FUNDING PLANS REPORT

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EBA EUROPEAN BANKING AUTHORITY



Contents

List of figures	3
List of abbreviations	5
Executive summary	7
Introduction	9
Recent developments in liquidity and funding conditions	10
Asset trends	13
Changes in banks' asset composition	13
Assessment of planned asset growth	15
Liability trends	22
Changes in banks' funding composition	22
Trends in client deposits	25
Trends in market-based funding	25
Trends in public sector sources of funding	31
Assessment of planned liability growth	36
Trends in pricing for assets and liabilities	40
Banks' pricing for loans and deposits	40
Banks' pricing for debt securities	41
Assessment of banks' pricing assumptions	43
Conclusions	47
Annex 1	49
Funding plans: additional charts including country data	49
Annex 2	52
List of participating banks	52



List of figures

Figure 1: iTraxx senior and subordinated financial index, January 2021 to June 2022 11
Figure 2: Implied volatility, January 2021 to June 202212
Figure 3: Actual and planned asset composition (EUR trillion)14
Figure 4: Actual and planned asset growth by country (total assets excluding cash and cash balances at central banks)
Figure 5: Growth expectations for selected asset classes15
Figure 6: Back-testing loan growth to households by country 16
Figure 7: Back-testing loan growth to NFC by country17
Figure 8: RAQ for banks: expectations for portfolio changes in 2022
Figure 9: RAQ for analysts: expectations for portfolio changes in 2022
Figure 10: Private sector loans and debt securities versus private sector deposits and debt securities issued (EUR trillion)
Figure 11: Loan-to-deposit ratio by country and for the EU 21
Figure 12: Actual and planned liabilities composition (EUR trillion)
Figure 13: Growth expectations for selected liability classes
Figure 14: ESG issuance volume trend (in EUR bn) 24
Figure 14: ESG issuance volume trend (in EUR bn)24 Figure 15: Growth expectations for deposits from households and NFCs by country and for the EU (2022-2024)
Figure 15: Growth expectations for deposits from households and NFCs by country and for the EU
Figure 15: Growth expectations for deposits from households and NFCs by country and for the EU (2022-2024)
Figure 15: Growth expectations for deposits from households and NFCs by country and for the EU (2022-2024)
Figure 15: Growth expectations for deposits from households and NFCs by country and for the EU (2022-2024)
Figure 15: Growth expectations for deposits from households and NFCs by country and for the EU (2022-2024)
Figure 15: Growth expectations for deposits from households and NFCs by country and for the EU (2022-2024)
Figure 15: Growth expectations for deposits from households and NFCs by country and for the EU (2022-2024)



Figure 24: Net issuance volume of debt securities (euro area banks only) versus gross maturing TLTRO volume
Figure 25: Liquidity ratios NSFR and LCR (rhs) and numerator/denominator (lhs, EUR trillion) 35
Figure 26: Issuance volume of secured funding and volume of retained issuances by instrument type and year (EUR billion)
Figure 27: Back-testing deposits from households for 2021, by country
Figure 28: Back-testing deposits from NFCs for 2020, by country
Figure 29: Funding focus for the next 12 months - RAQ for banks
Figure 30: Funding focus for the next 12 months - RAQ for market analysts
Figure 31: Actual and planned spread between client loans and client deposits (households and NFCs), in percentage points
Figure 32: Interest rates on loans (left) and deposits (right) 41
Figure 33: Actual and forecast interest rates of long-term debt securities
Figure 34: Actual and forecast interest rates of secured debt instruments
Figure 35: Actual and forecast interest rates of unsecured debt instruments
Figure 36: Expectations on interest rates for 2022 and 2023 44
Figure 37: Back-testing client spreads 44
Figure 38: Back-testing market-based funding costs45
Figure 39: Analysts' expectations on costs for debt issuances
Figure 40: Growth in loans to financial corporates by country and for the EU, per year
Figure 41: Growth in loans to households by country and for the EU, per year
Figure 42: Growth in loans to NFCs by country and for the EU, per year
Figure 43: Growth in deposits from households and NFCs by country and for the EU
Figure 44: Share of repos and deposits from financial corporations in total funding by country 50
Figure 45: Share of client deposits (households and NFCs) in total funding by country
Figure 46: Share of short-term debt instruments in total funding by country
Figure 47: Share of long-term debt instruments (secured and unsecured) in total funding by country



List of abbreviations

ABS	Asset-backed securities
AT1	Additional Tier 1
BRRD	Bank Recovery and Resolution Directive
EBA	European Banking Authority
ECB	European Central Bank
EEA	European Economic Area
EU	European Union
FINREP	Financial Reporting Standards
G-SIB	Global systemically important bank
LTRO	Longer term refinancing operations
MREL	Minimum requirement for own funds and eligible liabilities
NFC	Non-financial corporate/non-financial corporation
RAQ	Risk Assessment Questionnaire
T2	Tier 2
TLAC	Total loss-absorbing capital
TLTRO	Targeted long-term refinancing operations



Country code AT	Name of country Austria
BE BG	Belgium Bulgaria
CY	Cyprus
CZ	Czech Republic
DE	Germany
DK	Denmark
EE	Estonia
ES	Spain
FI	Finland
FR	France
GR	Greece
HR	Croatia
HU	Hungary
IE	Ireland
IS	Iceland
IT	Italy
LT	Lithuania
LU	Luxembourg
LV	Latvia
MT	Malta
NL	Netherlands
PL	Poland
PT	Portugal
RO	Romania
SE	Sweden
SI	Slovenia
SK	Slovakia



Executive summary

The objective	The objective of this report is to analyse funding plans submitted by EU banks to the competent authorities and assess their feasibility. In particular, the report summarises projected trends of assets, liabilities and relative pricing. Through back-testing of past funding plans and comparisons with other data sources, the report tries to assess the reliability of the projections made by banks. Economic- and market conditions have changed materially since banks submitted data for this report. Especially the underlying conditions for loan growth and pricing have changed materially for the forecast period 2022 – 2024.
Total assets have surged due to central bank support programmes. Loans are expected to grow significantly.	Banks' total assets increased by 3% in 2021, mainly driven by a surge in cash balances at central banks, which was a result of central bank support measures introduced in response to the pandemic. Loan volume growth, albeit varied across countries, also contributed to the increase in total assets, and banks expect loans to non-financial corporates (NFCs) and to households to grow by 4% per year over the forecast period.
Deposits surged in 2021 with a slowdown expected in 2022	The surge in deposits continued in 2021 and by the end of the year represented 76% of banks' total funding sources. For the years 2022 to 2024, banks are expecting the growth in deposits to slow down towards 3% per year.
Banks plan to increase issuance volumes, in particular MREL-eligible debt instruments	Banks plan to issue more debt instruments in the coming years, to make up for an expected decline in central bank funding but equally to comply with MREL requirements. Over the three-year forecast period, banks plan to increase market-based funding by 11%, reaching EUR 4.1 trillion in 2024. Senior non-preferred instruments are expected to grow by 25% over the forecast period.
Reliance on public sector funding to reduce significantly by 2023	Banks' use of public sector sources of funding (such as the ECB's TLTRO programme) further increased in 2021. As of December 2021, public sector funding contributed almost 9% to banks' total funding. According to banks' forecasts, this share is set to decline to about 2.5% by 2023.
Interest rate spread continued its downward trend	The spread between interest rates for loans to both households and NFCs versus client deposits has continued its decline. As of December 2021, the



average client spread was 2.04% compared to 2.22% one year earlier. For the year 2022, most banks expect these spreads to increase.

Market-based funding costsMost banks reported a decline in their funding costs during 2021. The average
cost of long-term funding was reported as 1.19%, a decline of 13 bps
compared to 2020 levels. In 2022, most banks expect funding costs to decline
even further. These expectations may well be too optimistic in light of the
notable changes in market conditions.

Back-testing results reveal that 2021 turned out betterthan expected A comparison of banks' forecasts for the year 2021 (provided in 2020) with actual figures reported in December 2021, reveals that loan growth in 2021 turned out to be higher than banks had planned for. Similarly, the actual growth in deposits largely surpassed banks' estimates and banks achieved lower costs for market-based funding in 2021 than they had planned for one year earlier. For the year 2022, banks' expectations might be too optimistic as these projections were made before the Russian aggression against Ukraine and the changing economic situation. Rising inflation and monetary tightening by the ECB and other EU/EEA central banks will likely lead to further deviations from bank forecasts.



Introduction

The objective of this report is to analyse and assess the feasibility of submitted funding plans for the EU banking system. Back-testing of past funding plans supports the assessment of the reliability of the trends in assets, liabilities and pricing projected by banks. To assess the feasibility of the asset growth forecast by banks on an aggregated level, as well as corresponding forecasts on deposit and market-based funding, the report also compares submitted data with market and statistical information, such as historical issuance volumes. While most of the assessment is carried out at the EU level, country level comparisons are also provided.

The analysis is based on funding plan data as per end 2021 reported in accordance with the EBA Guidelines.¹ These guidelines have changed in 2020 with the aim of providing additional details on market-based funding, align concepts to those used in FINREP and ease the reporting burden for small and non-complex credit institutions. Because of this change, some data series are available from 2020 but not before. The EBA collects data from a sample of banks, as defined in EBA Decision DC/2021/404, on reporting by competent authorities to the EBA.² The sample covers the largest institutions in each Member State and, in terms of total assets, covers more than 80% of the EU banking sector. The list of 159 reporting banks (including subsidiaries) from all EU jurisdictions is provided in Annex 2.³

The EU aggregate figures and charts in this report are based on the data reported at the highest level of consolidation and include banks from EEA countries. Country-level data, in contrast, also include subsidiaries. The dataset includes information on public sector sources of funding, deposit funding, market-based funding, and information on pricing of selected asset and liabilities positions. The analysis uses data reported in the last three years, and covers actual figures for 2019, 2020 and 2021 as well as forecasts for the subsequent three years (2022 to 2024)⁴. In the case of analyses that make use of data from multiple reference dates, such as back-testing exercises, only banks that submitted data for the complete reference period are included.

¹ EBA Guidelines: <u>https://www.eba.europa.eu/regulation-and-policy/supervisory-reporting/updated-guidelines-on-harmonised-definitions-and-templates-for-funding-plans-of-credit-institutions.</u>

²EBA Decision: EBA DC 404 Supervisory reporting by competent authorities to the EBA.pdf (europa.eu)

³ Throughout the report, country-specific data are not disclosed if fewer than three banks for the country in question have submitted data for a given figure.

 ⁴ The cut-off date for funding plan data used in this report was 11 May 2022. The cut-off date for the market data used was
30 June 2021, unless otherwise indicated.



Recent developments in liquidity and funding conditions

Market funding conditions for European banks were favourable in the second half of 2021 and until the beginning of 2022. In 2021, banks issued slightly higher volumes of unsecured instruments, including subordinated instruments than in the previous year. Issuance activity of unsecured instruments was particularly high in the second half of 2021. Ample investor liquidity positions coupled with an intense search for yields in the context of very low interest rates at that time further supported positive funding conditions in 2021.

Covered bond issuance volumes were reduced in 2021, including in H2 2021, and lower than in the previous year. A growing deposit base and ample availability of long-term central bank funding reduced incentives to issue covered bond in 2021. The strong fundamentals of banks including sound capital positions, strong liquidity positions, low non-performing loan ratios and progress in building up MREL, have also supported the generally positive sentiment on bank funding markets until early 2022.

Additional medium- and long-term bank funding programmes that the ECB and other central banks had in place until last year were an important support for the overall benign sentiment of financial markets and bank funding markets since the initial stage of the Covid-19 pandemic in March 2020 until the end of 2021. In the last four tenders of the ECB's TLTRO-3 programme conducted in 2021, a total of EUR 590 billion was allotted to participating banks. In 2020, allotments under TLTRO-3 were at a total of over EUR 1.6 trillion.

Favourable funding market conditions began to worsen in Q4 2021. Funding market indicators, including spreads, became increasingly volatile in the last weeks of 2021. The deterioration of funding market conditions was driven by various factors such as rising market interest rates, in particular in the US, rising inflation, growing geopolitical tensions, and emerging supply chain bottlenecks in the economic environment of the receding pandemic. Unsecured bank debt issuance activity nevertheless remained high, including at the start of 2022, when banks made use of a temporarily period of decreasing spreads to issue high volumes of unsecured debt instruments to attain market funding early in 2022.

After gradually widening spreads since the start of 2022, bank funding market conditions materially deteriorated with the beginning of the Russian aggression against Ukraine in late February 2022. Spreads widened further, and market volatility⁵ increased to levels not seen since the early stages of the pandemic in 2020. Bank funding markets were temporarily closed, and primary secured and unsecured issuance activity came to a halt. Covered bond issuance activity resumed a few days after the Russian aggression began, and meaningful issuance activity of unsecured instruments commenced about two weeks later. But market funding conditions did not recover after the initial phase of the war, and continued on an unfavourable trend in the first half of 2022. The continued war, high political

⁵ European volatility index VSTOXX



and economic uncertainties with a continuously deteriorating economic outlook, strongly increasing energy- and commodity prices, and rising inflation all affected the funding market sentiment. Spreads for debt instruments have been more volatile since the February and continued on a widening trend, in spite of episodes of temporarily tightening.





Source: Bloomberg

Interest rates increased substantially across durations, albeit from very low levels, as inflation increased to higher levels and appeared more prolonged than previously expected. Central banks in Europe have entered into a cycle of monetary tightening, and the ECB on 9 June 2022 announced a normalisation of its monetary policy, including intended interest rate increases and an end of its extraordinary asset purchase programmes.⁶

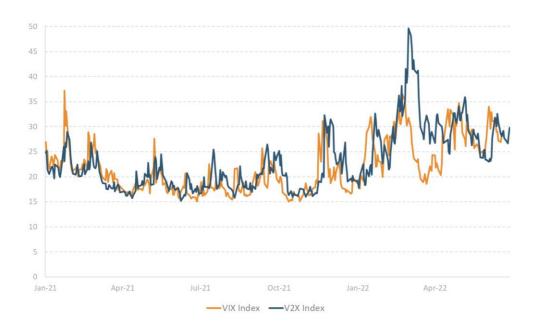
Issuance prices for new bank debt- and capital instruments have increased markedly in the first half of 2022, and issuance volumes of unsecured instruments have reduced. Issuance volumes of covered bond were high in the first half of 2022, and not least benefitted from opportunities for issuing banks to attain funding at lower costs than via unsecured funding in a volatile market environment. Covered bonds benefitted from inherent higher security for investors.

Uncertainty about more volatile liquidity and funding conditions in 2022 is reflected in the volatility index. This indicator is used by analysts and investors to measure market risk or the risk of a sudden repricing before they take investment or financing decisions. Figure 2 shows that volatility has been heightened since late 2021, with frequently recurring bouts of elevated volatility in particular since the beginning of the war.

⁶ See ECB Governing Council monetary policy decisions, 9 June 2022



Figure 2: Implied volatility, January 2021 to June 2022



Source: Bloomberg

The positive mood in funding markets in 2021, a further growing deposit base and ample availability of central bank funding allowed banks to maintain comfortable liquidity positions. Banks further increased their liquidity positions in 2021. After many quarters of increases, the liquidity coverage ratio decreased in Q1 2022. It remains at a comfortable level and higher than pre-pandemic. Deposits were largely stable since the outbreak of the war and the total deposit volume increased in Q1 2022, in spite of some temporary deposit outflows in the initial stages of the war in some neighboring countries of Ukraine.



Asset trends

Changes in banks' asset composition

European banks' total assets continued to increase by 3% in 2021 (following the exceptional growth of 8% in 2020), driven by high balances at central banks and solid developments of banks' loan books. The rise was supported by the very accommodative monetary policies and other central bank support measures introduced in response to the pandemic, which led to a surge in cash balances at central banks. Cash balances soared by 23% during 2021 (70% in 2020) and as of December 2021 represented 14% of total assets (versus 12% in 2020 and 7.5% in 2019). Banks also reported solid growth figures for loans to households and loans to NFCs, with both loan segments increasing by around 4% in 2021.

For the years 2022 and 2023, banks expect their total assets to remain at December 2021 levels. Banks predict loans to households and to NFCs to grow by around 4% in 2022 and slightly above 4% in 2023. The growth in loans is compensated by a decline in cash balances at central banks, which are expected to decrease by 20% in 2022 and 11% in 2023.

In 2024, total assets are expected to grow by about 2%. While growth in loans, in particular to households and NFCs is expected to continue at the current pace (at or above 4%), the reduction of cash balances at central banks is set to be less severe at around 4%. At the end of the forecast period (December 2024), cash balances are expected to represent 10% of banks' total assets, still somewhat elevated compared to pre-pandemic levels (7.6% in 2019).

Figure 3 shows the actual asset composition for the years 2019 to 2021 and the planned asset composition for the years 2022-2024.



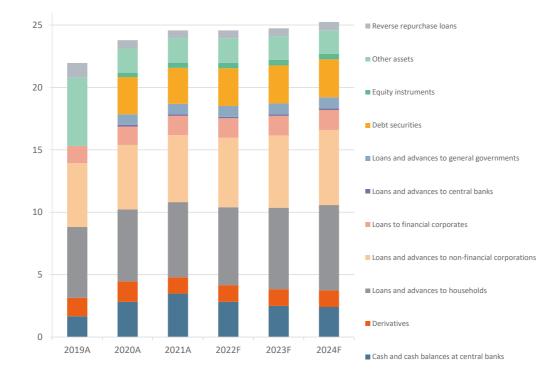
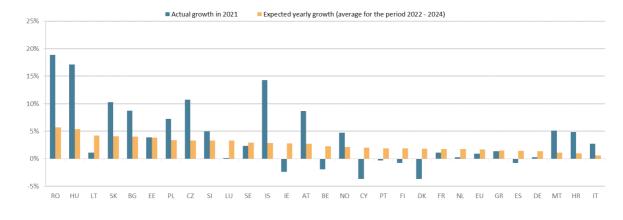


Figure 3: Actual and planned asset composition (EUR trillion)

Source: EBA

To get a better sense of real economic developments behind banks' balance sheets, Figure 4: Actual and planned asset growth by country (total assets excluding cash and cash balances at central banks)Figure 4 shows the growth rate of assets excluding cash balances at central banks, leading to an actual growth rate of 1% for 2021 (EEA average). The actual asset growth in 2021 was quite diverse across banks and countries, with growth rates ranging from above 15% for banks in Hungary and Romania to -4% for banks in Cyprus and Denmark. Banks in all countries expect assets to grow over the three-year forecast period (2022 - 2024). While some dispersion across countries persists, it is not as wide as for actual growth rates observed in 2021. Several banks in eastern European countries expect their total assets to grow between 3% and 5% per annum in the next three years, while banks in central and southern European countries typically report much smaller growth rates.







Source: EBA

Loans to NFCs and households, which represent the largest asset classes and combined account for over 45% of total assets, are expected to increase by about 13% over the forecast period (2022 to 2024). Loans to credit institutions and other financial corporates are expected to contribute to a lesser extent to overall asset growth, at a rate of 3% over the same period. The trend of growing client business can be identified at an aggregated EU level and across countries. Both loans to households and to NFCs are projected to grow in nearly all countries and across the three-year projection period (see Annex 1 for more details on country-specific loan growth figures).

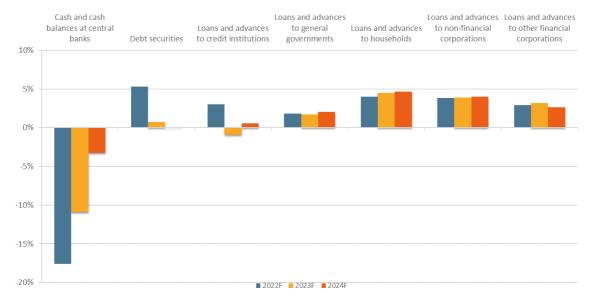


Figure 5: Growth expectations for selected asset classes

Source: EBA

Driven by higher-than-expected inflation, central banks around the world are in the process of raising interest rates and unwinding asset purchase programmes. While banks are generally benefiting from higher rates, which help banks to increase their net interest margin, rate hikes might also impact the demand for loans. Banks might therefore not be able to meet their loan growth targets, which were set at the end of last year or the beginning of the current year – at a time when interest rate hikes were expected to come later or be less severe. Similarly, loan growth is correlated with GDP growth and GDP forecasts for 2022 and beyond have been revised downward since the end of 2021 and since banks submitted their funding plans. Banks' assumptions are therefore at risk of being too optimistic.

Assessment of planned asset growth

To gauge the reliability of banks' asset growth forecasts, two approaches are applied: back-testing based on data reported by participating banks, and a comparison with market analysts' expectations. In the first approach, banks' estimates for 2021, as reported in December 2019 and 2020, were



compared with the actual figures for 2021⁷. In the second approach, banks' planned asset growth figures for 2022 were compared with the expectations expressed by banks and market analysts in their responses to the EBA spring 2022 risk assessment questionnaire (RAQ).

Back-testing asset growth estimations

The back-testing results reveal the impact the COVID pandemic had on banks' asset/liability management with many banks significantly deviating from the loan growth targets they set themselves for 2021.

Loan growth in the household sector turned out to be higher in 2021 than estimated in 2020 (Figure 6). At the European level, loans to households grew by 4.2% in 2021, while banks expected that household loans would grow by 3.1%. The average gap between planned and real loan growth rates (the 'forecasting error') varied significantly across banks and countries, with banks in Iceland exceeding their 2021 target set in 2020 by more than 12 percentage points and banks in Ireland missing their target by more than 5 percentage points. Before the pandemic, in 2019, banks' forecasts for 2021 were more optimistic with an expected loan growth of 4.9%. The forecasting error for this two-year forecast was generally more pronounced and ranged from banks in Iceland beating their 2021 loan growth target by almost 15 percentage points to banks in Poland missing their loan growth target by 17 percentage points.

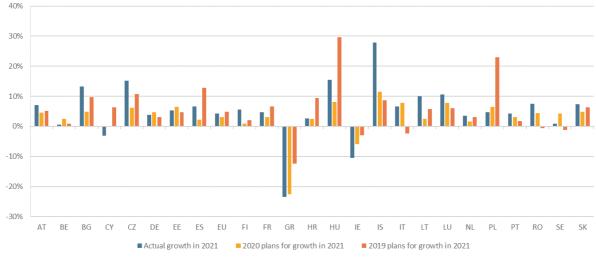


Figure 6: Back-testing loan growth to households by country

Source: EBA

In the NFC sector, loan growth turned out to be slightly smaller than expected in the two previous years (Figure 7). The actual NFC loan growth of 4.0% (EU average) in 2021 compares to 4.3% expected as of year-end 2020 and to 6.5% expected as of year-end 2019. Strong NFC loan growth in some countries might be attributable to country specific measures, including lending moratoria. The forecasting error for plans made in 2020 was smaller than for household loans, with banks in Romania

⁷ The sample for the back-testing analysis includes only those banks that provided data for all reference dates



exceeding their 2021 target by almost 9 percentage points and banks in Croatia, Cyprus and Sweden missing their target by more than 6 percentage points.



Figure 7: Back-testing loan growth to NFC by country

Source: EBA

Comparison with market expectations

As part of the EBA's half-yearly RAQ, participating banks and market analysts identified which portfolios they expect banks to increase or decrease in 2022. Figure 8 provides a summary of the views banks expressed in their responses to the RAQ in spring 2022. Most banks plan to increase lending volumes in their residential mortgage (72% of respondents), SME (63%) and corporate (63%) portfolios. 50% of banks expect project finance and consumer credit loan segments to increase. Hence, banks' expectations for volume increases as put forward via the RAQ are broadly in line with data on banks' funding plans, both of which point to growing lending to households and NFCs. RAQ responses submitted in spring 2022 point towards reduced expectations for portfolio increases, when compared with responses in autumn 2021. This might reflect the changed macroeconomic conditions and outlook (including interest rate hikes) for 2022, which RAQ responders could reflect on due to the later submission date⁸.

⁸ Responses to the RAQ spring 2022 survey were due by 1 April, while banks' funding plans for 2022 reflect the situation as of December 2021



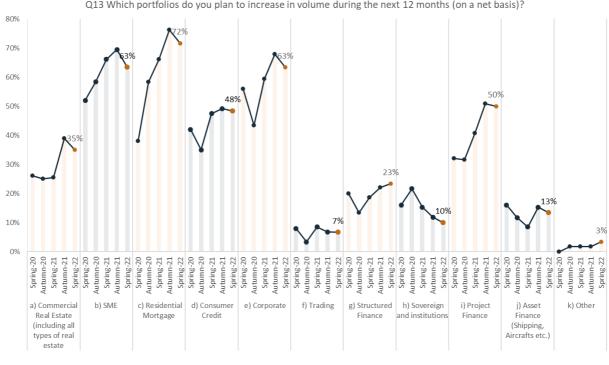


Figure 8: RAQ for banks: expectations for portfolio changes in 2022

Source: EBA RAQ

Analysts' responses to the RAQ confirm banks' expectations for increased lending volumes in residential mortgage (73% of respondents), SME (64%) and corporate (73%) portfolios. In addition, most analysts expect increased lending volume towards project finance (64%) and asset finance (55%) in the next 12 months.



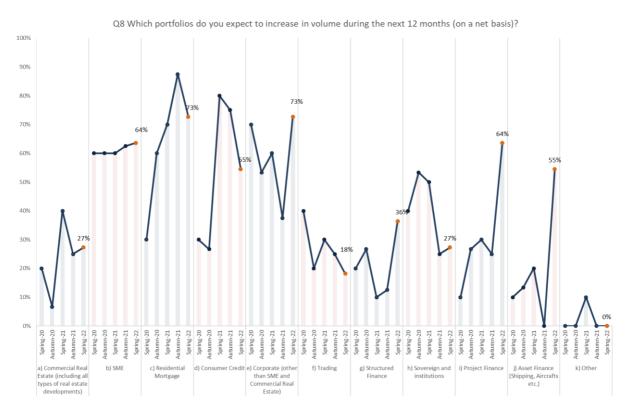


Figure 9: RAQ for analysts: expectations for portfolio changes in 2022

Source: EBA RAQ

Interest earning assets and core funding sources

Zooming in on banks' main interest-earning assets (private sector loans and debt securities) and comparing those with developments in deposits and debt securities issued, highlights the real economy developments driving banks' balance sheets composition. As shown in Figure 10 (and more in detail in the chapter on Liability trends), the COVID pandemic brought about some changes in how banks were funding their lending to the real economy. In 2021, loans to households and NFCs and investments in debt securities grew by around 3%. During the same period, deposits from households and NFCs and debt securities issued increased by around 5%, with an even higher growth in deposits (+6.4%) offset by a net decline in debt securities issued (-0.3%). In 2022, banks expect loan growth to outpace the growth in deposits and debt securities issued. A significant increase in debt securities issued (+6.9%) in 2023 is expected to restore the balance of respective assets and liabilities.



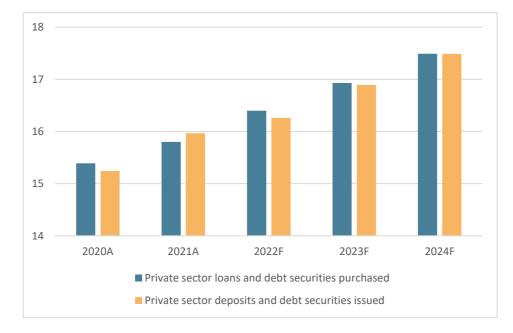


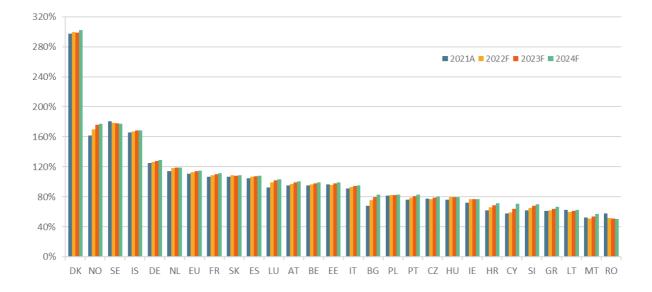
Figure 10: Private sector loans and debt securities versus private sector deposits and debt securities issued (EUR trillion)

Source: EBA

The boost in deposits also drove the loan-to-deposit ratio down in 2021. As of December 2021, the EU aggregate ratio stood at 111% (see Figure 11). Over the next three years, and in particular in 2022, banks expect the ratio to rise. This is due to stronger projected growth for loans compared to deposits. A granular analysis of the loan-to-deposit ratio shows significant dispersion among banks, which can be explained by different funding-mixes. The largest increases over the forecast period are expected by banks in Norway, Bulgaria, Cyprus and Luxembourg. Going against the general trend, banks in Romania, Sweden and Lithuania are expecting a drop in their loan-to-deposit ratios.



Figure 11: Loan-to-deposit ratio by country and for the EU



Source: EBA



Liability trends

Changes in banks' funding composition

Total liabilities of the EU banking sector further increased in 2021, after a significant increase in 2020 mainly stemming from implications of the pandemic (see Figure 12). In 2021, banks reported a strong increase in deposits from households and NFCs and in deposits from central banks. The latter increased by over 22% in 2021, driven by pandemic relief programmes and additional allotments in four tenders of the ECB's TLTRO-3 programme. Deposits from non-financial corporates and from other financial corporations increased strongly by 7.7% and by 6.3%, respectively. Deposits from households also increased by 5.7% and recorded the strongest increase in absolute volume of any liability class in 2021. This was mainly driven by fewer household spending opportunities during containment measures in the pandemic. However, deposits from credit institutions declined by 3.8%.

Abundant availability of cheaper central bank funding led many banks to rely to a lesser extent on market-based secured funding. Long-term secured debt securities declined by ca. 4% compared to 2020 levels, whereas volumes of long-term unsecured debt securities were broadly at the same level in 2021 as in 2020. Short-term debt securities increased by 5% in 2021. Holdings of derivatives strongly decreased by 19% in 2021, whereas repurchase agreements decreased by 5%

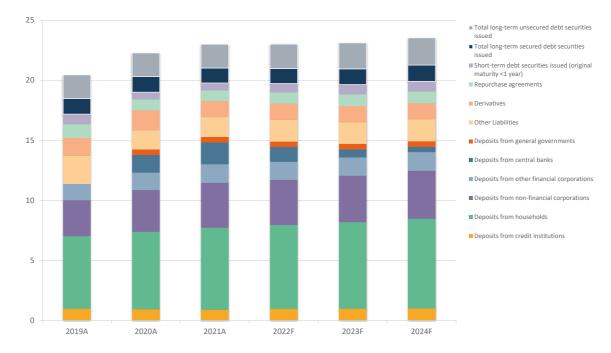


Figure 12: Actual and planned liabilities composition (EUR trillion)

Source: EBA

As regards banks' plans for 2022 to 2024, the trend observed in previous years is set to continue with long- and short-term debt securities being targeted as key sources of funding. Banks expect to decrease their overall deposits by 2.3% over three years. This decrease is driven by strongly decreasing



deposits from central banks, reflecting the phasing-out of extraordinary central bank support measures. Central bank deposits are forecast to decrease by 32% in 2022, by 45% in 2023, and by 33% in 2024. All other types of deposits are expected to increase over the next three years. Household deposits are expected to grow by 2.5% in 2022, followed by higher growth in 2023 and 2024 (3.2% and 3.7%, respectively).

Market-based funding is forecast to grow strongly over the next three years (see Figure 13). In particular, the volume of short-term debt securities is expected to grow, with an expected growth over 36% during the forecast period. Strongest growth is forecast in 2022 and 2023, at 18.4% and 11.4%, respectively, after growth is expected to slow down in 2024. Long-term unsecured debt securities is the biggest source of market-based funding and its volume is expected to grow by 14% over the forecast period, with the strongest growth expected in 2023. Secured funding is expected to be less relevant in 2022, as the volume of long-term debt securities issued is expected to slightly contract in 2022 (by -0.4%). The volume is forecast to grow again in the following two years. In 2022, the volume of repurchase agreements is expected to grow strongly, but growth is expected to slow down in the following two years.

With the expected reduction of central bank funding, it is assumed that banks will mainly rely on short term debt securities instead in 2022, and on both short-term and long-term debt securities as well as secured debt securities in the following two years. Short-term debt securities funding sharply decreased in the pandemic while deposits from central banks increased. With the phasing out of central bank support measures, banks forecast strong growth of short-term debt securities issued, and to reach again pre-pandemic volume levels (2019) by 2023. Pre-pandemic levels of long-term debt securities issued were already reached in 2021.

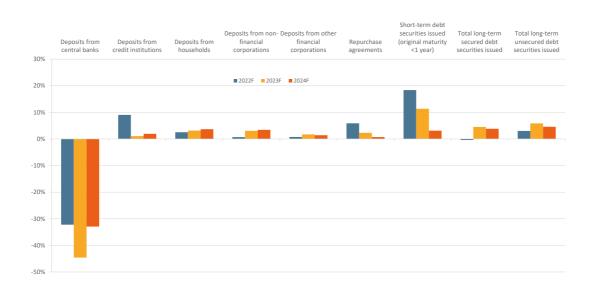


Figure 13: Growth expectations for selected liability classes



Source: EBA

Focus on ESG bonds

The regulatory landscape on ESG in the banking sector is evolving fast. At EU level, the EBA has already completed several mandates received from the European Commission and several strands of work continue and are on-going in this area. First standards and reports have already been published on ESG disclosures, including technical standards with common disclosure templates for institutions, an advice submitted to the European Commission on the definition of the green asset ratio, guidance on banks' ESG risk management practices and a discussion paper on the prudential treatment of environmental risks. Work is also on-going in other areas, like the monitoring of green washing risk, developing EU-wide climate stress tests and developing standards and labels for sustainable financial products. All of the above have the potential to impact the funding of EU banks going forward, changing the way in which markets assess and perceive banks' positions and performance in the context of ESG.

Data on issuance volumes for ESG bonds confirm the growing importance of this market segment. In 2021, ESG bond volume issuance reached a new high of EUR 63 billion, representing almost 20% of total bond issuance volume for the year (up from approximately 10% in 2020). For 2022, analysts expect ESG bond issuance volume to reach or even exceed that of 2021 (as of 30 June 2022, EUR 35 billion of ESG bonds were issued, amounting to around 10% of total bond issuance). Next to the main objective of financing ESG activities, banks issue ESG bonds for other reasons, including pricing and marketability.. ESG bonds typically attract a higher demand by investors compared to conventional bonds that have no green or social label attached.

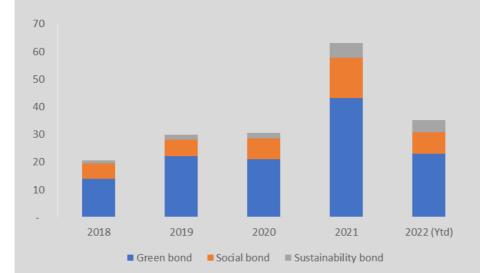


Figure 14: ESG issuance volume trend (in EUR bn)

Source: Dealogic

24



Trends in client deposits

Total deposits are expected to contract throughout the forecast period, driven by sharply decreasing deposits from central banks, and following a strong 7.3% growth registered in 2021. Indeed, in line with strong central bank growth, the share of deposits in total funding increased from 68.4% in 2019 to 76.4% in 2021. It is expected to decrease to 73.3% in 2024, but to stay above pre-pandemic levels in the next three years.

A breakdown of total deposits into segments shows that all types of deposits other than from central banks are expected to increase in the forecast period. Deposits from credit institutions are expected to strongly increase by 9.1% in 2022, and to reach again pre-pandemic volume levels by 2023. Deposits from households and NFCs should grow moderately over the three-year forecast, by 3.1% on average for deposits from households and 4.5% for deposits from NFCs. This increase would bring the share of household and NFC deposits in total funding to 56.4%, substantially higher than in 2021 (52.9%) and also above pre-pandemic levels (54.3% in 2019).

An analysis by country reveals that most banks are planning an increase in deposits from households and from NFCs (see Figure 15). Strong deposit growth of above 10% in the forecast period is planned in 14 countries. Significant deviations at county level can be observed, with a negative growth rate in Cyprus and Malta, and a growth rate above 25% in Hungary, Lithuania and Romania.

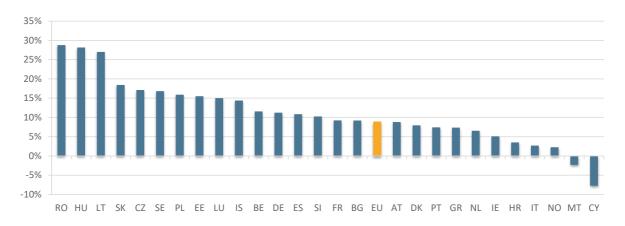


Figure 15: Growth expectations for deposits from households and NFCs by country and for the EU (2022-2024)

Source: EBA

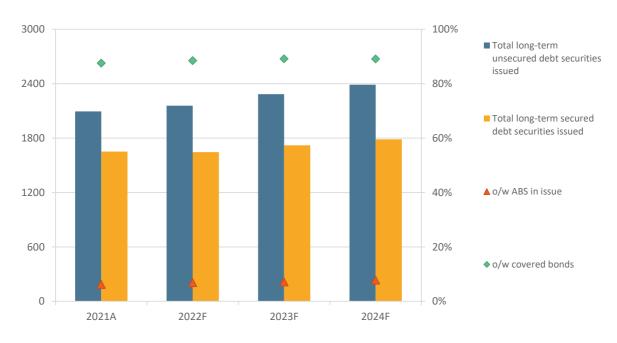
Trends in market-based funding

EU banks plan to steadily rely more on long-term market-based funding in the coming years, as they decrease the share of deposits from central banks in their funding mixes.

Over the three-year forecast period, they plan to increase their total long-term funding by 11.4%, reaching over EUR 4.1 trillion in 2024. The total volume of unsecured debt securities issued is expected to increase strongly by 14%, while the total volume of secured funding is forecast to grow by 8.1% by



2024, after a slight contraction in 2022. Within secured funding, the share of covered bonds remains significantly larger than that of ABS. By 2024, this share is expected to increase from 87% in 2021 to 89% of total secured funding.





Source: EBA

Analysing the annual forecasts of the balances of debt securities highlights the extent to which marketbased funding is expected to grow on a net basis. Figure 17 shows the difference between the outstanding volume of short- and long-term debt securities at the beginning and the end of each forecast year by country. A positive difference means that gross issuances are larger than redemptions for that year. Where the volume of debt securities issued exceeds rollovers, banks have to find investors additional to those that might replace their current maturing investment positions. If the gross issuance volume is smaller than redemptions, the assumed net issuance volume is negative and the outstanding volume decreases during the year.

Forecast data reveal significant planned growth in net short- and long-term debt securities issuance volume in several countries, with banks in France, Netherlands, Italy and Spain reporting the highest planned net issuance volume over the three-year forecast period. Banks in Poland, Sweden and the Czech Republic plan net negative issuance volumes in 2022, and banks from Ireland in 2023, whereas banks from all countries expect net positive issuance volumes in 2024. For many banks, 2023 is the standout year with particularly high net issuance volumes, a year in which large amounts of TLTRO 3 funding reach their maturity.



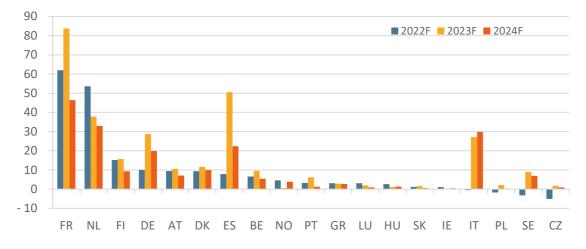


Figure 17: Net issuance volume by country and year (short- and long-term debt securities, EUR billion)

Source: EBA

An analysis of issuance volume by type of unsecured instrument and capital instruments shows a continued focus of banks in to increase volumes of MREL-eligible instruments in 2021 and over the three-year forecast period (see Figure 19, showing issuance volume and maturing volume by instrument type in each year). In 2021, overall gross issuance volume was EUR 268 billion, which compared to EUR 232 billion maturing, resulting in positive net issuance volume for the year. For each year of the forecast period, banks plan to issue more unsecured debt than will mature. By 2024, net issuances are expected to increase by25% for senior non-preferred instruments, by 21% for senior unsecured issued from banks' holding companies, by 19% for Tier 2 instruments, and by 12% for Addition Tier 1 (AT1) instruments and +6% for senior preferred. Figure 18 shows the stock of unsecured debt instruments by instrument type in 2021 and over the three-year forecast period.



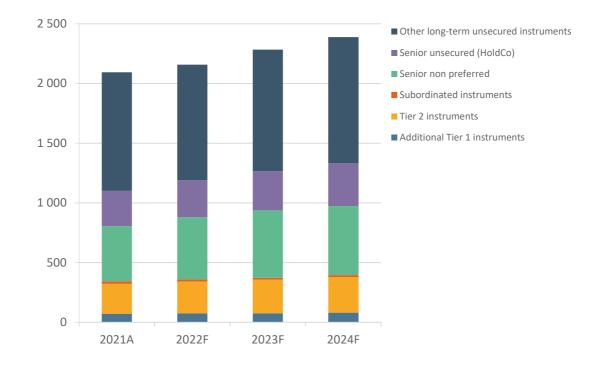


Figure 18: Net issuance volumes for unsecured debt instruments (EUR billion)

Source: EBA

The strongest increase in expected gross issuance volume can be seen in senior non-preferred (SNP) instruments, which are expected to increase to EUR 107 billion in 2022 (EUR 76 billion in 2021), with another EUR 105 billion in 2023. Their eligibility for MREL, while offering price advantages for issuing banks compared to some other MREL eligible instruments, could explain the strong planned volume growth of SNP instruments. Eligibility for MREL while offering price advantages might also explain an expected volume growth of unsecured instruments issued from banks' holding companies with EUR 53 billion in 2021, EUR 72 billion in 2022 and EUR 66 billion in 2023.

Banks also plan increasing gross issuance volumes of capital instruments. In 2021, banks issued EUR 6 billion of AT1 and EUR 24 billion of Tier 2 instruments. In 2022, banks plan to issue EUR 11 billion of AT1 and EUR 36 billion of Tier 2 instruments with another EUR 10 billion of AT1 and EUR 36 billion of Tier 2 instruments with another EUR 10 billion of AT1 and EUR 36 billion of Tier 2 instruments planned for 2023. The planned growth volume of AT1 and Tier 2 instruments, might be explained by rather low issuance volumes in previous years. Plans to optimise the capital structure of those banks that have not yet attained their required minimum amounts of AT1 capital and Tier 2 capital could drive the increase in issuance volume in the forecast period, especially since issuance volumes of these capital instruments were rather low last year.

As regards senior preferred debt, banks have issued EUR 108 billion in 2021, less than the EUR 124 billion of maturing debt. While expected issuance volume of EUR 217 billion is significantly higher in 2022, it is still below the volume of maturing senior debt (EUR 246 billion). For the years 2023 and 2024, banks' planned issuance volumes of EUR 342 billion and EUR 212 billion exceed the respective maturing volumes. Increased issuance volumes are driven by larger volumes of senior debt reaching



maturity but might additionally be driven by the need to replace maturing central bank funding in 2023 and 2024.

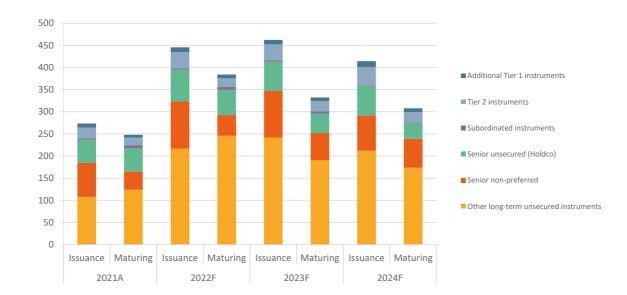


Figure 19: Unsecured debt instruments - issuance volume and maturing volume by instrument type in each year (EUR billion)

Source: EBA

After a low issuance volume of secured funding in 2021 and in the year before as well, banks plan to more than double the issuance volume of secured funding in 2022, and to increase it further in 2023. Compared to a long-term secured funding issuance volume of EUR 129 billion in 2021, an issuance volume of EUR 283 billion is expected in 2022, followed by issuance volumes of EUR 322 billion and EUR 307 billion in the two years thereafter. The planned strong increase in long-term secured funding issuance volume in 2022 is matched by a strong increase of maturing long-term secured funding in the same year.

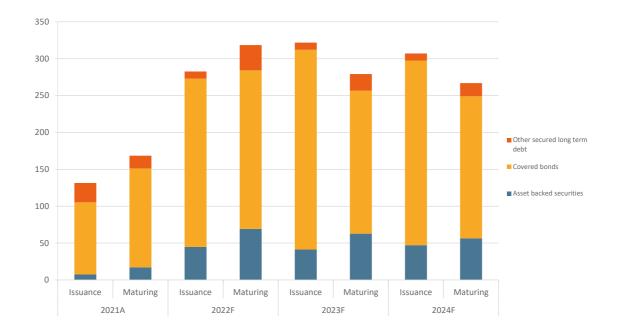
The issuance volume of covered bonds was rather low at about EUR 98 billion in 2021, after it already was low in 2020. But is expected to reach EUR 228 billion in 2022 and EUR 271 billion in 2023. The strong increase in covered bond issuance in 2022 and 2023 will partly be driven by a high volume of maturing covered bonds in 2022 and 2023. Yet the issuance volume of covered bonds is forecast to substantially exceed the volume of maturing covered bonds in each year of the forecast period, representing a total net issuance volume of EUR 148 billion over the three-year forecast period. This may point to plans of banks to replace high volumes of maturing covered bond issuance could offer a cheaper source of funding than unsecured funding.

Banks also expect a strong increase in issuances of ABS in the forecast period, to over EUR 40 billion in each year of the forecast period, from EUR 7.5 billion in 2021. Regulatory initiatives facilitating securitisations and a growing importance of securitisation meeting ESG criteria could contribute to plans to increase ABS issuances. In contrast, issuance volumes of other secured long-term debt are



expected to contract from EUR 26 billion in 2021 to under EUR 10 billion in each year of the forecast period.





Source: EBA

Banks made progress in reducing MREL shortfalls

In the EU, banks with a resolution strategy other than liquidation represent about 80% of total bank sector assets, which entails an MREL above minimum capital requirements and may result in potential funding needs. Requirements to build loss absorbing capacity can be a driver for increased issuance volumes of unsecured debt instruments and of capital instruments reported in funding plan data. BRRD1 introduced a minimum requirement of eligible liabilities (MREL), which required banks to build up sufficient resources for recapitalisation in case of failure. It was updated by BBRD2 entering into force in 2019, which harmonised the calibration of MREL for all institutions, clarified the level of subordination required for the largest banks, and set 1 January 2024 as common deadline for compliance with MREL requirements.

As of December 2020, the EBA estimates that 110 resolution groups out of a sample of 260 presented an external MREL shortfall of EUR 67.2 billion against their end-state MREL targets, applicable from 2024 for most of these groups. This shortfall represents a substantial decrease from an estimated shortfall of EUR 115 billion as of December 2019 on a comparable basis. The shortfall for smaller banks and other systemically important institutions (OSIIs) below a size of EUR 50 billion, has, however, remained largely stable at EUR 30 billion in 2020. Limited progress in closing smaller banks' shortfalls is partly due to the fact that in several jurisdictions MREL decisions were issued only in 2018 or 2019, and later than for resolution groups.



With regards to intermediate MREL targets to be attained by January 2022, all G-SIIs had already met their intermediate targets by December 2020, while 38 out of 260 resolution groups had a shortfall of a total of EUR 13.3 billion.⁹

The deadline for compliance as of 2024 implies that institutions need to roll over existing stocks and, were relevant, continue closing their shortfalls or increase their share of subordinated eligible liabilities (incl. senior non preferred). The EBA is mandated to report annually on the progress made by authorities in resolution planning, the levels of MREL set, and the resulting shortfalls for banks.

Trends in public sector sources of funding

Public sector sources of funding include repo funding programmes, credit guarantee programmes and credit supply incentive schemes. Public sector funding programmes apply in all cases to many institutions, i.e. programmes that individually support one bank or a restricted number of banks are excluded. Neither direct funding from public sources, such as deposits from state sovereign entities, nor emergency liquidity assistance measures provided by central banks are part of these programmes.

- <u>Repo funding programmes:</u> programmes that capture wholesale term-secured funding via repo transactions, such as the ECB's MRO, LTRO and TLTRO programmes.
- <u>Credit guarantee funding programmes:</u> programmes that capture wholesale unsecured term debt issuance support through backstop guarantees from a national and/or supra-national authority in the event of a bank's failure on its obligations.
- <u>Credit supply incentive scheme to the real economy</u>: programmes that capture funding support to banks via pricing or quantum incentives from a national and/or supra-national authority. An example of such a programme is the Hungarian National Bank's Funding for Growth Scheme.

As of December 2021, total public sector funding in the EU amounted to over EUR 1.7 trillion, or 9% of banks' total funding. Among the different types of programmes, repo funding programmes (which include the ECB's TLTRO programme) represented the biggest share with about 66% of the total public sector funding.

According to banks' plans, the volume of public sector funding is going to decrease substantially over the next three years, and its composition is going to change fundamentally. In 2022, funding associated with credit supply incentive schemes through debt issuance and repos of more than one year are expected to decrease significantly, by 42.1% and 31.8% respectively. Funding associated with repos of less than one year is expected to decrease to a lesser extent (by 8.3%), while the volume of funding associated with supply incentive schemes through granted loans should remain nearly unchanged.

⁹ According to the EBA annual report on MREL published in May 2022



Overall, this would imply a 31% decrease in public sector funding. In 2023, public sector funding is expected to decrease even further with repos of more than one year and funding associated with credit supply incentive schemes through debt issuance registering a significant fall. In 2024, compared to 2021 levels, repos of more than one year are expected to decrease by 87%, credit supply incentive schemes through debt issuance by 91% and volumes associated with credit guarantee funding programmes by 41%.

Public sector funding volume should decline from EUR 1.7 trillion in 2021 to EUR 475 billion in 2024, representing about 2.4% of banks' total funding. The largest share of this significant decline is driven by a decreasing volume of repos of more than one year, which capture wholesale secured funding via the ECB's TLTRO programmes, and reflects that funding attained via these programmes falls due by 2023 for TLTRO funds allocated in 2020 and by 2024 for allocations in 2021. A planned 114% increase of repo funding of less than 1 year may reflect banks' plans to replace parts of expiring TLTRO with short-term central bank funding, such as the ECB's MRO.

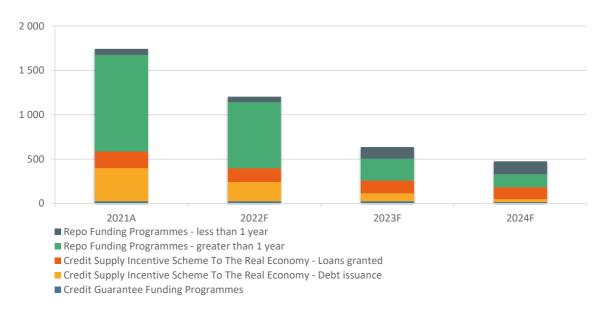


Figure 21: Public sector sources of funding (outstanding volume, EUR billion)

Source: EBA

As regards repo-based funding, all banks expect this type of funding to decrease significantly by 2024. While repo-based funding represented 5.8% of total funding in December 2021, banks expect this share to drop to 1.5% by 2024. Greek, Italian and Austria banks have reported the largest share as a proportion of total funding and are most affected by the changes to public sector funding programmes over the forecast period. As of December 2021, Greek banks covered over 18% of their total funding needs with repo-based public funding (9% for Italian banks and 7% for Austrian banks).



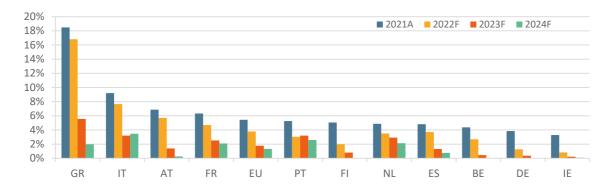


Figure 22: Public sector funding (repo-based funding) as a proportion of total funding by country and for the EU

Source: EBA

As regards credit supply incentive schemes, which represented 2.8% of banks' total funding in December 2021, the dispersion across banks and countries is less pronounced. Banks in Spain (6.1%), Netherlands (4.7%) and Germany (4.4%) reported the highest share in terms of total funding. The trend over the forecast period is less distinctive than for repo-based funding. While most countries expect a decrease in the share of this type of funding, Italian banks expect it to slightly increase over the forecast period, while German banks also intend to maintain a comparably high volume of public sector funding.

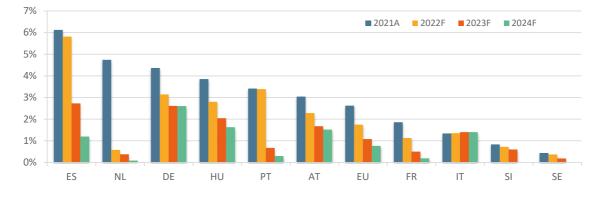


Figure 23: Public sector funding (credit supply incentive schemes) as a proportion of total funding by country and for the EU

Source: EBA

TLTRO implications on banks' funding plans

An analysis of banks' net issuances of debt securities against maturing TLTRO volumes shows that the former is higher than the latter in 2022, while maturing TLTRO volumes are substantially higher than banks' net issuance of debt securities in the following two years (see Figure 24). Over the



forecast period (2022 - 2024), Euro area banks are planning net issuances of debt securities amounting to EUR 631 billion. This compares with a total outstanding TLTRO volume of EUR 2,339 billion maturing by 2024. This comparison suggests that banks plan to replace over one fourth of the outstanding TLTRO volume with debt securities. The remainder was unexplained at the time banks provided their funding plans, though all types of deposits other than from central banks are expected to increase in the forecast period.¹⁰ The maturing TLTRO volume will be particularly high in 2023, when the first TLTRO allotments the ECB provided under improved conditions in 2020 fall due. Accordingly, many Euro area banks expect materially higher issuance volumes of debt securities in 2023 compared to the previous year (see Figure 17). Maturing TLTRO-2 funds, as well as early repayments of TLTRO-3 funds obtained before the pandemic, contributed to the high usage of the improved TLTRO programme.

Figure 24: Net issuance volume of debt securities (euro area banks only) versus gross maturing TLTRO volume

	2022	2023	2024
Debt securities: net issuances	EUR 176 billion	EUR 276 billion	EUR 179 billion
Maturing TLTRO volume	EUR 101 billion	EUR 1,648 billion	EUR 590 billion

Source: EBA, ECB open-market operations¹¹

The gap between planned net debt securities issuances and maturing TLTRO volume in 2023 and 2024 may indicate that banks have not yet have fully reflected by the time they submitted their funding plans strategies to replace the large volume of additional central bank liquidity and funding they took up in the pandemic. With relatively favorable NSFR and LCR ratios, many banks have room to repay TLTRO loans without having to find alternative funding for the full amount of maturing TLTRO loans. Given that central bank reserves are very high by historic standards, many banks might consider drawing down their reserves to repay a share of the outstanding TLTRO volume.

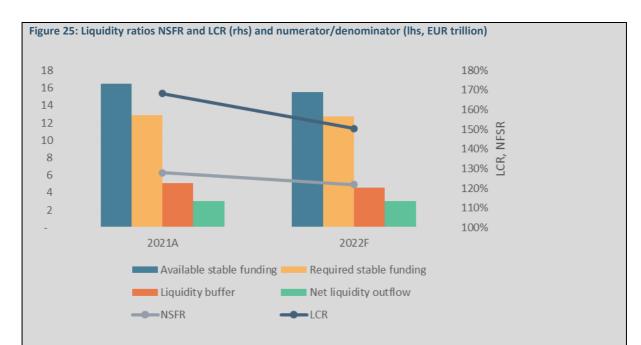
Funding plan data nevertheless indicate that banks expect their LCR and NFSR to decrease in 2022 (Figure 25). Aggregate LCR is expected to decrease from 168% in 2021 to 151% in 2022, and aggregate NSFR from 128% to 122%¹². The decrease is mainly numerator driven in both ratios, with expectations of decreasing liquidity buffer amounts (LCR) and decreasing amounts of available stable funding (NSFR). As maturities of TLTRO get shorter, they may affect NSFR as the weight of TLTRO funds when calculating NSFR decreases from 100% to 50% for durations of less than 6 months. This may particularly affect the NSFR in 2023, when large amounts of TLTRO fall due.

¹⁰ There could be significant differences between the list of banks that have participated in the TLTRO-3 programme and those that are included in this report (see Annex 2).

¹¹ See <u>https://www.ecb.europa.eumopo/implement/omo/html/top_history.en.html</u>. The ECB data does not reflect early repayments.

¹² Based on funding plan data and not reconciled with EBA liquidity reporting data.

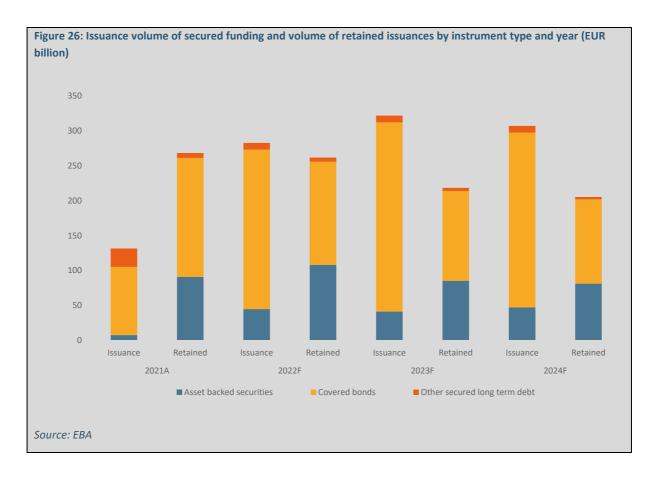




Source: EBA

Data on retained secured funding shows that banks have retained a volume of around EUR 268 billion in 2021, more than twice the volume of public placements. The biggest segment of retained issuances was of covered bonds, with EUR 170 billion retained in 2021. The high volume of retained issuances points to the conclusion that many banks used covered bonds as collateral for central bank funding including TLTROs, which provided a cheaper source of funding. From 2022 to 2024, banks plan to retain secured funding of a total of around EUR 682 billion, thereof covered bonds of around EUR 397 billion (see Figure 26). A high volume of retained covered bonds continuing over the forecast period may indicate that banks plan to retain collateral to be used for other future central bank funding opportunities, or for asset purchase programmes, for example.





Assessment of planned liability growth

Similar to the asset side, to obtain an indication of the reliability of banks' forecasts, two approaches were applied: back-testing based on data reported by participating banks and a comparison with market analysts' expectations. Banks' estimates for 2021, as reported per December 2019 and 2020, were compared with the figures for 2021 as reported per December 2021.

Back-testing analysis of deposits

The back-testing exercise on the different types of deposits shows similar results for each of the deposit categories. The various responses to the pandemic had a large impact on deposits from households and NFCs.

For the deposits from households, the back-testing shows that the actual growth in deposits largely surpassed the planned growth. This might be attributable to restrictive lock-down measures applied over the course of 2021 in most countries, which impacted household expenditure. In contrast to the



general trend, banks in Luxembourg did not achieve the target deposit levels they had set themselves for 2021. As can be seen in Figure 27, dispersion among banks and countries was significant.

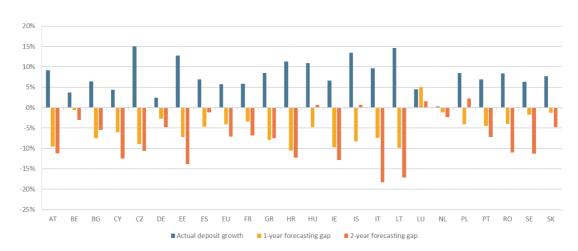


Figure 27: Back-testing deposits from households for 2021, by country¹³

Source: EBA

For deposits from NFCs, banks exceeded their growth targets to a larger extent than for deposits from households, and most banks significantly underestimated the growth in deposits they would be able to obtain in 2021. Actual growth in deposits largely surpassed the planned growth, as many NFCs held high volumes of deposits in efforts to maintain high buffers of liquidity in light of significant uncertainties about the further development of the pandemic. Figure 28 highlights that the pandemic hit banks in all countries and led to a wide gap between planned and real deposit growth rates for 2020. At EU aggregate level, the forecasting error was more than 10 percentage points.

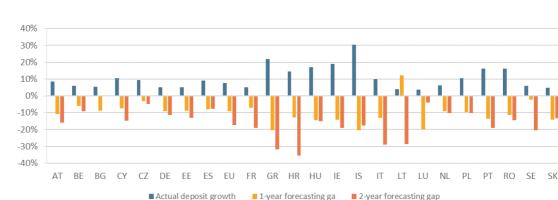


Figure 28: Back-testing deposits from NFCs for 2020, by country

¹³ "Forecasting gap" refers to the difference (in percentage) between funding plans forecasts in 2019 and 2020 for 2021 and actual values reported for 2021.



Comparison with market expectations

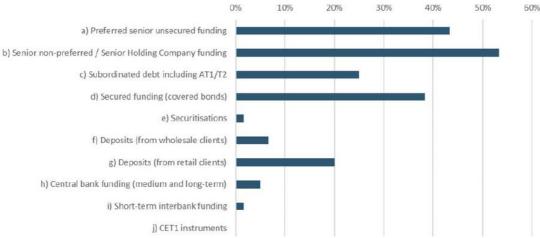
The funding plan data can be compared with expectations expressed via the EBA's RAQ. Responses to the 2022 spring questionnaire were used for this comparison. The results of the RAQ confirm the predominance of long-term unsecured funding and senior non-preferred funding in EU banks' funding strategies for the coming years. Yet while responses to the RAQ indicate the strongest focus on senior non-preferred / senior holding company and on preferred senior unsecured funding, funding plan data indicate that net issuance volume for preferred senior unsecured might be negative for the year 2022, and the large issuance volume for this segment is driven by an even larger maturing volume.

Error! Not a valid bookmark self-reference. Figure 29 shows banks' responses to the RAQ as regards the main sources of funding they intend to focus on in 2022. Over 50% of respondents expressed their intention to focus on MREL eligible funding of senior non-preferred funding and on senior unsecured funding from holding companies. Over 40% or respondents also intend to focus on preferred senior unsecured funding in their funding activities in the next 12 months. It is also worth mentioning that only 5% of banks expect a continued focus on central bank funding, compared to 22% in the spring 2021 RAQ.

From the analysts' perspective (see Figure 30), expectations about funding in 2022 slightly differ from banks' expectations. Analysts expect that a majority of banks will focus on preferred senior unsecured funding in the next 12 months. In analysts' expectations, central bank funding will continue to have an important role in banks' funding strategy, and 37% expect a continued focus on central banks exposures.



Figure 29: Funding focus for the next 12 months - RAQ for banks

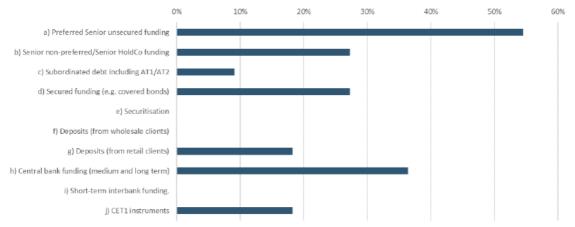


Source: EBA RAQ



Figure 30: Funding focus for the next 12 months - RAQ for market analysts

Q6 In the next 12 months, which funding instruments do you expect banks to focus on? (please do not agree with more than 2 options)



Source: EBA RAQ



Trends in pricing for assets and liabilities

Banks' pricing for loans and deposits

As part of funding plan data submissions, banks also provide pricing information for loans as well as deposits and debt securities. It is worth noting that banks' funding plans reflect the situation as of December 2021, and pricing expectations might be too optimistic as market conditions have changed since then. Section "Assessment of banks' pricing assumptions" provides more details on the changes in interest rates and macroeconomic conditions.

The spread between interest rates for client deposits and for loans to clients has continued its downward trend. As of December 2021, the average client spread was 2.04%, about 17 bps below the spread observed one year earlier (2.22%). The biggest yearly decline was reported by banks with high average client spreads reported in 2019, including in Spain (-38 bps), Latvia (-37 bps) and the Netherlands (-28 bps). In a number of countries, led by Romania (+148 bps), Ireland (+13 bps) and Lithuania (+12 bps), the client spread increased in the last year.

For the year 2022, most banks expect client spreads to increase (by +6 bps on average). Most notably, this is the case for banks in Poland (+140 bps) and Ireland (+20 bps).

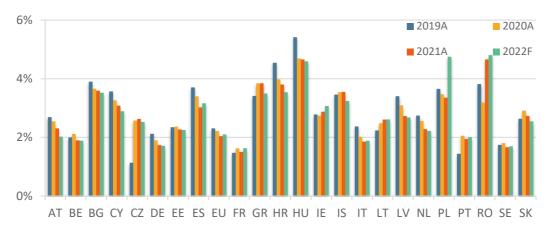


Figure 31: Actual and planned spread between client loans and client deposits (households and NFCs), in percentage points

Source: EBA

The main reason for declining spreads in 2021 was the decline in interest rates on loans, which was much stronger than the decline in interest rates on deposits. The average rate on household loans declined by 28 bps in 2021, and on loans to NFCs by 22 bps. Interest rates banks pay on deposits, on the other hand, declined by only 5 bps for households and by 13 bps for NFCs. Given that interest rates on deposits already were at a low level at the beginning of 2021, banks had less room to lower those rates further. For 2022, banks forecast interest rates to increase for the first time in several years. On average, interest rates for loans to households and NFCs are expected to increase by 13 bps, while rates on deposits are forecast to grow at a much slower pace (6 bps for households and 9 bps for NFCs).



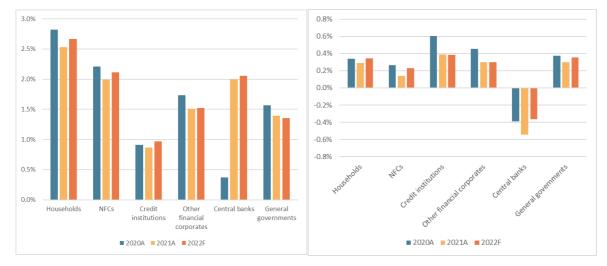


Figure 32: Interest rates on loans (left) and deposits (right)

Source: EBA

Banks' pricing for debt securities

Driven by the recovery from the COVID pandemic, most banks reported that the cost of market-based funding declined in 2021. The trend of decreasing funding costs, which could be observed since 2017, has therefore continued throughout the pandemic years. In 2022, most banks expect funding costs to decrease even further, albeit at a much-reduced pace.

Figure 33 shows the actual interest rates of long-term debt securities for 2019, 2020 and 2021 as well as the planned rates for 2022 by country of incorporation of the bank. The actual cost of long-term funding in 2021, on average, was reported at 1.19% and thus has decreased by 13 bps from an average of 1.32% reported in 2020. The reduction in costs is evident for 77% of the banks in the sample. The decline is supported by the trend seen in spreads for market-based funding instruments (see Figure 1) and banks might have been able to replace maturing debt with better pricing.

In 2022, most of the banks in the sample expect costs for long-term market-based funding to decrease further. On average, banks expect the decrease to be 3 bps. While 52% of the banks in the sample estimate a decline in 2022, 48% expect their long-term funding costs to increase.



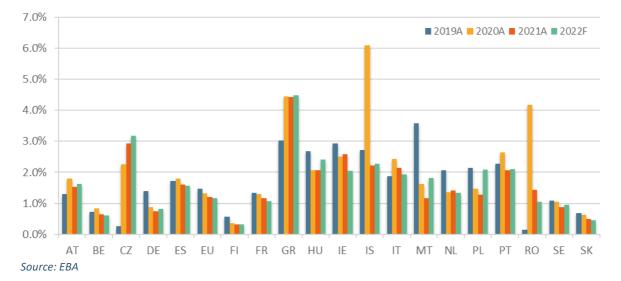


Figure 33: Actual and forecast interest rates of long-term debt securities

As regards secured debt instruments, on average, banks reported a decline in funding costs of 22 bps in 2021. Funding costs for covered bonds declined by 16 bps and stood at 0.70% in December 2021, while costs for asses backed securities declined by 41 bps to reach 0.26% in December 2021. In 2022, banks expect costs to remain almost unchanged. While 58% of the banks in the sample estimate a further decline in 2022, 42% expect their secured funding costs to increase. The costs for covered bonds, which make up most secured debt instruments, are expected to remain unchanged, while banks plan for a slight increase in the costs for asset backed securities (by 3 bps, on average).

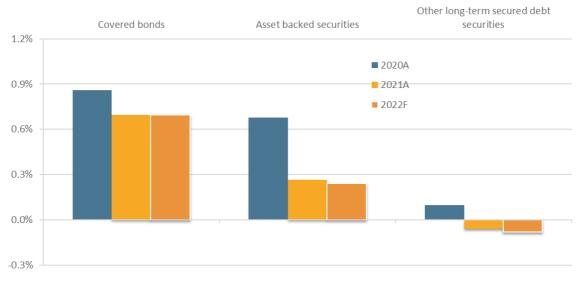


Figure 34: Actual and forecast interest rates of secured debt instruments

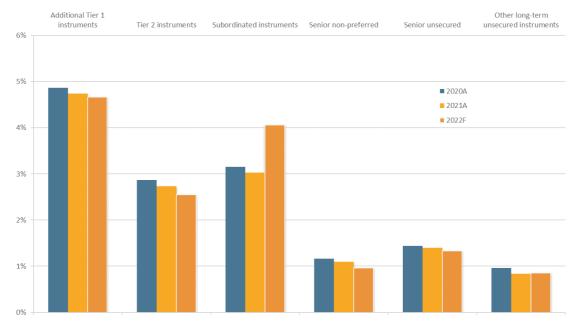
Source: EBA

As regards unsecured debt instruments, on average, banks could further reduce funding costs by 5 bps in 2021. The decline was similar across all unsecured funding instruments. In 2022, banks expect the decline in funding costs to continue. While 71% of the banks in the sample estimate a decline in 2022,



29% expect their long-term funding costs to increase. Tier 2 instruments and MREL-eligible senior nonpreferred instruments are forecast to see the biggest decrease in costs (18bps and 13bps respectively).





Source: EBA

Assessment of banks' pricing assumptions

In line with previous sections of this report, a back-testing approach based on data reported by participating banks has been applied to test the accuracy of banks' forecasts. In addition, banks' pricing assumptions for 2022 have been compared with expectations expressed by banking experts and market analysts via the EBA's RAQ. Responses to the questionnaire launched in the spring of 2022 have been used for this comparison.

Given that funding conditions have changed since banks submitted data for this report (more on this in section "Recent developments in liquidity and funding conditions"), banks' assumptions of declining costs for market-based funding in 2022 might no longer be applicable.

While central banks in some jurisdictions had already started to raise interest rates in 2021, banks had different assumptions at the time about the pace and magnitude of rate hikes by central banks across the world. A Bloomberg survey covering analysts' expectations about interest rates in the Eurozone highlights the extent of changes between December 2021 and July 2022 (Figure 36). While in December 2021, analysts expected the Eurozone central bank rate to remain at zero for 2022 and 2023, expectations have recently reach 1.13% for year end 2022 and 1.5% for year-end 2023. Similar shifts in expectations apply to other rates.



Figure 36: Expectations on interest rates for 2022 and 2023

Eurozone interest rates	Expectations as	s of Dec 2021	Expectations as of July 2022		
	Year end 2022	Year end 2023	Year end 2022	Year end 2023	
Central bank rate (%)	0	0	1.13	1.5	
3-month rate (%)	-0.48	-0.38	0.9	1.45	
2-year note (%)	-0.58	-0.3	1.15	1.05	
10-year note (%)	0.13	0.35	1.48	1.38	

Source: Bloomberg

Back-testing banks' pricing assumptions for loans and deposits

Banks' planned spreads between client loans and client deposits for 2021 as reported in December 2020 were compared with the actual spreads as reported in December 2021.

As represented in Figure 37, on average, banks missed the client spread target for 2021. The average client spread for the year of 2.04% was 10 bps short of the target spread figure of 2.14% set by the banks themselves one year earlier. Back-testing results revealed that several banks missed their targets significantly. For example, banks in Latvia missed their 2021 targets by 33 bps and banks in the Netherlands by 24 bps. Banks that significantly beat their 2021 targets include those located in Romania (166 bps), Hungary (28 bps) and Poland (23 bps).

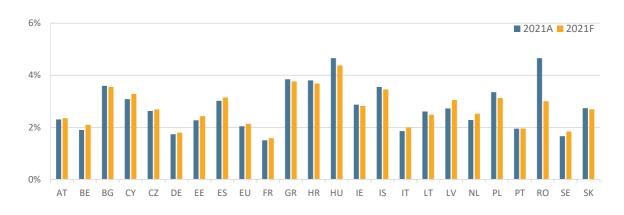


Figure 37: Back-testing client spreads

Source: EBA

Back-testing banks' pricing assumptions for debt securities

Banks' planned costs of long-term market-based funding for 2021 as reported in December 2020 were compared with the actual costs as reported in December 2021. Figure 38 shows that banks achieved lower costs for market-based funding in 2021 than they had planned for one year earlier. With the average cost of funding reported in 2021 at 1.19%, on an EU aggregate basis banks beat their targets by 5 bps. Lower-than-expected pricing of debt securities could have been feasible due to support from



central banks' asset purchase programmes, which has increased substantially in 2020 and 2021 because of the pandemic.

Data show significant dispersion among banks and countries. 71% of banks in the sample beat their 2021 targets, while 29% faced higher funding costs than they planned for in 2020. Banks that significantly missed their 2021 funding cost targets include those from the Czech Republic (61bps higher than expected in 2020), which in contrast to banks in the EURO area, saw rate hikes by the Czech Central Bank already in 2021. Some banks in the EURO area, most notably those located in Ireland (32bps higher) and the Netherlands (20bps higher) also missed their 2021 cost targets.

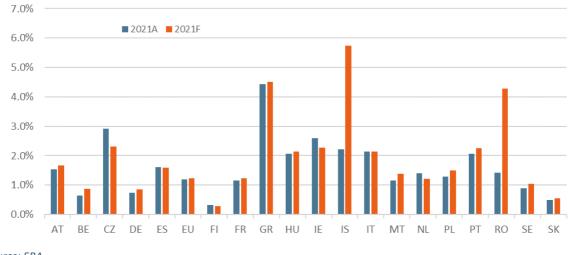


Figure 38: Back-testing market-based funding costs

Source: EBA

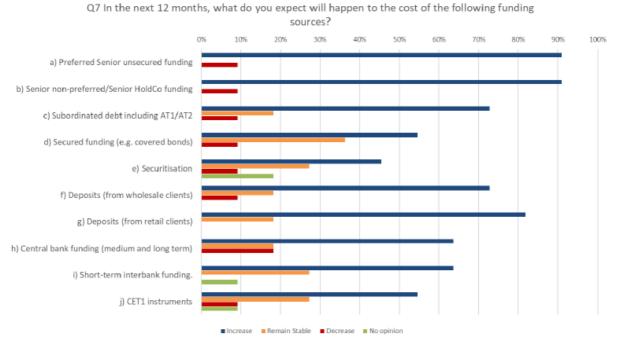
Comparison with market expectations

The banks' assumption of decreasing costs for market-based funding in 2022 (see Figure 33) can be compared with views expressed by market analysts via the EBA's RAQ. The views expressed via the RAQ stand in contrast to banks' funding plan forecasts, because of the different points in time when those estimates were provided. RAQ responses submitted in April had the benefit of more recent information as regards rate hikes and other relevant economic and geo-political developments.

Responses to the EBA's RAQ in April 2022 show that the majority of respondents believe that banks will face higher costs when issuing debt instruments in the year ahead (see Figure 39). 90% of respondents expect higher costs for senior unsecured and senior non-preferred funding. As regards AT1 and Tier 2 instruments, 70% of RAQ responses point to increasing funding costs. The secured funding sector (i.e., covered bonds and securitisations) is less prone to immediate increases in funding costs, with around 50% of respondents expecting costs to increase and 30% of responses indicating unchanged funding costs for this segment.



Figure 39: Analysts' expectations on costs for debt issuances



Source: EBA RAQ



Conclusions

The COVID-19 pandemic continued to impact European banks' balance sheets significantly in 2021. On average, total assets increased by 3% in 2021. This rise was primarily due to the very accommodative monetary policies including central bank support measures introduced as a response to the pandemic, which led to strongly increasing cash balances at central banks. Loan volume growth in 2021, albeit varied across countries, also contributed to the increase in total assets.

Banks expect lending volume to grow significantly between 2022 and 2024, with a 4% growth in the main loan segments of loans to NFCs and to household loans over the forecast period. They plan to fund the growth in lending by issuing more short- and long-term debt securities and, albeit to a lesser extent by attracting more deposits across segments of depositors. Debt instruments are expected to exhibit the highest growth rate of all sources of funding, in particular short-term debt securities and unsecured funding, reflecting expectations of reduced central bank support measures. A strong planned increase in issuance volumes of MREL-eligible instruments reflects plans to make further progress in meeting MREL requirements.

Considering that funding plans reflect the situation as of December 2021 with expectations of a postpandemic economic recovery, funding plan expectations of significant growth of both lending and of volumes of unsecured funding, including for MREL, may no longer reflect increasingly deteriorating economic- and funding market conditions since February 2022 with rising interest rates These conditions may also pose some challenges to replace maturing large volumes of TLTRO. Plans to partly replace maturing TLTRO with increasing volumes of debt securities issuances might be more difficult to implement. Not least driven by TLTRO, the share of deposits in total funding further increased in 2021 to make up 76% of total funding.

Deposits from NFCs and household clients are set to continue to grow in 2022 and beyond. The share of deposits in total funding is nevertheless expected to decrease by 2024, mainly driven by strongly decreasing deposit volumes from central banks. Banks' use of public sector sources of funding (such as the ECB's TLTRO programme) increased significantly in 2021 due to the pandemic. As of December 2021, public sector funding contributed almost 9% to banks' total funding. This share is set to decline to around 2.4% by 2024. A large gap between planned net debt securities issuances and maturing TLTRO volume in particular in 2023 could indicate that banks may not yet have fully reflected in their funding plans strategies to replace large volumes of TLTRO.

The continued impact of the pandemic and related uncertainties is visible when comparing banks' forecasts for the year 2021 with actual figures as reported in December 2021. For most balance sheet positions that were selected for back-testing, significant gaps between forecasts and actual amounts were found for almost all banks in the sample. For example, banks may not have reconsidered extensive pandemic relief measures when forecasting a lower loan growth in 2021 than reported. Given the materially different economic- and funding market environment at the time when funding plans were submitted, the accuracy of forecasts provided may not increase.



Funding plan data show that the spread between interest rates for client deposits and loans to clients further reduced in 2021, to 2.04% in 2021 compared with 2.22% one year earlier. For 2022, most banks expect the spread to increase.

As regards market-based funding, and in spite of some ongoing market volatility in 2021, most banks reported that the cost of long-term market-based funding decreased in 2021. The actual cost of long-term funding in 2021, on average, was reported at 1.19% and has decreased from an average of 1.32% reported in 2020. Funding plan assumptions of further decreasing costs for long-term market-based funding in 2022 did not reflect actual cost developments in the first half of 2022. Projections of costs of market-based funding should be treated with caution given high uncertainties about economic- and funding market developments and a materially different economic environment at the time of funding plans submissions.



Annex 1

Funding plans: additional charts including country data

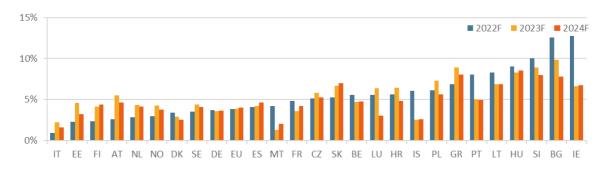
Figure 40: Growth in loans to financial corporates by country and for the EU, per year



Figure 41: Growth in loans to households by country and for the EU, per year



Figure 42: Growth in loans to NFCs by country and for the EU, per year



Source: EBA

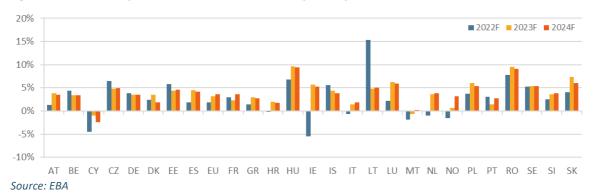


Figure 43: Growth in deposits from households and NFCs by country and for the EU

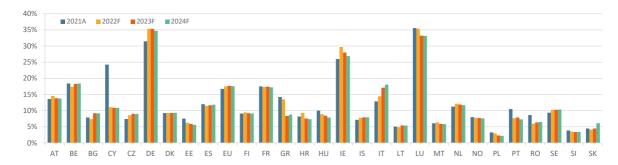
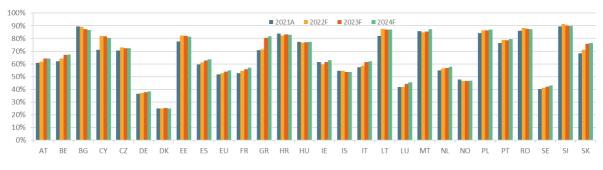


Figure 44: Share of repos and deposits from financial corporations in total funding by country

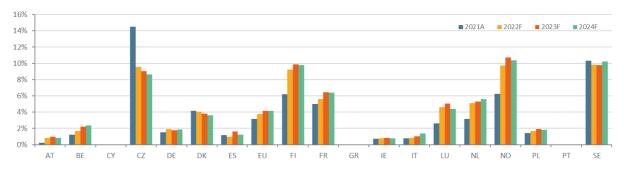


Figure 45: Share of client deposits (households and NFCs) in total funding by country



Source: EBA





Source: EBA

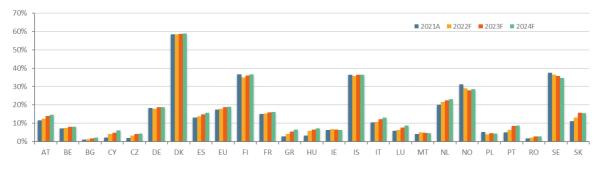


Figure 47: Share of long-term debt instruments (secured and unsecured) in total funding by country



Annex 2

List of participating banks

	Is the bank included?				
Country	Entity name	Asset/Liability analysis (2021)	Asset/Liability analysis (2019-2021)	Interest spread analysis (2019-2021)	Debt rate analysis (2019-2021)
AT	BAWAG Group AG	Yes	Yes	Yes	No
AT	Erste Group Bank AG	Yes	Yes	Yes	Yes
AT	Raiffeisen Bank International AG	Yes	Yes	Yes	No
AT	Raiffeisenbankengruppe OÖ Verbund eGen	Yes	Yes	Yes	Yes
AT	Sberbank Europe AG	Yes	Yes	No	No
AT	UniCredit Bank Austria AG	Yes	Yes	Yes	Yes
AT	Volksbanken Verbund	Yes	Yes	Yes	Yes
BE	AXA Bank Belgium*	No	No	No	No
BE	Belfius Banque SA	Yes	No	No	No
BE	BNP Paribas Fortis SA	Yes	Yes	Yes	Yes
BE	ING Belgium	Yes	Yes	Yes	Yes
BE	Investeringsmaatschappij Argenta NV	Yes	Yes	No	Yes
BE	KBC Group NV	Yes	Yes	Yes	Yes
BE	Bank of New York Mellon	Yes	Yes	No	Yes
BG	DSK Bank Bulgaria	Yes	Yes	No	Yes
BG	First Investment Bank AD	Yes	Yes	Yes	No
BG	UniCredit Bulbank Bulgaria	Yes	Yes	Yes	Yes
BG	United Bulgarian Bank- UBB	Yes	Yes	Yes	Yes
СҮ	Bank of Cyprus Holdings Public Limited Company	Yes	Yes	Yes	No
СҮ	Hellenic Bank Public Company Ltd	Yes	Yes	Yes	No
CY	RCB Bank Ltd	Yes	Yes	Yes	Yes
CZ	Ceská sporitelna, a.s.	Yes	Yes	Yes	Yes
CZ	Ceskoslovenská obchodní banka, a.s.	Yes	Yes	Yes	Yes
CZ	Komercní banka, a.s.	Yes	Yes	Yes	Yes
DE	Aareal Bank AG	Yes	Yes	Yes	Yes
DE	Bayerische Landesbank	Yes	Yes	Yes	Yes
DE	Commerzbank AG	Yes	Yes	No	Yes
DE	DekaBank Deutsche Girozentrale	Yes	Yes	No	Yes



DE	Deutsche Apotheker- und Ärztebank eG	Yes	Yes	Yes	No
DE	Deutsche Bank AG	Yes	Yes	Yes	Yes
DE	Deutsche Pfandbriefbank AG	Yes	Yes	Yes	Yes
DE	Deutsche Zentral- Genossenschaftsbank AG	Yes	Yes	Yes	Yes
DE	Erwerbsgesellschaft der S- Finanzgruppe mbH & Co. KG	Yes	Yes	Yes	Yes
DE	Hamburg Commercial Bank AG	Yes	Yes	Yes	Yes
DE	HASPA Finanzholding AG	Yes	Yes	Yes	Yes
DE	J.P. Morgan AG, Frankfurt am Main	Yes	No	No	No
DE	Landesbank Baden- Württemberg	Yes	Yes	Yes	No
DE	Landesbank Hessen-Thüringen Girozentrale	Yes	Yes	Yes	Yes
DE	Münchener Hypothekenbank eG	Yes	Yes	No	Yes
DE	Norddeutsche Landesbank Girozentrale	Yes	Yes	Yes	Yes
DE	State Street Europe Holdings	Yes	Yes	Yes	Yes
DE	UBS Europe SE, Ffm	Yes	No	No	No
DE	Volkswagen Bank Gesellschaft mit beschränkter Haftung	Yes	Yes	Yes	Yes
DK	Danske Bank A/S	Yes	No	No	No
DK	Jyske Bank A/S	Yes	No	No	No
DK	Nykredit Realkredit A/S	Yes	No	No	No
DK	Sydbank A/S	Yes	No	No	No
EE	AS SEB Pank	Yes	Yes	Yes	Yes
EE	Luminor Holding AS	Yes	Yes	Yes	Yes
EE	Swedbank AS	Yes	Yes	Yes	Yes
ES	Abanca Corporación Bancaria	Yes	Yes	Yes	Yes
ES	Banco Bilbao Vizcaya Argentaria, S.A.	Yes	Yes	Yes	Yes
ES	Banco de Crédito Social Cooperativo	Yes	Yes	Yes	Yes
ES	Banco de Sabadell, S.A.	Yes	Yes	Yes	Yes
ES	Banco Santander, S.A.	Yes	Yes	Yes	Yes
ES	Bankinter, S.A.	Yes	Yes	Yes	Yes
ES	BFA, TENEDORA DE ACCIONES, S.A.*	No	No	No	No
ES	CaixaBank, S.A.	No	No	Yes	Yes
ES	Ibercaja Banco, S.A.	Yes	Yes	No	Yes
ES	Kutxabank, S.A	Yes	Yes	Yes	Yes
ES	LIBERBANK, S.A.*	No	No	No	No
ES	Unicaja Banco, S.A.	No	No	Yes	Yes
FI	Kuntarahoitus Oyj	Yes	Yes	Yes	Yes



FI	Nordea Bank Abp	Yes	Yes	Yes	Yes
FI	OP Osuuskunta	Yes	Yes	Yes	Yes
FR	BNP Paribas SA	Yes	Yes	Yes	Yes
FR	Bpifrance	Yes	Yes	No	Yes
FR	C.R.H Caisse de refinancement de l'habitat	Yes	Yes	No	Yes
FR	Crédit Mutuel Group	Yes	Yes	Yes	Yes
FR	Groupe BPCE	Yes	Yes	Yes	Yes
FR	Groupe Crédit Agricole	Yes	Yes	Yes	Yes
FR	HSBC Continental Europe	Yes	Yes	Yes	Yes
FR	La Banque Postale	Yes	Yes	Yes	Yes
FR	RCI Banque	Yes	Yes	Yes	Yes
FR	SFIL	Yes	Yes	Yes	Yes
FR	Société générale	Yes	Yes	Yes	Yes
GR	ALPHA SERVICES AND HOLDINGS S.A.	Yes	Yes	Yes	Yes
GR	Eurobank Ergasias Services and Holdings S.A.	Yes	Yes	Yes	Yes
GR	National Bank of Greece SA	Yes	Yes	Yes	Yes
GR	Piraeus Financial Holdings S.A.	Yes	Yes	Yes	Yes
HR	Erste&Steiermärkische Bank d.d.	Yes	Yes	Yes	Yes
HR	Privredna Banka Zagreb d.d.	Yes	Yes	Yes	Yes
HR	Zagrebacka banka d.d.	Yes	Yes	Yes	Yes
HU	Kereskedelmi és Hitelbank Zrt.	Yes	Yes	Yes	Yes
HU	OTP Bank Nyrt.	Yes	Yes	Yes	Yes
HU	UniCredit Bank Hungary Zrt.	Yes	Yes	Yes	Yes
IE	AIB Group plc	Yes	Yes	Yes	Yes
IE	Bank of America Europe Designated Activity Company	Yes	Yes	No	Yes
IE	Bank of Ireland Group plc	Yes	Yes	Yes	Yes
IE	Barclays Bank Ireland plc	Yes	No	No	No
IE	Citibank Holdings Ireland Limited	Yes	Yes	Yes	Yes
IE	Ulster Bank Ireland Limited	Yes	Yes	Yes	Yes
IS	Arion banki hf.	Yes	Yes	Yes	Yes
IS	Íslandsbanki hf.	Yes	Yes	Yes	Yes
IS	Landsbankinn hf.	Yes	Yes	Yes	Yes
IT	Gruppo Bancario Mediolanum	Yes	No	No	No
IT	Banca Monte dei Paschi di Siena SpA	Yes	Yes	Yes	Yes
IT	Banca Popolare di Sondrio SCpA	Yes	Yes	Yes	No
IT	Banco BPM SpA	Yes	Yes	Yes	Yes
IT	BPER Banca S.p.A.	Yes	Yes	Yes	Yes



IT	Cassa Centrale Banca - Credito Cooperativo Italiano S.p.A	Yes	Yes	Yes	Yes
IT	Credito Emiliano Holding SpA	Yes	Yes	Yes	Yes
IT	Iccrea Banca Spa Istituto Centrale del Credito Cooperativo	Yes	Yes	Yes	Yes
IT	Intesa Sanpaolo SpA	Yes	Yes	Yes	Yes
IT	Mediobanca - Banca di Credito Finanziario SpA	Yes	Yes	Yes	Yes
IT	UniCredit SpA	Yes	Yes	Yes	Yes
IT	Unione di Banche Italiane S.p.A.*	No	No	No	No
LT	Swedbank AB	Yes	Yes	Yes	Yes
LT	AB SEB bankas	Yes	Yes	Yes	Yes
LT	Akcine bendrove Šiauliu bankas	Yes	Yes	Yes	Yes
LU	Banque et Caisse d'Epargne de l'Etat, Luxembourg	Yes	Yes	No	No
LU	Banque Internationale à Luxembourg	Yes	Yes	Yes	No
LU	J.P. Morgan Bank Luxembourg S.A.*	No	No	No	No
LU	Quintet Private Bank (Europe) S.A ²	Yes	Yes	Yes	Yes
LU	RBC Investor Services Bank S.A.	Yes	Yes	Yes	Yes
LV	AS Citadele banka	Yes	Yes	Yes	Yes
LV	AS SEB banka	Yes	Yes	Yes	Yes
LV	Swedbank Baltics AS ¹	No	No	Yes	Yes
MT	Bank of Valletta Plc	Yes	Yes	Yes	Yes
MT	CommBank Europe Ltd*	No	No	No	No
MT	HSBC Bank Malta Plc	Yes	Yes	Yes	Yes
MT	MDB Group Limited	Yes	No	No	Yes
NL	ABN AMRO Bank N.V.	Yes	Yes	No	Yes
NL	BNG Bank N.V.	Yes	Yes	Yes	Yes
NL	Coöperatieve Rabobank U.A.	Yes	Yes	Yes	Yes
NL	de Volksbank N.V.	Yes	Yes	Yes	Yes
NL	ING Groep N.V.	Yes	Yes	Yes	Yes
NL	LP Group B.V.	Yes	No	No	No
NL	Nederlandse Waterschapsbank N.V.	Yes	Yes	No	Yes
NO	DNB BANK ASA	Yes	No	No	No
NO	SpareBank 1 SMN	Yes	No	No	No
NO	SPAREBANK 1 SR-BANK ASA	Yes	No	No	No
PL	Bank Polska Kasa Opieki S.A.	Yes	Yes	Yes	Yes
PL	Powszechna Kasa Oszczednosci Bank Polski S.A.	Yes	Yes	Yes	Yes
PL	Santander Bank Polska S.A.	Yes	Yes	Yes	Yes



PT	Banco BPI, SA*	No	No	No	No
PT	Banco Comercial Português, SA	Yes	Yes	Yes	Yes
РТ	Caixa Central de Crédito Agrícola Mútuo, CRL	No	No	No	No
РТ	Caixa Económica Montepio Geral	No	No	No	No
PT	Caixa Geral de Depósitos, SA	Yes	Yes	Yes	Yes
PT	LSF Nani Investments S.à r.l.	Yes	Yes	Yes	Yes
PT	Santander Totta , SGPS, S.A.	Yes	Yes	Yes	Yes
RO	Banca Comerciala Romana SA	Yes	Yes	Yes	Yes
RO	Banca Transilvania	Yes	Yes	Yes	Yes
RO	BRD-Groupe Société Générale SA	Yes	Yes	Yes	Yes
SE	AB Svensk Exportkredit	Yes	Yes	No	Yes
SE	Kommuninvest - group	Yes	Yes	No	Yes
SE	Länsförsäkringar Bank AB - group	Yes	Yes	Yes	Yes
SE	SBAB Bank AB - group	Yes	Yes	Yes	Yes
SE	Skandinaviska Enskilda Banken - group	Yes	Yes	Yes	Yes
SE	Svenska Handelsbanken - group	Yes	Yes	Yes	Yes
SE	Swedbank - group	Yes	Yes	Yes	Yes
SI	Abanka d.d.*	No	No	No	No
SI	Biser Topco S.à.r.l.	Yes	No	Yes	Yes
SI	Nova Ljubljanska Banka d.d. Ljubljana	Yes	Yes	Yes	Yes
SI	SKB banka	Yes	No	No	No
SK	Slovenská sporitelna, a.s.	Yes	Yes	Yes	Yes
SK	Tatra banka, a.s.	Yes	Yes	Yes	Yes
SK	Všeobecná úverová banka, a.s.	Yes	Yes	Yes	Yes
SK	Tatra banka, a.s.	Yes	Yes	Yes	Yes

¹ Swedbank Baltics AS took over Swedbank AS in Q3 2021. It was decided to link the time series for the two entities.

² Due to a group restructuring, Quintet succeeded to Precision Capital as head of group. It was decided to link the time series for the two entities.

* The entity may not have reported FP in 2021; it is however included as contributed to the report for either 2020, 2019, or both.



199

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1

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