Post-COVID non-performing loans: effectiveness of government measures and implications for banks

Disclaimer: Presented views are of the speaker and do not necessarily reflect those of the ECB.
Elevated credit risk did not translate into increasing NPL

- Banks expected that asset quality would deteriorate and reclassified a significant share of loans to IFRS 9 stage 2 and set aside precautionary provisions in 2020 and early 2021.
- Despite that, NPL ratio steadily declined throughout the pandemic to the lowest level since 2007.

Euro area banks’ stage 2 loans
(2019-2021, percentage of total loans)

Sources: ECB calculations. Notes: left panel covers IFRS exposures only. Cost of risk defined as annualised flow of loan loss provisions over total loans.

Euro area banks’ NPL ratio and cost of risk
(2019-2021, left panel: NPL ratio, right panel: cost of risk; percentage)
Corporate insolvency risks have not materialised

- 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 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.
Country-sector turnover shocks contributed to weaker asset quality

- There is correlation between the turnover reductions at country-subsector level and frequency of migration to stage 2...
- ...but the noisiness of this relationship especially in construction and manufacturing sectors suggests that prior vulnerability and policy support take-up were relevant

**Turnover loss in 2020 explains much of the asset quality deterioration in the services sector...**

(turnover vs stage 2 migration by NACE level 2 sector, percentages)

**...but the relationship is more ambiguous in the manufacturing sector**

(turnover vs stage 2 migration, manufacturing NACE level 2, percentages)

Sources: AnaCredit, Eurostat and ECB calculations.
Note: each data point indicates a country-subsector pair (e.g. travel agents in Greece).

Sources: AnaCredit, Eurostat and ECB calculations.
Notes: each data point indicates a country-subsector pair. Data plotted only for selected countries for which a sufficient number of subsector observations is available.
Pre-existing vulnerabilities associated with stronger loan quality deterioration

- Firms whose loans were reclassified to stages 2 and 3 entered the crisis with higher leverage and lower liquid assets, comparing to firms which remained in stage 1
- Firms which moved to stage 2 were less profitable than those which stayed in stage 1, while outright loss-making companies moved directly to stage 3

Loans to more leveraged, less liquid and less profitable firms were more likely to be reclassified to stage 2 in 2020
(distribution of borrowers’ financial ratios: leverage ratio (left panel), liquidity ratio (central panel), return on assets (right panel), by stage classification at end-2020)

Sources: AnaCredit, Orbis, ECB calculations.
Notes: Data for over 850,000 firms which had an active lending relationship classified as stage 1 at end-2019 which remained active at end-2020. Leverage ratio defined as total liabilities over total assets. Liquidity ratio defined as cash and equivalents over current liabilities.
Weaker firms more likely to have received support

- Firms which benefitted from guarantee schemes and/or moratoria entered the crisis with higher leverage and lower levels of liquid assets
- Very weak firms were more likely than others to take up multiple support measures (guarantees and moratoria)

More leveraged and less liquid firms were more likely to receive policy support in 2020

Left and centre panels: distribution of borrowers’ financial ratios: leverage ratio (left panel) and return on assets (centre panel), by policy measures received;
Right panel: probability of receiving guarantees and moratoria as a function of firm fundamentals

Sources: AnaCredit, Orbis, ECB calculations. Notes: Data for over 1,500,000 firms for which information is available in ORBIS. Leverage ratio defined as total liabilities over total assets. Liquidity ratio defined as cash and equivalents over current liabilities.
Why did NPLs continue to fall during the pandemic?

• NPL markets contributed over 90% of the net NPL reduction since 2014, and stayed open during the pandemic

• 2017 NPL action plan helped unlock the potential of NPL markets
  • Improved transparency around NPL stocks
  • Supervisory guidance on NPL management and valuation
  • Growth of NPL servicing

• Government-sponsored state aid-compliant securitization schemes increasingly important in facilitating NPL reduction

Sources: ECB calculations based on KPMG, Deloitte, EY, Banca Ifis, Acuris Debtwire, and ECB data.
Creditor coordination problems persist

- Multi-creditor loans take longer to resolve
- Provisioning levels are lower for firms with multiple creditors, indicating coordination cost is not recognised

**Distribution of exposures by number of creditors**

**Percentage, number of firms**

**Average number of bank creditors by loan age**

**Count**

**Provision coverage on NPL by firm size and number of creditors**

**Percentage**

Sources: AnaCredit, Orbis, ECB calculations.
Data platforms can address coordination problems

- Pooling loan data from multiple banks, data platform can help investors identify *ex ante* who is holding claims on a specific firm
- Via an SPV, investors may buy qualified majority of the debt
- Financial benefits may be as sizeable as the impact of government-sponsored securitisation

**Illustrative example of the impact of improved creditor coordination on NPL portfolio pricing** (percentages of gross book value)

<table>
<thead>
<tr>
<th>Portfolio price</th>
<th>Negative effects</th>
<th>Positive effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undiscounted gross recoveries</td>
<td>40.6</td>
<td>13.2</td>
</tr>
<tr>
<td>Recovery cost and time</td>
<td>4.7</td>
<td>3.8</td>
</tr>
<tr>
<td>Bank book value of the exposure</td>
<td>36.0</td>
<td>22.7</td>
</tr>
<tr>
<td>Investor discount</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Initial investor bid price</td>
<td>2.1</td>
<td>3.8</td>
</tr>
<tr>
<td>Avoid in-court recovery</td>
<td>2.4</td>
<td></td>
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<tr>
<td>Recovery 40% faster</td>
<td></td>
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<tr>
<td>Securitisation</td>
<td></td>
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<tr>
<td>Senior tranche guarantee</td>
<td></td>
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<tr>
<td>Final bid price</td>
<td>33.7</td>
<td></td>
</tr>
</tbody>
</table>

Exposure to war in Ukraine and some implications for NPL
Limited direct exposure

- Holdings of loans to Russian counterparties and Russian securities are small relative to capital
- Bank equity prices partly recovered from their initial drop which implied more substantial indirect effects

**Euro area banks’ exposure to Russia**  
Q3 2021; EUR billion, percentage of CET1 capital

**Euro area banks’ share prices during market stress episodes**  
Outbreak of stress = 100

Source: Bloomberg, ECB, ECB calculations.
Some commodity prices impacted

- Natural gas, oil, nickel, and wheat highly impacted from the war
- Limited spill-over to other commodities so far, even within commodity classes

Future prices of main energy commodities
Index=100 Aug. 2021

Spot and future prices of main metal commodities
Index=100 Aug. 2021

Futures prices of agricultural commodities
Index=100 Aug. 2021

Source: Bloomberg and ECB calculations
More adverse scenarios may lead to a temporary slowdown in growth

- Weaker growth and higher inflation driven by higher energy prices, financial disruptions and more persistent uncertainty
- Projection scenarios significantly less adverse than recent stress test scenarios

Impact of alternative scenarios on euro area real GDP growth

- Percentages

Impact of alternative scenarios on euro area inflation

- Percentages

Note:
Adverse scenario assumes that stricter sanctions are imposed on Russia, leading to some disruptions in global value chains. Persistent cuts in Russian gas supplies would lead to higher energy costs and to cuts in euro area production, but this would be only temporary as substitution into other energy sources takes place. In addition, geopolitical tensions would be more sustained than in the baseline, leading to additional financial disruptions and more persistent uncertainty.

Severe scenario includes, in addition to the features of the adverse scenario, a stronger reaction of energy prices to more stringent cuts in supply, stronger repricing in financial markets and larger second-round effects from rising energy prices.

Source: ECB staff macroeconomic projections – March 2022.