assets and EUR 3.8 trillion of collateral were reported as encumbered in March 2015.

<sup>9</sup> All weighted averages are computed by taken the ratio of the sum of the numerator across the sample and the sum of the denominator.

Figure 3: Distribution of the asset encumbrance ratios of the banks in EU, weighted average, median, inter quartile range and 5<sup>th</sup> and 95<sup>th</sup> percentile



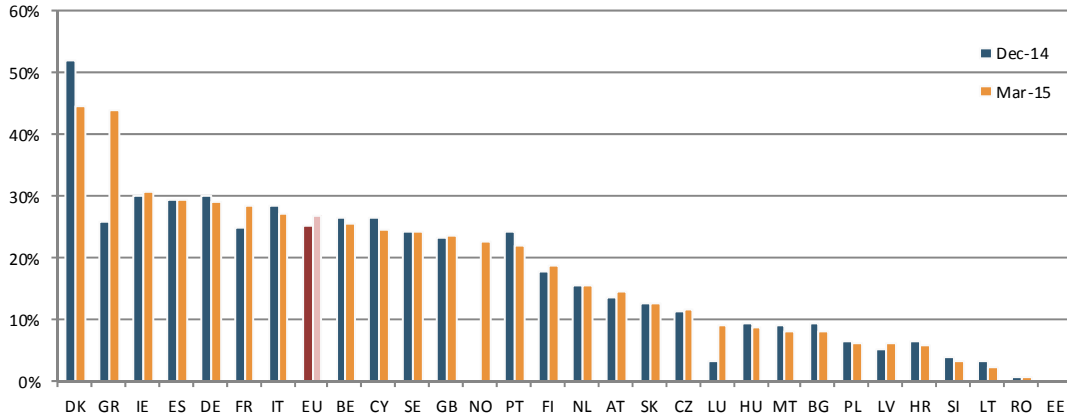
## Encumbrance by country

The picture across countries also differs significantly (see Figure 4). When the weighted averages are computed at country level, the asset encumbrance ratio ranges from close to 0% for Estonia to 44% in the case of Denmark and Greece. In countries with relatively high levels of asset encumbrance this is driven by:

- large and established covered bond markets (most notably Denmark and Sweden);
- a high share of central bank funding in countries severely affected by the sovereign debt crisis (e.g. Greece);
- a high share of repo financing and collateral requirements for over-the-counter derivatives (e.g. the UK and Belgium).

By far the highest absolute change between the two quarters was reported for Greece. For Greek banks the level of asset encumbrance increased by 18.1 percentage points.

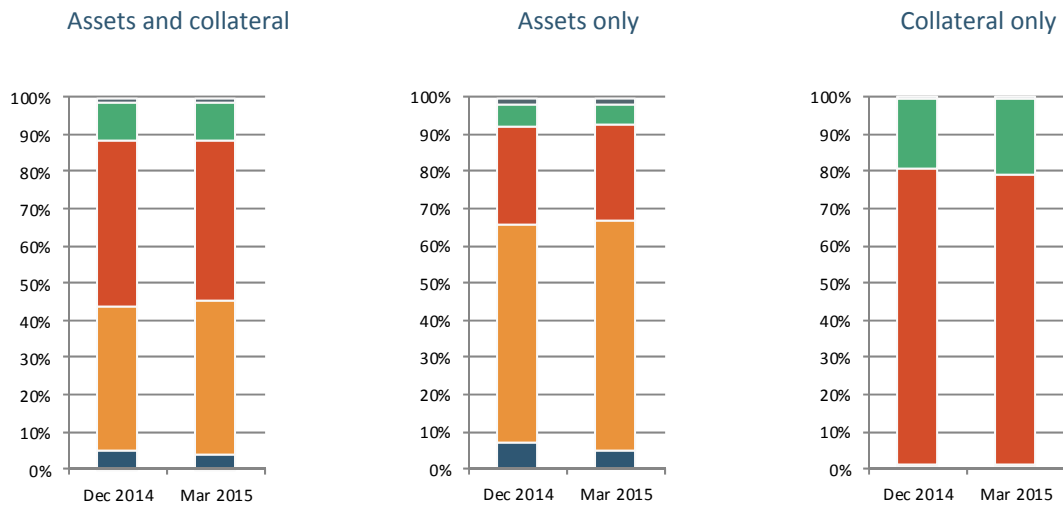
Figure 4: Weighted average asset encumbrance by country<sup>10</sup>



## Encumbrance by asset classes

Debt securities and loans and advances constitute the largest share of encumbered assets – the latter with a rising percentage, while loans and advances by far explain the largest share of unencumbered assets (see Figure 5 and Figure 6). Not surprisingly, debt securities also account for the largest part of encumbered collateral received.

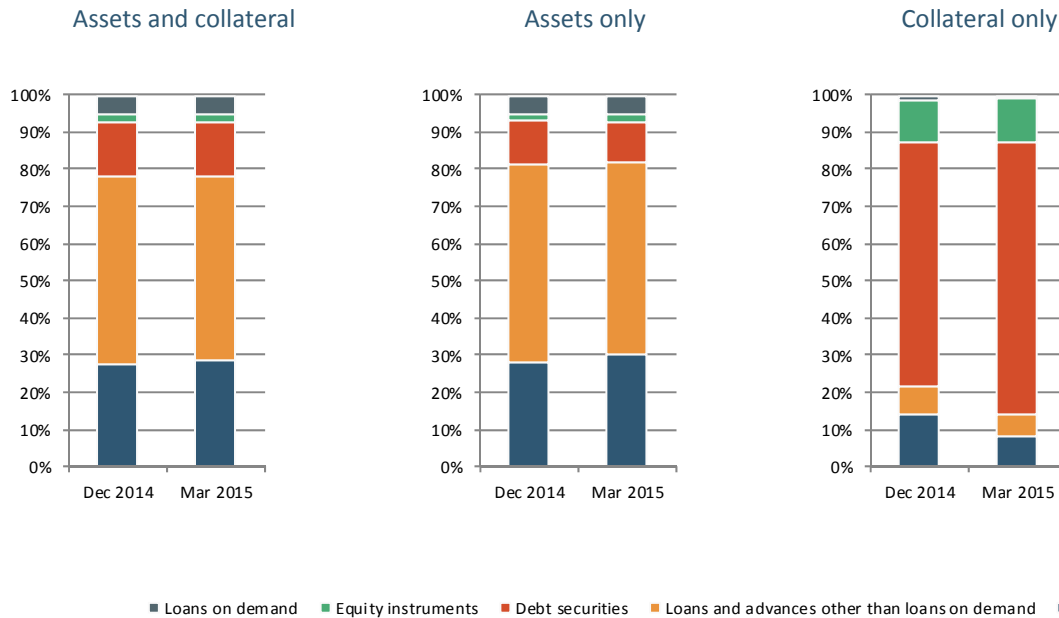
Figure 5: Share of encumbered assets and collateral by type



Legend: ■ Loans on demand ■ Equity instruments ■ Debt securities ■ Loans and advances other than loans on demand ■ Other

<sup>10</sup> Norwegian banks did not report data for December 2014.

Figure 6: Share of unencumbered assets and collateral by type



Legend:

■ Loans on demand ■ Equity instruments ■ Debt securities ■ Loans and advances other than loans on demand ■ Other

Not all unencumbered assets can be used to generate funding. A proxy for the marketability of unencumbered assets, also under stressed conditions, can be the eligibility for central bank funding. For instance only 24% of loans and advances were encumbered in March 2015 but 43.8% of central bank eligible loans and advances. In total the encumbrance of central bank eligible assets stayed approximately constant over the two quarters at 45% (see Figure 7 and Figure 8) but with a large dispersion across countries. It should be noted that this proxy for marketability is a relatively restrictive view of the funding capacity and that encumbrance here does not necessarily imply that the assets and collateral were pledged to obtain central bank funding. Instead they could have been used for any other source of secured funding.

Figure 7: Level of encumbrance of total assets and collateral by type

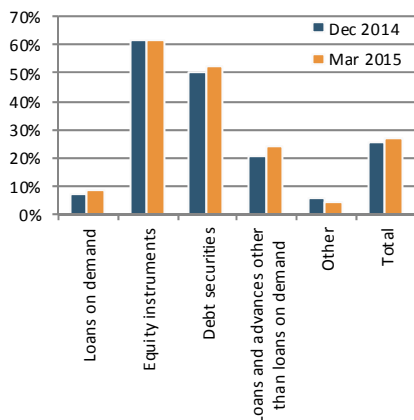
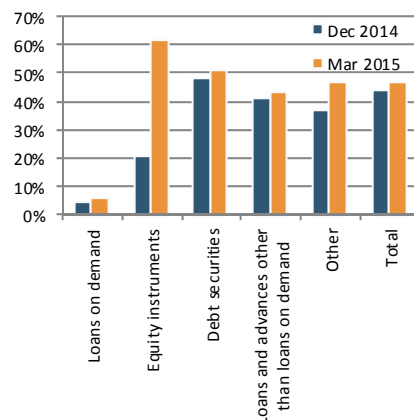


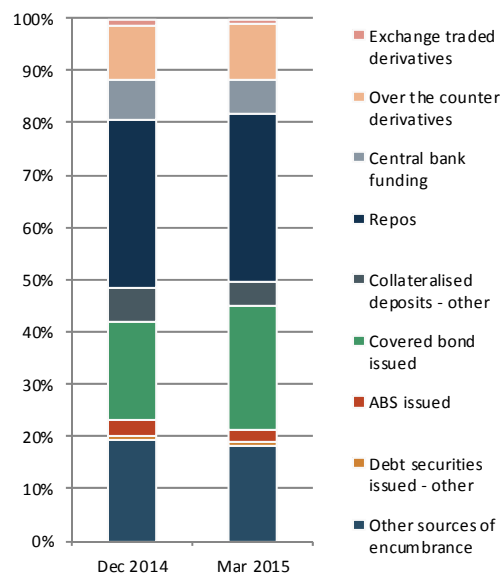
Figure 8: Level of encumbrance of total central bank eligible assets and collateral



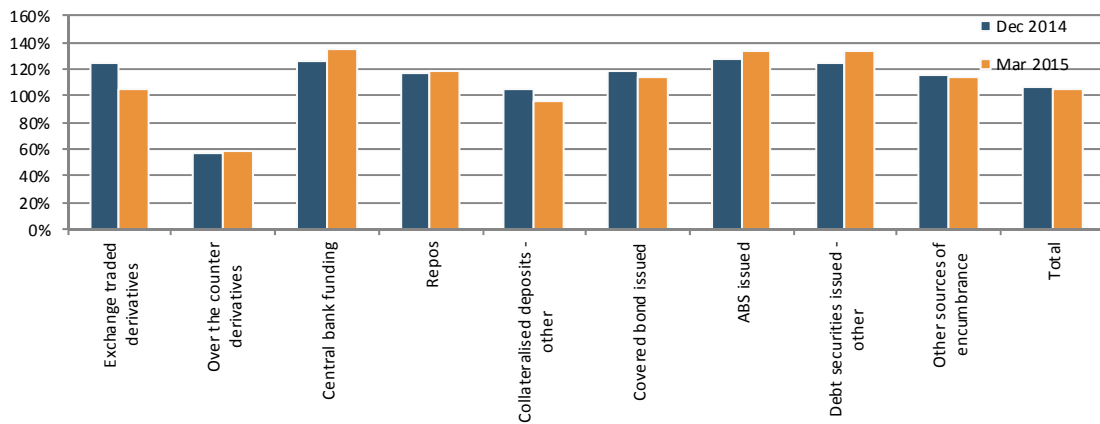
## Sources of encumbrance

The main sources of asset encumbrance, i.e. balance sheets liabilities for which collateral was posted by institutions, across the sample are repos, covered bonds issued and over-the-counter derivatives (see Figure 9). Here the share of covered bonds increased significantly over the two quarters. This is consistent with the high-level of issuance seen in the market for the first quarter of 2015. The share of central bank funding has decreased slightly from 7.8% to 6.8%.

Figure 9: Distribution of the sources of encumbrance

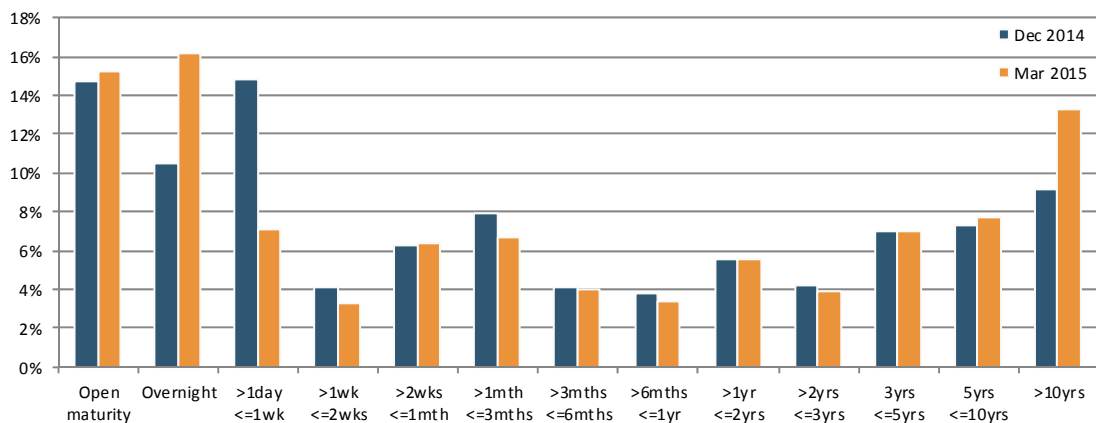


The level of overcollateralization, i.e. encumbered assets and collateral relative to matching liabilities that institutions have to give did not change significantly across the two quarters (see Figure 10). While there was a decrease for exchange traded derivatives, collateralized deposits and covered bonds, the level increased for central bank funding and other debt instruments issued including ABS.

Figure 10: Encumbered assets and collateral relative to matching liabilities<sup>11</sup>

## Encumbrance by maturity

By far the largest share of assets and collateral are encumbered with an open maturity or a very short maturity of up to one week as shown in Figure 11. There seems to be a shift in the reported asset encumbrance from a maturity of one week to overnight. Long-term encumbrance also increased significantly which seems consistent with an increasing share of covered bonds. Other maturities stayed roughly constant.<sup>12</sup>

Figure 11: Distribution of encumbered assets and collateral by maturity<sup>13</sup>

<sup>11</sup> For derivatives it should be taken into account that liabilities are reported on a gross basis under IFRS while collateral might be netted.

<sup>12</sup> Changes in the reported maturity distribution can also be driven by data quality issues. Observations should therefore be seen as preliminary and will be monitored going forward.

<sup>13</sup> Reported data excludes institutions with total assets of less than EUR 30 BN and encumbrance level below 15%.

## Conclusion

One of the concerns that led to the ESRB recommendation on asset encumbrance was that an increasing use of secured funding due to reduced access to unsecured instruments and a move towards collateralisation of other transactions such as derivatives could lead to a steep increase of asset encumbrance. Based on this first monitoring this concern cannot be confirmed on EU-level even though asset encumbrance is high in some jurisdictions. The ESRB analysis in the recommendation (ESRB/2012/2) showed a median level of asset encumbrance (assets including the assets received in a reverse repo) of approximately 25% for a sub-sample of 51 EU-banks and based on Dec 2011 data. The ESRB analysis also showed a strong increase in the level of asset encumbrance compared to pre-crisis levels, i.e. from 2007 to 2011.

The median value across all banks which report asset encumbrance to the EBA for the period covered is at a comparable level at around 25% for assets and collateral and 20% for assets only (see Figure 3). Of course the comparison is only indicative due to the different samples covered and also the different definitions used for asset encumbrance. These values indicate that while the level of asset encumbrance has not significantly across the EU, it also has not further increased. This result seems to confirm the observation of a positive trend in banks' access to unsecured funding, as for example shown in the latest EBA Risk Assessment of the European Banking System<sup>14</sup>.

On the other hand, the level of asset encumbrance due to central bank funding as well as the encumbrance of assets eligible for central bank funding is relatively high for those countries which were severely affected by the sovereign debt crisis.

Both developments need to be carefully monitored going forward. In particular, as mentioned in the introduction to this report, the limited time series available for this report does not allow strong conclusions, yet.

The report shows that by far the most significant sources of encumbrance beside covered bonds are repurchase agreements and over-the-counter derivatives. However, the report does at this stage not conclude that a stock take of best practices regarding repos or derivatives is required. In particular, OTC derivatives are in scope of EMIR and therefore regulated on an EU level. Of course data constraints need to be taken into account for this conclusion.

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<sup>14</sup> <http://www.eba.europa.eu/documents/10180/1132391/Risk+Assessment+Report+-+June+2015.pdf/b6bc998c-d63c-47b9-9450-7da5788b63cf>



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