



PRODUCTIVITY AND BUSINESS DYNAMICS THROUGH THE LENS OF COVID-19: THE SHOCK, RISKS AND OPPORTUNITIES

Chiara Criscuolo, OECD

29 September 2021, ECB Forum on Central Banking



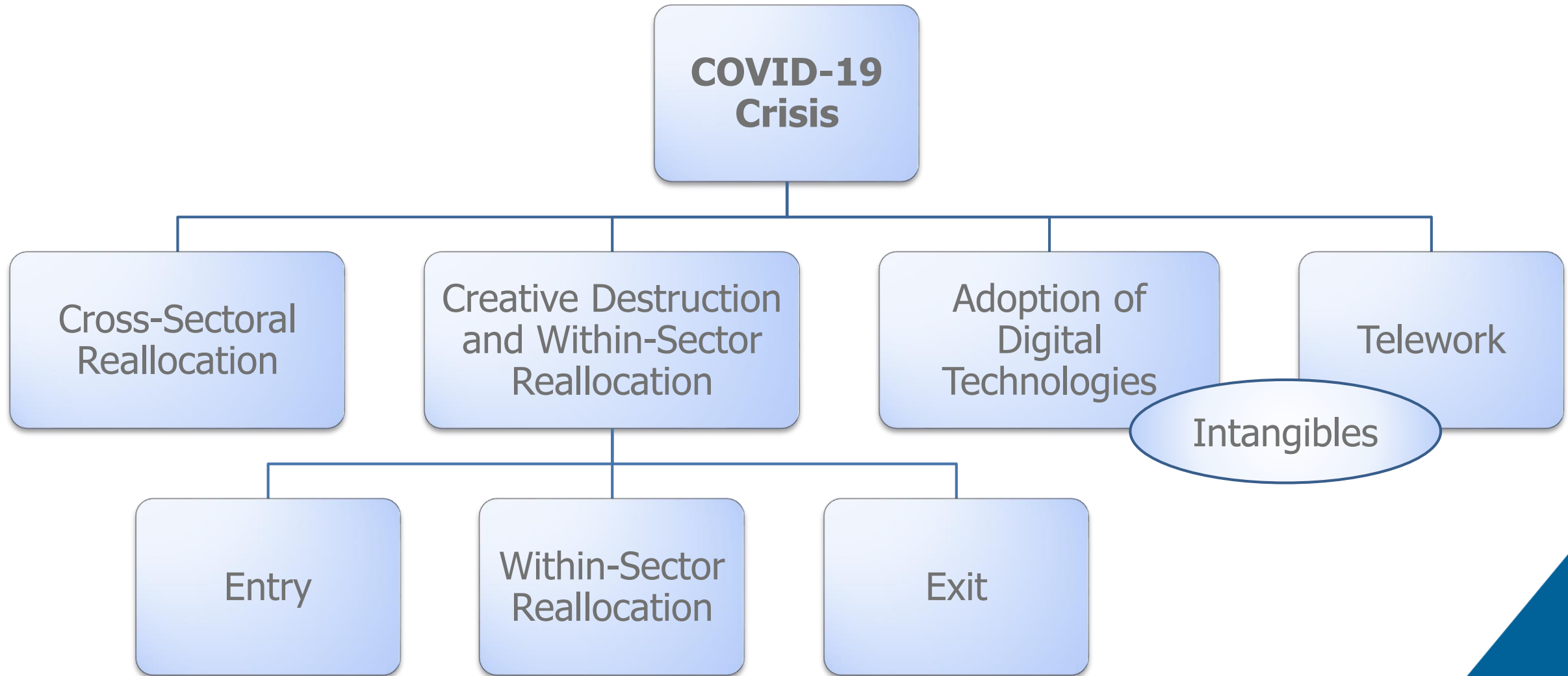
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COVID-19, Productivity and business dynamics





COVID-19 Crisis

**Cross-Sectoral
Reallocation**

Creative Destruction
and within-sector
reallocation

Adoption of digital
technologies

Telework

Intangibles

Entry

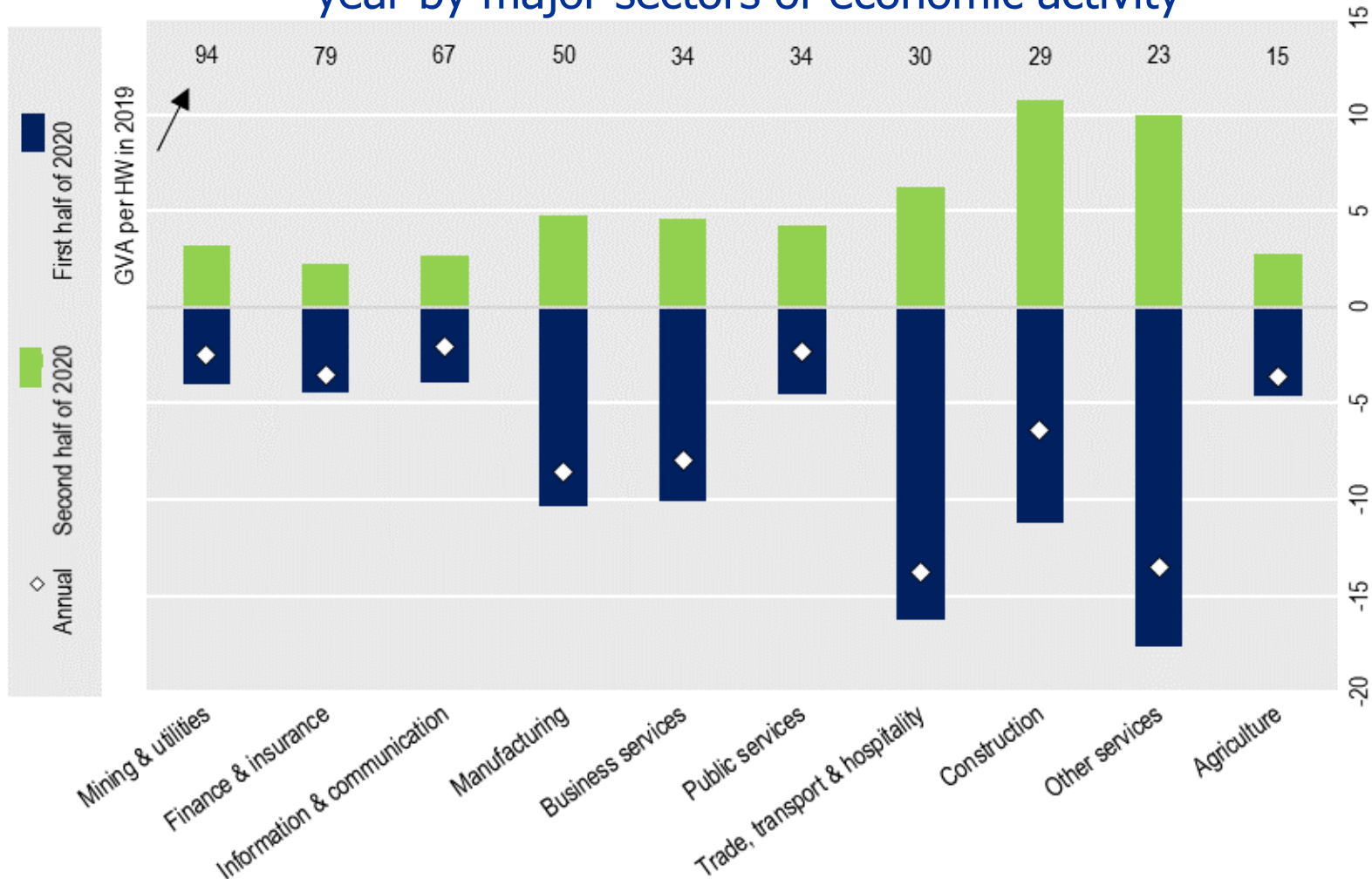
Within-sector
reallocation

Exit



Sectoral Productivity Pecking Order in the strength of the shock

Change in hours worked relative to previous (half) year by major sectors of economic activity



Productivity enhancing reallocation:

- Low productivity sectors cut hours relatively more
- Very different from GFC

Challenges:

- Increase in productivity (+1.5%) but destruction in output (-6.3%)
- Long-term? cyclical vs structural (e.g. change in consumers' behaviour)
- Short to medium term: high costs & frictions cross-sectoral reallocation



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Unexpected Decline in Bankruptcies

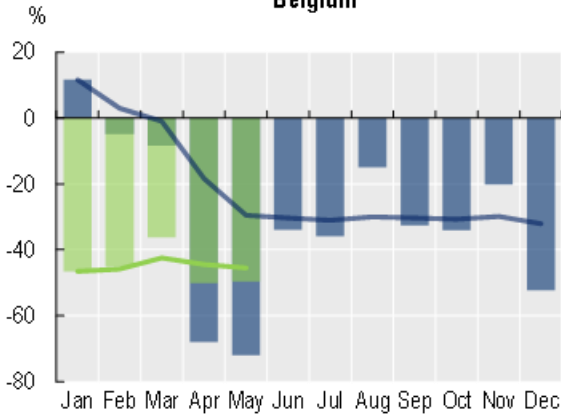
■ difference bankruptcies 2020

■ difference bankruptcies 2021

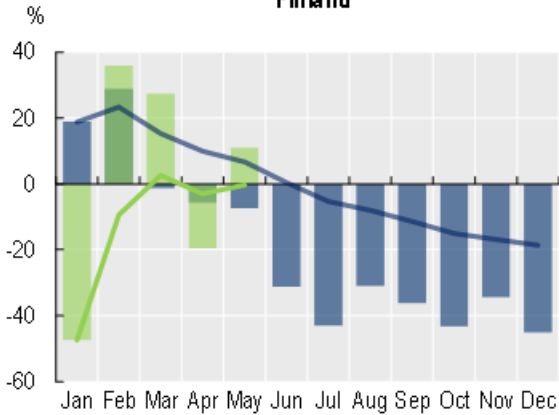
— difference cumul. bankruptcies 2020 vs 2019

— difference cumul. bankruptcies 2021 vs 2019

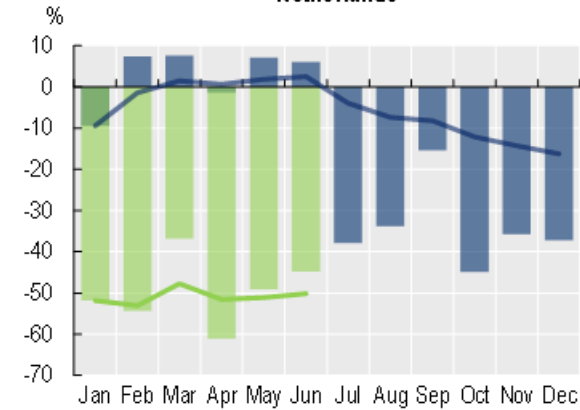
Belgium



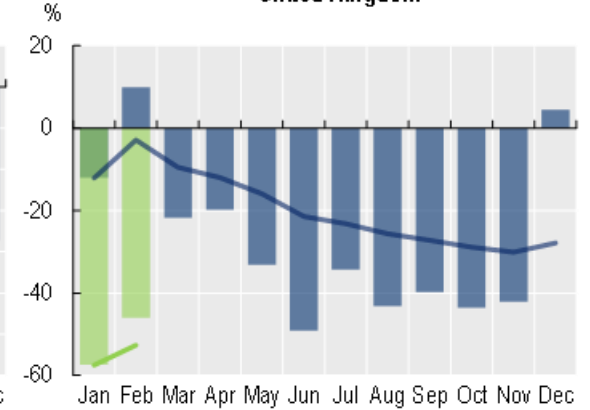
Finland



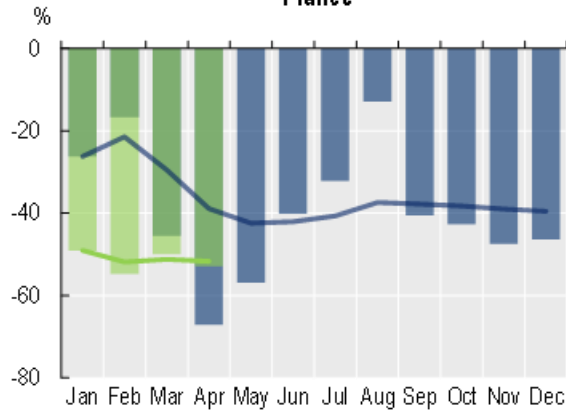
Netherlands



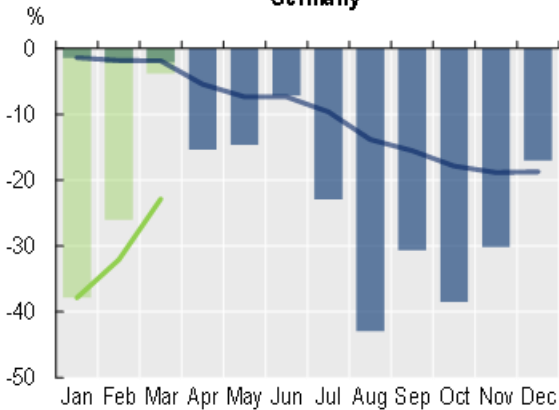
United Kingdom



France



Germany



- Sizeable support measures in place
- Regulatory measures that delayed bankruptcies



Heterogeneous Recovery in Entry

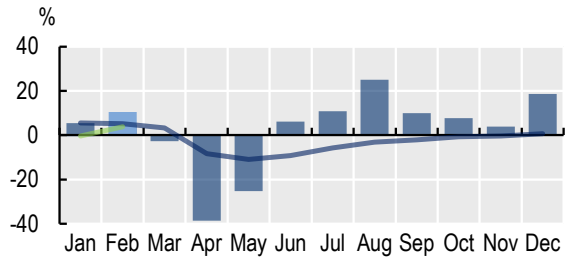
■ difference entry 2020 vs 2019

■ difference entry 2021 vs 2019

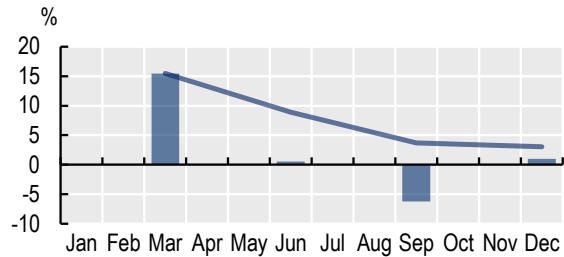
— difference cumul. entry 2020 vs 2019

— difference cumul. entry 2021 vs 2019

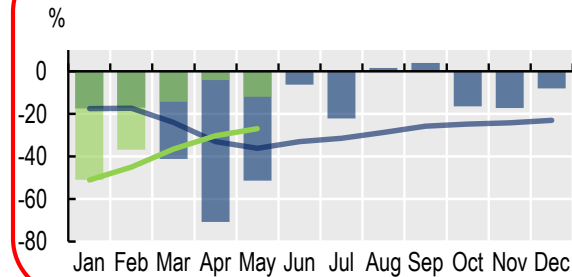
Belgium



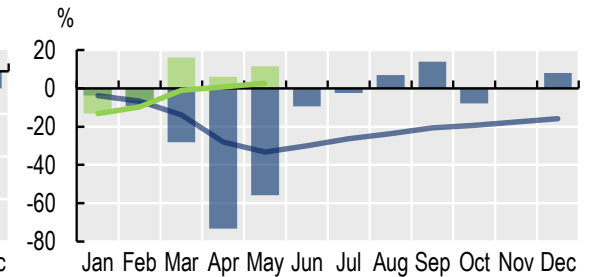
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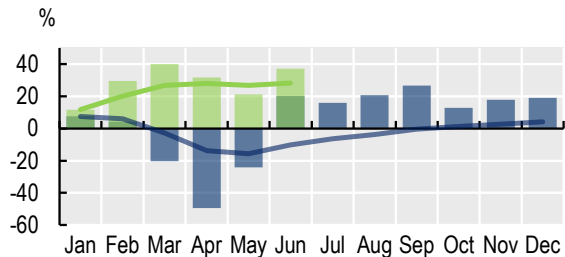
Portugal



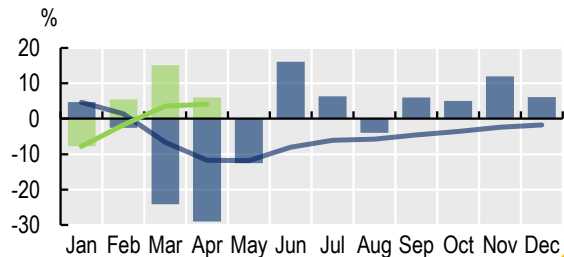
Spain



France



Germany



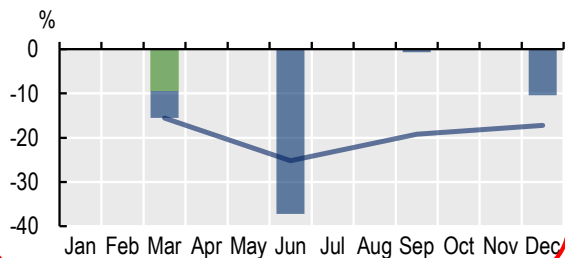
United Kingdom



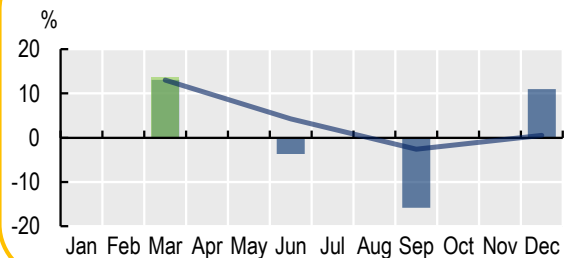
United States



Italy



Netherlands



Entry rates across sectors:

↑ Telework potential: +ve

↑ Customer contact: -ve

Online retail: ↑ entry rates



Reallocation: Productivity-enhancing or sullying?

- Reallocation during the GFC has been less cleansing than in previous crises
- During COVID-19, reallocation slowed down:
 - Regulation +support: job matches were preserved
- Two mechanisms may potentially weaken the cleansing effect of the subdued exit:
 - Sectoral shock: weakened negative correlation between exit and productivity
 - support measures stifling the reallocation process
- Until now: reallocation – although slower (delayed?) – has not been distortive
- Risk of zombification?
 - Trade-offs when exiting or adapting support measures: protection vs distortion



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Creative Destruction and Within-Sector Reallocation

Subdued but not distortive

Trade off: "protection vs
Zombification"

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Adoption and Reorganisation during Crises

- Virtue of crises: lower firms' opportunity costs to reorganise and innovate
- COVID quasi-natural experiment:
 - Firms forced to adjust the way they produce, are organized (telework), and engage with their customers (shift in demand: e.g. from offline to online)
- Use of “potential capital”:
 - Source of resilience (estimated to contribute roughly 10 percent of GDP on average)



The Rise of Telework

- Source of resilience
- Savings due to lower commuting costs
- Stigma of telework broken and expectations of hybrid mode of working
- Link with productivity *a priori* ambiguous:
 - Worker-level efficiency depends on telework intensity; Firm-level efficiency additionally depends on coordination and in the long-term, impact on knowledge-sharing is crucial
- Potential risks:
 - In the long term, lower innovation both within firm and across firms (loss of agglomeration externalities)
 - Increased inequalities
 - Changes in role of cities, real estate prices etc.



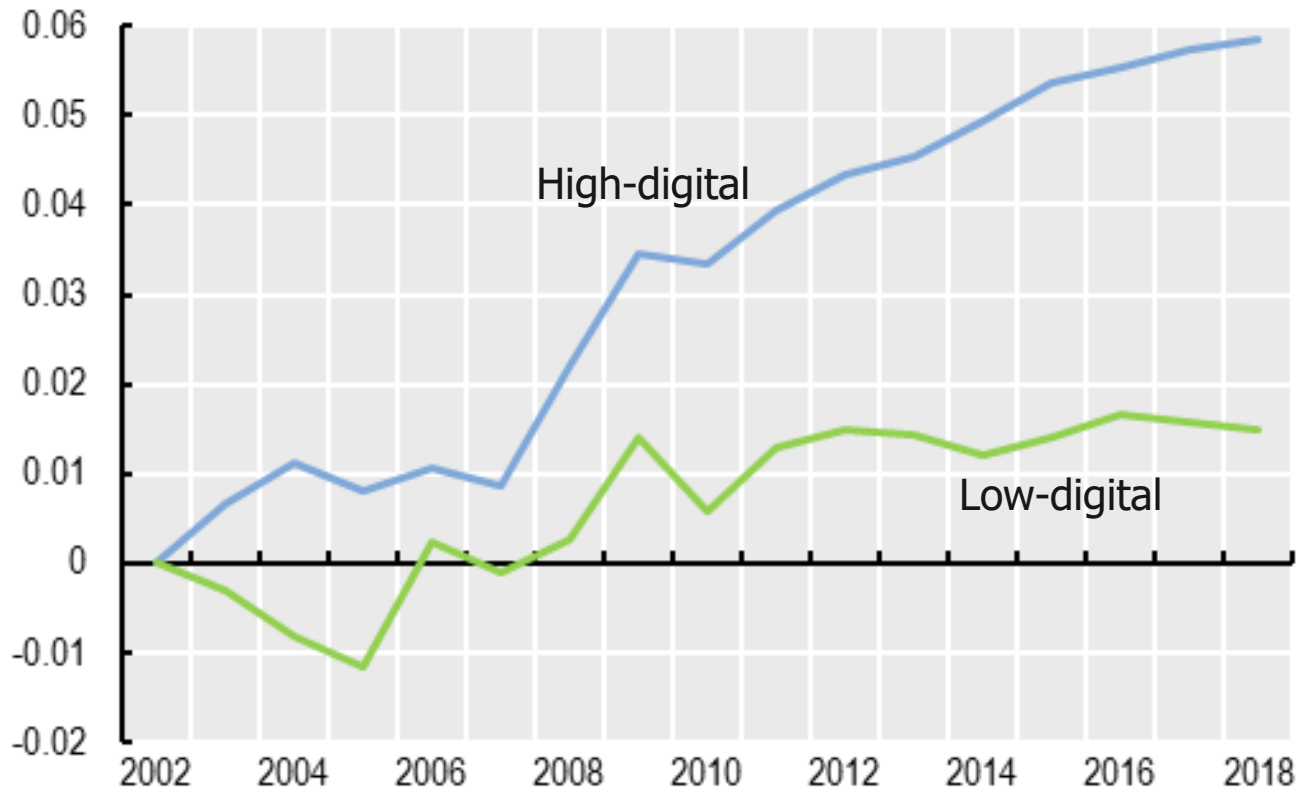
Digital Adoption: Opportunities, Complementarities and Risks

- Shock pushed fast adoption of digital technologies:
 - After initial drop in output due to adjustments, increase firm productivity
 - Increased catch-up of SMEs, lower prod. Dispersion and lower inequality
 - Heterogeneous adoption patterns:
 - Larger, more digital and more productive firms more likely to adopt (multiple and more advanced) technologies.
 - Importance of **complementary (intangible) assets**
 - **Intangibles:** scalability, sunkness, synergies, non-rivalry, non-excludability
- Risks:
 - Perpetuate (if not increase) [dispersion in performance](#) observed pre-crisis
 - Increase in wage inequality
 - Increase in mark-ups and concentration [“market power”?]

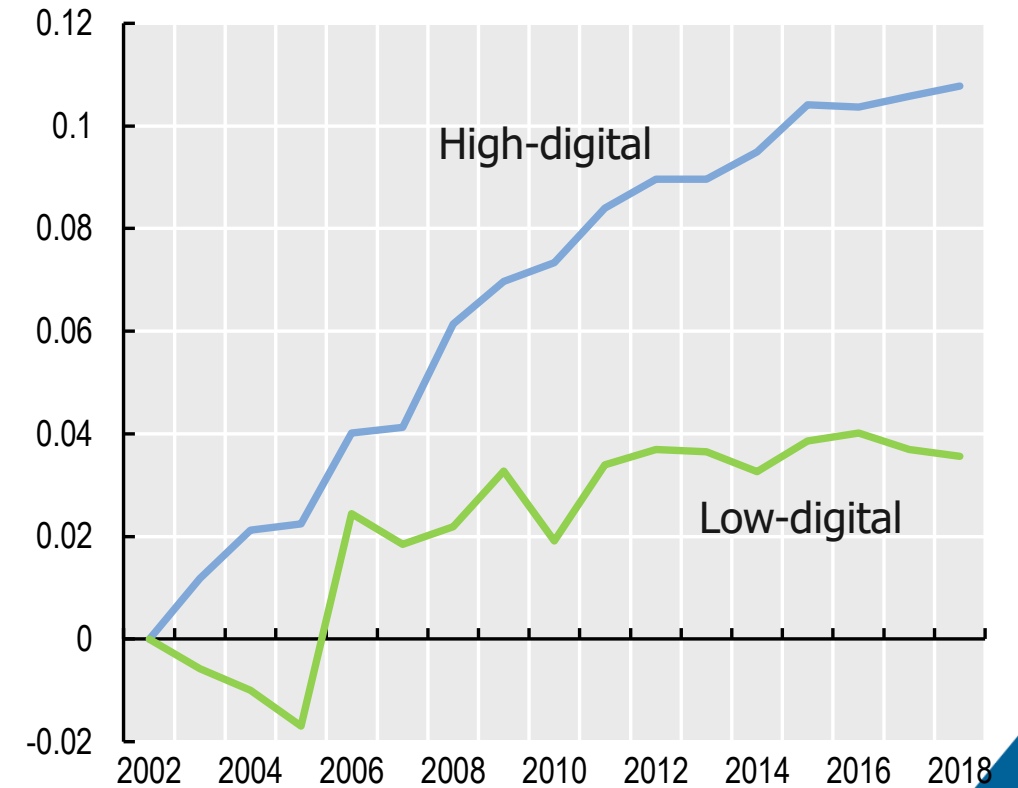


Mark-ups have increased - especially for top digital firms

Average mark-up trends: high- vs low-digital



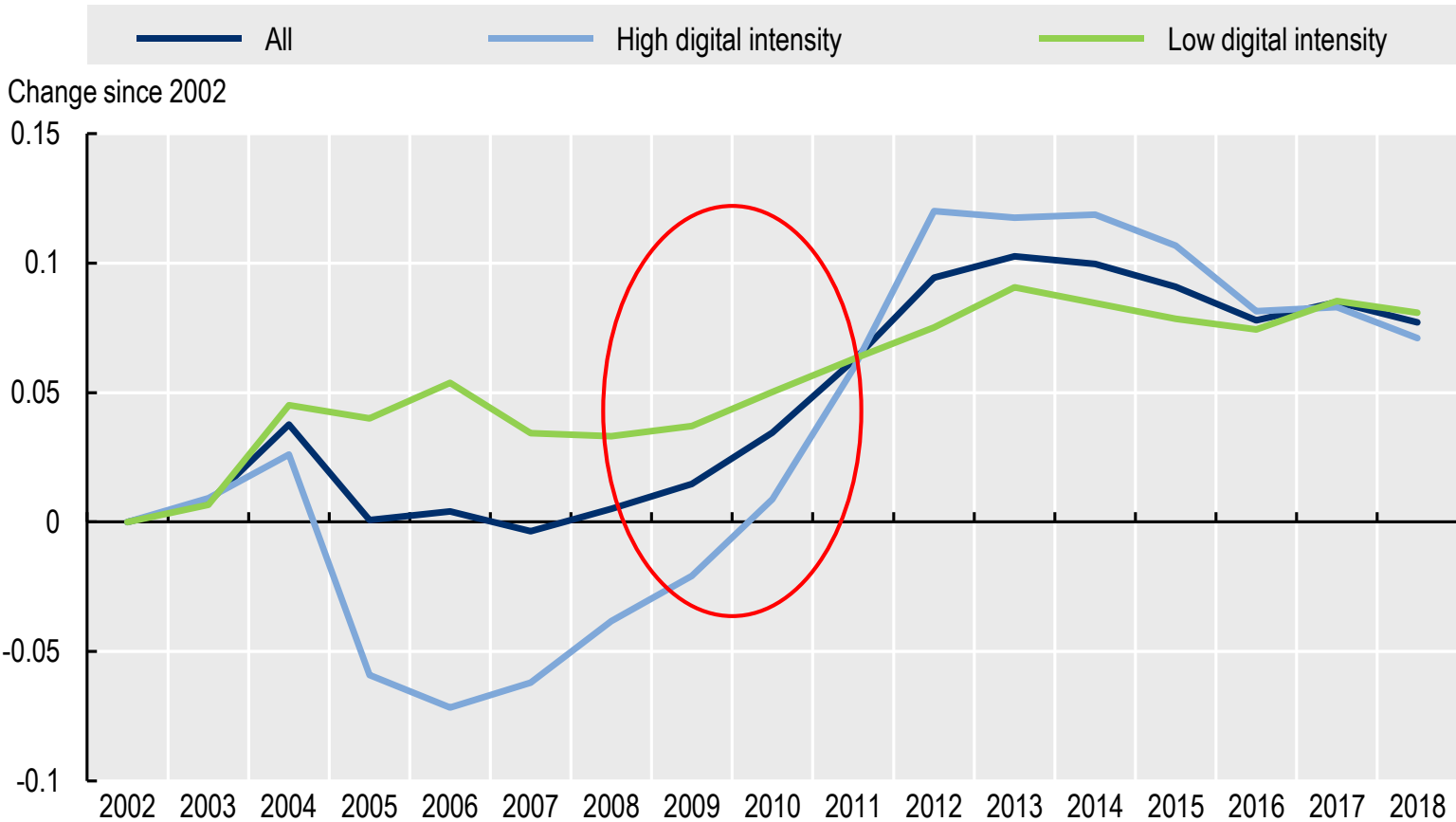
Mark-up trends for firms at the top of the distribution: high vs low-digital



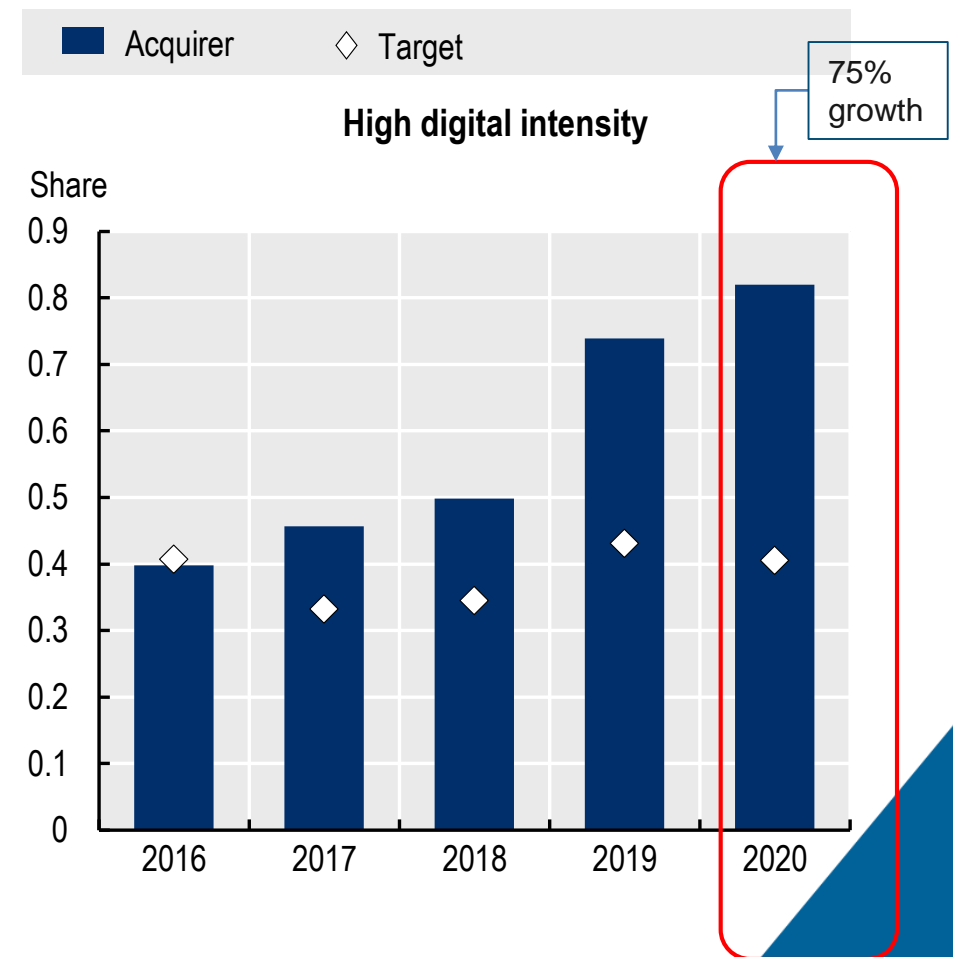


Risks: Concentration and M&As

Concentration (share of sales Top 8) has increased in the last decade



Trends in share of M&A activity (in values)





Will Concentration increase? A look at M&A Dynamics

	(1)	(2)	(3)
	Log Value of M&A deals		
Lagged concentration	0.122***	0.081**	0.081**
	(0.043)	(0.040)	(0.040)
Top 8		1.949***	1.740***
		(0.102)	(0.120)
Top8 x Digital			0.447***
			(0.175)
Observations	28145	28145	28145
Pseudo R-Square	0.122	0.155	0.156
Country and Sector and Year FE	YES	YES	YES
Num. Countries	12	12	12



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Digital + intangibles: higher resilience
higher productivity &
higher performance at the bottom

Telework and productivity
ambiguous (at firm and local level)

Heterogeneous adoption:
dispersion and (wage) inequality
Rise in concentration



Structural Policy: a strategic Ally to Monetary and Fiscal Policies for a Green, Digital and Inclusive Recovery

1. Fostering digital diffusion and sectoral reallocation:
 - Policies that facilitate labour mobility and provide workers with the necessary skills (e.g. digital)
 - Digital infrastructure
 - Support complementary investment in intangible assets
2. Enabling entry, exit and growth of innovative firms
 - New opportunities: e.g. new business models, green and digital/remote
 - Reduce red tape and regulatory uncertainty and level the playing field
 - Support experimentation and growth, and improve the efficiency of liquidation procedures and of judicial systems
3. Maintaining a competitive environment



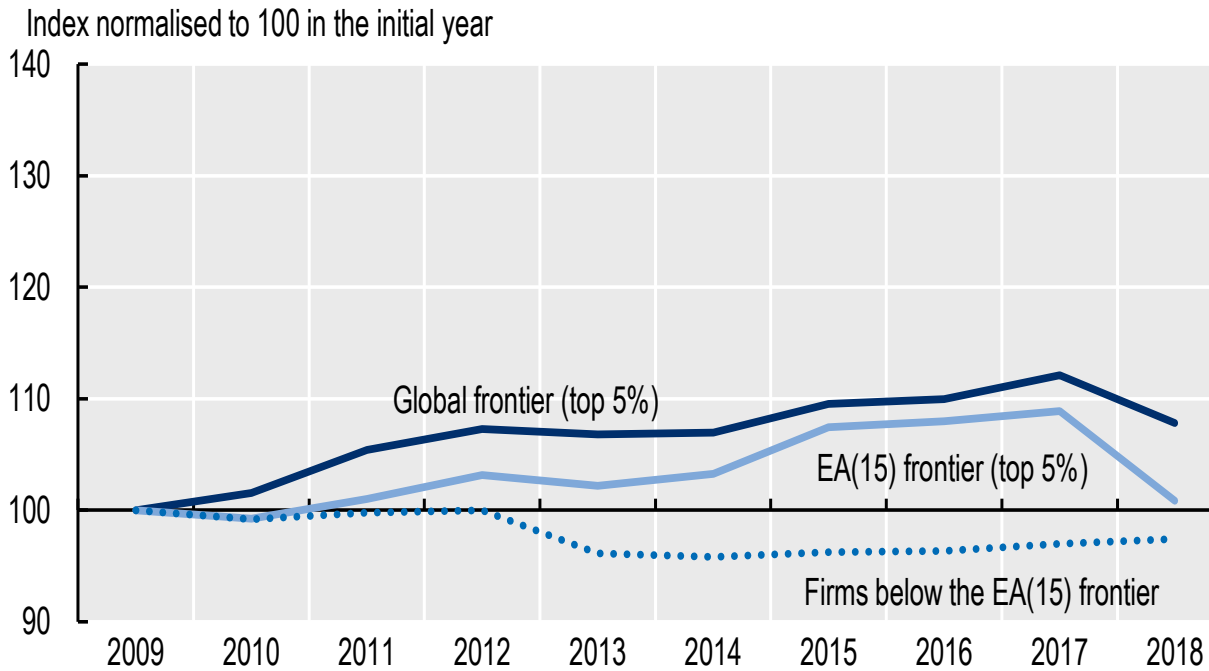
THANK YOU

Chiara.Criscuolo@oecd.org

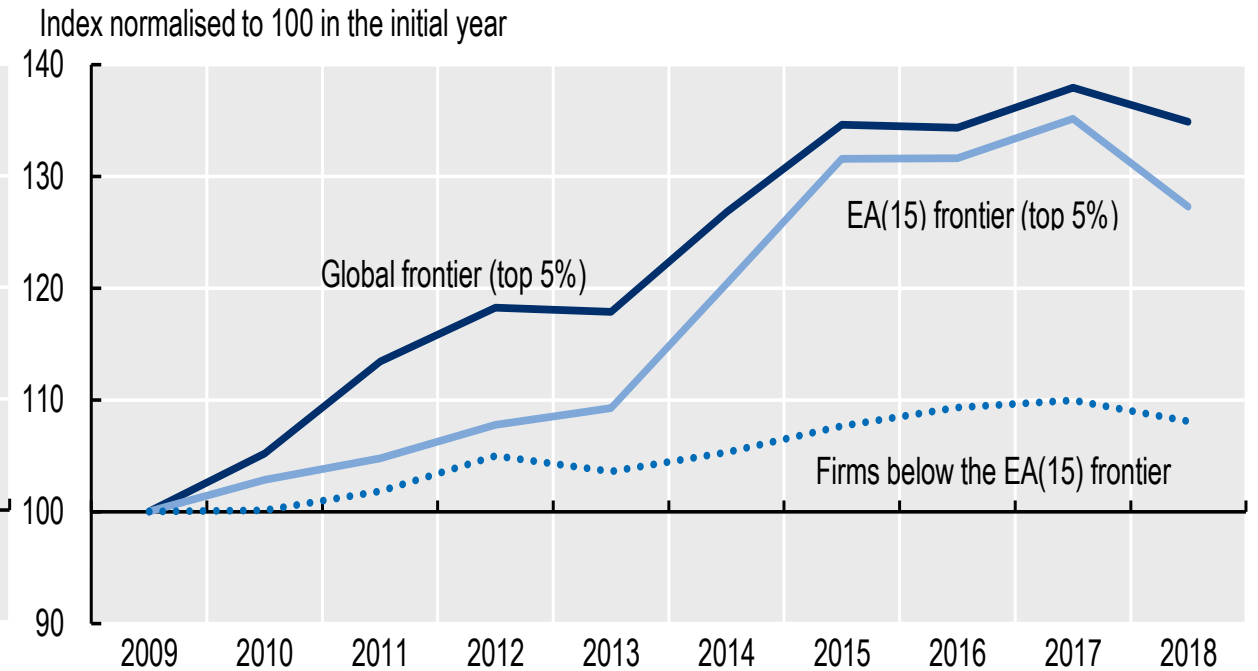


Increased Productivity Dispersion

Low digital intensity



High digital intensity



[back](#)



Investment in intangibles was more resilient than investment in tangibles

