COVID19: QUARANTINED ECONOMICS

Economic, Capital Markets and Industry Research

Global Economic Outlook

as of March 2020

EULER HERMES

Allianz

PRE COVID-19: WALL OF UNCERTAINTIES

TRADE WAR

- February 14: US section 301 tariffs of 15% imposed on 01/09/2019 (subset of $300 Billion) cut in half.
- Average US tariffs on imports from China remain elevated at 19.3 percent.

ECONOMIC SLOWDOWN, RECESSION

- No full-fledged global recession
- Soft landing of the economy: after +3.1% in 2018, +2.5% in 2019, +2.4% in 2020E (expected before COVID-19)

ITALIAN FISCAL POLICY

- The new governing coalition in Italy takes away, at least temporarily, the risk of a strong confrontation with the EU as the fiscal deficit is likely to be kept under control

USA 2020 ELECTION

- Additional volatility, in the US, on the back of the campaign: trade policies, financial vulnerabilities, the fragile emerging markets and high valuations will create more volatility.

HONG-KONG PROTESTS

- Economic recession, economic outlook revised downwards

EARNINGS RECESSION

- Strong correction post Q4 2018
- Since end of Q1, 12-month forward EPS gradually recovering (despite May + August disruptions)

GLOBAL BOND YIELDS

- Lower for longer: end of period forecasts: Bund -0.6% 2019, -0.1% 2020. 10-year U.S: 1.6% 2019, 1.9% 2020 – before COVID-19

NEGATIVE DEBT PILE

- Further vulnerabilities due to superdovishness of central banks
- Increasing risks for corporates in U.S., Eurozone & China (SOEs)

BREXIT

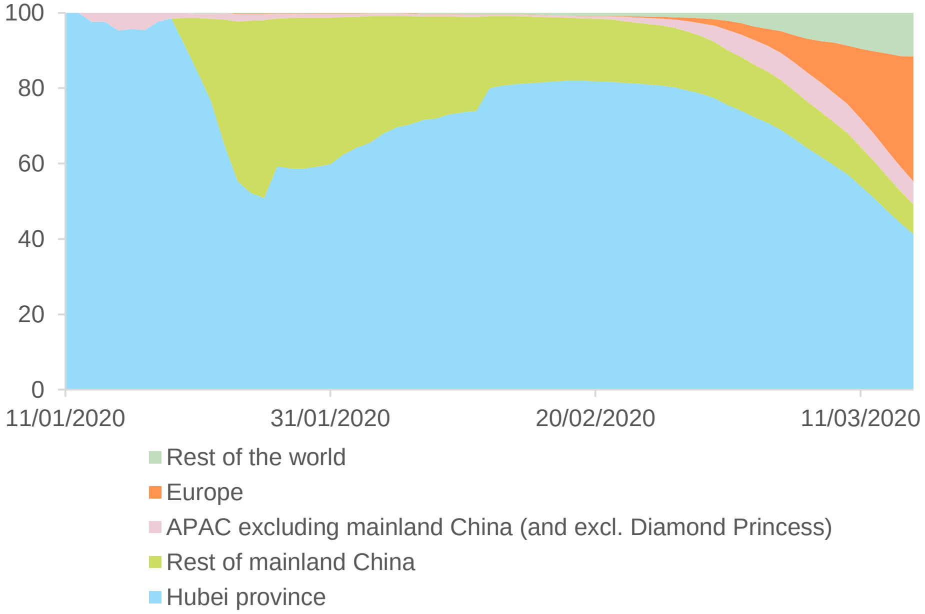
- The UK formally left the EU on 31 January 2020, but there is still a lot to talk about and months of negotiation to come.

CENTRAL BANK AMMO

- More central bank easing
- Diminishing returns to policy mix

THE GLOBAL PANDEMIC COULD LAST UNTIL JUNE

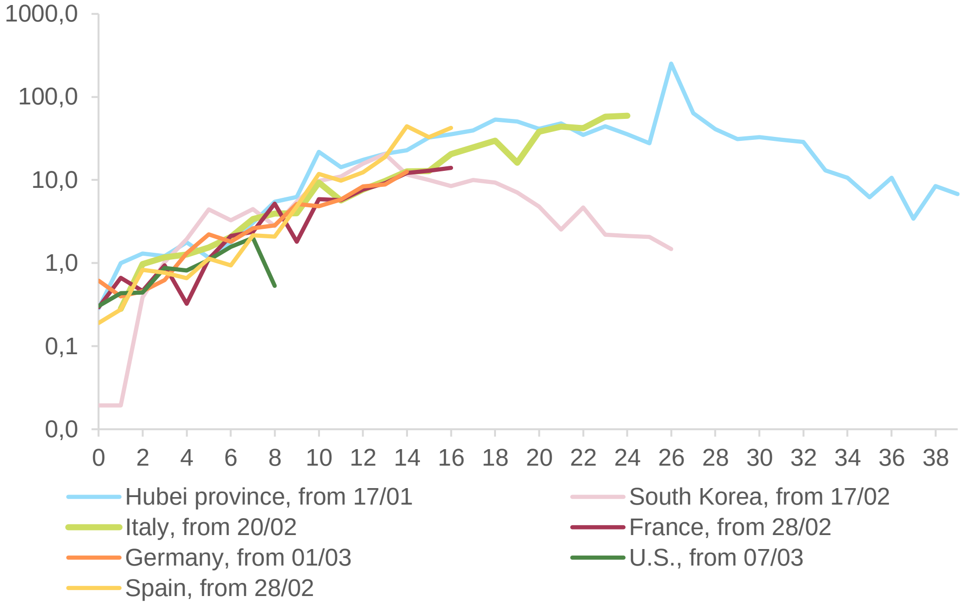
Distribution of confirmed cases of COVID-19 (%)



Source: Official reports, Allianz Research

Until 26 February, more than 95% of confirmed cases of COVID-19 were in mainland China. The distribution has since spread to the rest of the world, with c.33% of cases located in Europe, as of 15 March.

Daily change in number of confirmed cases per 1mln people



Source: Official reports, Allianz Research

Though not completely over yet, the spread of the epidemic in China took 32 days to recede (on 18 February). Italy, France, Germany and the U.S. are trailing the Hubei province by respectively 34, 42, 44, and 50 days.

COVID-19 SHOCK TRANSMISSION: 3 STAGES

STAGE 1

Epidemic in China

Supply-chain & trade shocks

STAGE 2

Epidemic starts spreading to rest of the world and authorities react belatedly

Financial markets shock

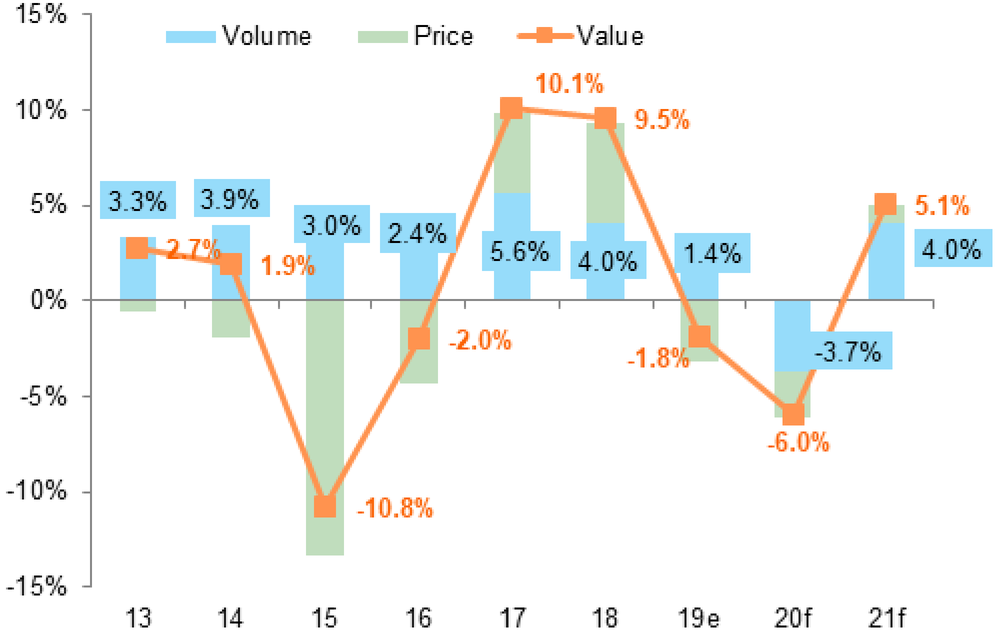
STAGE 3

Global pandemic and confinement measures

Consumption and demand shock

GLOBAL TRADE TO FALL INTO A STRONG RECESSION IN H1 BOTH IN VOLUME AND VALUE TERMS

Global Trade growth in volume and value (%, y/y)



Sources: IHS Markit, Euler Hermes, Allianz Research

We expect two quarters of recession in trade in goods and services (Q1 and Q2) which will bring the annual figure to -3.7% in 2020. In value terms, plummeting commodity prices will weigh on prices.

Cost for global trade for one month of confinement (USDbn)

	Goods *20% shock*	**Travel** *No travel during one month*	**Transport services** *A 50% shock due to the closure of borders & containement measures*	**Total**
EU 28	**104.1**	**34.8**	**16.1**	**155**
China	**72.0**	**24.0**	**8.0**	**104**
US	**42.8**	**11.1**	**4.2**	**58**
Total per month	**219**	**70**	**28**	**317**
Total per quarter	**436**	**282**	**54**	**772**

** For goods and transport services 1 month of lockdown, 1 month of 70% back to normal activity and 1 month of 80% back to normal activity*

For travel we take full impact for three months

Sources: ITC, Euler Hermes

We estimate that one month of confinement in the EU, China and the US would lead to USD317bn of export losses at the global scale. Over a quarter, taking into account a progressive come back to normal levels of activity, the losses would reach more than USD700bn

CLOSURE OF BORDERS IS A KEY RISK FOR SUPPLY CHAINS IN GERMANY, ITALY AND FRANCE

Western Europe sector vulnerabilities to imports from Eastern Europe

	Belgium	France	Germany	Italy	Netherlands	Spain
Agrifood	0.22%	0.41%	1.11%	1.00%	0.45%	0.51%
Automotive	0.60%	1.37%	2.82%	0.99%	0.73%	1.14%
Chemicals	0.13%	0.46%	1.02%	0.52%	0.37%	0.43%
Commodities	0.40%	0.04%	0.17%	0.34%	0.22%	0.07%
Construction	0.48%	0.84%	2.25%	1.84%	0.69%	0.61%
Electronics	0.19%	0.42%	0.88%	0.60%	0.25%	0.41%
Energy	0.01%	0.02%	0.22%	0.15%	0.14%	0.08%
Household Equipment	0.73%	0.84%	1.98%	1.18%	0.72%	0.85%
Machinery & Equipment	0.49%	0.67%	2.43%	0.73%	0.55%	0.74%
Metals	0.23%	0.36%	1.23%	0.71%	0.40%	0.35%
Paper	0.16%	0.41%	1.65%	0.68%	0.53%	0.43%
Pharmaceuticals	0.08%	0.24%	0.50%	0.20%	0.29%	0.31%
Textile	0.18%	0.31%	0.78%	1.07%	0.24%	0.18%
Transport Equipment	0.23%	0.18%	0.73%	0.54%	0.45%	0.18%
Total (incl. Others)	0.26%	0.56%	1.39%	0.74%	0.43%	0.52%

Sources : ITC, Euler Hermes, Allianz Research

Germany appears as the most dependent to imports from Eastern Europe (most notably in the agri-food, construction and machinery and equipment sectors). Germany is followed by Italy (with the highest dependency in construction, household equipment, textile) and France (with automotive, construction and household equipment). Sectors the most at risk of supply chain disruption are the automotive, construction and household equipment sectors. It appears that the chemicals, electronics, pharmaceuticals and transport equipment are the most resilient due to low levels of importations from Eastern Europe. When looking at the risk of insolvencies due to sourcing issues, in the top 5 sectors/countries most at risk, four sectors are in Germany: construction, paper, automotive and household equipment. The construction sector in France is the fifth sector.

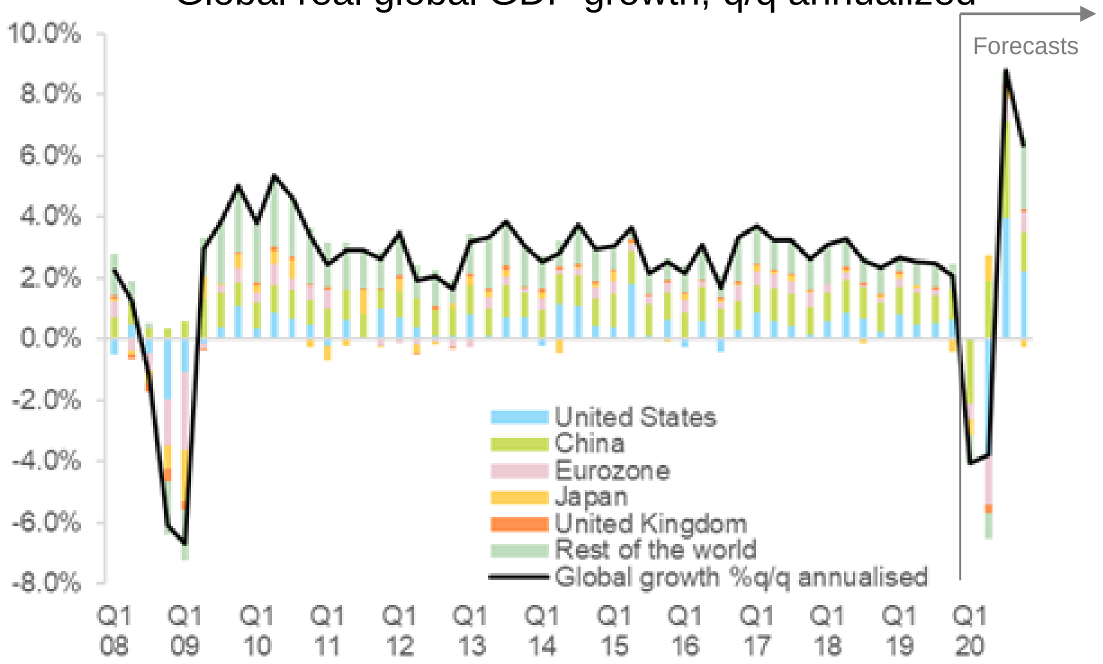
MARKET DASHBOARD

	16.03.2020	Year-to-date	Week-on-week	16.03.2020 - 20.02.2020	16.03.2020 - 20.01.2020
Sovereign Yields (10y)	%		bps		
US	0.73	-118	23	-80	-111
Eurozone	-0.46	-27	39	-1	-24
Germany	-0.46	-27	39	-1	-24
France	65	34	19	42	39
Italy	262	101	37	127	105
Spain	131	65	20	63	64
United Kingdom	0.44	-39	28	-14	-21
Japan	0.01	3	16	5	0
Emerging Markets ($)	558	257	112	248	265
Corporate Credit - Investment Grade	bps		bps		
US	255	154	67	151	156
Europe	189	95	33	100	97
Corporate Credit - High Yield	bps		bps		
US	838	478	170	476	500
Europe	713	405	174	413	413
Foreign Exchange	level		%		
USD EUR	1.11	-0.8	-2.5	3.1	0.5
JPY USD	105.69	-2.7	3.1	-5.7	-4.1
GBP EUR	0.91	6.7	4.1	8.2	6.4
Equities	level		%		
US	2386	-26.1	-13.1	-29.3	-28.3
Eurozone	2450	-34.6	-17.2	-35.9	-35.5
Germany	8742	-34.0	-17.7	-36.0	-35.5
France	3881	-35.1	-17.6	-36.0	-36.1
Italy	14980	-36.3	-18.9	-40.3	-37.6
Spain	6107	-36.0	-20.8	-38.5	-36.8
United Kingdom	5151	-31.7	-13.7	-30.7	-32.7
Japan	17002	-28.1	-13.7	-27.6	-29.4
Emerging Markets ($)	833	-25.3	-12.1	-23.9	-27.3
World ($)	1703	-27.8	-14.7	-29.6	-29.5
Equity Volatility	level		absolute change		
US	82.7	68.9	28.2	67.1	70.6
Eurozone	85.6	71.7	31.5	71.5	74.4
Commodities	level		%		
Oil Brent ($ per barrel)	30.0	-54.8	-17.9	-49.6	-54.1
Gold ($ per ounce)	1502.2	-1.2	-9.8	-7.3	-3.8

Sources: Refinitiv, AZ Research

GLOBAL RECESSION IN H1 2020, FOLLOWED BY A U-SHAPE RECOVERY

Global real global GDP growth, q/q annualized



Sources: Euler Hermes, Allianz Research

We expect the supply and demand shocks to push the global economy into recession in H1 2020 with the U.S. and the Eurozone being in recession.

Real global GDP growth by country, annual

Real GDP growth	2019	*Dec forecasts*	2020	2021
World	2.5	*2.4*	0.9	3.0
United States	2.3	*1.6*	0.5	2.7
China	6.1	*5.9*	4.0	5.8
Japan	0.7	*0.9*	-0.5	1.0
Eurozone	1.2	*1.0*	-1.8	2.1
Germany	0.6	*0.6*	-1.8	2.2
France	1.3	*1.2*	-1.3	2.2
Italy	0.3	*0.4*	-3.5	1.7
Spain	2.0	*1.6*	-0.8	1.9
United Kingdom	1.4	*1.0*	-0.7	1.2

Sources: Euler Hermes, Allianz Research

Global GDP growth has been revised by -1.5pp in 2020 and we expect a very strong technical recession at the global scale in H1 followed by a U shape recovery

POLICY RESPONSES WILL HURT PUBLIC FINANCES

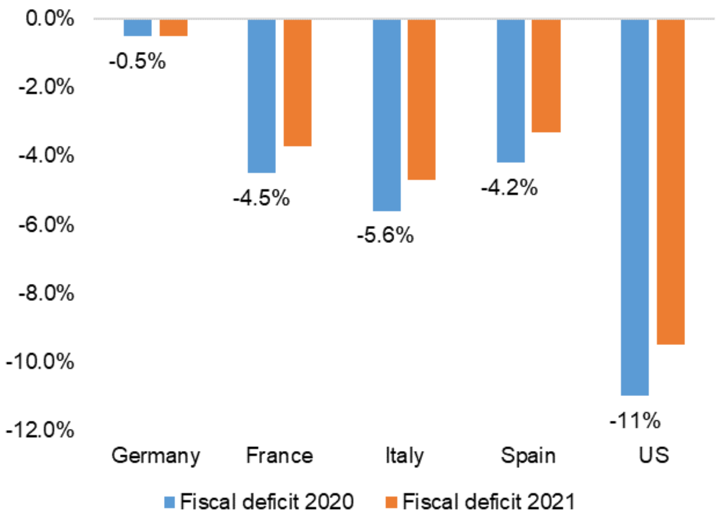
Fiscal stimulus by country and impact on real GDP growth and fiscal balance

	Fiscal stimulus (EURbn)	Share of GDP	Impact on GDP growth (in pp)	Impact on fiscal balance (in pp)
Germany	12	0.4%	0.1	-0.3
France	45	2.0%	0.8	-1.3
Italy	25	1.4%	0.7	-0.9
Spain	18	1.4%	0.5	-1.1
UK	30	1.4%	0.6	-0.9
US	1000	4.6%	1.2	-4.1

Sources: Euler Hermes

Bazooka economic policy responses will not avoid a global recession in H1 2020, but should help companies and consumers withstand the severe albeit temporary shock.

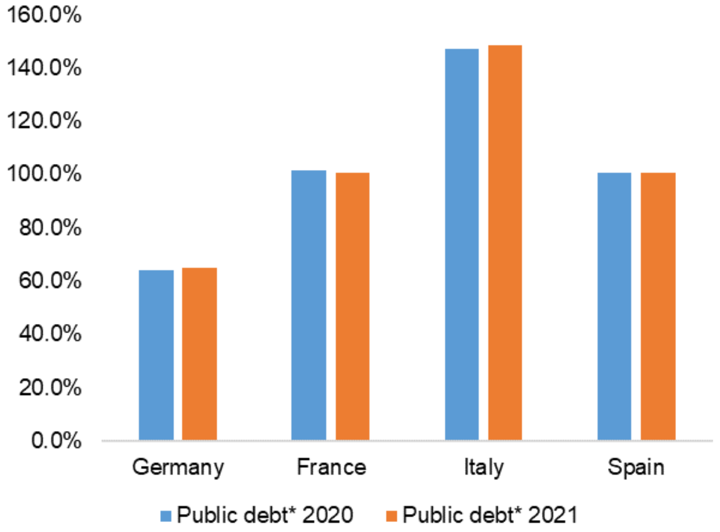
Fiscal balance, % of GDP



Note: forecasts do not include State guarantees and potential nationalisations of firms.
Sources: Euler Hermes

Fiscal responses in every impacted country amount to as high as 6% of GDP by supporting companies' working capital requirements (credit lines for SMEs, tax reliefs) and scaling up social safety nets (temporary unemployment and other transfers).

Public debt, % of GDP



Note: forecasts do not include State guarantees and potential nationalisations of firms.
Sources: Euler Hermes

The increase in fiscal deficits in 2020 would push public debts above 100% of GDP in France and Spain and to 147% of GDP in Italy

MONETARY POLICY: A LOT ALREADY ANNOUNCED, WITH ROOM FOR MORE IF NECESSARY

	ECB	FED
Whatever it takes 2 – already implemented / expected in coming months	- EUR 120bn QE envelope till end-2020 - SSM looser bank regulation - Bold and generous TLTRO terms - Deposit rate cut - More QE - Capital key drop - Increase in issuer limit to above 40%	- 150bps rate cut - Restart of QE to the tune of USD700bn - USD1.5tn of supplementary liquidity injections in the repo market to backstop liquidity in the Treasury market - three-month credit in U.S. dollars on a regular basis and at a rate cheaper than usual arranged among G6 central banks - Instalment of commercial paper funding facility - Further increase in QE purchase
Whatever it takes 3 – If crisis deepens, measures will become more exotic	- (unconditional) OMT - Sovereign bond yield targeting - direct financing of fiscal expansion (MMT) - Helicopter money	- Negative rates - Yield targeting - Strong step-up in asset purchases - direct financing of fiscal expansion (MMT) - Helicopter money

JOBS AT RISK: 65 MILLION PEOPLE AND EUR140BN AT THE EU LEVEL (~1% OF GDP)

Monthly new bank loans and stock of corporate debt, EUR bn

Sources: ECB, BIS, Euler Hermes, Allianz Research

Public guarantees in the Eurozone of EUR1000bn (EUR500bn in Germany, EUR300bn in France, EUR100bn in Spain) will help avoid company bankruptcy for 3 to 4 months.

Employment at risk and cost for public finances

Cost of Kurzarbeit at 70% subsidy	Compensation (incl. employer social contributions, EUR bn) at risk	Full time-jobs at risk in Million
EU 27	140	65
Eurozone	122	49
Germany	40	12
France	25	7
Italy	16	8
Spain	12	9

Sources: Eurostat, Euler Hermes, Allianz Research

A lockdown is estimated to shutdown 30% of the economy and hence put jobs at risk given the temporary pause of activity. We estimate that 65 million people are likely to benefit from the partial unemployment benefits which would cost EUR140bn, or 0.9% of GDP

SCENARIOS: U-SHAPE V. PROTRACTED CRISIS

	Baseline: U-shaped (important impact)	Protracted crisis (very severe impact)
Scenario in a nutshell	Outbreaks in China, Europe & US call for drastic confinement measures which take a heavy toll on the economy & markets. Recovery is U-shaped as other uncertainties incl. the U.S. election weigh on economic momentum in H2 2020.	A longer sanitary crisis triggers trigger brutal market dive & global recession similar to 2008-09 crisis. A liquidity crisis is drive by a systemic credit event. Policymakers are unable to restart growth engines.
Health policy response	Belated & uncoordinated policy action subsequently calls for more aggressive containment measures incl. EU border closures with strong negative economic impact beyond H1.	Belated & uncoordinated policy action subsequently calls for more aggressive and longer containment measures with strong negative economic impact beyond H1.
Economic policy measures	Degree of economic disruption and extent of the financial market sell-off call for more aggressive fiscal and monetary easing	Fiscal & monetary policy are even more aggressive but measures are unable to restart growth and fail to avert liquidity crisis.
Economic impact	Global growth: +0.9% in 2020 (technical recession in H1 in much of Europe & Asia) Global trade -3.7% Global insolvencies: +14%	Global growth: -1.5% in 2020 (global recession) Global trade -10% Global insolvencies: +25%

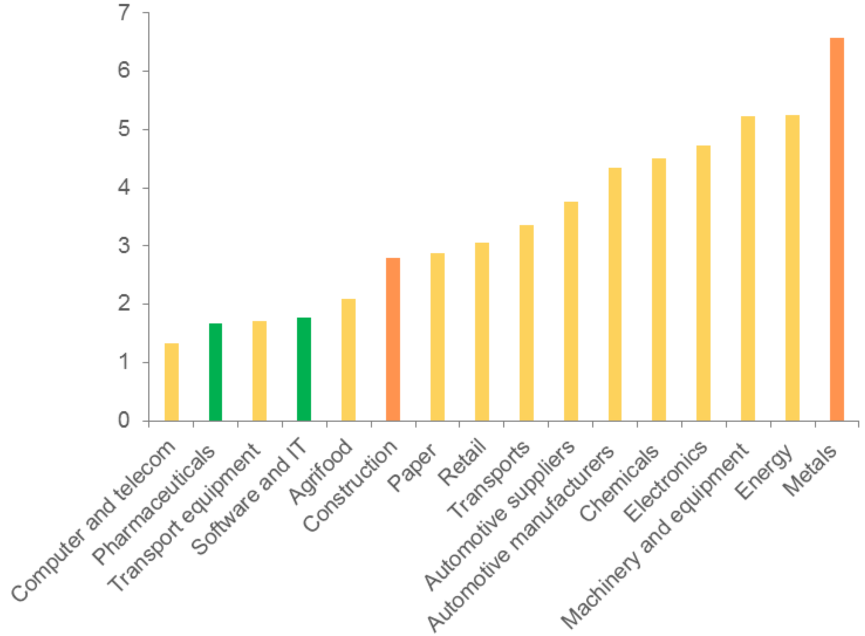
HARDLY ANY INDUSTRY SPARED BY COVID-19

Sector's vulnerability to Covid-19 expansion by stage and countries/regions

	Stage 1	Stage 2	Stage 3
Metals	China, RoW	World	World
Energy	World	North America, RoW	World
Machinery	China, RoW	Europe, North America, RoW	World
Electronics (components)	China, APAC, RoW	China, APAC	World
Chemicals	China, APAC	China	Europe, North America
Automotive	China, APAC, RoW	China, RoW	Europe, North America
Transportation	China, APAC	APAC, Europe, RoW	World
Non-food Retail	China, APAC, RoW	China, APAC, RoW	World
Textiles	China	China	APAC, Italy, France, Germany, Turkey
Paper	China	APAC	World
Construction	China	China	Europe, North America
Agrifood	China	North America	-
Software & IT Services	China	-	Europe, North America
Transport Equipment	China	China, APAC	World
Pharmaceuticals	China, North America	Europe	-
Computers	World	-	World
Telecommunications	-	-	-

Source: Euler Hermes, Allianz Research

Global sector's vulnerability to economic cycle* and sector risk ratings (as of end 2019)

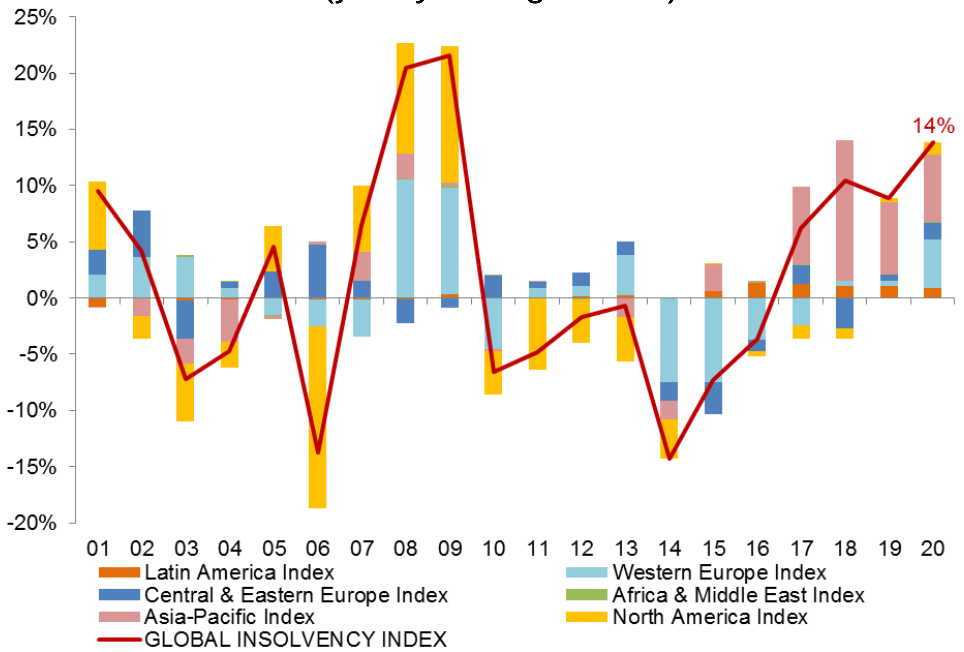


(*) based on the coefficient of regression of global turnover and GDP over the LT
Source: Oxford Economics, Euler Hermes, Allianz Research

The stage 1 hit all the Chinese sectors, from BtoC to BtoB ones, and all global sectors with interconnections with China as a key market (demand shock) or key supplier (supply chain shock), notably transportation, automotive, energy, metal, electronics, computers and non-food retail. The stage 2 hit most fragile companies due their exposition to liquidity risks (leverage or profitability issue), adding Energy, in particular in North America, and Machinery to the list of sectors most at risk. The stage 3 is now pushing up the risk of insolvencies higher the sectors most exposed to global economic cycle: energy, metals, machinery and automotive are on the top of the list. Less exposed/most resilient would be telecom, pharmaceuticals and IT services.

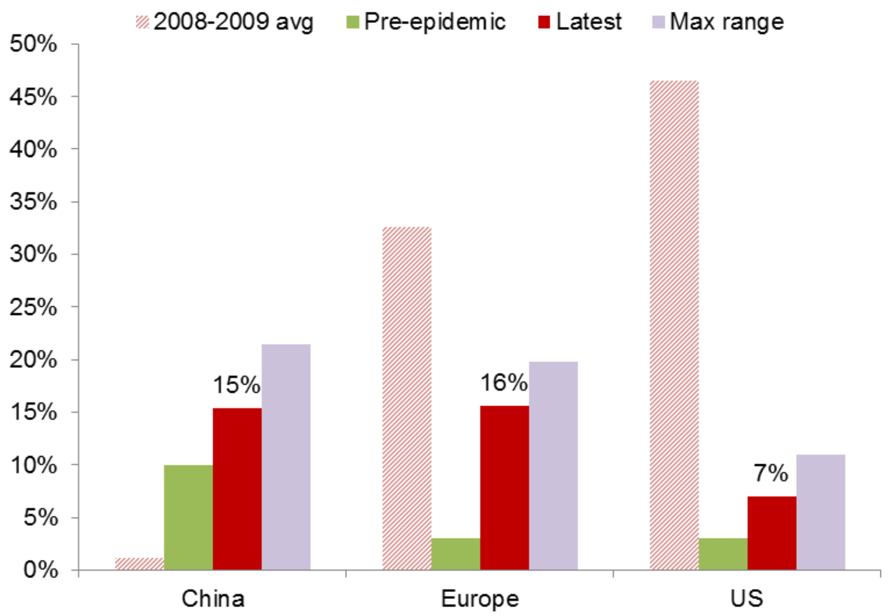
GLOBAL INSOLVENCIES HEADING TO NEW RECORDS SINCE 2008-2009

EH Global and Regional Insolvency Indices
(yearly changes in %)



Source: national statistics, Euler Hermes, Allianz Research

2020 re-forecasts – selected key countries and region

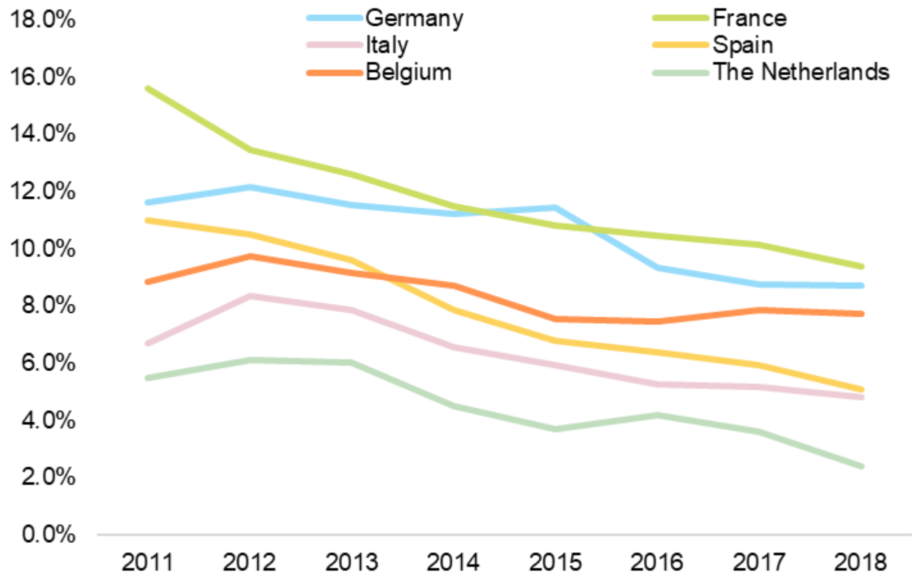


Source: national statistics, Euler Hermes, Allianz Research

Global insolvencies have the potential to increase by +14%, looking at historical sensibility to economic cycle and government interventions to support corporates (tax deferrals, state loans and guarantees, etc..) and to avoid top insolvencies and their domino effect (nationalization) – lowering insolvencies growth by 3 to 5 pp. This 4th consecutive year of rise would result from a +7% increase in the US, a +15% rise in China and a +16% surge in Europe. Final figures still depend on (i) the timing and magnitude of other policy measures yet to announced and (ii) the potential closures of business courts (which would create lags and delays in official registrations of liquidations and restructuring procedures).

FIRMS AT RISK IN CORE EUROZONE: 13,000 WITH AN AVERAGE TURNOVER OF EUR40MN AT RISK

Share of SME & MidCaps at risk, % of total



Sources: Euler Hermes

The share of SME & MidCaps at risk, % of total – top 5 sectors

Germany		**France**		**Italy**	
Construction	15%	Services	20%	Construction	16%
Metals	11%	Construction	19%	Agrifood	11%
Agrifood	11%	Retail	12%	Services	11%
Machinery	10%	Automotive	8%	Retail	9%
Services	10%	Agrifood	8%	Machinery	9%

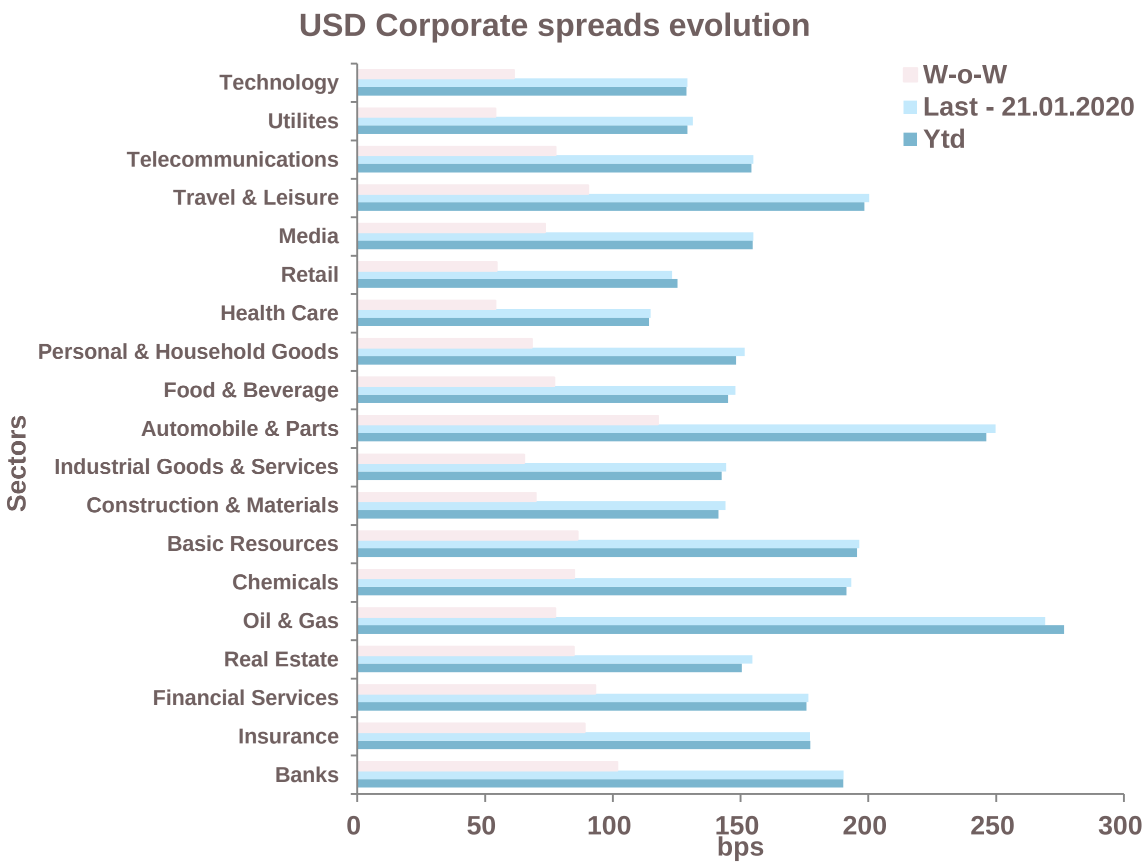
Spain		**Belgium**		**The Netherlands**	
Agrifood	18%	Construction	20%	Services	26%
Construction	16%	Services	15%	Construction	12%
Services	15%	Agrifood	10%	Agrifood	11%
Transport	9%	Retail	9%	Automotive	9%
Automotive	6%	Transport	9%	Machinery	9%

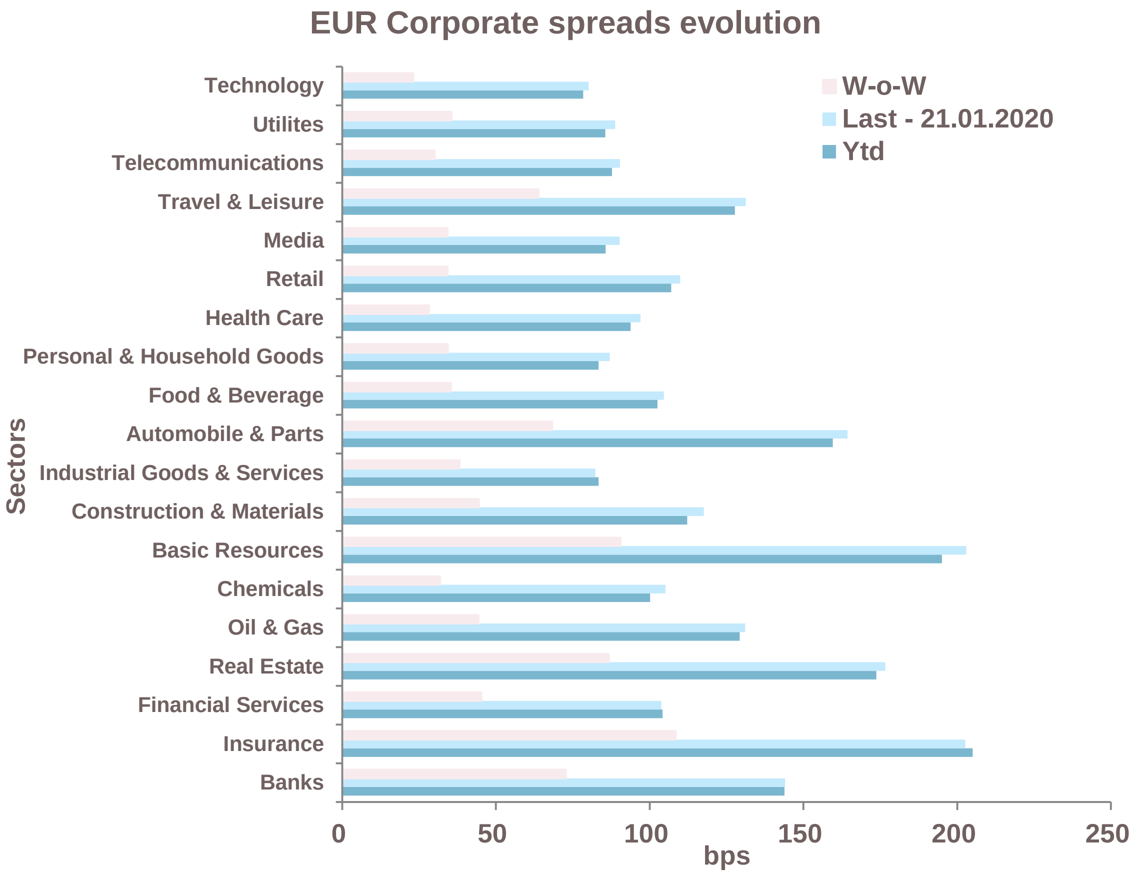
Sources: Euler Hermes

We find that more than 13,000 SMEs & MidCaps (7% of total) in the six biggest Eurozone countries are at risk of going bust after persistent low profitability and turnover growth. We find that more than EUR500bn of turnover (or 4% of Eurozone GDP) could be at risk.

Firms at risk were mostly concentrated in three sectors: Construction, Agri-food and Services. The concentration in the top 5 sectors is highest in France (67%) and the Netherlands (67%) followed by Belgium (64%), Spain (63%), Germany (57%) and Italy (56%).

CORPORATES: WHAT COULD WRONG?





USD corporate markets have shown little issuer discrimination at the beginning of the coronavirus pandemic episode. However, recent developments, specially within the oil market, have shown some discrimination. The sector most hit by this sector split have been oil/gas, automobile and travel/leisure.

Similarly, EUR corporate markets have shown little sector selectivity during the outbreak of the virus but are diverging as the Covid19 advances. Sectors like Automobile, basic resources and insurance are particularly under pressure in the IG universe.

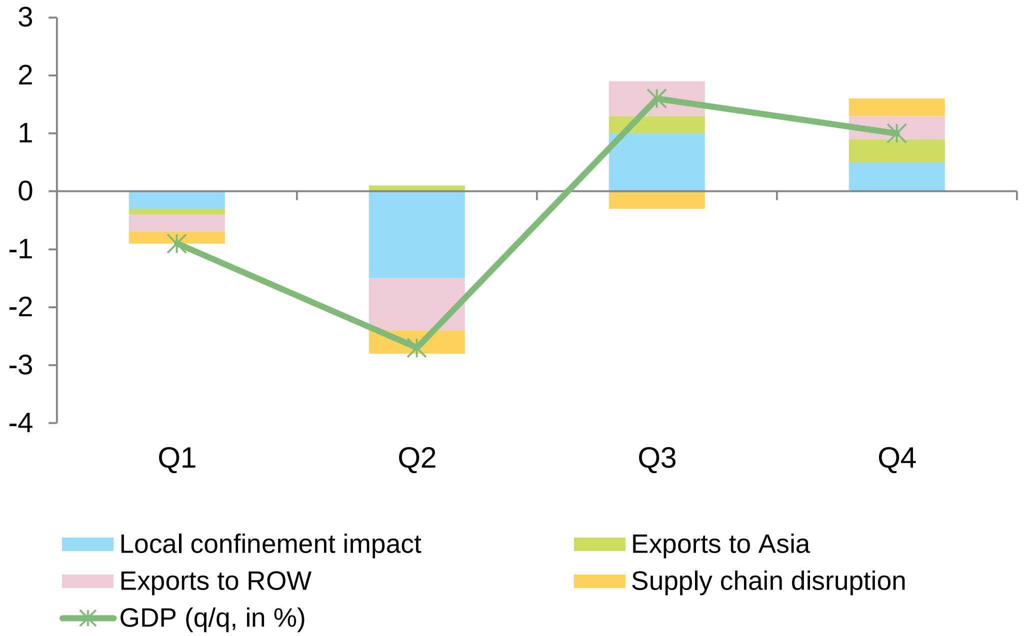
Sources: Refinitiv, AZ Research

GERMANY: NO PLACE TO HIDE FOR THE ECONOMY AS FIRST AND SECONDARY ROUND EFFECTS BITE

Germany: Manufacturing export expectations in 3m & China manufacturing PMI

Sources: Allianz Research

Germany: Impact of Covid-19 on quarterly GDP

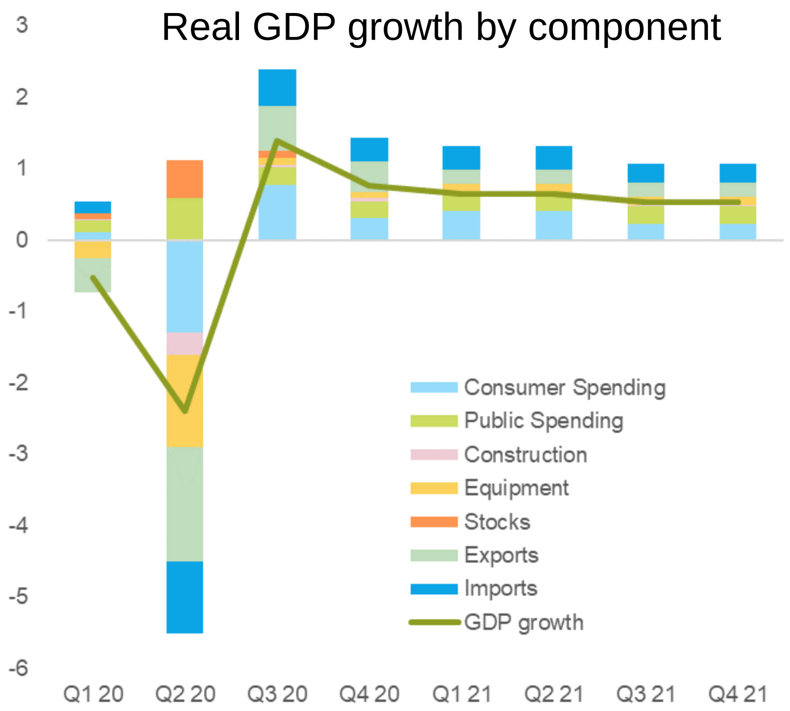


Sources: Refinitiv, Allianz Research

German exports are likely to see a decline in H1 2020 that resembles the setback during the great financial crisis in 2008/9. While initially driven by a drop of demand from China, confinement measures in Europe including border restrictions will trigger a further drop.

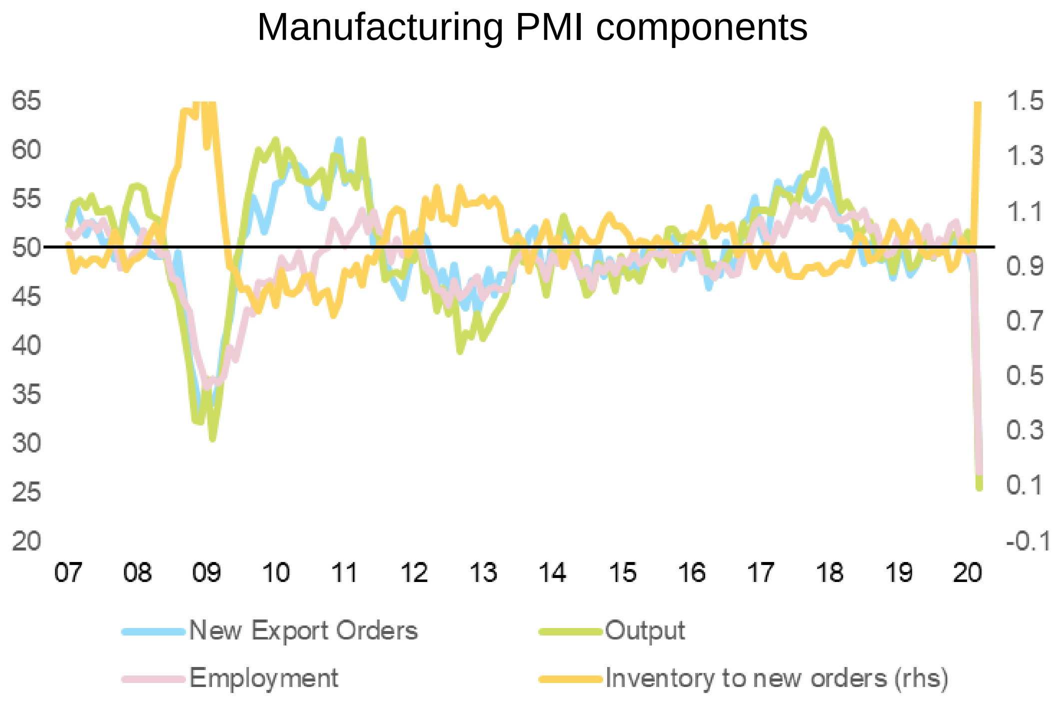
The German economy will be under pressure on all fronts in H1 2020 as confinement measures hurt global trade, disrupt supply chains and put a pause on domestic investment and consumption activity. The rebound in H2 will only partially compensate.

FRANCE: RECORD HIGH SHOCK ON PRIVATE CONSUMPTION AND INVESTMENT IN Q2



Sources: Allianz Research

The shock on domestic demand will be much worse than during the 2008-09 crisis, but fiscal spending will alleviate the overall impact

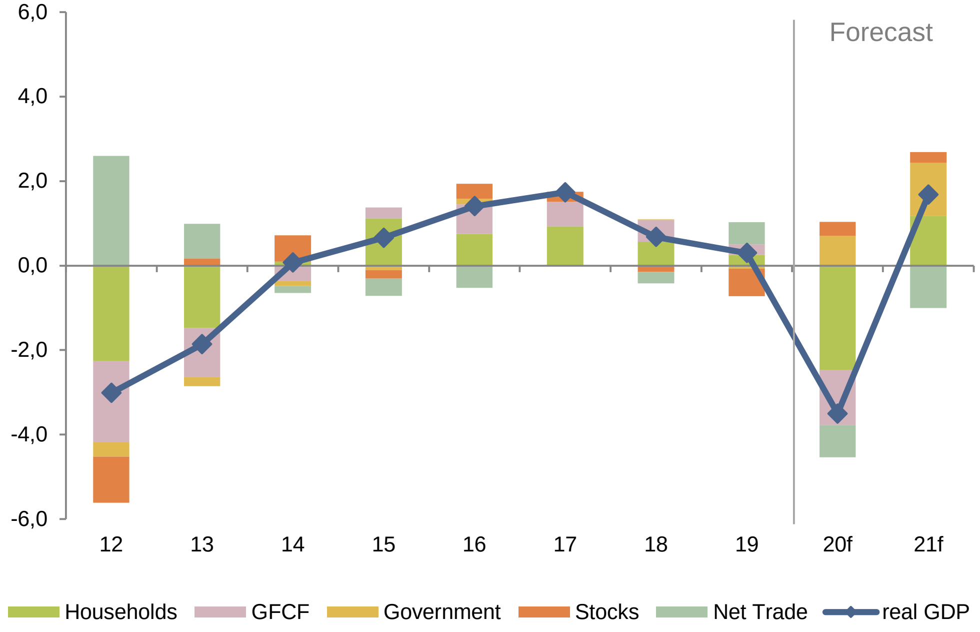


Sources: AGI, Allianz Research

Transposing the Chinese shock on France bring the total level of activity in the manufacturing sector at levels similar to 2009. The inventory to new orders ratio is expected to go significantly above 1, which is a sign of future downside pressures on firms' turnovers

ITALY: DEEP RECESSION EXPECTED

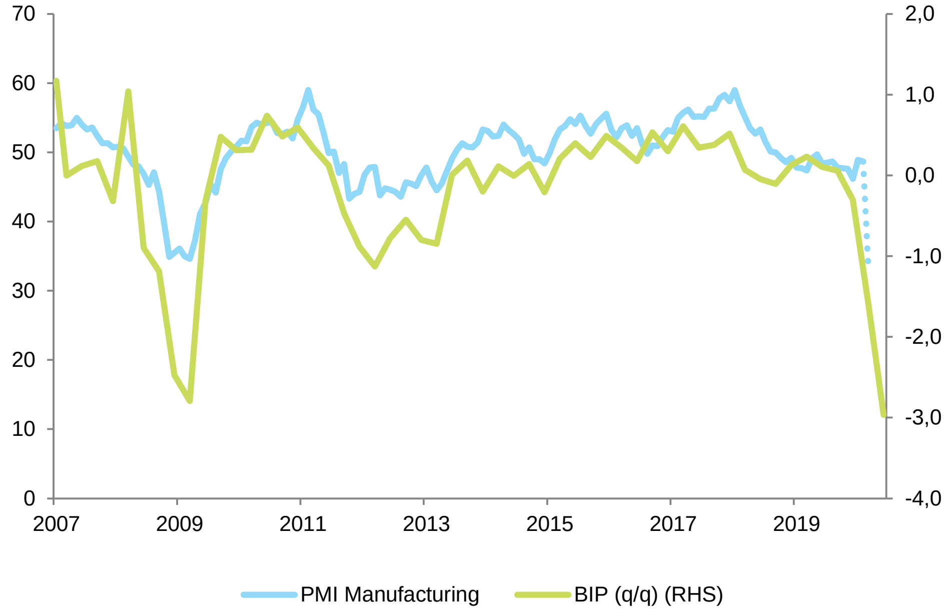
Economy under sudden stop



Sources: Refinitiv, Allianz Research

In 2020: major consumption shock in Q1 and Q2, while investment will suffer from uncertainty and funding constraints due banking vulnerability. Trade balance will deteriorate strongly due to slump in Tourism receipts. In 2021: rebound thanks to fiscal stimulus.

Weakest quarters since 2009 expected

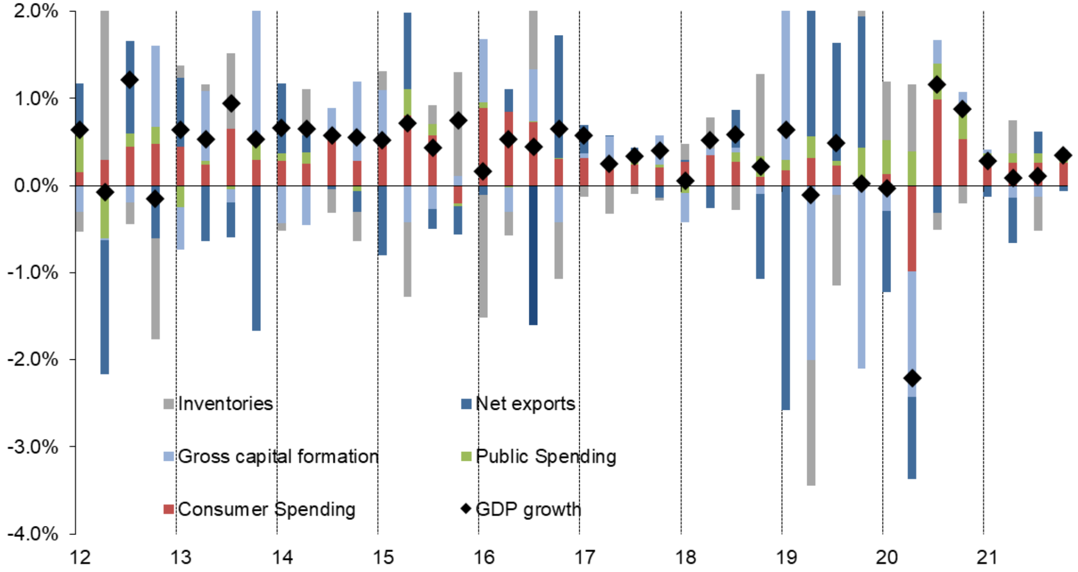


Sources: Refinitiv, Allianz Research

With similar fall in manufacturing sentiment in March than in China, quarterly growth is expected to contract sharply in H2 2020.

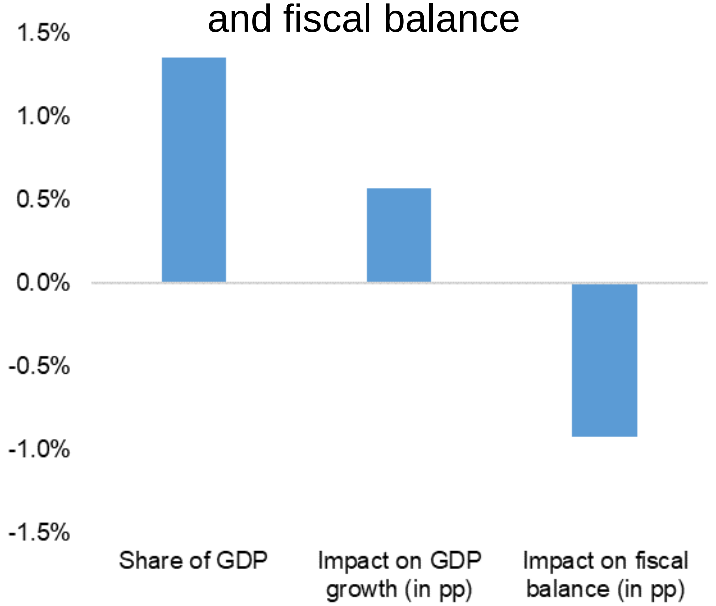
UK: A FULL YEAR RECESSION IN 2020, FOR THE FIRST TIME SINCE 2009

Real GDP growth by component



Sources: ONS, Allianz Research

Fiscal stimulus package and impact on real GDP growth and fiscal balance



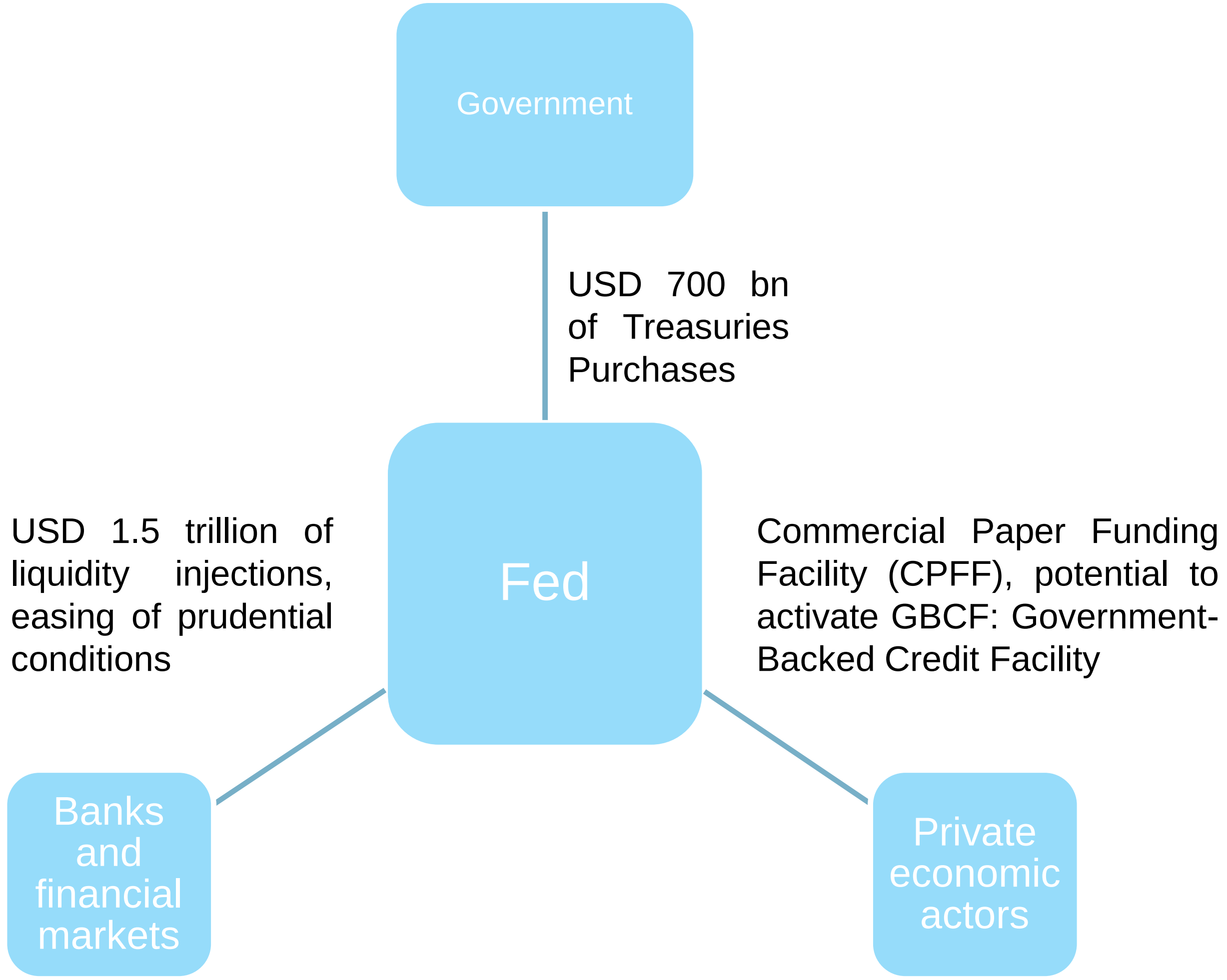
Sources: Allianz Research

The full shock will be visible in Q2. We expect a fall in private consumption of -1.5% qoq, -5% in business investment and -6% in exports. Overall GDP would fall by -2.2% qoq. The recovery in 2021 will be capped by Brexit related uncertainty, notably in H1 2021.

The BoE cut the key rate by 50bp to 0.25% and introduced a new Term Funding scheme for SMEs of an estimated GBP100bn to support lending. It also reduced the countercyclical capital buffer to 0% of banks' exposures to UK borrowers for at least 12 months (from 1% currently and 2% planned for December 2020). In addition, fiscal stimulus of EUR30bn has been announced which will support growth by +0.2pp this year

US POLICY: A POWERFUL ARSENAL OF STABILIZATION

New tools of the US monetary policy



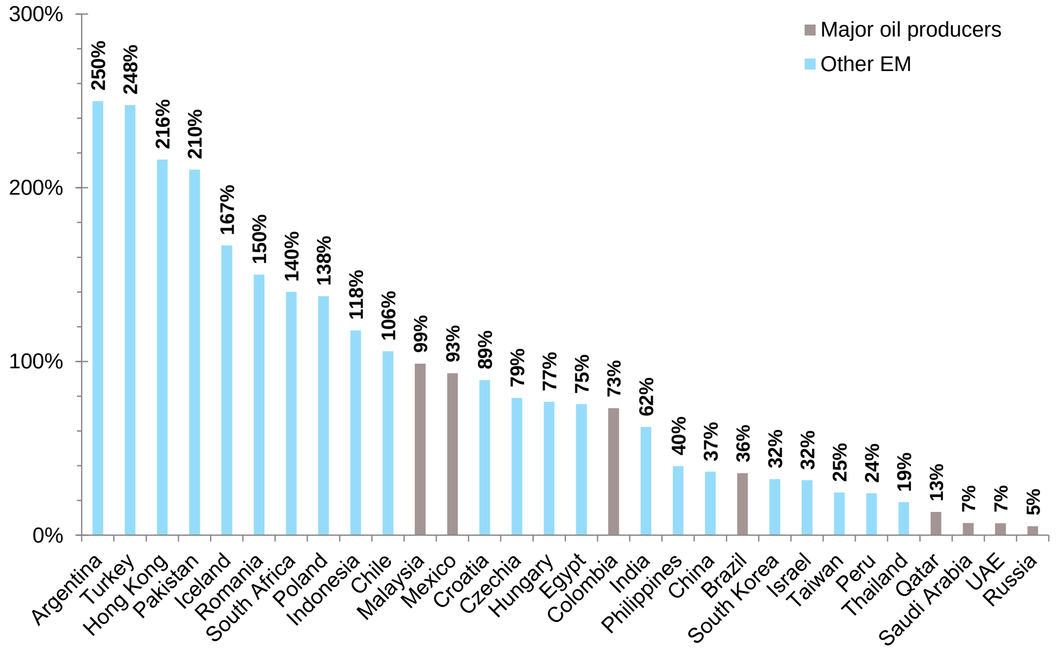
New (proposed) tools of the US fiscal policy
(size of multiplier)

- Sending checks to households (High)
- Guaranteeing paid sick leaves (High)
- Giving credit guarantees to companies (Low)
- Allowing income tax holidays for 2020 (Average)
- Developing infrastructure spending (High)
- Increasing healthcare spending (High)
- Authorizing loan forbearance (Average)
- Providing food aid (High)

The White House is likely to announce a fiscal package worth USD 1 trillion, we expect its overall multiplier size to reach 0,9, leading to a positive impact on GDP growth of 1,2 pp between 2Q 2020 and 2Q 2021

EMERGING MARKETS: VULNERABILITY TO A SUDDEN REVERSAL OF EXTERNAL FINANCING FLOWS

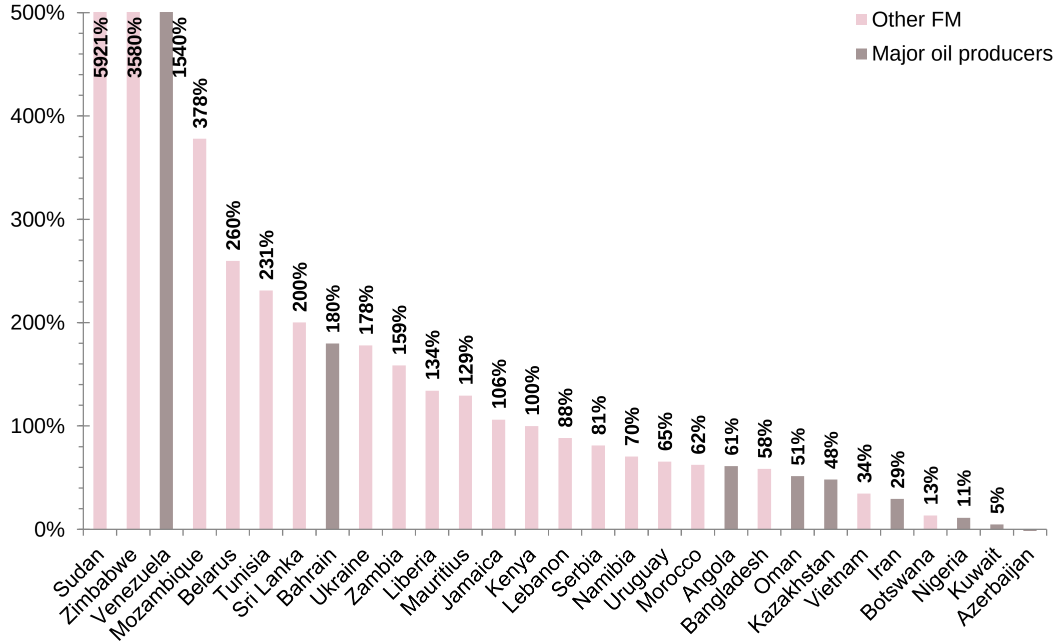
Emerging Markets: Gross external financing requirement (% of FX reserves)



Sources: IHS Markit, Allianz Research

Risk appetite likely to deteriorate in markets with high gross external financing requirements.

Frontier Markets: Gross external financing requirement (% of FX reserves)

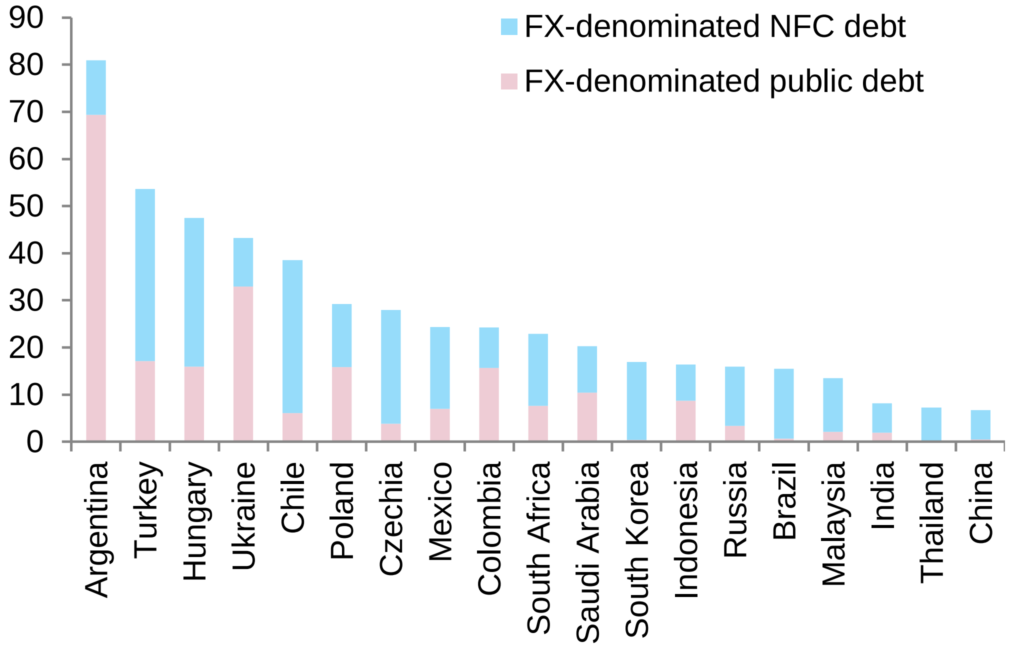


Sources: IHS Markit, Allianz Research

Frontier markets in Africa and CIS+ particularly exposed to deteriorating risk appetite.

EMERGING MARKETS: HIGH CORPORATE AND SOVEREIGN DEBT POSE RISKS

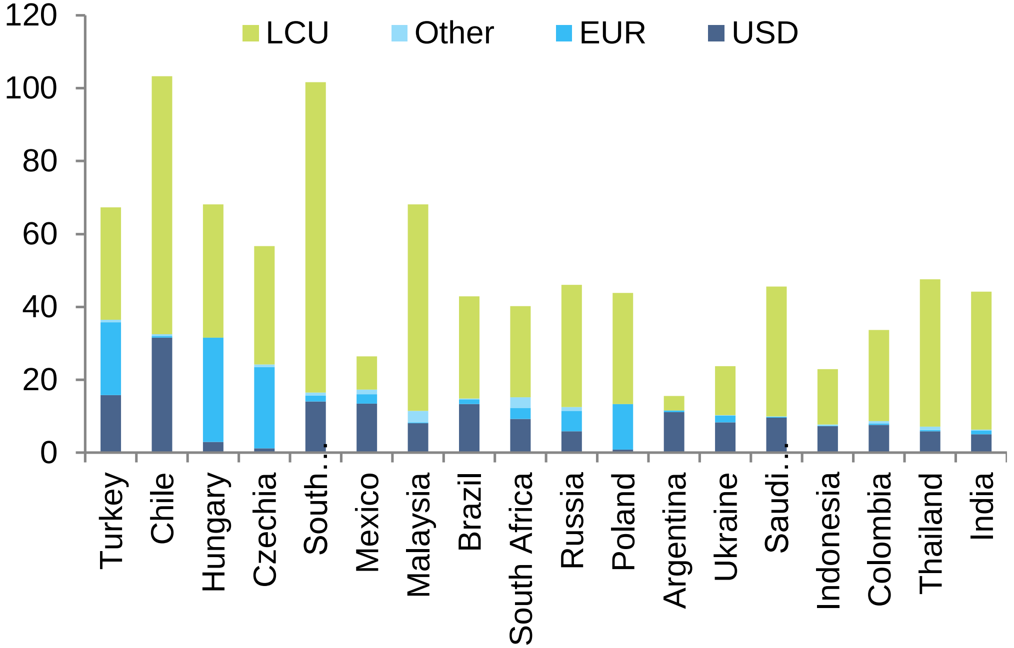
Foreign exchange-denominated sovereign and NFC debt (% of GDP), Q3 2019, selected EM



Sources: National statistics, IIF, Allianz Research

Argentina has the highest share of FX-denominated debt to GDP (80%). And most of that is sovereign debt.

Currency breakdown of NFC debt (% of GDP), Q3 2019, selected EM



Sources: National statistics, IIF, Allianz Research

Turkey has the highest FX-denominated debt of NFCs in relation to GDP (36%).

THANK YOU

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Global Economic Outlook

as of March 2020

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