EUROPEAN
DEPARTMENT

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

Key questions

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

Analytical approach

Key contribution: Evaluate the **impact** of corporate policy schemes on firms' liquidity and solvency in Europe in 2020.

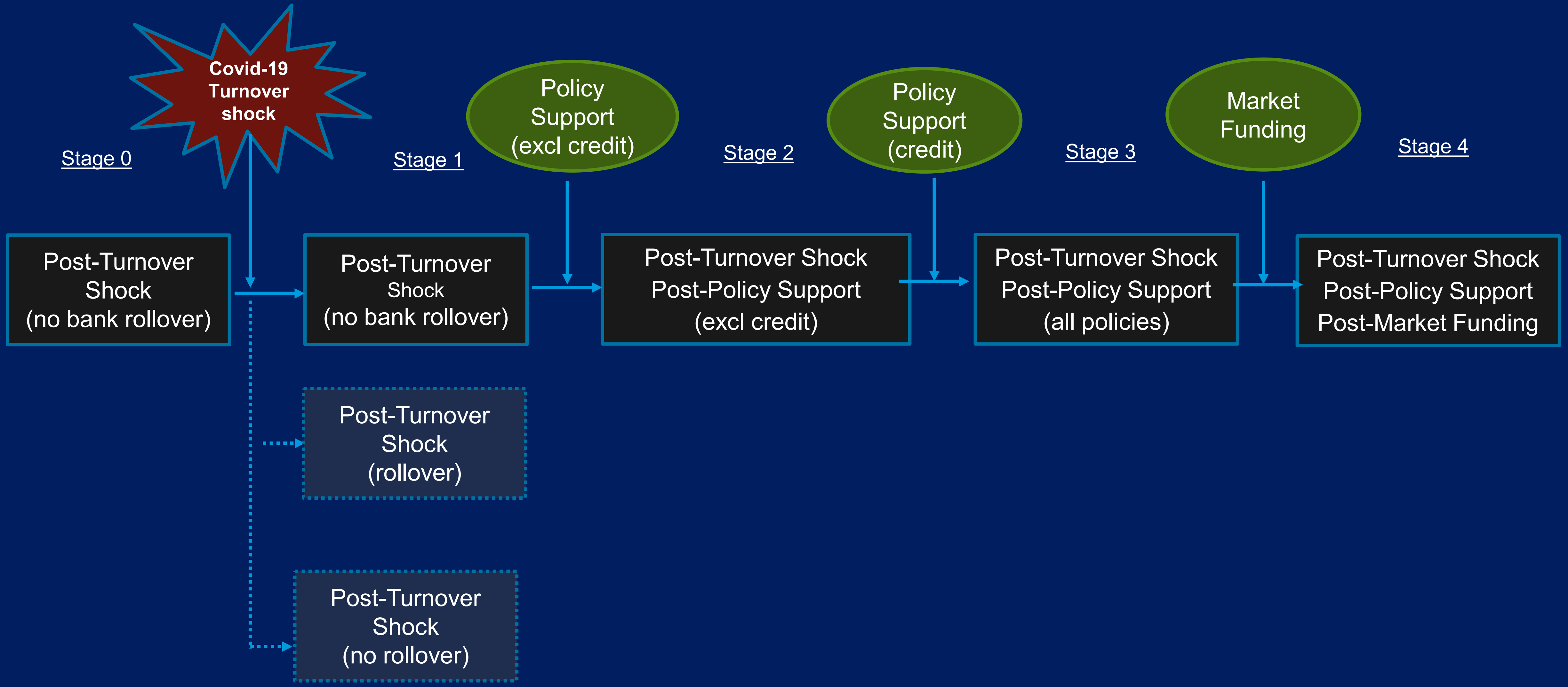
Data Set: Construct original granular database of **policy schemes**

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
Stage 1
Stage 2
Stage 3
Stage 4
Policy Support (excl credit)
Policy Support (credit)
Market Funding
Post-Turnover Shock (no bank rollover)
Post-Turnover Shock (no bank rollover)
Post-Turnover Shock Post-Policy Support (excl credit)
Post-Turnover Shock Post-Policy Support (all policies)
Post-Turnover Shock Post-Policy Support Post-Market Funding
Post-Turnover Shock (rollover)
Post-Turnover Shock (no rollover)

Data: Firm Coverage

	Number of Firms (thousands)			Turnover (bn EUR)			Share turnover (Percent)
	Total	SMEs	Large	Total	SMEs	Large	
Advanced Europe	**2,522.8**	**2,484.9**	**38.0**	**21,070**	**3,720**	**17,550**	**83**
Austria	2.6	1.5	1.1	394	25	369	56
Belgium	26.3	24.2	2.1	866	142	724	81
Czech Republic	189.4	188.2	1.1	388	153	235	76
Denmark	6.6	5.6	1.0	318	24	294	61
Finland	14.7	13.9	0.8	391	60	332	103
France	422.7	415.8	6.9	4,440	808	3,632	119
Germany	10.3	5.1	5.2	3,139	99	3,040	48
Greece	24.8	24.3	0.5	170	63	107	68
Ireland	0.9	0.6	0.3	506	8	497	76
Italy	926.7	920.3	6.3	2,735	1,112	1,623	93
Latvia	100.7	100.6	0.1	56	36	21	101
Portugal	230.0	229.1	0.9	402	178	224	114
Slovak Republic	180.3	179.8	0.4	140	88	52	70
Slovenia	14.2	14.1	0.1	45	22	23	47
Spain	198.3	194.5	3.7	1,822	485	1,337	93
Sweden	154.3	152.4	1.8	715	200	715	89
United Kingdom	20.1	14.7	5.5	4,542	216	4,326	108
Emerging Europe	1,959.3	1,947.8	11.5	**4,525**	**1,631**	**2,893**	**82**
Bulgaria	314.8	314.4	0.3	143	90	52	108
Croatia	104.6	104.4	0.2	87	51	36	100
Hungary	52.4	51.8	0.6	241	90	151	85
Poland	47.1	45.3	1.8	622	170	451	61
Romania	11.3	10.6	0.6	178	59	119	64
Russia	1,040.4	1,034.6	5.8	2,586	903	1,683	97
Serbia	105.6	105.3	0.2	87	53	34	105
Turkey	15.9	14.6	1.2	300	73	227	31
Ukraine	267.3	266.7	0.5	282	142	139	89
Total	4,482.1	4,432.7	49.4	**25,595**	**5,352**	**20,444**	**82**

- 4.5 million firms, 26 countries
- 21 EU and 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

$$\boldsymbol{Cash_t} = CashFlow_t + Liquid\ assets_t + (1 - Interest_t \cdot) NewCredit_t - Maturing\ liabilities_t - Dividend_t$$

$$\boldsymbol{CashFlow_t} = \beta \cdot (Sales_t - Materials_t) + (Fin\,\mathrm{Re}\,v_t - FinExp_t) - Wages_t - Other\,\mathrm{Cos}\,t\,s_t - Taxes_t$$

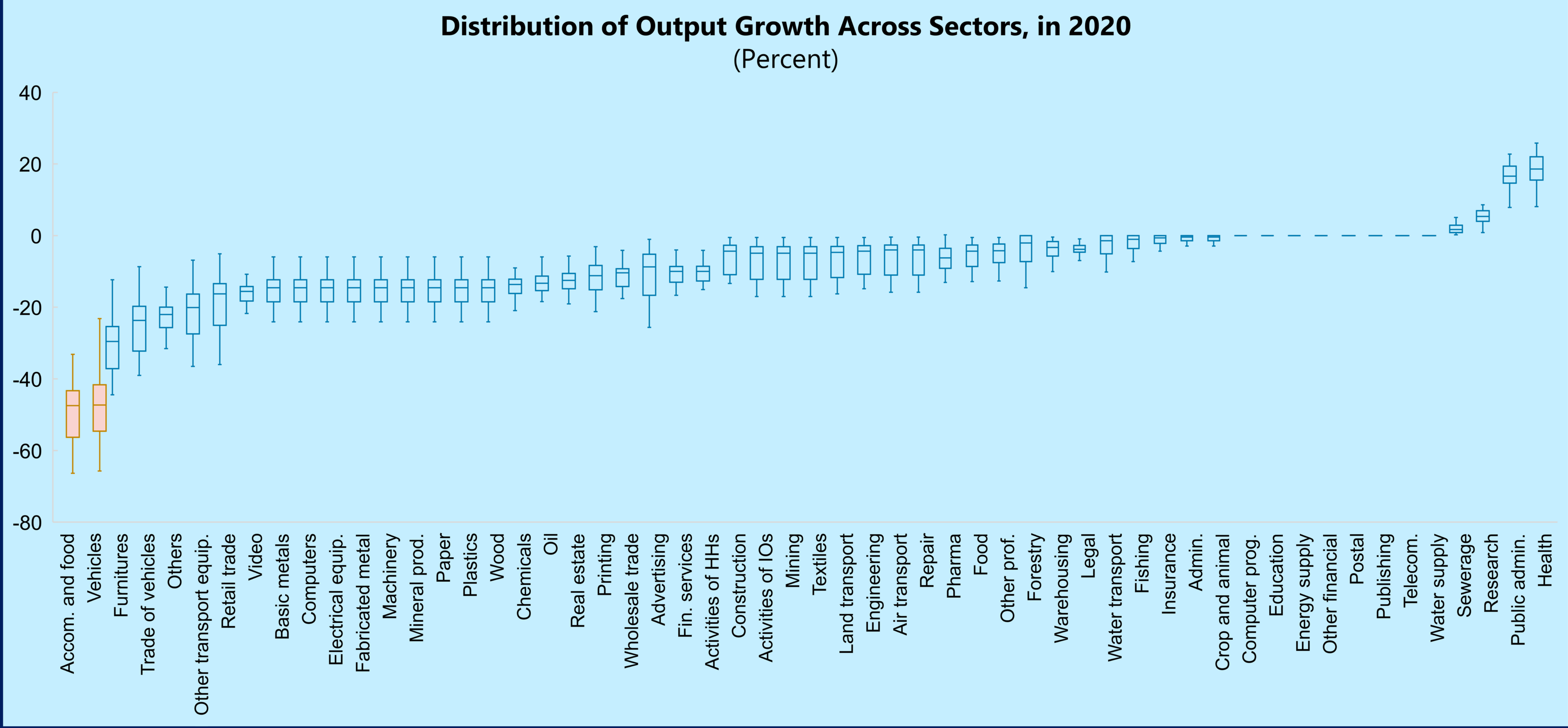
$\boldsymbol{\beta} =$ *Shock to turnover (country-sector specific)*

$$\boldsymbol{Equity_t} = Equity_{t-1} + CashFlow_t - Amort_t - Dividend_t - Interest_t \cdot NewCredit_t$$

Credit Scenarios

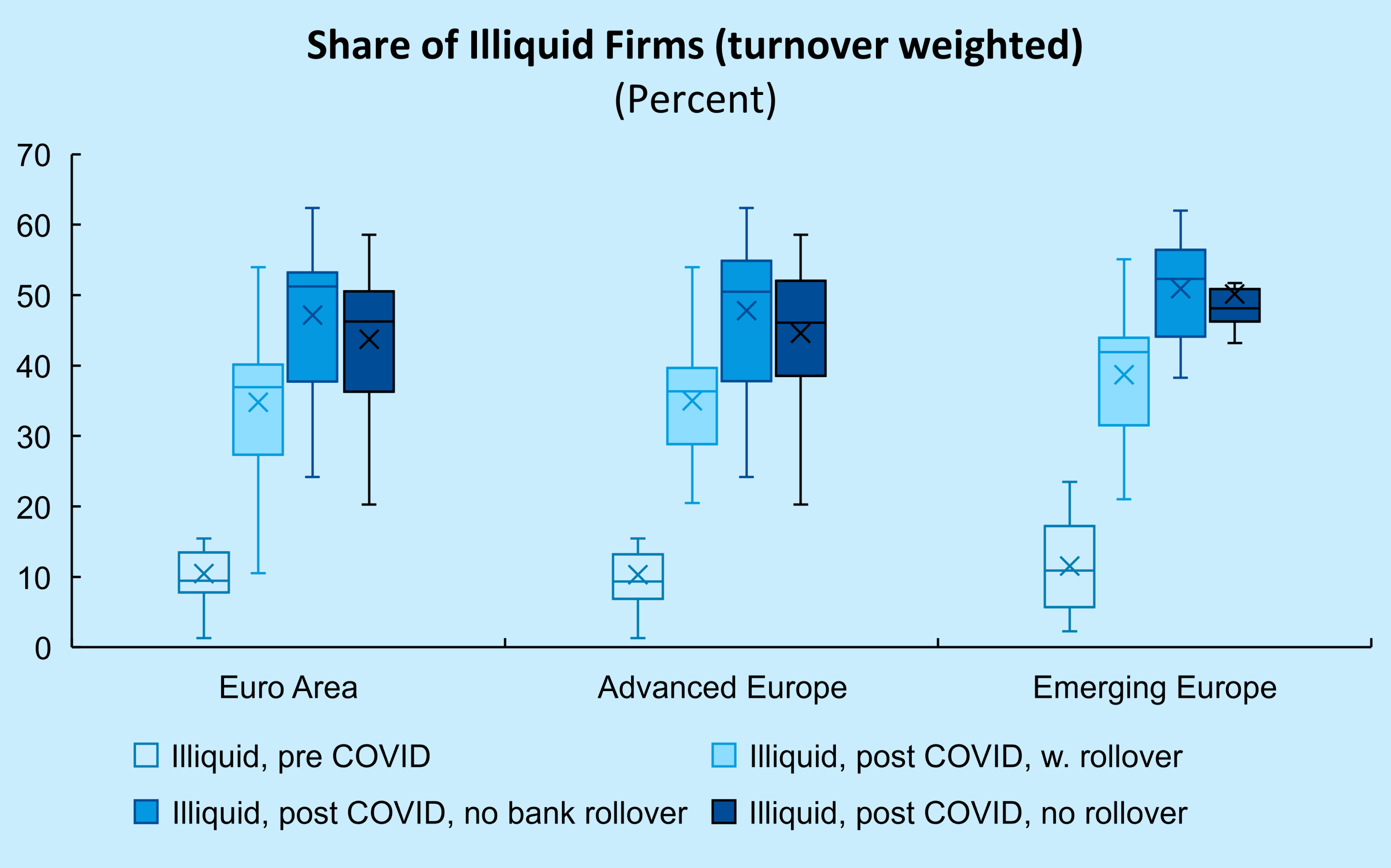
Credit Markets Scenarios	Liquid Assets		Maturing liabilities
	Pre-COVID	Post-COVID	
1. **Rollover**: Rollover of bank debt and trade credit	Current Assets - Trade Receivables	Current Assets - Inventories - Trade Receivables	Current Liabilities - Maturing Financial Debt - Maturing Trade Credit
2. **No bank rollover**: No rollover of bank debt	Current Assets - Trade Receivables	Current Assets - Inventories - Trade Receivables	Current Liabilities - Maturing Trade Credit
3. **No rollover**: No rollover of bank debt or trade credit	Current Assets	Current Assets - Inventories	Current Liabilities

Sectoral shocks vary across sectors and countries

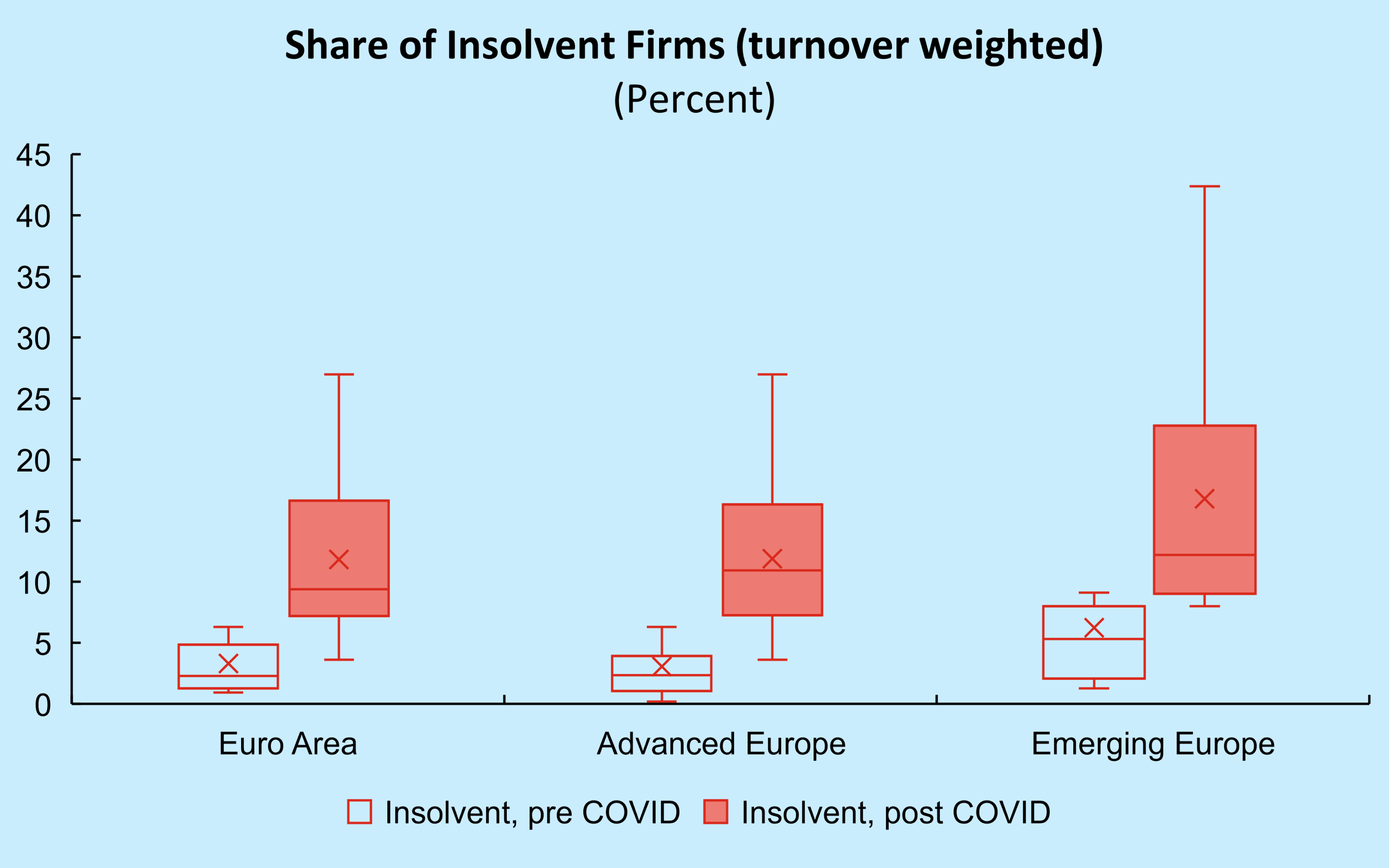


Covid-19 shocks: Sectoral shocks consistent with 2020 October 2020 World Economic Outlook.

Risk of sharp rise in share of illiquid firms, but easy financial conditions are helpful



Similarly, the share of insolvent firms could rise significantly



Strong and multifaceted direct policy support in Europe…

		Main Policy Measures				Other Policy Measures					External Funding	
		Wage subsidies	Grants	Debt moratorium	Guarantees	Tax deferral to 2021	Tax rebate	Equity injection	Subsidized rates	Policy rate	Bank credit	Debt Issuance
Advanced Europe	Austria	Medium	High	Medium	Medium						✓	✓
	Belgium	Medium	Medium	Medium	Medium			✓			✓	✓
	Czech Republic	High	Medium	Medium	Medium		✓			✓	✓	✓
	Denmark	Medium	High		Low			✓			✓	✓
	Finland	Medium	Medium		Medium	✓	✓	✓			✓	✓
	France	Medium	Medium	Medium	High		✓	✓			✓	✓
	Germany	High	High		High		✓	✓			✓	✓
	Greece	Low	Medium	High	Medium				✓		✓	✓
	Ireland	Medium	Low	Low	Medium	✓					✓	✓
	Italy	High	Medium	Medium	High			✓			✓	✓
	Latvia	Medium	Low		Low			✓			✓	
	Portugal	Medium		High	High	✓	✓		✓		✓	✓
	Slovak Republic	High		Low	Medium	✓			✓		✓	
	Slovenia	Medium	Low	High	Medium	✓					✓	
	Spain	Medium			Medium		✓	✓			✓	✓
	Sweden	Medium	Medium		Medium	✓		✓			✓	✓
	United Kingdom	High	High		High	✓	✓			✓	✓	✓
Emerging Europe	Bulgaria	Medium	Medium	Medium	Medium						✓	
	Croatia	Medium		Medium	Medium	✓	✓		✓		✓	
	Hungary	High	Medium	High	Low		✓		✓	✓	✓	
	Poland	Low	Medium	Medium	Medium	✓	✓	✓		✓	✓	
	Romania	Medium	Low	High	Medium	✓				✓	✓	✓
	Russia	Low	Low		Low	✓	✓		✓	✓	✓	✓
	Serbia	Low		Medium	Low	✓				✓	✓	✓
	Turkey	Low		Medium	High			✓		✓	✓	✓
	Ukraine	Medium			Low				✓	✓	✓	✓

High intensity

Medium intensity

Low intensity

…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)

Firm Management Actions

Effects of measures on solvency and liquidity

Solvency (+)
Liquidity (+)

Solvency (n/a)
Liquidity (+)

Solvency (-)
Liquidity (+)

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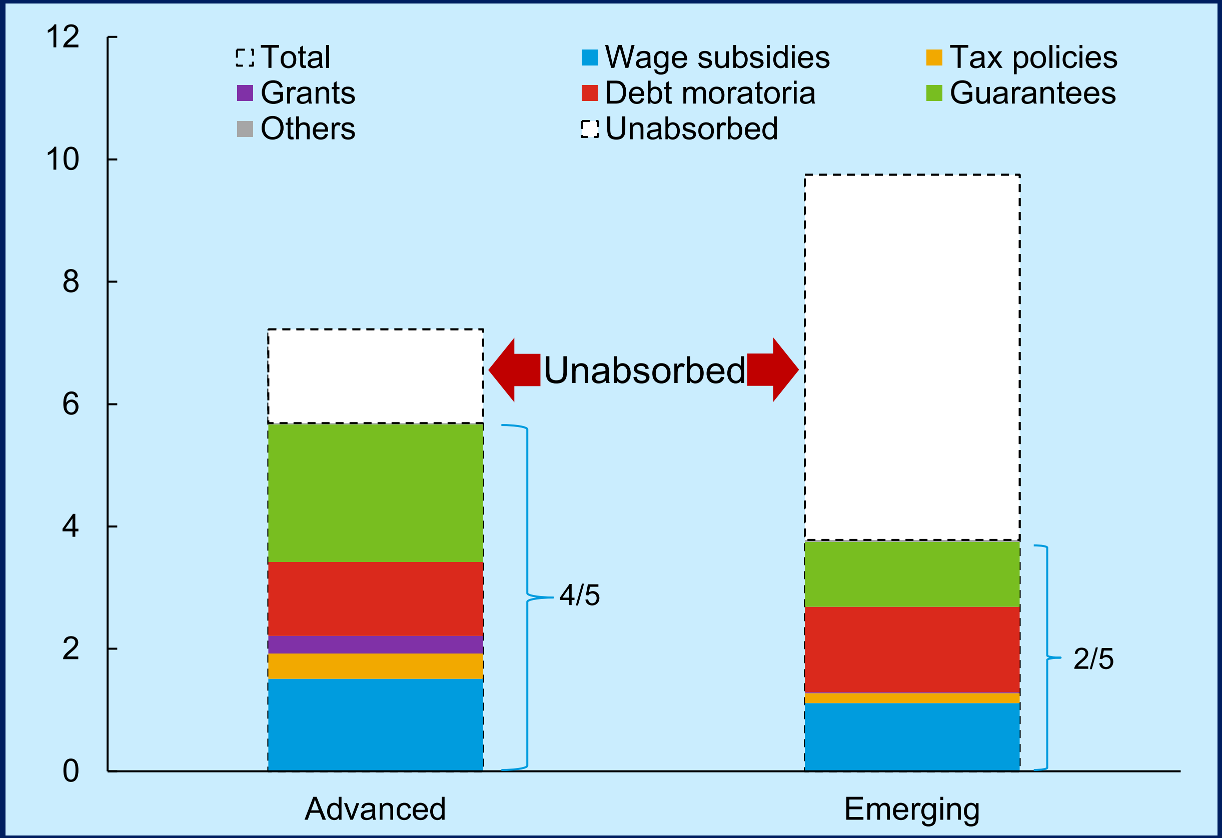
Simulation: assumptions

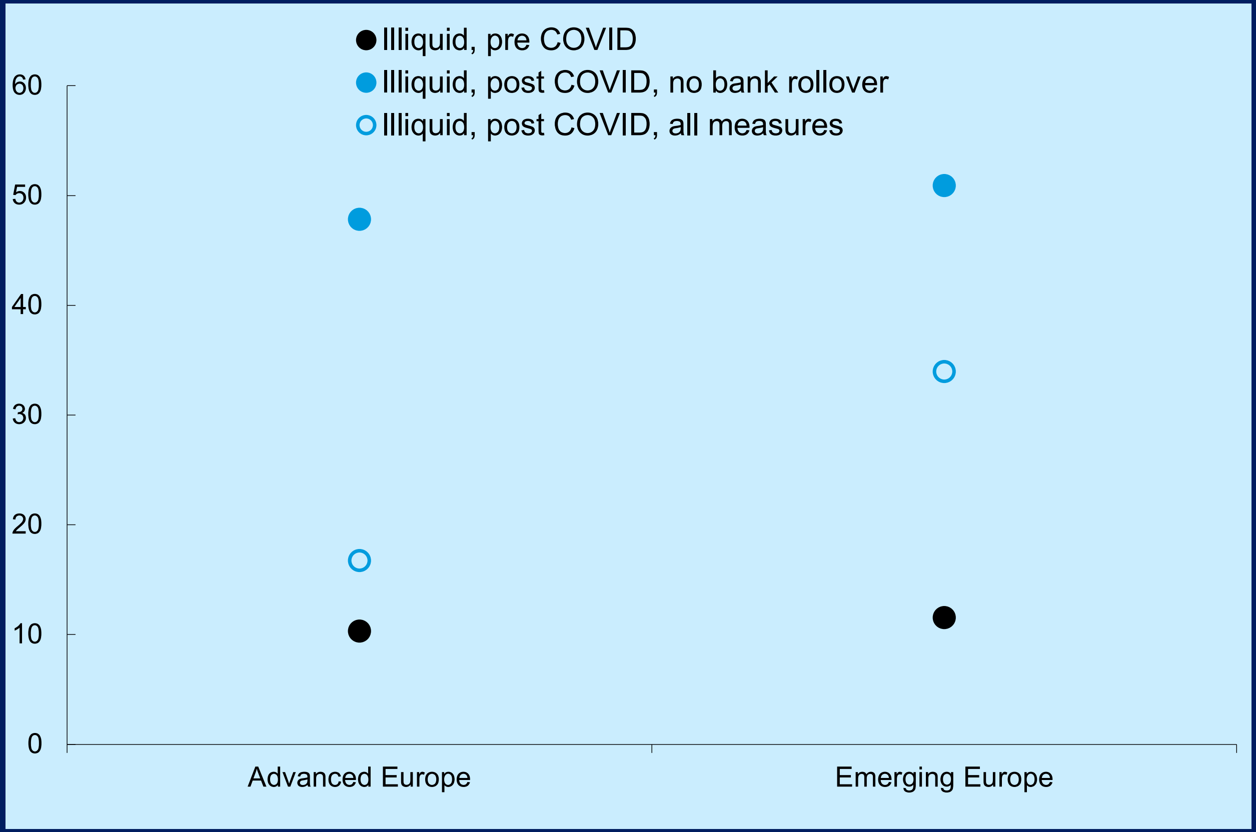
- Firms take maximum advantage of the measures they are eligible for
    - Conditionality of use related to firm size, corporate type, economic sector, turnover loss, financial position, and max amount of compensation
- Eligible firms with non-negative pre-Covid equity receive government loan support.
- Firms with non-negative pre-Covid equity access market finance, consistent with credit developments and aggregate projections.

Corporate support policies could significantly reduce liquidity shortfalls in AE in Europe …

Increase in Liquidity Shortfalls and Shortfalls Covered by Announced Policies (% of GDP)



Share of Illiquid Firms (turnover weighted) (Percent)

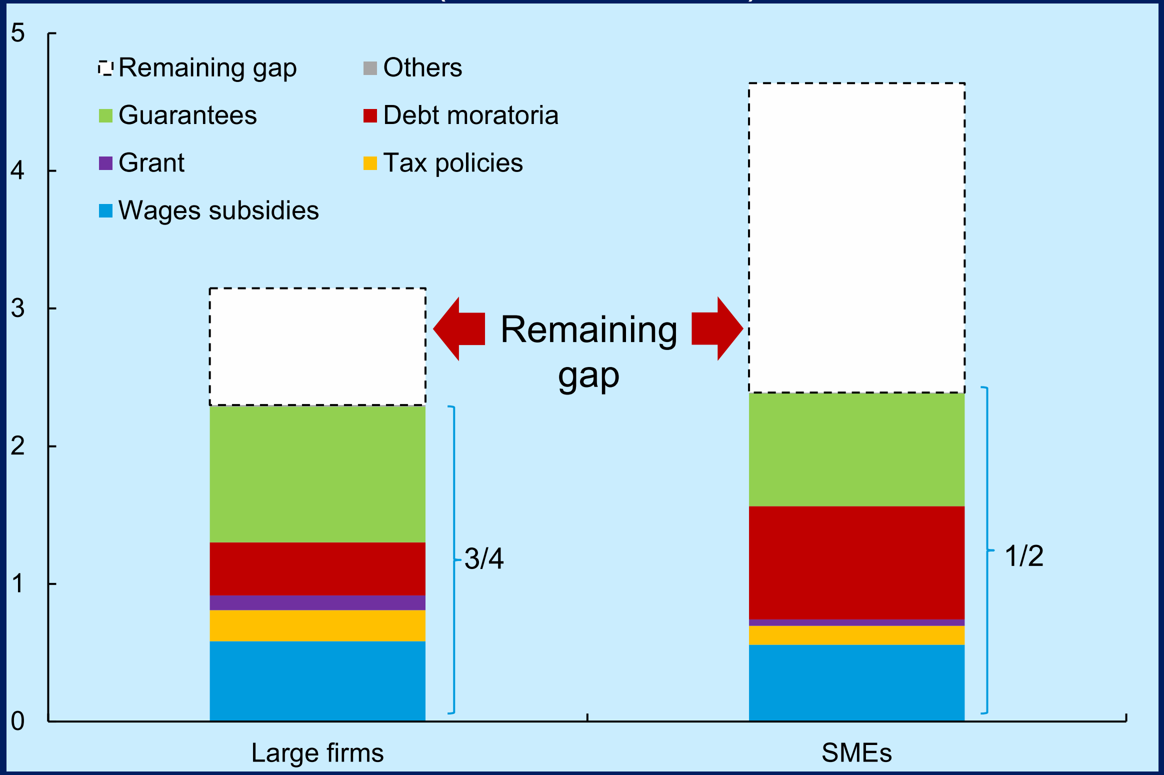


- Policies (loan guarantees, job retention schemes, debt moratoria) appear to address liquidity shortfalls more in AE than in EE

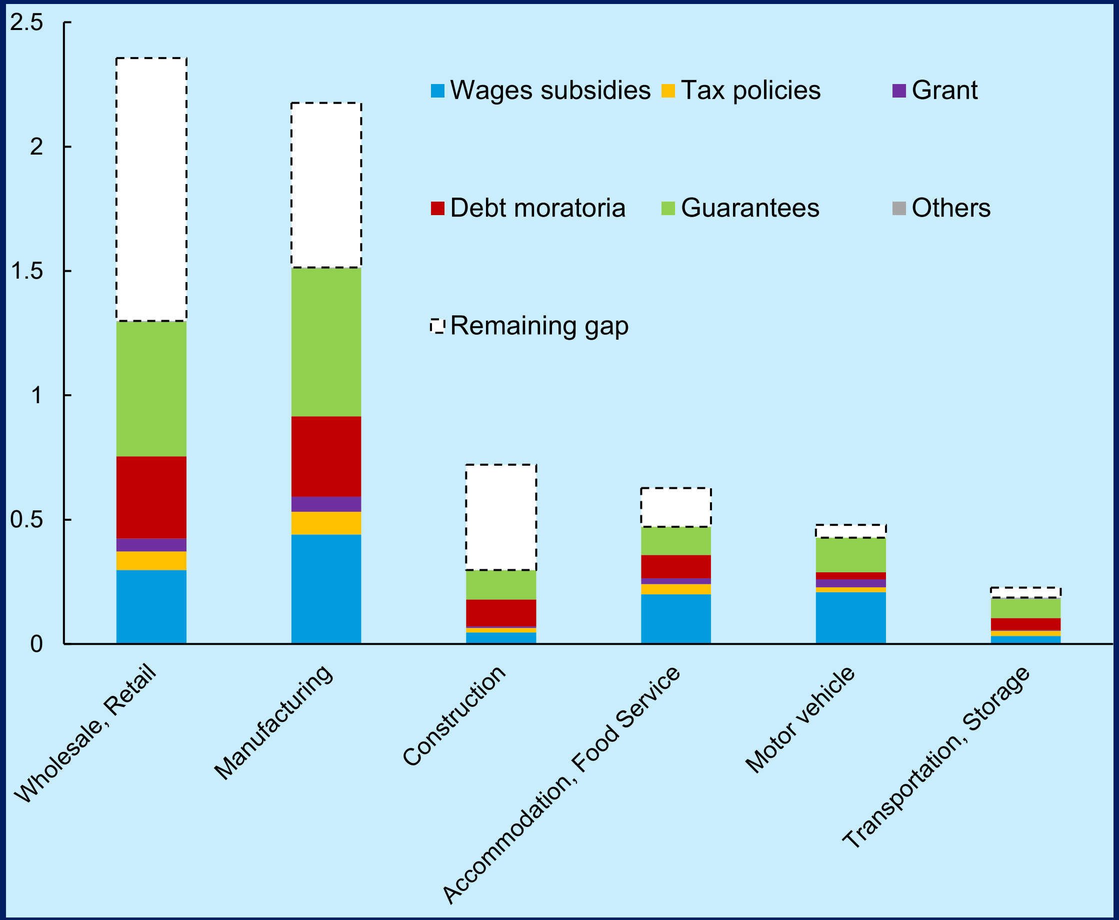
…but would not fully address liquidity shortfalls in SMEs and in some sectors

Increase in Liquidity Shortfalls and Liquidity Shortfalls Covered by Announced Policies

By Firm Type
(Percent of GDP)

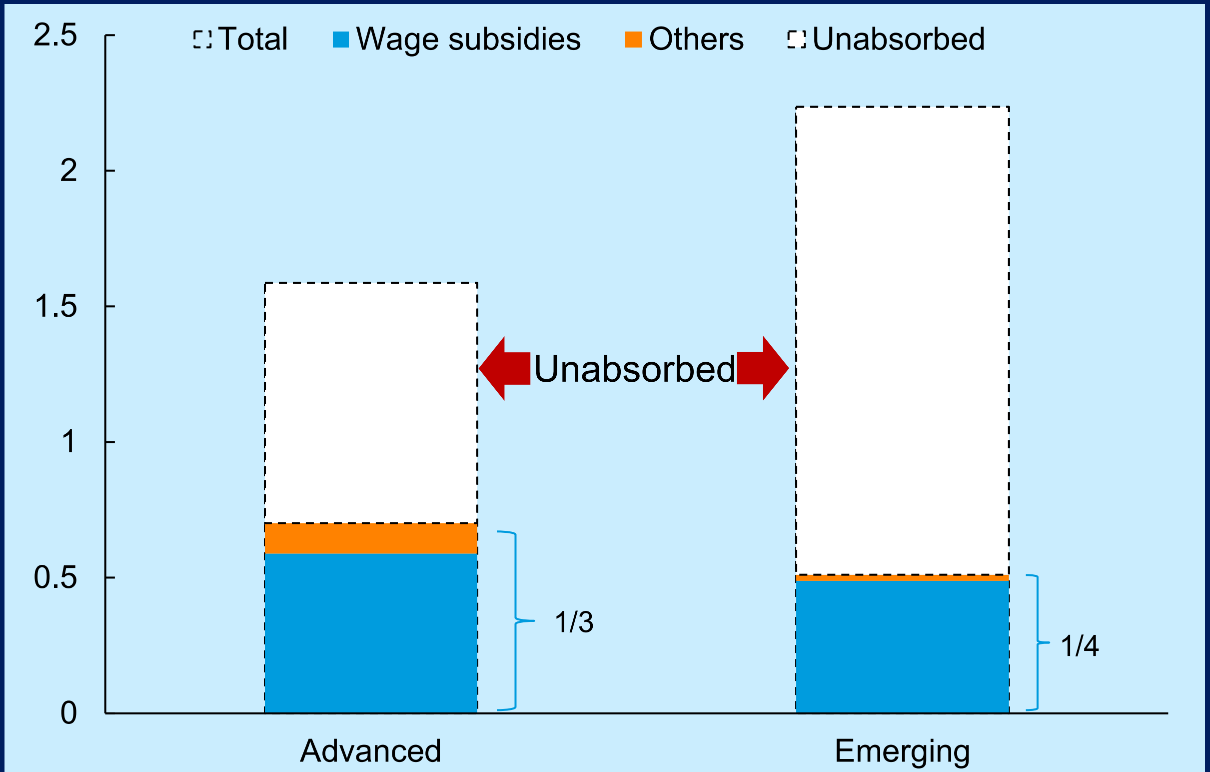


By Sector
(Percent of GDP)

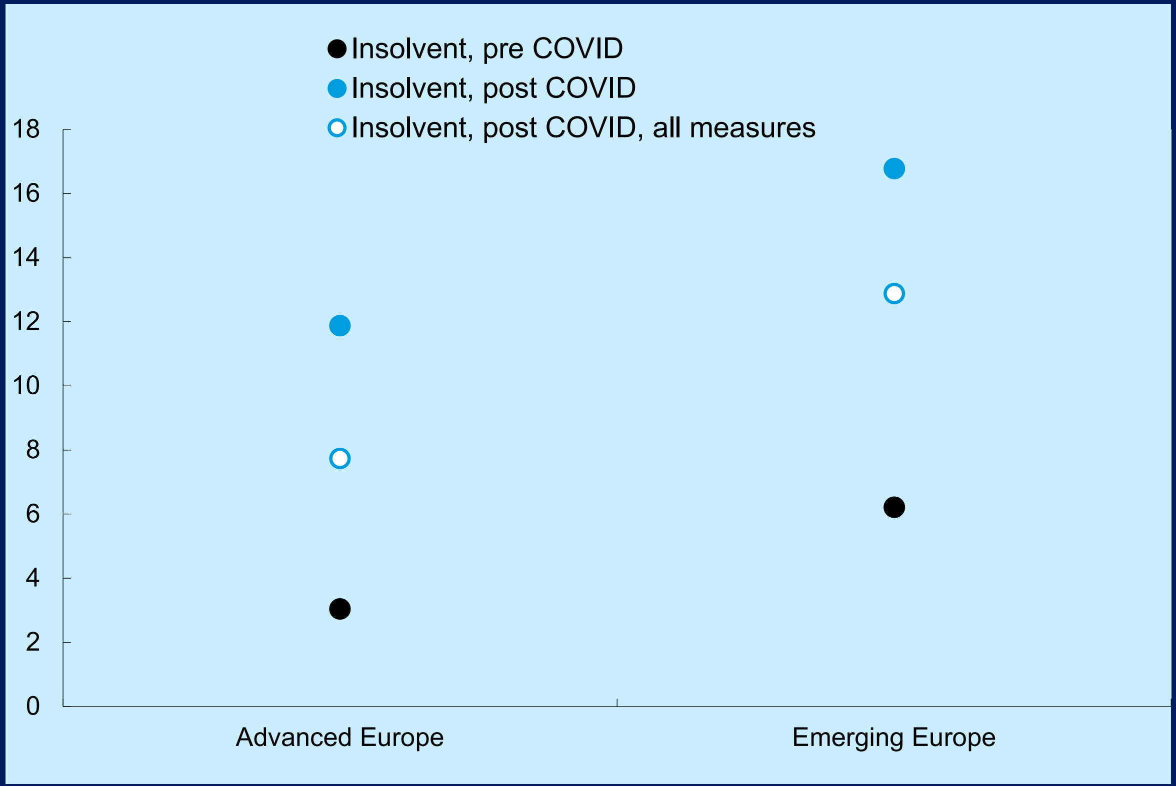


Corporate support policies so far have been less effective at reducing solvency risks…

Increase in Equity Shortfalls and Shortfalls Covered by Announced Policies (Percent GDP)



Share of Insolvent Firms (turnover weighted) (Percent)

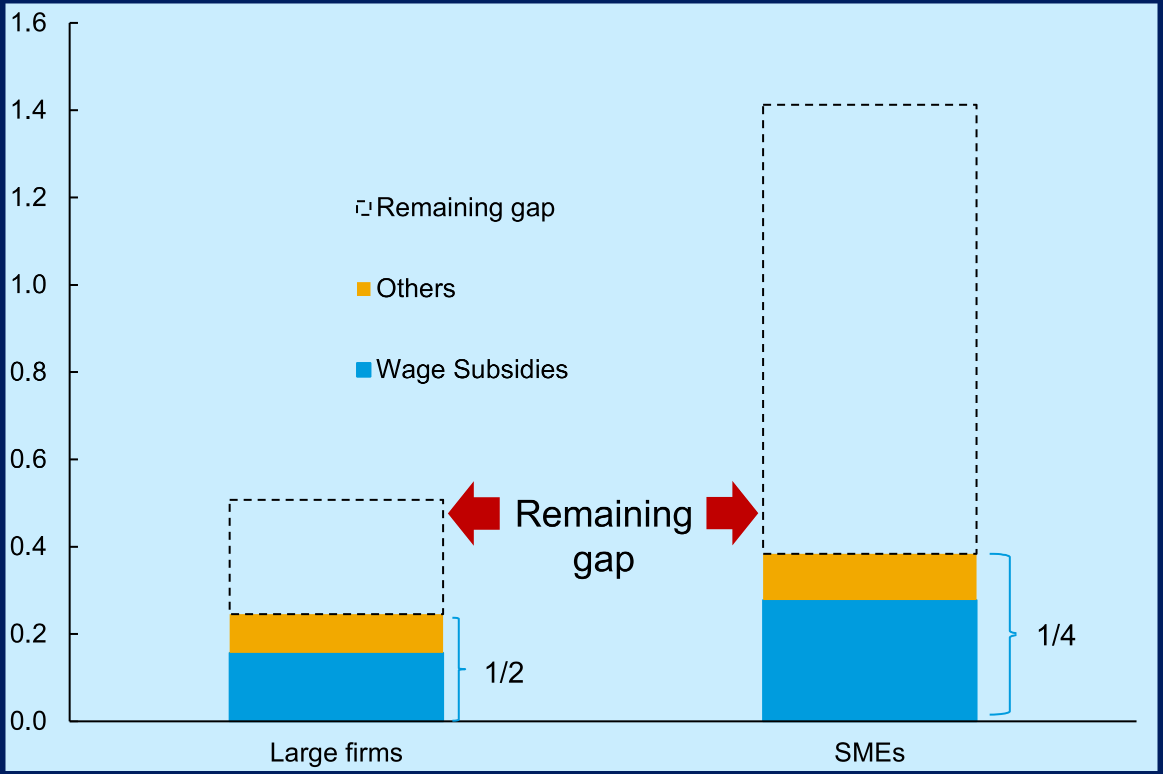


- Job retention schemes are among the most effective policies for solvency as they support P&L

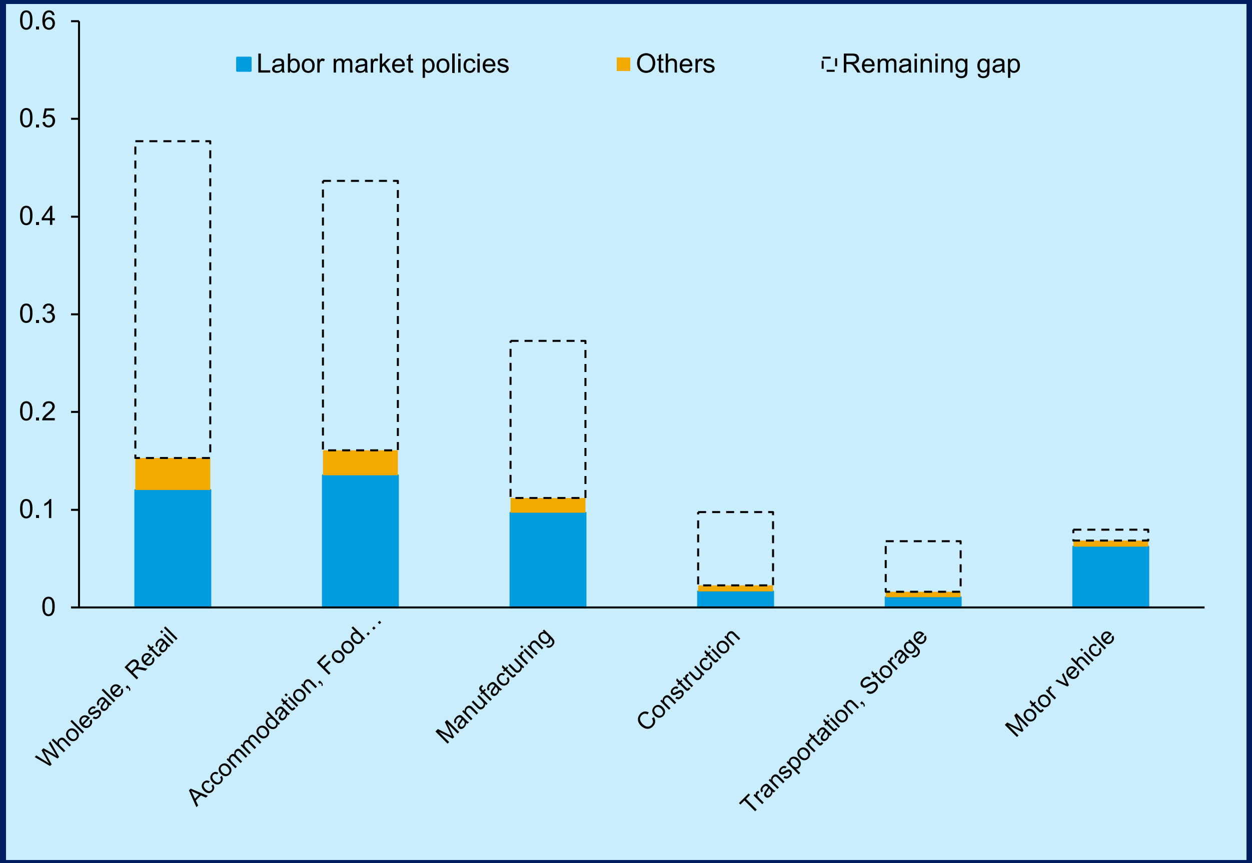
…especially for SMEs and for contact-sensitive sectors

Increase in Equity Shortfalls and Equity Shortfalls Covered by Announced Policies

By Firm Type
(Percent of GDP)



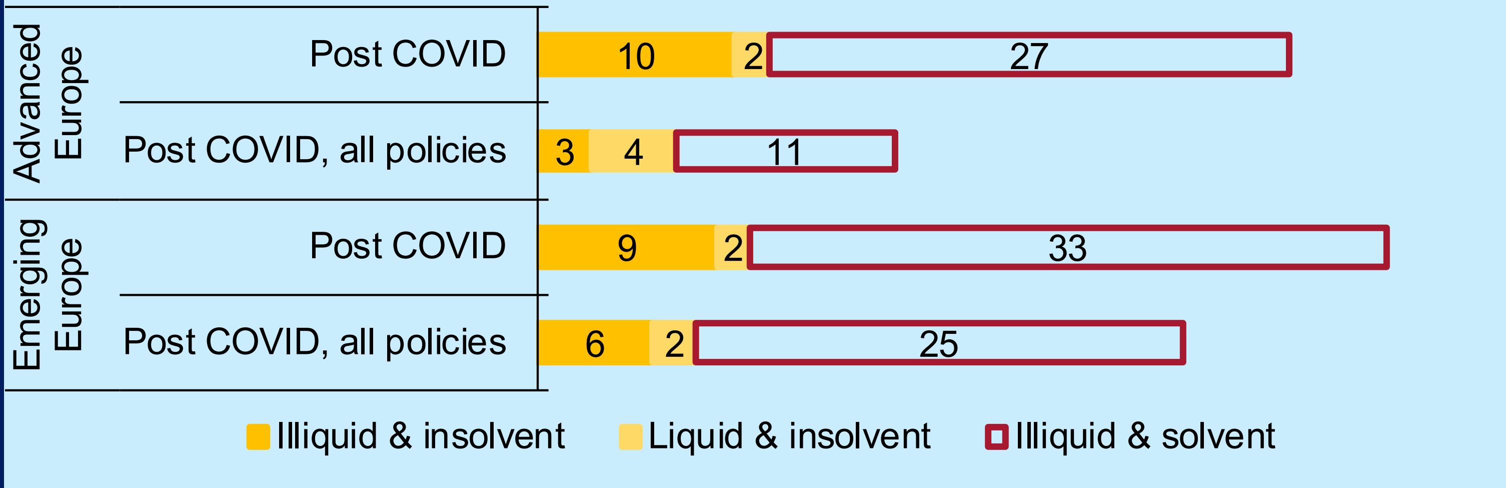
By Sector
(Percent of GDP)



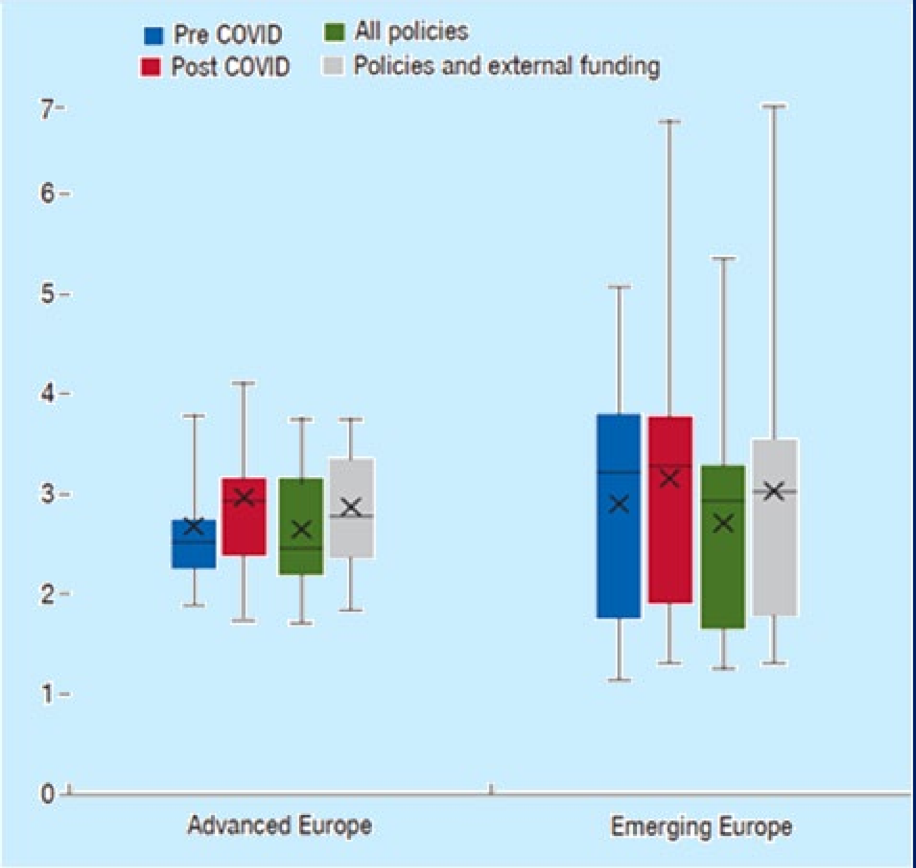
- Corporate defaults—which are low now—are likely to increase given remaining liquidity and solvency gaps.

Scarring could occur both through bankruptcies of previously sound firms and through excessive leverage

Pool of firms that were solvent pre-COVID-19 (Percent)



Leverage ratio of highly leveraged firms



- 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