EUROPEAN CENTRAL BANK

EUROSYSTEM

May 2020

Financial Stability Review

SUERF

28/05/2020

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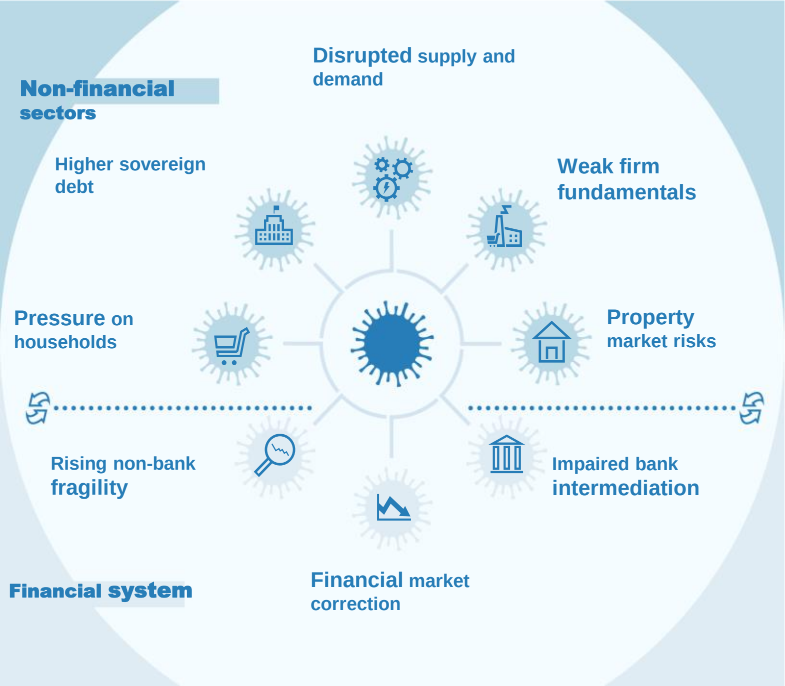
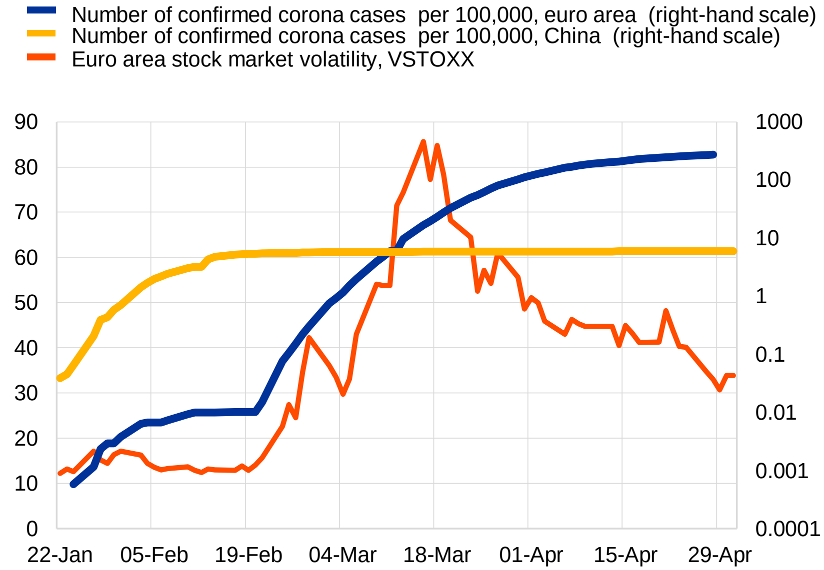
As the coronavirus spread beyond China, it triggered a chain of unparalleled social and economic disruption, testing financial system resilience



Euro area stock market volatility and confirmed corona cases level and cases per 100,000 inhabitants (log scale)

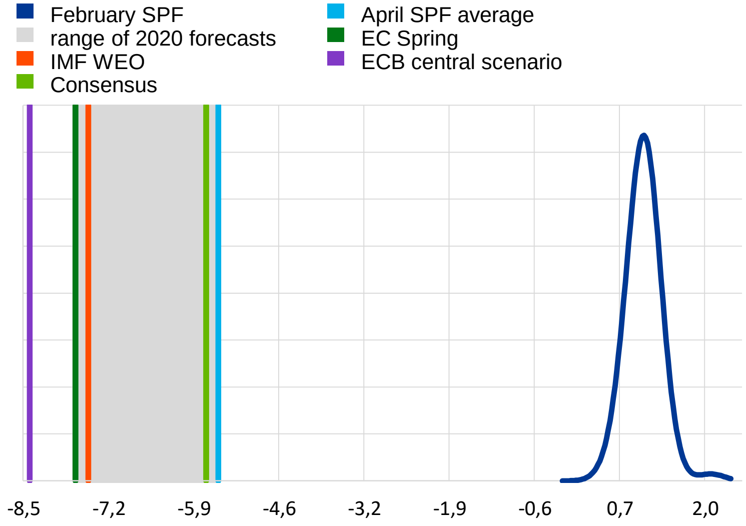


Sources: Bloomberg, Johns Hopkins University.

Significant deterioration of the economic outlook

- Current GDP growth expectations for 2020 are outside the tail of February expectations and the timing and pattern of the recovery remains uncertain
- Substantial fiscal response including direct spending measures and loan guarantee schemes – in addition to automatic stabilisers. Bolstered by monetary policy, including asset purchases

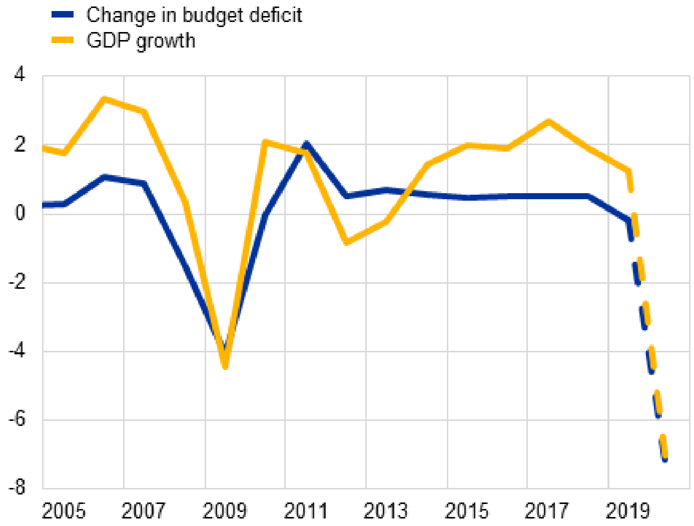
Euro area real GDP growth forecasts 2020 year-on-year percentage change for the whole year



Sources: IMF, ECB, ECB calculations

Note: Normal Kernel density estimates of 66 and 69 point forecasts of professional forecasters.

Forecast change in budget deficit and economic growth annual percentage change

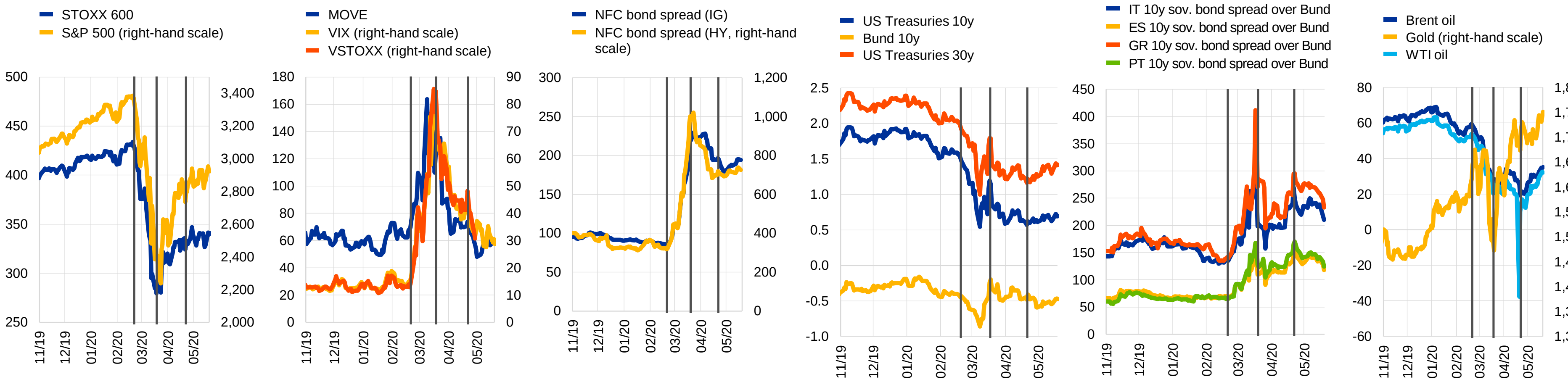


Sources: ECB and national governments

Equity prices fell, spreads widened and volatility increased –likely amplified by record high valuations at the start of 2020

- Large and abrupt adjustment in markets from late February, reflecting a deterioration in economic outlook
- Subsequent stabilisation, and partial reversal, following a broad range of policy announcements

Developments in major global financial asset markets (first and second panel: index; third panel: basis points; fourth panel: percentages per annum; fifth panel: basis points; sixth panel: US dollars per barrel and US dollars per ounce)



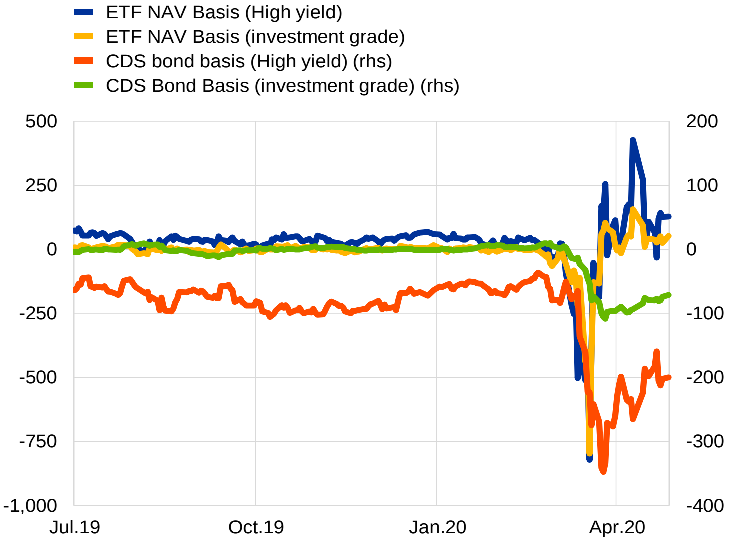
Sources: ECB, Thomson Reuters Eikon, BvD News, web searches for “credit lines” and ECB calculations.

Notes: Red vertical lines mark start of global market correction (20 February), ECB announcement of PEPP (18 March) and ECB decision to continue accepting downgraded bonds as collateral (22 April).

Sell-off amplified by illiquid markets and pro-cyclical investment strategies

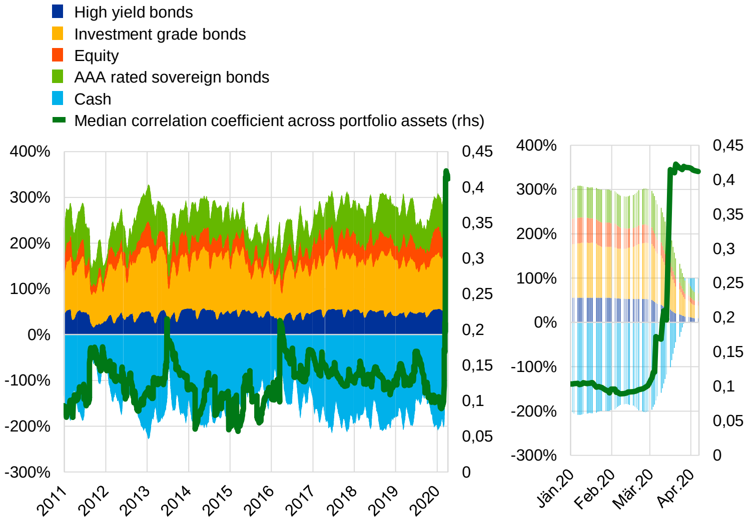
- Market liquidity – including presence of normal arbitragers – fell significantly during the adjustment
- Record high cross asset correlations and diminishing diversification benefits led to a record sell-off in leveraged investment strategies, such as risk parity

Deviation from no-arbitrage relationships in corporate bond, CDS and ETF markets basis points



Sources: IHS Markit, Bloomberg.

Portfolio weights (lhs) and cross asset correlation (rhs) in risk parity portfolio percent and correlation coefficient

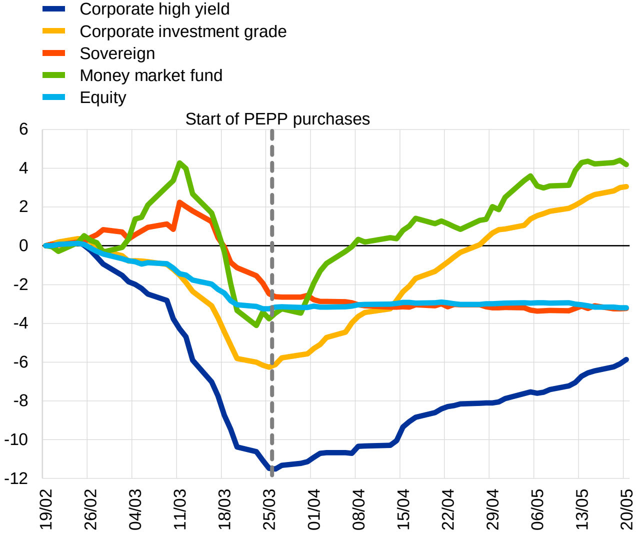


Sources: ECB (EMIR)

Large-scale investment fund outflows in early March tested resilience of funds

- High-yield funds saw largest outflows, but even money market funds and sovereign funds experienced outflows, as cash needs of investors rose
- Low liquid asset holdings reduced capacity of funds to manage the outflows and led to forced asset sales

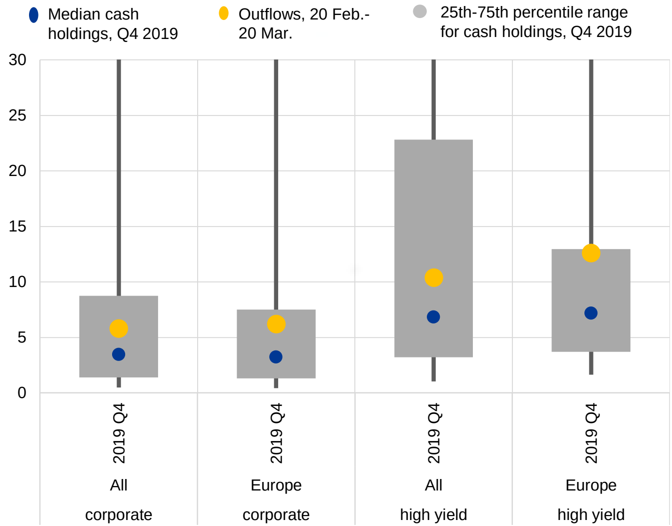
Cumulative flows of euro area-domiciled funds percentage of assets under management



Sources: Dealogic , iBoxx, EPFR and ECB calculations.

Note: PEPP: pandemic emergency purchase programme.

Outflows and liquid asset holdings of euro area bond funds by asset class percentage of total assets

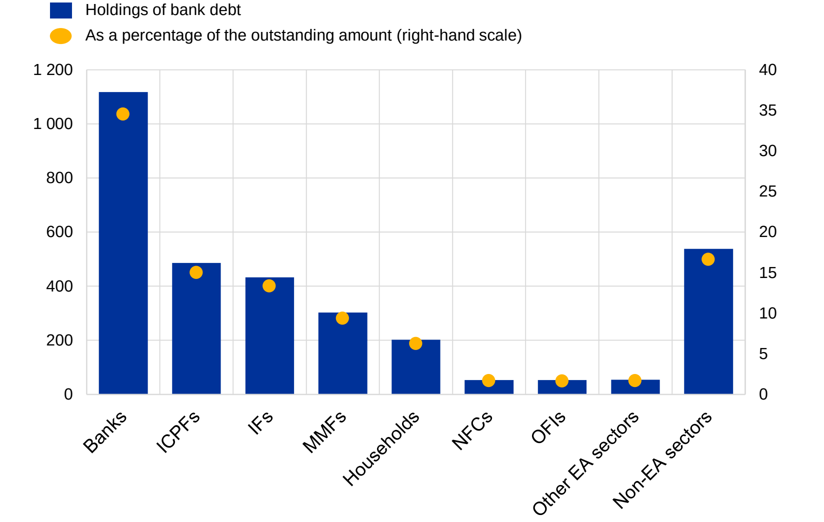


Sources: Refinitiv, EPFR and ECB calculations.

Bank and non-bank interconnections amplifying financial contagion

- Recent events have highlighted some key bank/non-bank interlinkages and feedback mechanisms- e.g. forced asset sales and impact on short-term funding
- Stems from the sizeable direct exposures, ownerships links and common exposures

Holdings of euro area bank debt by sector
Q4 2019, €billions and percentage change of outstanding



Sources: ECB (large exposure data and Securities Holdings Statistics) and ECB calculations.

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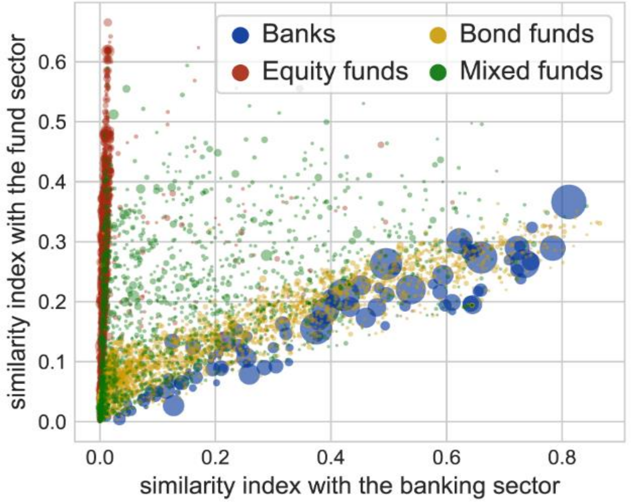
Common holdings of euro area banks and investment funds Q2 2019, similarity index

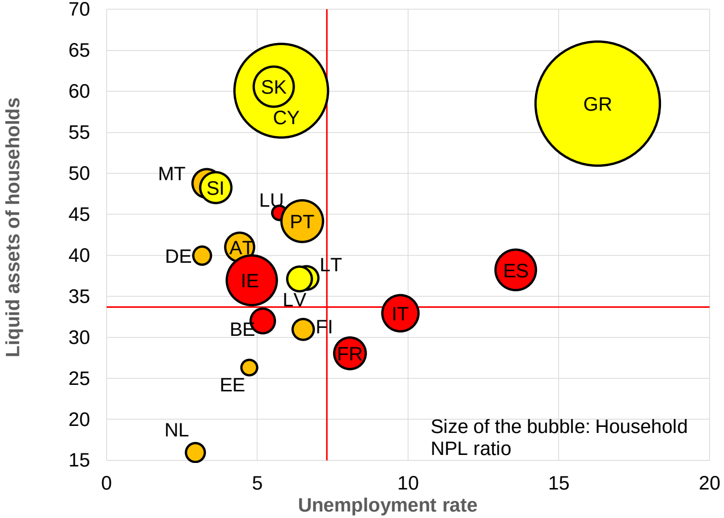


Sources: Refinitiv, ECB Securities Holdings Statistics and ECB calculations

Households face lower income, higher debt and property market corrections

- Pressure on households could be highest in countries with already high unemployment and low savings
- Property markets are likely to weaken, notably in markets which had seen sustained robust expansion, and weakening lending standards in recent years

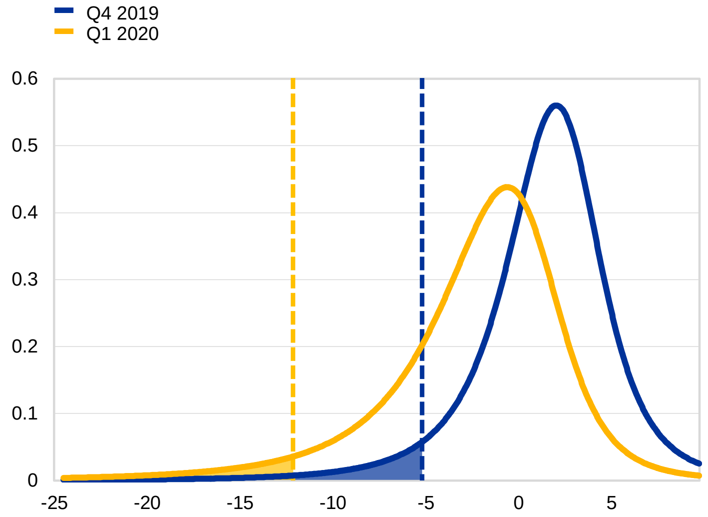
Unemployment rates, and households' liquid assets and NPL ratios across the euro area Feb. 2020, Q4 2019, percentages



Source: Johns Hopkins University, ECB and ECB calculations.

Notes: Bubble colours reflect the number of confirmed coronavirus cases as a share of total population. Red: upper tercile, orange: middle tercile and yellow lower tercile

Predictive density of one-year ahead annual real house price growth for the euro area
probability density

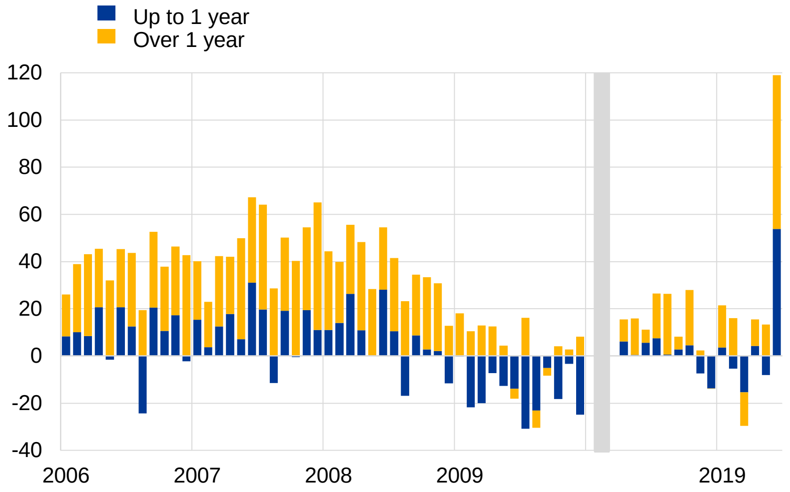


Sources: ECB and ECB calculations.

Corporate cash-flow challenges are leading to downgrades

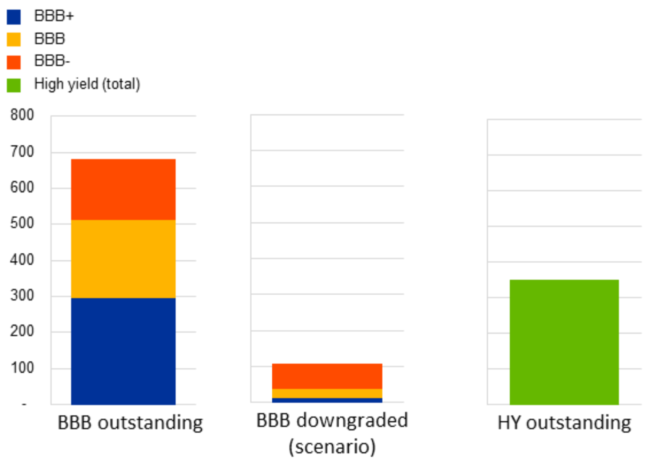
- Collapse in corporate cash flows prompted sizeable credit provision in March, half of it short term
- When combined with existing high leverage of some corporates, downgrades – especially from BBB to high yield – are expected to increase. A wave of “fallen angels” could flood the high-yield bond market

Developments in short-term bank loans in March 2020
monthly flows, € billions



Sources: ECB and ECB calculations.

BBB-rated bonds outstanding (left panel), downgraded in a 2008/09-like scenario (middle panel) and high-yield bonds outstanding (right panel) € billions

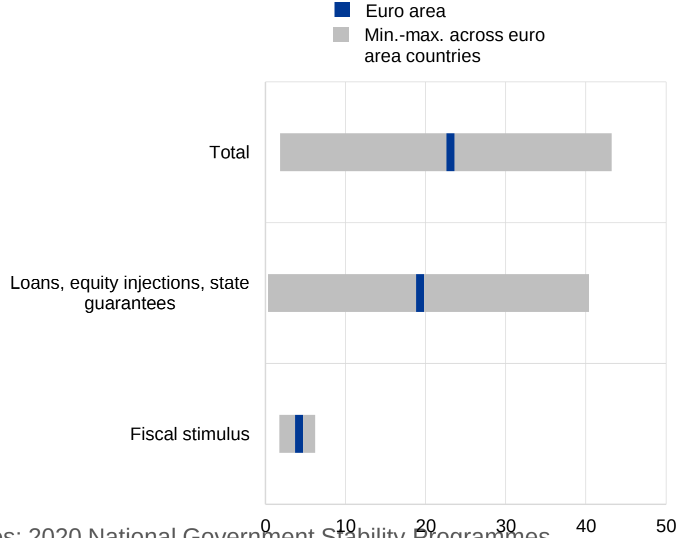


Sources: Dealogic, ECB and Standard & Poor’s.

Fiscal relief attenuates near-term impact, but increases future debt challenges

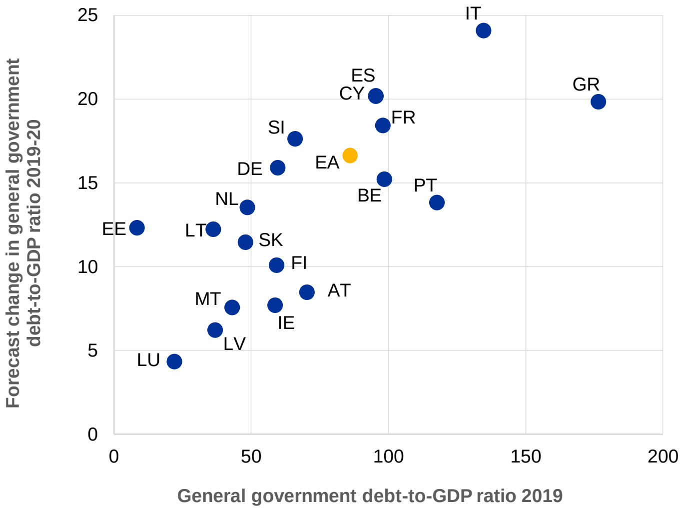
- Governments have offered large-scale fiscal relief that should support recovery – both through current spending and contingent guarantee schemes
- This implies a large increase in near-term financing needs, and an accompanying increase in debt levels, particularly in countries that had limited fiscal space

Discretionary measures and guarantees of euro area governments percentage of GDP



Sources: 2020 National Government Stability Programmes, ECB and ECB calculations.

Sovereign indebtedness in the euro area and expected changes in 2020 percentage of GDP and percentage points

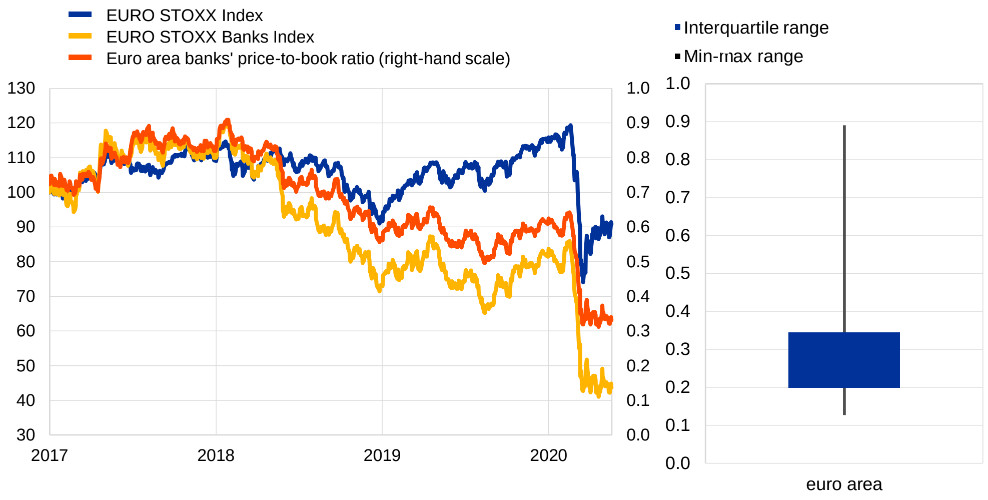


Sources: European Commission (AMECO) and ECB calculations.

Bank stock valuations fell more than the market, despite strong capital positions

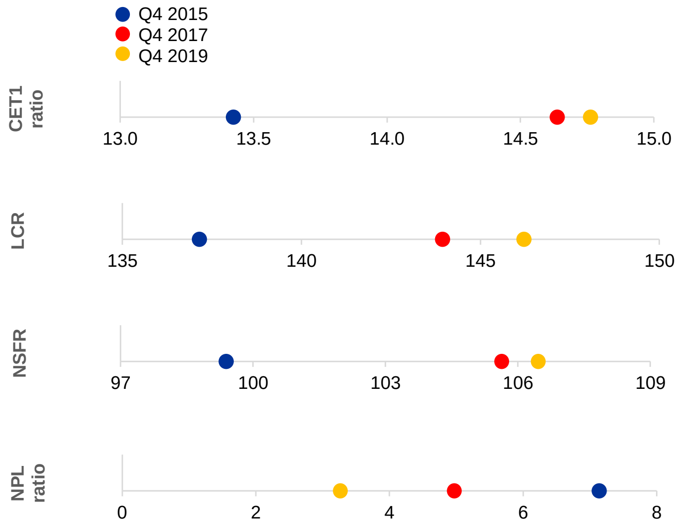
- Bank stocks underperformed the wider market during the sell-off; price-to-book ratios for euro area globally systemically important banks fell close to 0.3 amid a high degree of heterogeneity across individual banks
- Euro area banks entered this episode with much stronger capital and liquidity positions than in 2008

EURO STOXX and EURO STOXX Banks Indices, as well as euro area banks' price-to-book ratios and their distribution
index: 1 Jan. 2017 = 100, percentages



Source: Bloomberg.

Euro area banks' Common Equity Tier 1, liquidity coverage, net stable funding and non-performing loan ratios percentages

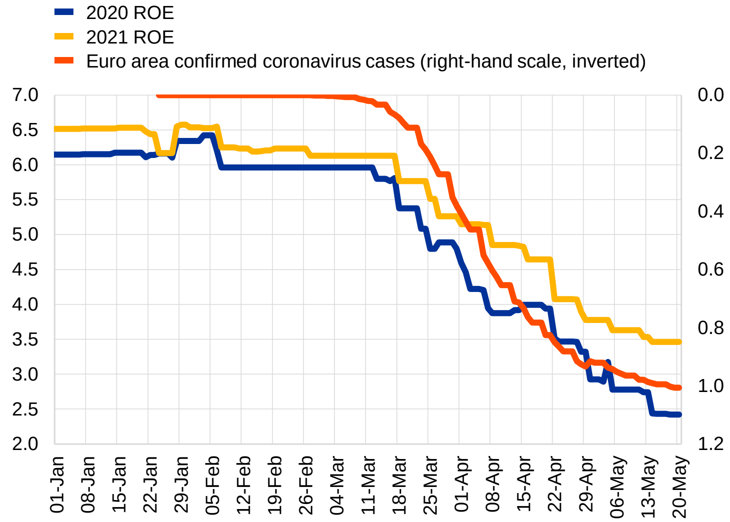


Sources: ECB supervisory statistics and ECB calculations.

Euro area banks' profitability outlook has deteriorated

- Analysts' expectations of euro area banks' return on equity (ROE) have been lowered even further, not just for 2020 but also for 2021
- This reflects a combination of current pressures on loan losses and trading revenues, as well as weaker prospects for future loan growth and margins
- This adds to the need for structural change in the euro area banking sector

Evolution of ROE forecasts for listed banks for 2020 and 2021 and confirmed coronavirus cases in the euro area
percentages and millions of confirmed cases

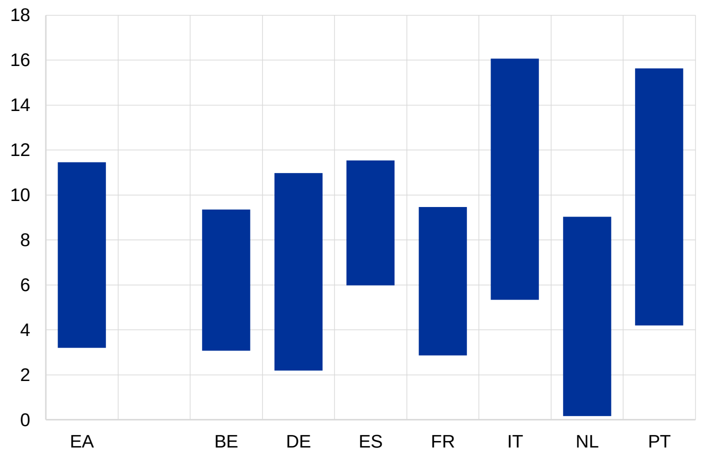


Sources: Bloomberg and ECB calculations.

Banks' expected to face significant losses on their corporate loan books

- Many euro area NFCs had low cash buffers and sizeable debt servicing needs, and, even with fiscal relief, some are likely to face challenges in making loan payments
- Euro area banking sector generally has sufficient capital to absorb multifold increases in loss rates, but some banking systems are more vulnerable

Euro area banks' loan losses as a consequence of NFC cash-flow disruptions – before policy measures
percentage of total loans to NFCs



Sources: ECB supervisory statistics, Orbis Europe and ECB calculations.

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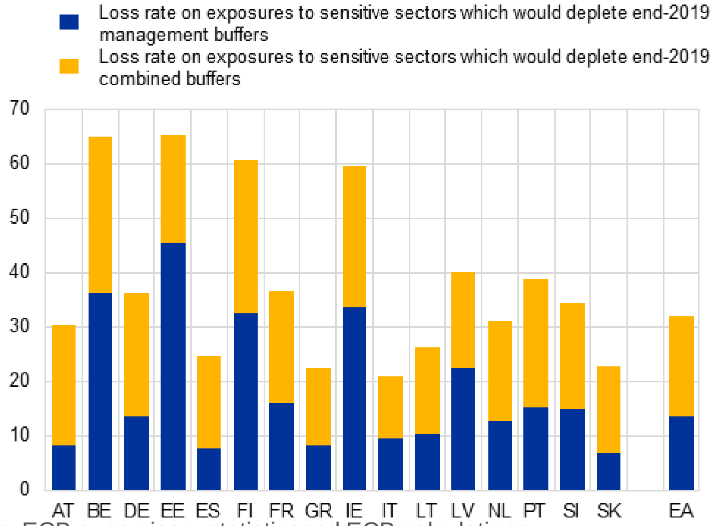
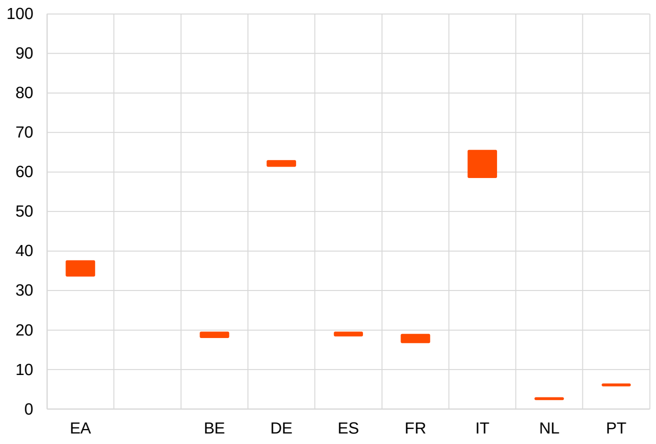
Capacity to absorb losses on exposures to sectors most sensitive to coronavirus disruptions
percentage



Sources: ECB supervisory statisticsand ECB calculations.

Loan guarantee schemes transfer some risk to governments

Potential share of bank losses transferred to governments assuming full take-up of guarantees range for alternative scenarios, percentage of total estimated losses



Sources: ECB, national authorities and ECB calculations based on Orbis.

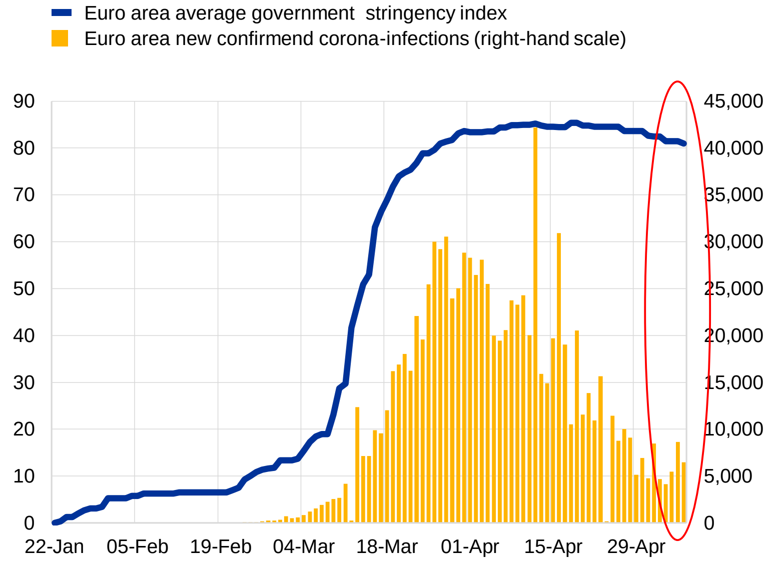
- Government loan guarantee schemes are a key part of the fiscal support measures
- If fully deployed, they could transfer over 30% of losses that materialise to governments
- The success of the schemes hinges on their take-up and the ability of borrowers to access loans quickly

Immediate financial crisis averted, but marked increase in medium- term risks to financial stability

- Despite the scale of events, financial stability has been largely preserved
- But existing vulnerabilities of some sovereigns, highly leveraged corporates and the non-bank financial sector may have amplified the tightening of financial conditions
- Euro area banks have better capital and liquidity positions than in the past, but could see profitability weaken further, hampering their potential intermediation capacity
- And questions remain: will the easing of containment measures lead to a second wave of infections?

New confirmed corona cases and government stringency

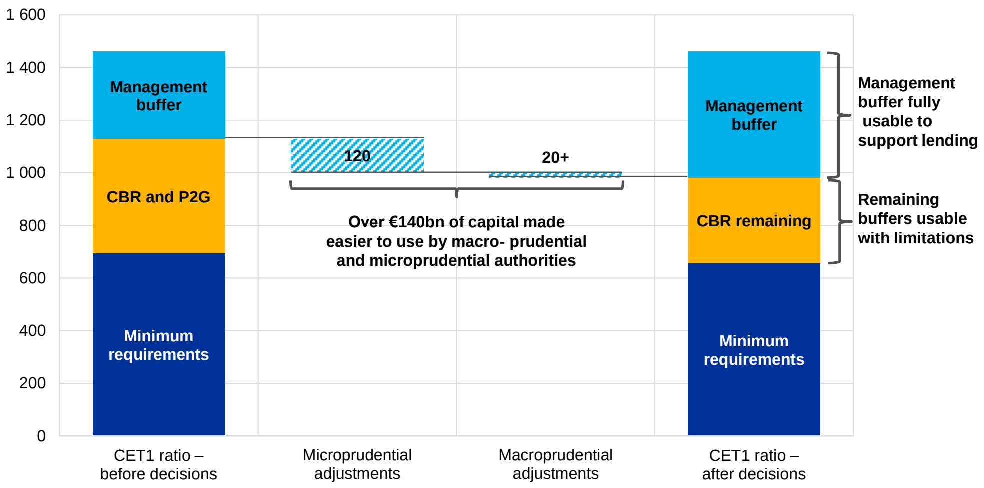
number of new confirmed cases and EA average



Sources: Johns Hopkins University and Oxford University.

Prudential measures help banks to support the real economy

CET1 capital and capital buffers in the euro area
€ billion, Q4 2019



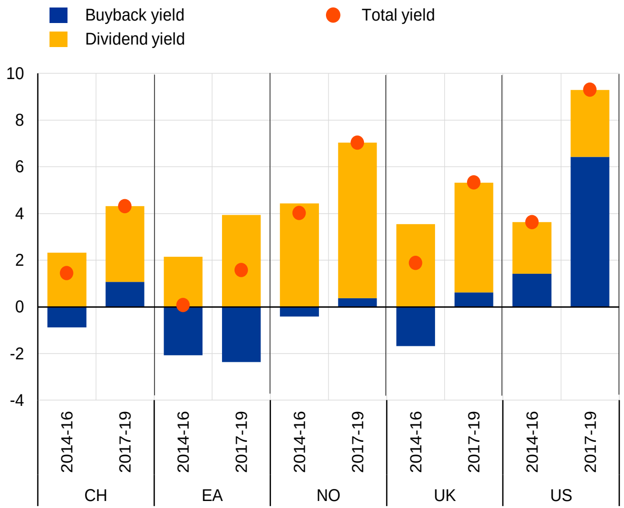
Sources: COREP, notifications of NDAs and websites of National Authorities.

- Prudential authorities acted to free over €140bn of bank capital, suspend dividend pay-outs and enhance flexibility in accounting rules and NPL recognition
- Overall impact is potentially large, especially if stigma around using buffers is avoided.

Dividend restrictions have accompanied capital easing measures

- Dividend restrictions help preserve capital at a time of great uncertainty – so far ~€27bn

Global banks' buyback and dividend yields
percentages



Sources: SNL Financial and ECB calculations.

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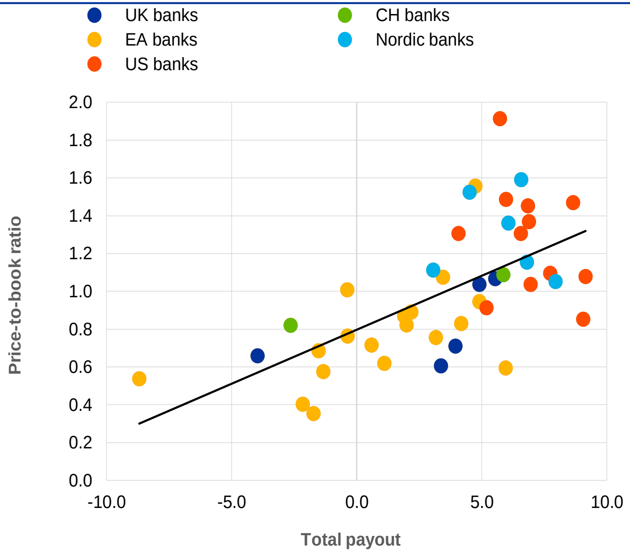
Average price-to-book ratios and total shareholder payouts in the period 2015-19
ratio and percentage of market capitalisation



Sources: SNL Financial and ECB calculations.

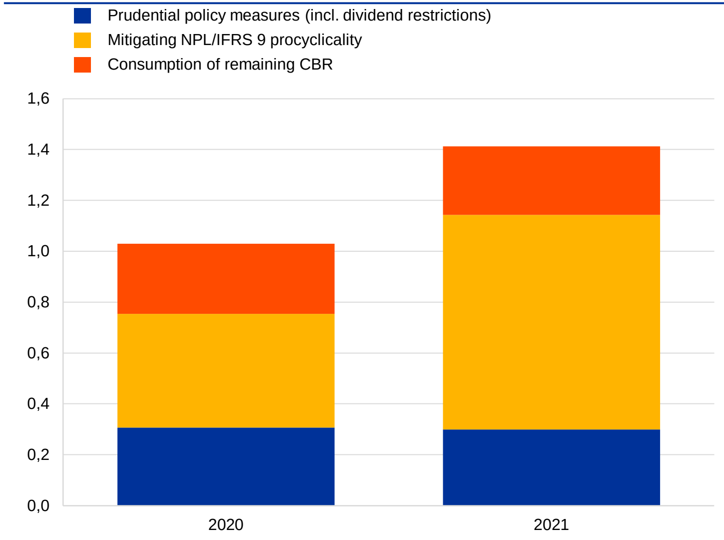
Using flexibility in the bank regulatory framework to avoid pro-cyclicality

- Implementation of the Basel III standards has been deferred to provide additional operational capacity for banks and supervisors
  - Standards for revised risk, leverage ratio buffer and Pillar 3 disclosures deferred by one year to 1 January 2023
  - Transitional arrangements for the output floor have also been extended by one year to 1 January 2028
  - Full and consistent implementation of all Basel III standards based on the revised timeline remains necessary
- The BCBS and supervisory authorities also acted to mitigate unintended consequences of the accounting framework on banks’ capital position
  - Under the IFSR9 Expected Credit Loss (ECL) approach, system wide increase in credit risk can prompt a large increase in loan loss provisions and weigh on capital across banks
  - BCBS decided to adjust, on a temporary basis, how additional provisions would flow through to capital
  - Corresponding legislative proposal on CRR/CRD review published by the European Commission
- If the pandemic leads to a deterioration of bank asset quality, more decisive action to address NPLs
  - Asset separation measures, such as centralised asset management companies (AMCs), may help NPL work-outs

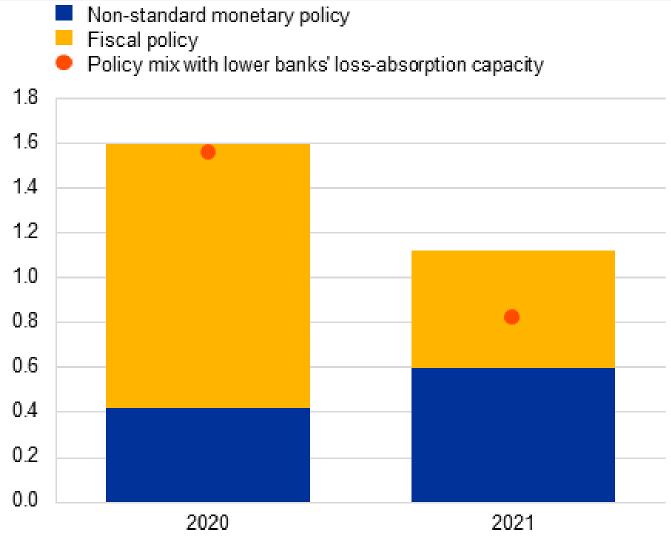
Fiscal and monetary measures provide economic relief that also supports financial stability – but are supported by prudential policy measures

- Simulations suggest that the prudential actions could support real GDP over a two-year horizon, depending on use of remaining buffers
- Prudential measures also found to increase the impact of a fiscal measures and central bank asset purchases notably in 2021

Model-projected real GDP growth percentage point deviation from baseline



Model-projected real GDP growth percentage point deviation from baseline



Sources: DKR model, ECB and ECB calculations

Emerging gaps and areas for future policy work

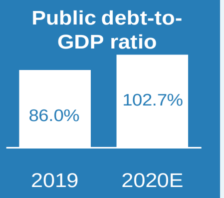
- **Macroprudential tools for non-banks**: although monetary policy could respond to market stress, events highlight that an effective macroprudential framework for non-banks is lacking
  - <u>Investment funds – ex ante tools</u> to effectively mitigate the build-up of liquidity risks during periods of exuberance.
  - <u>Investment funds – ex post tools:</u> additional supervisory powers – including at European level – are needed to ensure a timely and consistent use of liquidity management tools by asset managers in periods of distress
  - <u>Insurance companies:</u> need to strengthen the Solvency II framework for insurance companies, to facilitate the build up of capital buffers in good times (ESRB report) and strengthen liquidity risk frameworks

- Continuing progress towards completing **banking and capital markets union** in Europe remains a priority, as integrated and resilient European markets could help the recovery
  - Third pillar of the banking union, European deposit insurance scheme (EDIS), needed to ensure a uniform level of depositor protection and confidence to avoid fragmentation
  - Moving towards a stronger role for European wide supervision of capital markets would enhance cross-border risk monitoring and coordinated actions across Europe

Risks to financial stability have increased markedly (May 2020 FSR)

Tighter financial conditions and fragile functioning in some markets

- Broad-based increase in risk premia
- Rising corporate downgrades
- Loss of market liquidity
- Growing rollover risks

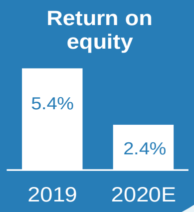


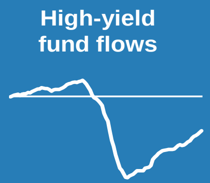
Large increase in debt burden, especially public debt

- Significant lost output
- Rising borrowing costs
- Lower income and earnings
- Potential property market correction

Weaker bank intermediation potential and profitability

- Increased loss-absorbing capacity
- Deteriorating asset quality
- Continued margin compression
- Historically low market valuations





Vulnerable non-banks amplifying market movements

- High exposures to risky non-financials
- Sizeable valuation losses on portfolios
- Large outflows testing funds’ liquidity
- Hit to insurers’ solvency and profitability

The euro area financial system has weathered the immediate stress, supported by monetary, fiscal and prudential policies.

Increased resilience of euro area banks helps, including the €140 billion of capital relief action by authorities.

Legacy debt and the potential for financial fragmentation pose pronounced medium-term challenges to both economic recovery and financial stability.