(Digital) Technology Adoption in the times of COVID: Policy Implications for Recovery

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Outline

1. "Digital explosion"
2. Emerging digital divide
3. Understanding what are the drivers
4. Policy implications
“Digital” explosion
With strong distributional effects across sectors...
...and across firms
During COVID we observed an unprecedented wave of digitalization...clearly correlated with intensity of the shock.
Digital technology could be a silver lining...but risks of a growing digital divide between smaller and larger firms

Digital technology adoption is helping firms weather the shock...

Smaller firms are much less likely to
Firms seem to be focusing on the “low hanging fruits” of digital adoption...potential limited impact on productivity
Smaller firms focused on “low hanging fruits” and risks of productivity-less recovery
Confirming fears of emerging digital divide the “online” world is significantly more unequal than the “offline” world
And concentration of online sales not only is high but has been growing during the COVID-19 crisis

- Increase in the share of online sales over total sales
- Share of online sales within the firm increased by 3.5 between waves
- Increase is higher for firms with larger share of online sales in wave 1
What could be driving this digital divide and limiting technology adoption?
Official Use

Digital technology adoption is helping firms weather the shock… Smaller firms are particularly likely to be left behind… but investment has been slow, especially in EU+… although the situation may be improving (%), wave 1.

**Driver 1: Management and organization**

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**The land that lean manufacturing forgot?**

*Management practices in transition countries*

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Abstract

We have conducted the first large-scale survey on management practices in transition countries. We found that Central Asian transition countries, such as Uzbekistan and Kazakhstan, have on average very poor management practices. Their average scores are below developing countries such as India. In contrast, the Central European transition countries such as Poland and Lithuania operate with management practices that are only moderately worse than those of Western European countries such as Germany. As we find these practices are strongly linked to firm performance, this suggests that poor management practices may be impeding the development of Central Asian transition countries. We find that competition, multinational ownership, private ownership and
Smaller firms are particularly likely to be left behind… but investment has been slow, especially in EU+… although the situation may be improving.

**Driver 2:**

<table>
<thead>
<tr>
<th>Having own website</th>
<th>Using digital technologies</th>
<th>Having remote workers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(1)</td>
<td>(2)</td>
</tr>
<tr>
<td>Having own website</td>
<td>0.100***</td>
<td>0.100***</td>
</tr>
<tr>
<td></td>
<td>(0.012)</td>
<td>(0.012)</td>
</tr>
<tr>
<td>Spending on RD</td>
<td>0.033*</td>
<td>0.034*</td>
</tr>
</tbody>
</table>
Driver 2: Uncertainty and financial problems...but Government can help
Driver 2B: ...but Government can help

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**Smaller firms are particularly likely to be left behind...**

...but investment has been slow, especially in EU+

**although the situation may be improving** (%), wave 1

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**No Government Support**  
**Government Support**

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[Graph showing the relationship between uncertainty in future sales and investment in digital technologies with data points indicating a decrease in investment as uncertainty increases.]

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Driver 3: Incentives and market integration
Conclusions and policy recommendations

1. COVID-19 shock was widespread and severe but it also led to an accelerated process of (digital) technology adoption – BUT
   i. The adoption still is limited with many firms…smaller especially…potentially being left behind
   ii. Adoption seems focused on “low hanging fruits” and may not lead to productivity driven recovery
2. Key challenge: How to deepen technology adoption to promote an inclusive and productivity driven recovery?
   i. Lower uncertainty
   ii. Expand and support access to finance
   iii. Support improvement in management and organization
   iv. Deepen integration and support contestable markets
Thank you for your attention and look forward to your questions

Find more research in this area here

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ANNEXES

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