Corporate Liquidity and Solvency in Europe during the Covid-19 Pandemic: The Role of Policies

SUERF I KfW Workshop

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Key questions

- COVID-19 impact on corporate liquidity and solvency
- Adequacy of announced policies
- Leftover pockets of vulnerability
**Analytical approach**

**Coverage:** 26 countries (17 AE, 9 EE), 4.5 million firms

**Database:** Construct granular database of policy schemes with allocations at the firm level

**Methodology:** Use a structural approach to project Covid-19 impact based on simulations

**Operating assumptions:**
- Company is **illiquid** if cash < 0
- Company is **insolvent** if equity < 0

Sequencing

COVID-19 Turnover Shock

Stage 0

Pre-COVID-19

Stage 1

Post-Turnover Shock (no bank rollover)

Stage 2

Post-Turnover Shock Post-Policy Support (excl credit)

Stage 3

Post-Turnover Shock Post-Policy Support (all policies)

Stage 4

External Funding

Policy Support (credit)

Post-Turnover Shock Post-Policy Support Post-External Funding

Policy Support (excl credit)

Post-Turnover Shock (full rollover)

Post-Turnover Shock (no rollover)
Strong and multifaceted direct policy support in Europe...

<table>
<thead>
<tr>
<th>Main Policy Measures</th>
<th>Other Policy Measures</th>
<th>External Funding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wage subsidies</td>
<td>Tax deferral to 2021</td>
<td>Bank credit</td>
</tr>
<tr>
<td>Grants</td>
<td>Tax rebate</td>
<td>Debt Issuance</td>
</tr>
<tr>
<td>Debt moratorium</td>
<td>Equity injection</td>
<td></td>
</tr>
<tr>
<td>Guarantees</td>
<td>Subsidized rates</td>
<td></td>
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<tr>
<td></td>
<td>Policy rate</td>
<td></td>
</tr>
</tbody>
</table>

### Advanced Europe
- Austria
- Belgium
- Czech Republic
- Denmark
- Finland
- France
- Germany
- Greece
- Ireland
- Italy
- Latvia
- Portugal
- Slovak Republic
- Slovenia
- Spain
- Sweden
- United Kingdom

### Emerging Europe
- Bulgaria
- Croatia
- Hungary
- Poland
- Romania
- Russia
- Serbia
- Turkey
- Ukraine

**Intensity Levels**
- High intensity
- Medium intensity
- Low intensity
Corporate support policies could significantly reduce liquidity shortfalls in AE in Europe ...

- Policies (loan guarantees, job retention schemes, debt moratoria) appear to address liquidity shortfalls more in AE than in EE.
...but would not fully address liquidity shortfalls in SMEs and in some sectors

Increase in Liquidity Shortfalls and Liquidity Shortfalls Covered by Announced Policies

By Firm Type
(Percent of GDP)

By Sector
(Percent of GDP)
Corporate support policies so far have been less effective at reducing solvency risks...

- Job retention schemes are among the most effective policies for solvency as they support P&L
...especially for SMEs and for contact-sensitive sectors

Increase in Equity Shortfalls and Equity Shortfalls Covered by Announced Policies

- Corporate defaults—which are low now—are likely to increase given remaining liquidity and solvency gaps.
Scarring could occur both through bankruptcies of previously sound firms and through excessive leverage.

Overall, almost 3 million firms would become insolvent because of COVID-19, and about 8 percent of jobs (around 15 million jobs) are at-risk.

Under current policies, the equity support needed to bail out pre-COVID-19 solvent firms to the minimum threshold above which firms are not considered “in difficulty” is estimated at 2-3 percent of GDP.
Takeaways

• Government support has been essential in avoiding mass bankruptcies

• Public support is estimated to have filled 60 percent of European firms’ liquidity needs due to the COVID-19 shock, but only 30 percent of the equity shortfalls

• The share of insolvent firms has increased by 6 percentage points

• Without additional equity support, some 15 million jobs are at risk

• About 2 to 3 percent of GDP will be needed to close the equity gap

• Policies: re-focus on strengthening firm capital structure while keeping lifelines until recovery is firmly underway

• Challenges ahead:
  • A forward-looking assessment of capital needs amidst pandemic-induced structural shifts
  • Identifying and targeting viable SMEs among millions with limited market access and in need of support
Thank You
Extra Slides
## Data: Firm Coverage

<table>
<thead>
<tr>
<th>Number of Firms (thousands)</th>
<th>Turnover (bn EUR)</th>
<th>Share turnover (Percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>SMEs</td>
</tr>
<tr>
<td>Advanced Europe</td>
<td>2,522.8</td>
<td>2,484.9</td>
</tr>
<tr>
<td>Austria</td>
<td>2.6</td>
<td>1.5</td>
</tr>
<tr>
<td>Belgium</td>
<td>26.3</td>
<td>24.2</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>189.4</td>
<td>188.2</td>
</tr>
<tr>
<td>Denmark</td>
<td>6.6</td>
<td>5.6</td>
</tr>
<tr>
<td>Finland</td>
<td>14.7</td>
<td>13.9</td>
</tr>
<tr>
<td>France</td>
<td>422.7</td>
<td>415.8</td>
</tr>
<tr>
<td>Germany</td>
<td>10.3</td>
<td>5.1</td>
</tr>
<tr>
<td>Greece</td>
<td>24.8</td>
<td>24.3</td>
</tr>
<tr>
<td>Ireland</td>
<td>0.9</td>
<td>0.6</td>
</tr>
<tr>
<td>Italy</td>
<td>926.7</td>
<td>920.3</td>
</tr>
<tr>
<td>Latvia</td>
<td>100.7</td>
<td>100.6</td>
</tr>
<tr>
<td>Portugal</td>
<td>230.0</td>
<td>229.1</td>
</tr>
<tr>
<td>Slovak Republic</td>
<td>180.3</td>
<td>179.8</td>
</tr>
<tr>
<td>Slovenia</td>
<td>14.2</td>
<td>14.1</td>
</tr>
<tr>
<td>Spain</td>
<td>198.3</td>
<td>194.5</td>
</tr>
<tr>
<td>Sweden</td>
<td>154.3</td>
<td>152.4</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>20.1</td>
<td>14.7</td>
</tr>
<tr>
<td>Emerging Europe</td>
<td>1,959.3</td>
<td>1,947.8</td>
</tr>
</tbody>
</table>

- 4.5 million firms, 26 countries
- 21 EU and 5 non-EU
- 17 AE and 9 EE
- 99 percent are SMEs (turnover<50 million euros) but they cover 1/5 of turnover
- Sample covers 4/5 of domestic turnover
- Data from Orbis (2017/2018) – representative of “normal times”
- Results re-weighted by national sectoral shares of turnover
Liquidity and Solvency

\[ \text{Cash}_t = \text{CashFlow}_t + \text{Liquid assets}_t + (1 - \text{Interest}_t \cdot )\text{NewCredit}_t - \text{Maturing liabilities}_t - \text{Dividend}_t \]

\[ \text{CashFlow}_t = \beta \cdot (\text{Sales}_t - \text{Materials}_t) + (\text{Fin Re}_v_t - \text{FinExp}_t) - \text{Wages}_t - \text{Other Costs}_t - \text{Taxes}_t \]

\[ \beta = \text{Shock to turnover (country-sector specific)} \]

\[ \text{Equity}_t = \text{Equity}_{t-1} + \text{CashFlow}_t - \text{Amort}_t - \text{Dividend}_t - \text{Interest}_t \cdot \text{NewCredit}_t \]
## Credit Scenarios

<table>
<thead>
<tr>
<th>Credit Markets Scenarios</th>
<th>Liquid Assets</th>
<th>Maturing liabilities</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Pre-COVID</strong></td>
<td><strong>Post-COVID</strong></td>
</tr>
<tr>
<td><strong>1. Rollover:</strong></td>
<td>Current Assets</td>
<td>Current Assets</td>
</tr>
<tr>
<td>Rollover of bank debt and trade</td>
<td>- Trade Receivables</td>
<td>- Inventories</td>
</tr>
<tr>
<td>credit</td>
<td></td>
<td>- Trade Receivables</td>
</tr>
<tr>
<td><strong>2. No bank rollover:</strong></td>
<td>Current Assets</td>
<td>Current Assets</td>
</tr>
<tr>
<td>No rollover of bank debt</td>
<td>- Trade Receivables</td>
<td>- Inventories</td>
</tr>
<tr>
<td><strong>3. No rollover:</strong></td>
<td>Current Assets</td>
<td>Current Assets</td>
</tr>
<tr>
<td>No rollover of bank debt or trade</td>
<td>Current Assets</td>
<td>- Inventories</td>
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<td>credit</td>
<td>- Trade Receivables</td>
<td></td>
</tr>
</tbody>
</table>
Sectoral shocks vary across sectors and countries

...supporting firms through multiple channels

- Wage bill
- Other Operating Costs
- Interest Expense
- Taxes
- Liquid Assets
- Maturing Liabilities

- Wage subsidies
- Cash Grants
- MPI (incl corp facilities)
- Tax rebates
- Asset purchases
- Debt moratoria, tax deferrals

Guaranteed Credit (bank, official)
Non-guaranteed Credit (bank, market finance)

Effects of measures on solvency and liquidity:
- Solvency (+) Liquidity (+)
- Solvency (n/a) Liquidity (+)
- Solvency (-) Liquidity (+)

Firm Management Actions:
Solvency (+)
Liquidity (+)
Simulation: assumptions

- Firms take maximum advantage of the measures they are eligible for
  
  - Conditionality of use related to firm size, corporate type, economic sector, turnover loss, financial position, and max amount of compensation

- Eligible firms with non-negative pre-Covid equity receive government loan support.

- Firms with non-negative pre-Covid equity access market finance, consistent with credit developments and aggregate projections.
Risk of sharp rise in share of illiquid firms, but easy financial conditions are helpful

Share of Illiquid Firms (turnover weighted)
(Percent)

- Illiquid, pre COVID
- Illiquid, post COVID, w. rollover
- Illiquid, post COVID, no bank rollover
- Illiquid, post COVID, no rollover

Regions:
- Euro Area
- Advanced Europe
- Emerging Europe
Similarly, the share of insolvent firms could rise significantly.