Near-term pandemic risks lessen, vulnerabilities ahead build up

- Corporates, sovereigns and banks have avoided tail risk outcomes
- Supply disruptions and energy prices pose risks to inflation and growth
- Vulnerabilities have been increasing in euro area property markets
- Signs of stretch are continuing in financial markets and non-banks
Near-term pandemic risks lessening, but medium-term vulnerabilities building up

- Short-term financial stress indicators at record low levels, as recovery broadens to more sectors
- But medium-term vulnerabilities are on the rise – driven by debt, financial assets and real estate

Near-term financial stress indicators for banks, markets and sovereigns
(LHS: Probability; RHS: percentages)

Country and sector dispersion in gross value added
(index, Q4 2019=100)

Medium-term systemic risk indicator (SRI) and driving contributing factors
(Q1 2005-Q2 2021, deviation from mean)

Sources: ECB and ECB calculations.
Note: Based on contemporaneous financial market data.

Sources: Eurostat and ECB calculations.
Note: Based on macro-financial variables that capture build-up of financial imbalances over the next 3 years.
Supply chain bottlenecks start to constrain output, whilst energy commodity prices rise

- Enterprises in both the manufacturing and the services sectors report that production is being hampered by a shortage of material (manufacturing) and labour (services)
- Sharp increases in energy commodity prices due to increased demand and decreased supply in H2 2021

**Production limits in the services and manufacturing sectors**
(Q1 2020-Q3 2021; % of respondents, point deviations from averages)

**Commodity future price changes since January 2020**
(1 Jan. 2020-9 Nov. 2021, percentages)

Sources: European Commission and ECB calculations.

Sources: Bloomberg Finance L.P. and ECB calculations.
Corporate insolvency risks lower than feared previously

- Default rates remained below most optimistic forecasts, with a general pick up in earnings
- Some signs of net increase in insolvency in very affected sectors, and a cohort of highly indebted firms remains, especially in some sectors

European speculative grade 12-month trailing default rates (percentages)

Bankruptcy declarations and new business registrations (Q2 2020, Q2 2021, indices: 2015-19 = 100)

Source: Moody’s Analytics.

Sources: Eurostat and ECB calculations.
Sovereign funding risks remain low, but debt likely to remain elevated

- Further declines in spreads for lower-rated sovereigns as conditions remain very benign while governments extend debt maturity. Corporate and bank spreads co-move.
- But sovereign debt levels expected to remain elevated for some time, especially for higher-debt countries

**Sovereign, bank and non-financial corporate CDS spreads**
(basis points)

Sources: IHS Markit, ECB and ECB calculations

**Simulated sovereign debt-to-GDP paths for higher-debt euro area countries**
(2019-2030, percentages of GDP)

Sources: ECB and ECB calculations. Note: Higher-debt countries include EA countries with a 2019 debt-to-GDP ratio over 90%: BE, CH, ES, FR, IT, CY, PT.
Bank news positive, as profitability on a path towards pre-pandemic levels

- Banks’ profitability improves on lower impairments and higher revenues
- But reliance on investment banking and mortgage lending income means medium-term outlook is still challenging for euro area banks

Distribution of past and model-implied median NPL ratios across country-sectors (2015-24, percentages of total loans)

Annual changes in net interest income and contributing factors (Q1 2018-Q2 2021, percentages)

Median bank ROE and ROE forecasts in major advanced economies (Q1 2018-Q2 2021, percentages)

Sources: ECB supervisory data, ORBIS, Capital IQ, Bloomberg Finance L.P., Eurostat and ECB calculations.

Notes: “Nordic countries” refers to Denmark, Finland and Sweden.
Sentiment remained positive as bank profitability on path towards pre-pandemic levels

- Banks’ equity price valuations have reflected improved outlook
- Since June better capitalised banks tended to outperform the sector amid capital distribution plans

### Euro area banks’ dividend futures and P/B ratio, and analysts’ ROE expectations

<table>
<thead>
<tr>
<th>Time</th>
<th>EURO STOXX Banks P/B ratio</th>
<th>EURO STOXX Banks dividend futures (Dec. 2022)</th>
<th>2022 bank ROE expectations (right-hand scale)</th>
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</thead>
<tbody>
<tr>
<td>01/20</td>
<td>4.3</td>
<td>30</td>
<td>85</td>
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<tr>
<td>07/20</td>
<td>4.6</td>
<td>40</td>
<td>95</td>
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<td>01/21</td>
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<td>50</td>
<td>105</td>
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<td>07/21</td>
<td>5.2</td>
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<td>7.3</td>
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</table>

**Sources:** Bloomberg Finance L.P. and ECB calculations.

**Note:** Div. restr.: dividend restrictions

### Bank stock price performance relative to the sector vis-à-vis capital ratio

- **Graph:**
  - **Slope:** 2.78
  - **R²:** 0.17

**Sources:** ECB, Bloomberg Finance L.P. and ECB calculations.
Conditions in CRE markets have improved, but the outlook for lower-quality CRE remains poor

- While overall market sentiment has improved, an elevated share of investors still sees CRE markets in downturn.
- More than half of recently-acquired CRE exposures are outside the euro area but investment funds have sizeable exposures too.

**CRE market sentiment**

(percentage of respondents)

<table>
<thead>
<tr>
<th>Year</th>
<th>Valuations at trough</th>
<th>Valuations in an upturn</th>
<th>Valuations at peak</th>
<th>Valuations in a downturn</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
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<tr>
<td>2021</td>
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</tbody>
</table>

**12-months-ahead rent change expectations**

(Q2 2021, percentages)

- Industrial
- Office
- Retail

**CRE purchases by investor type**

(2015-19, percentages and € billions)

- ICPFs
- IFs
- NFC
- Other
- Non-

Sources: RICS and ECB calculations.
Sources: Real Capital Analysis and ECB calculations.
Sources: RICS, Real Capital Analysis and ECB calculations.
Vulnerabilities increasing in housing markets

- Mortgage lending and RRE price growth have continued to accelerate
- Signs of further loosening of RRE lending standards, with debt servicing kept low

RRE prices on aggregate and in capital cities, and lending for house purchase (annual percentage changes)

Shares of high LTV and high LTI loans in new securitised mortgage loans (percentage of total new RRE loans used in securitisations)

Share of households’ gross interest payments in disposable income (percentages)

Sources: ECB and ECB calculations.

Notes: data available for Belgium, Germany, Spain, France, Italy, the Netherlands and Portugal, total weighted by GDP.
Financial markets showing increasing signs of stretch

- Expectations of slower recovery and inflationary pressures saw real yields fall to all-time lows
- Stretch in some asset valuations increases the likelihood of market corrections while growth in novel, risky tokens continues to expand

**Euro area real yields, inflation expect. and economic surprise index** (index: 1 Jan. 2021 = 100, percentage)

**Deviation of a basket of global financial assets from long-term average** (number of standard deviations)

**Market capitalisation of largest stablecoins** (LHS: USD billions; RHS: percentages)

Sources: Refinitiv and ECB calculations.

Sources: ECB and ECB calculations.

Sources: Dealogic, ECB calculations.
Non-banks increasingly sensitive to shifts in sentiment or interest rates

- Non-banks continue absorbing the bulk of the record-high issuance of high-yield corporate bonds
- Duration exposure of non-banks has continued to rise, rendering portfolios vulnerable to interest rate shocks

**BBB and high-yield holdings and highly liquid assets of investment funds**
(Q4 2013-Q2 2021, percentages, years)

**Bond portfolio valuation losses by euro area holding sector under a 1 percentage point rise in interest rates**
(LHS: € billions; RHS: percentage of bond portfolio)

Sources: ECB (SHSS) and ECB calculations.

Sources: ECB and ECB calculations.
Financial stability policies gradually tilt to address medium-term challenges

**Gradually shift policy emphasis to addressing medium-term vulnerabilities**

- Consider **gradual adjustment of targeted macroprudential policy measures** to address RRE vulnerabilities
- Start considering gradual **increase in counter-cyclical capital buffers** where economic and banking sector outlook are favourable

**Enhance the regulatory framework to ensure long-term resilience**

- Ensure full, timely and consistent **implementation of final Basel III reforms** to address shortcomings in existing framework
- Develop a **holistic macroprudential approach for non-banks**, embedded in international coordination
- Enhance resilience of **money market funds**
Case for further adjustment of measures to address RRE vulnerabilities

Overview of macroprudential instruments in place to address RRE vulnerabilities in euro area countries

As the economic recovery unfolds, macroeconomic and financial sector policies are adjusting gradually.

Most EA countries have RRE policies in place. However, in some countries policies are absent or not sufficiently tight.

<table>
<thead>
<tr>
<th>Country</th>
<th>ESRB warning/recommendation in September 2019</th>
<th>Borrower-based measures</th>
<th>Capital measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>DE</td>
<td>Warning</td>
<td>No measures in place</td>
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<tr>
<td>FR</td>
<td>Warning</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AT</td>
<td>Recommendation</td>
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<td>CY</td>
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<tr>
<td>SI</td>
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</tbody>
</table>

Source: ESRB and national notifications.
Strengthening the asset liquidity of MMFs

- Objective: limit liquidity mismatches in these funds and diversify their sources of liquidity
- A higher share of MMF public debt holdings would help managers to deal with large and unexpected outflows, while outstanding short-term public debt would be more than sufficient to meet increased demand

**Share of MMFs able to meet outflows by liquidating public debt based on March 2020 turmoil**
(March 2020, percentages)

- LVNAV
- LVNAV (covered with public debt within WLA)
- VNAV
- VNAV (covered with public debt within WLA)

**Euro area public debt with a residual maturity of less than one year**
(€ billions)

- Current MMF holdings
- MMF holdings under a min. 10% public debt requirement
- MMF holdings under a min. 15% public debt requirement
- MMF holdings under a min. 20% public debt requirement
- Remaining public debt securities

Sources: Crane Data, SHSS, and ECB calculations.
And continued efforts to strengthen resilience and support climate transition

- There are a number of other initiatives to strengthen the structural resilience of the euro area financial system and prepare for the challenges of the future.
- These include:
  - Full and timely implementation of Basel 3
  - Completion of the Banking Union
  - Support an orderly climate transition including through action on disclosures and standards

Projected increase in losses on banks’ corporate loan books under various climate scenarios
(€ billions)

Sources: ECB and ECB calculations based on NGFS scenarios (2020)