

2021-22: VACCINE ECONOMICS

Allianz Research

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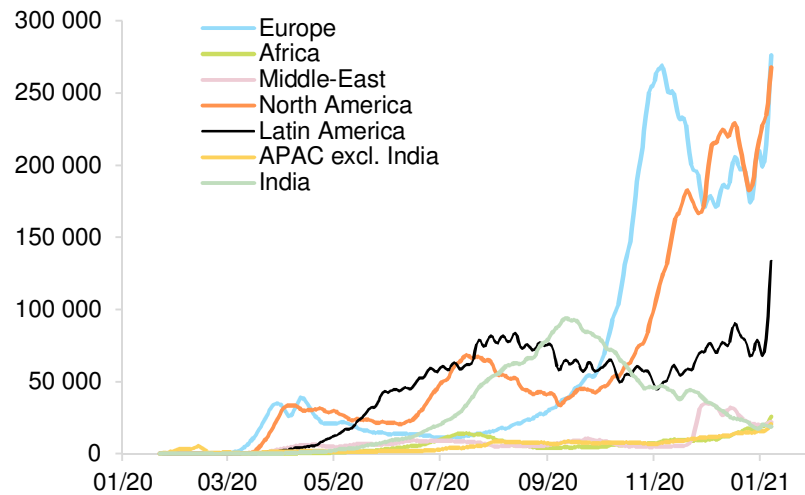


GLOBAL OUTLOOK

01

COVID-19: RENEWED OUTBREAKS LEADING TO RENEWED RESTRICTIONS

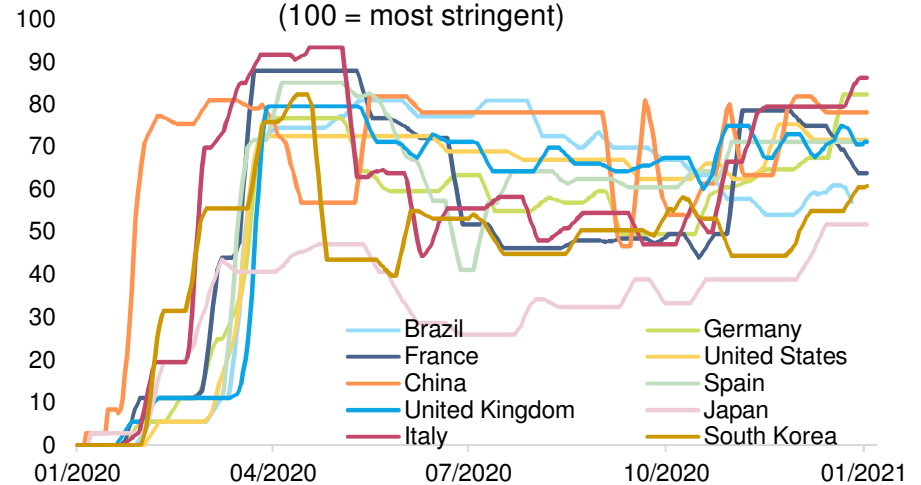
Daily number of new Covid-19 cases (smoothed)



Sources: John Hopkins University, Allianz Research

New waves of Covid-19 infections have broken out in Europe, North America, Latin America and the Middle-East in the past months. Epidemics are roughly under control in Asia-Pacific, although risks are rising in a few countries.

Government stringency indices, by country (100 = most stringent)



Sources: Oxford University, Allianz Research

Restriction measures have tightened due to second waves in Europe, the U.S. and some parts of Asia; As third waves start in many countries, we see the stringency index remaining high in Q1 in most parts of the world.

COVID-19 “HARDER” LOCKDOWN LIKELY TO KEEP EUROPE IN RECESSION IN Q1



Estimate of the closure of Covid-19 sectors by country

Contribution to growth for Covid-19 services for 6 weeks of lockdown	Hospitality and retail	Schools	Arts and recreation	Total	Expected growth for spared sectors	Net impact of lockdown	% of previous lockdown
Denmark	-1.6%	-0.1%	-1.2%	-3.0%	0.4%	-2.6%	37.1%
Finland	-1.1%	-0.2%	-0.2%	-1.5%	0.8%	-0.7%	22.4%
Sweden	-1.8%	-0.3%	-0.3%	-2.4%	1.3%	-1.1%	13.1%
Norway	-1.1%	-0.4%	-0.8%	-2.3%	0.2%	-2.1%	39.9%
United Kingdom	-2.6%	-2.7%	-1.1%	-6.3%	0.4%	-5.9%	28.8%
Netherlands	-2.0%	-1.1%	-0.7%	-3.8%	0.5%	-3.3%	39.2%
Belgium	-2.7%	-1.5%	-0.6%	-4.8%	0.4%	-4.4%	37.6%
Ireland	-2.3%	-0.1%	-0.9%	-3.2%	2.3%	-0.9%	9.9%
France	-2.4%	-1.7%	-0.8%	-5.0%	0.7%	-4.3%	31.2%
Germany	-1.3%	-0.5%	-0.7%	-2.5%	0.5%	-2.0%	19.8%
Italy	-3.1%	-0.2%	-0.3%	-3.6%	0.4%	-3.1%	23.4%
Spain	-6.2%	-0.1%	-1.5%	-7.8%	2.0%	-5.8%	32.4%
Portugal	-4.0%	-0.2%	-1.0%	-5.2%	0.0%	-5.2%	39.4%
EU average	-2.5%	-0.7%	-0.8%	-4.0%	0.8%	-3.2%	28.8%

Sources: Eurostat, Euler Hermes, Allianz Research

COVID-19: LIGHT LOCKDOWN PUT AT LEAST ONE THIRD OF THE ECONOMY ON PAUSE



Q4 2020

Second wave of national lockdowns in Europe

- Europe goes into second lockdown in November with restrictions more targeted & less restrictive compared to Spring. Prolonged high sanitary restrictions into December in most of the European countries.
- USA to implement tighter albeit targeted & regional restrictions under a Biden presidency as soon as Q4 to alleviate pressure on the health care system. Asia meanwhile will be spared a renewed sanitary crisis however weak links including India need watching.

Q1 2021

Timid recovery amid elevated restrictions

- European restrictions are eased but register notably above summer 2020 levels as strict rules on social interactions remain in place to reduce the risk of a sanitary relapse and in turn a triple-dip while countries need more time to set up adequate track, trace isolate systems. Meanwhile some economic activities remain subject to very tough restrictions until the vaccination campaign of people at risk is well advanced, and that more rapid testing is available
- USA peak in stringency in January and gradual ease of restrictions starting in February. Vaccination campaign of people at risk expected to be finalized in Q1.

Q2 2021

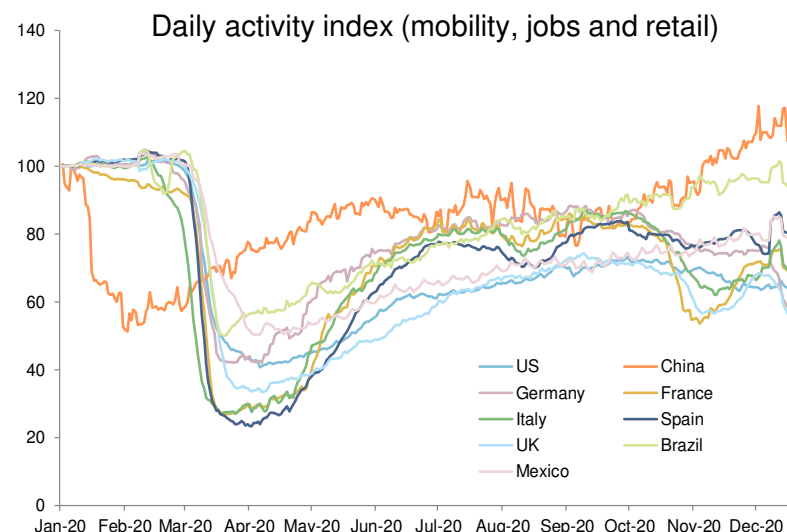
Resurrection rebound for Easter

- European deconfinement enters a new chapter as adequate health sector capabilities, critical mass of the vaccination of people at risk and more details on a mass vaccination campaign allow for further lifting of restrictions at the same time as warmer temperatures (March/April) keep a lid on the growth rate of Covid-19 cases and provide tailwind to outdoor social spending. Positive confidence effects help unleash parts of the excess private savings.

H2 2021

Vaccine confidence boost

- Getting closer to a mobility-adjusted herd immunity by Fall 2021 provides tailwind to the economic recovery by reducing heightened level of economic uncertainty. Some limited step-up in restrictions starting in September still possible. Return to normal by mid-2022.



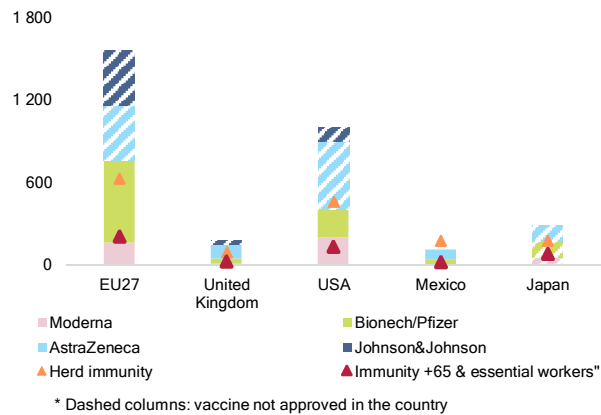
Sources: Bloomberg, Allianz Research

China is leading the race of recovery while activity fell by more than 20% in Europe in November with limited gains in December and a relapse after the holiday season boost (Dec. 28 seems to be the cutoff in most countries)

FROM VACCINE TO VACCINATION 1/3

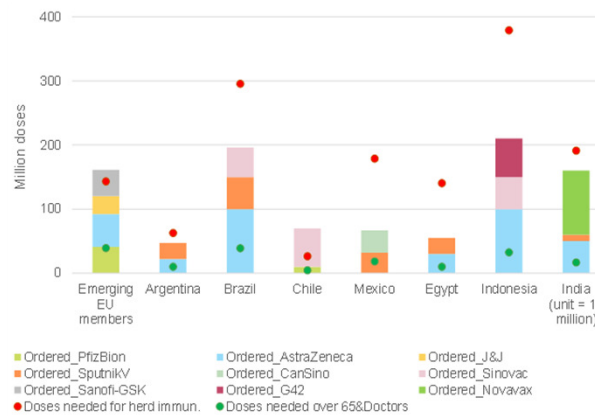


Vaccine orders sufficient for herd immunity (in million doses)



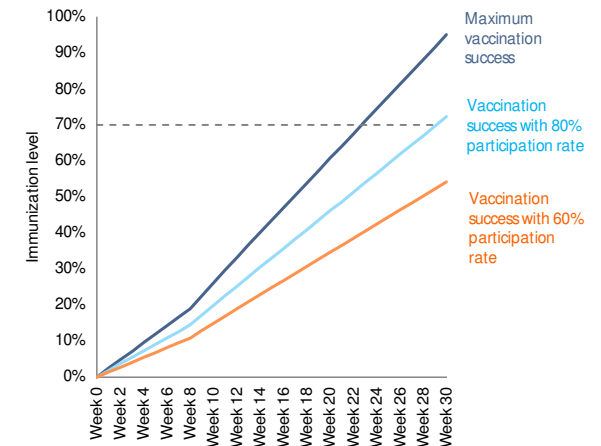
Sources: Company data, WHO, Allianz Research

Emerging Markets: vaccine orders (1 shot) vs. doses needed



Sources: Duke University, World Bank, Allianz Research

Level of immunity by participation rate



Source: Allianz Research

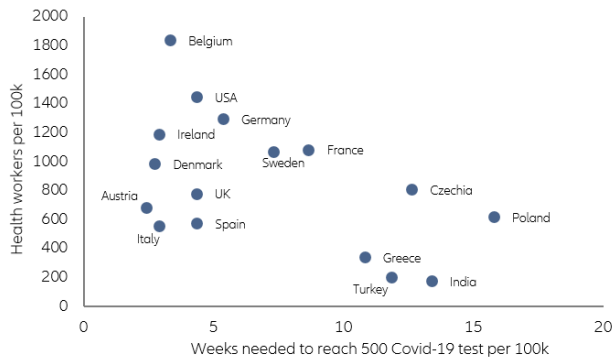
At the global scale, around 6 billion doses have been ordered from the producing companies which is likely to cover 38% of the global population. Many governments have already ordered sufficient doses to create herd immunity

The vaccine acceptance rate must be around 70% to 80% in order to reach a herd immunity level in less than one year

FROM VACCINE TO VACCINATION 2/3



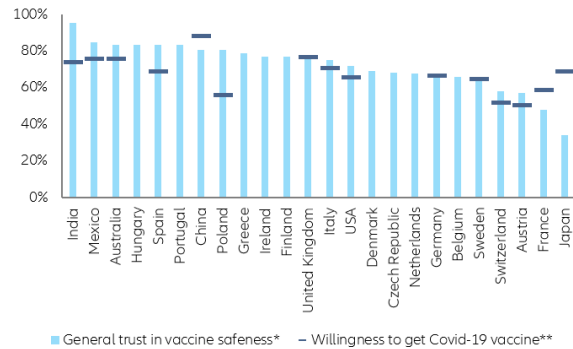
Health system readiness (probability of distribution frictions)



Sources: Refinitiv, WHO, Allianz Research

Our estimates suggest production side bottlenecks should not pose a meaningful hurdle, at least for developed economies, but the distribution could prove more challenging. The U.S., Germany, Belgium, the Nordics and France rank highest in terms of their capacity to handle, transport and distribute a Covid-19 vaccine at a large scale.

Trust in vaccines and willingness for Covid-19 vaccination

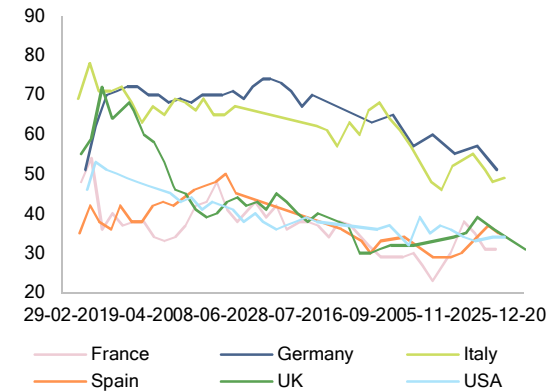


* Gallup Wellcome Global Monitor 2018, Question 25
 ** recent polls (Ipsos, Kantar, Gallup, Pew Research and other national sources) and Lazarus, J.V., Ratzan, S.C., Palayew, A. et al. A global survey of potential acceptance of a COVID-19 vaccine. Nat Med (2020)

Sources: WHO, various polls, Allianz Research

Vaccination skepticism seems to be particularly widespread in Western Europe while in Southern and Eastern Europe, there is greater confidence. The vaccination rate statistics for the seasonal flu among the age group of 65+ years stands below 50%.

Approval of Covid-19 crisis management (in %)

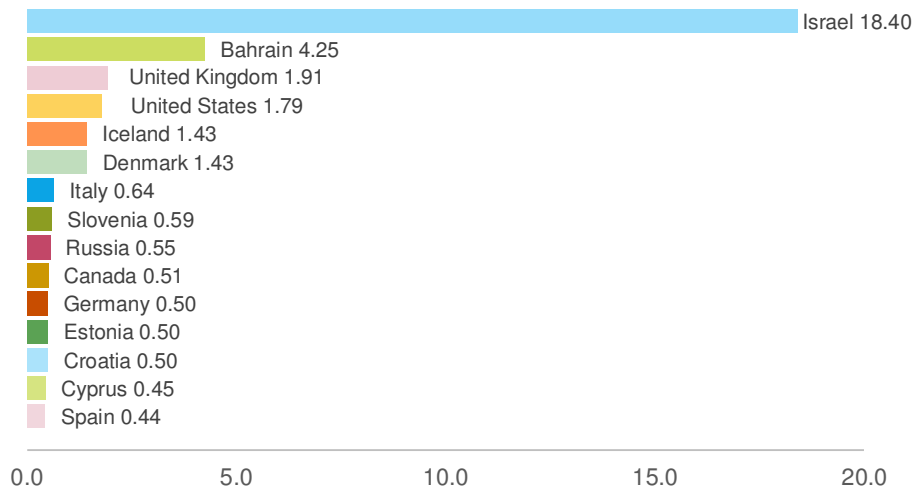


Sources: YouGov, Allianz Research

FROM VACCINE TO VACCINATION 3/3

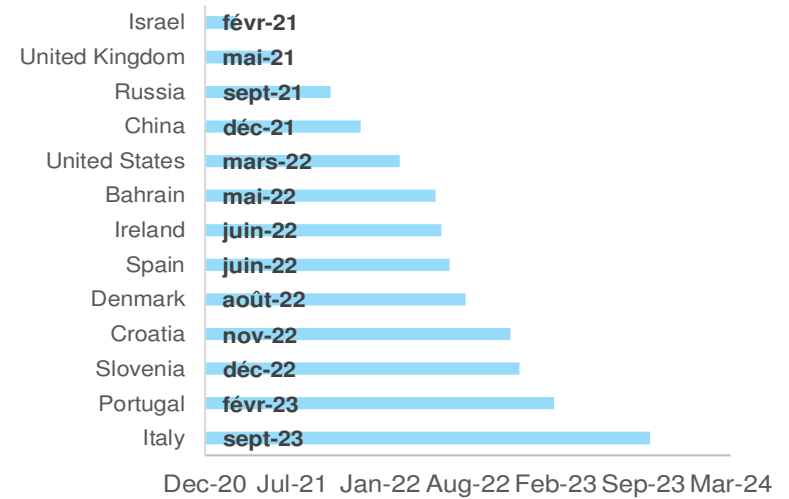


Number of COVID-19 vaccination doses administered per 100 people



Sources: various, Allianz Research

Time to reach herd immunity based on current vaccination speed

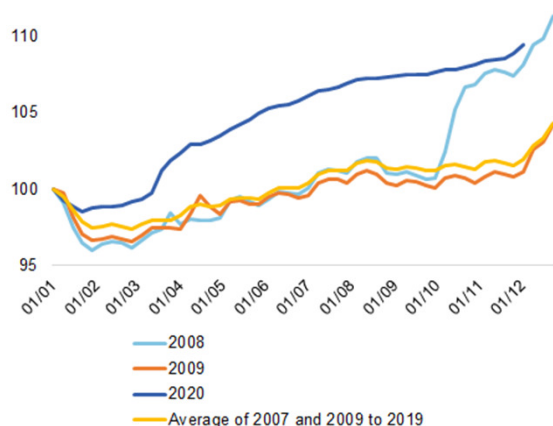


Sources: various, Allianz Research



CONFIDENCE WILL BE KEY TO UNLEASH EXCESS SAVINGS AND BOOST CONSUMPTION IN 2021

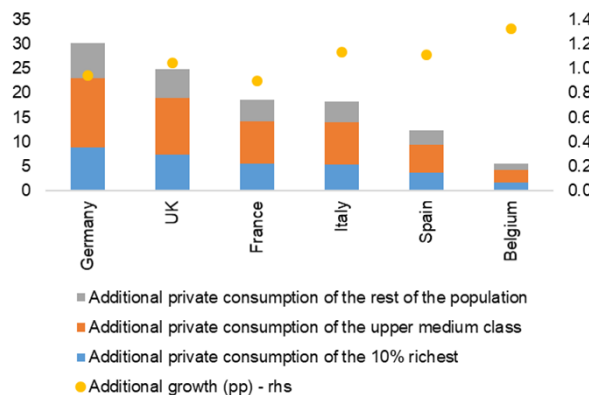
Eurozone Bank Notes Outstanding (100 = 1st week of the calendar year)



Sources: Allianz Research

In the Eurozone, the level of banknotes outstanding throughout 2020 reflects a situation of high uncertainty similar to Q4 2008

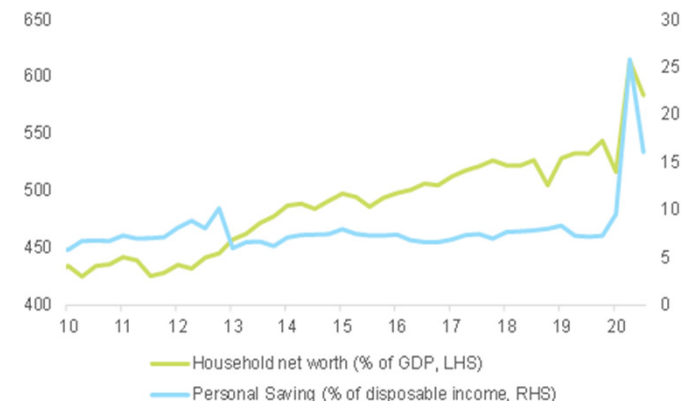
Potential for additional private consumption from excess savings, EURbn and pp of GDP growth



Sources: Eurostat, Allianz Research

Unleashed excess savings could bring close to +1.0pp of GDP growth in 2021 in Europe through additional consumer spending

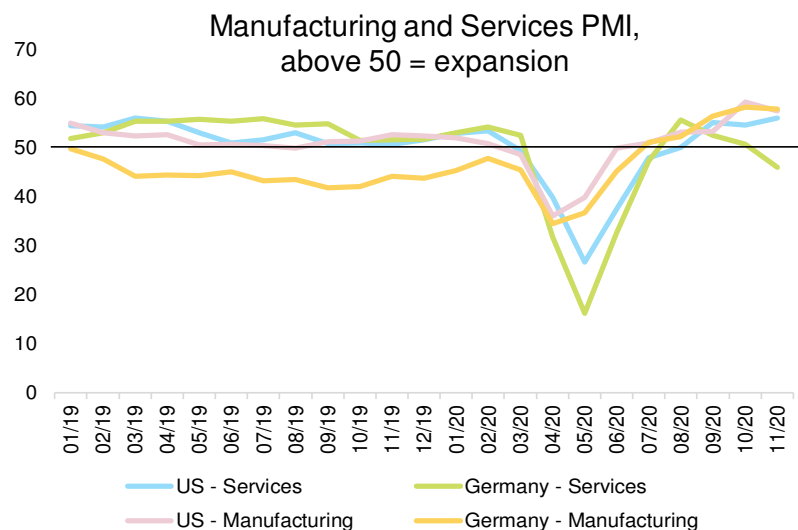
US Net worth of households and non-profit organizations (% of GDP)



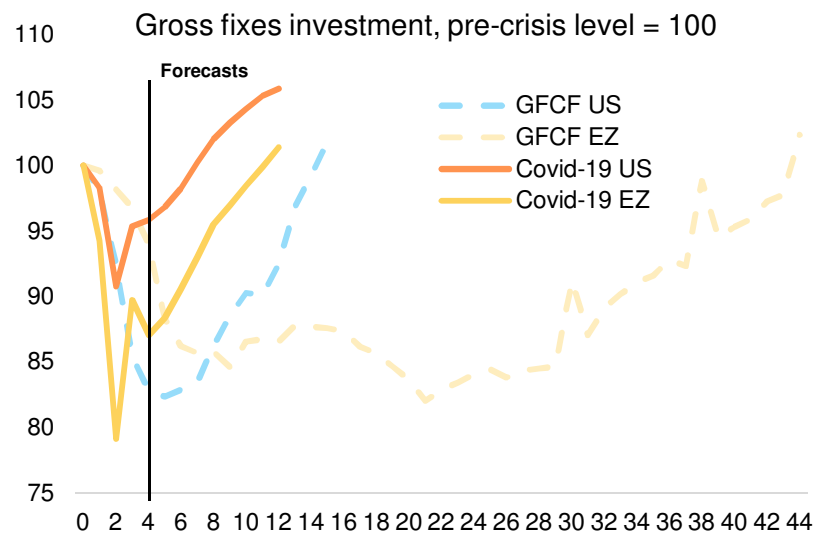
Sources: FED Saint Louis, Allianz Research

A normalization of the US saving rate (close to pre-crisis level of 10% end-2021) has the potential to unleash a 4.5% of GDP of household purchasing power.

INVESTMENT IS EXPECTED TO PICK-UP IN MID-2021 THANKS TO MANUFACTURING SECTOR RESILIENCE



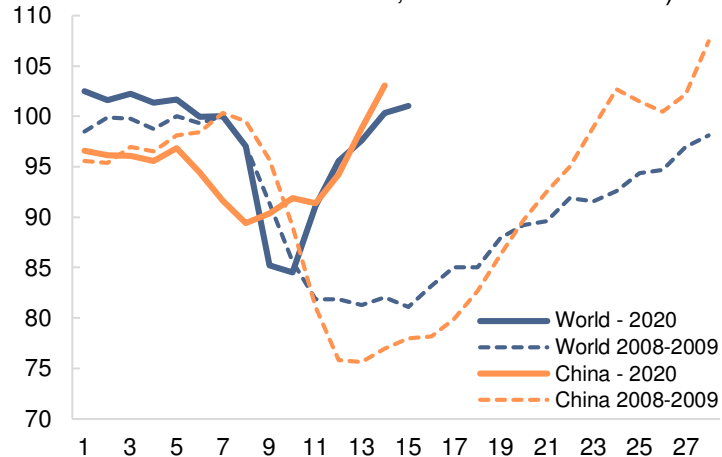
Up to November 2020, companies in the manufacturing sector remained relatively optimistic about activity prospects in the coming months. Companies in the services sector are less confident as they remain highly impacted by the sanitary restrictions.



We expect the investment cycle to kick-off in Q2 2021 thanks to the anticipation of demand acceleration in H2 2021

TRADE: GOODS ALREADY BACK TO PRE-CRISIS, SERVICES TO GET A BOOST IN Q2 2021

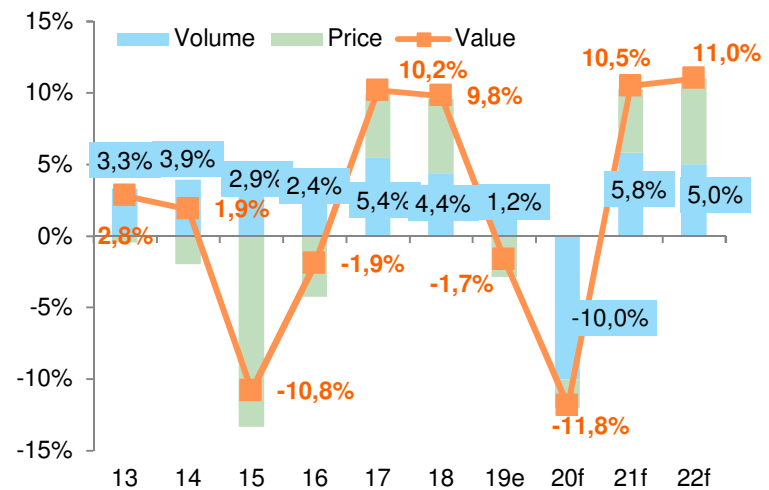
Merchandise exports in volume (100 = Sept. 2008 and 100 = Feb 2020 for world, Dec 2019 for China)



Sources: IHS Markit, Euler Hermes, Allianz Research

The global merchandise trade rebound is faster than in 2009. China's impressive export performance has been a key driver of the merchandise export recovery.

Global trade growth, goods and services, y/y, %



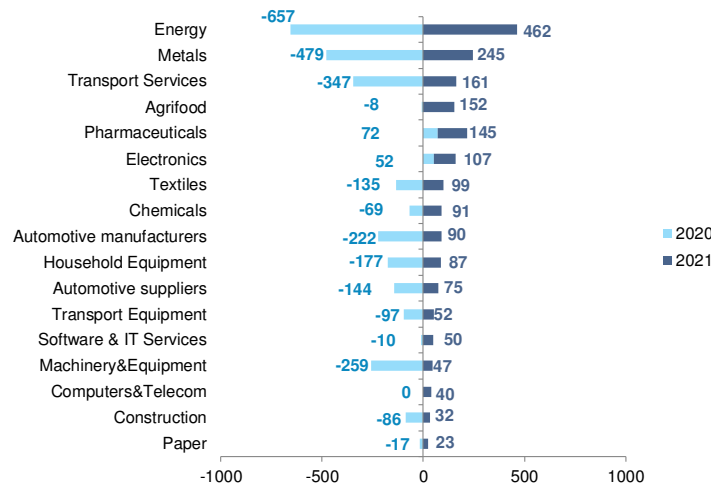
Sources: IHS Markit, Euler Hermes, Allianz Research

Thanks to China's strong export growth and the preservation of manufacturing activity during lockdowns light, goods are back to pre-crisis levels. Starting from Q2 2021, services will start to get a boost from the vaccine.

TRADE: CHINA'S EDGE



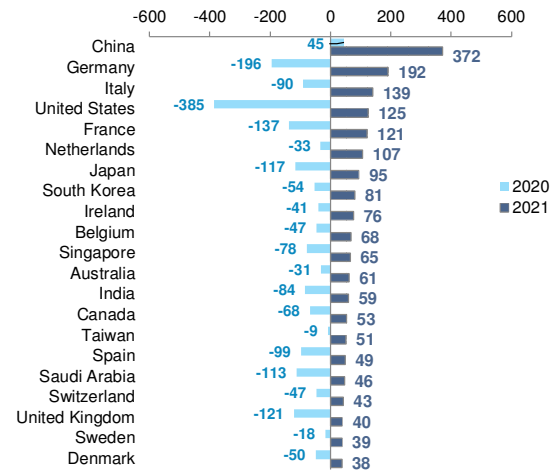
Yearly change in total exports, USD bn



Sources: IHS Data Insight, Euler Hermes, Allianz Research

Energy will recover part of its massive export losses followed by metals, & transport services. By the end of 2021, pharma exports could stand 24% > 2019 level; Agrifood, Electronics, software & IT services will have more than recovered from their 2019 hit.

Yearly change in total exports, USD bn



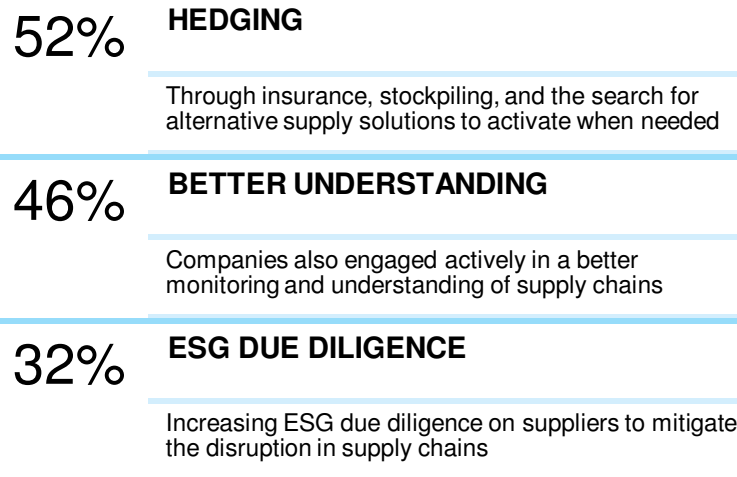
Sources: IHS Data Insight, Euler Hermes, Allianz Research

In 2021, most countries will see export gains (i.e. an increase in exports with respect to 2020). The main winners should be China followed by Germany and Italy in China, Vietnam, Australia and the Netherlands, 2021 exports > 10% above 2019 level



SUPPLY CHAINS: 1 IN 2 COMPANIES HEDGING AFTER COVID-19 SHOCK, <15% CONSIDER RESHORING

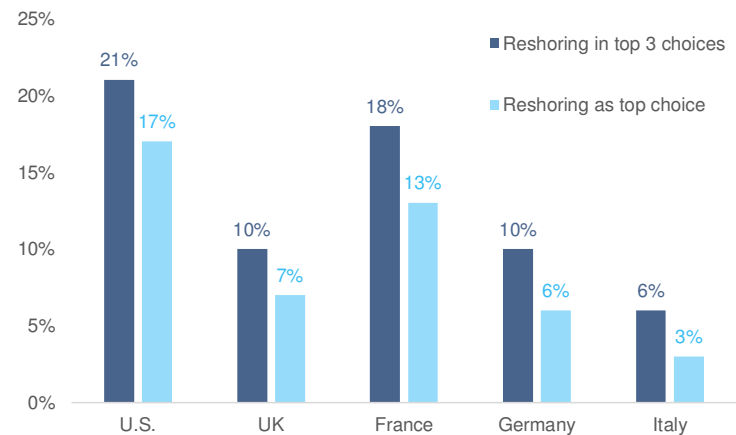
Ranking of measures to cope with Covid-19 disruptions



Sources: Euler Hermes Global Supply Chain Survey

U.S. companies embraced ESG due diligence significantly more (37%) than all other companies in our sample

Share of companies considering reshoring production sites (% of total companies per main country location)



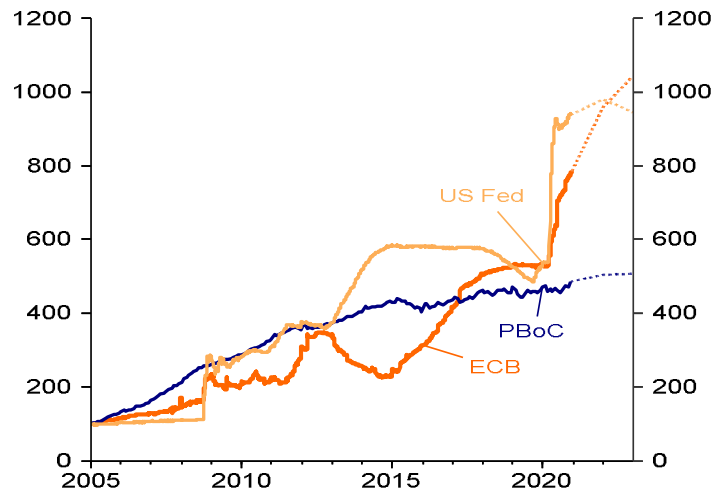
Sources: Euler Hermes Global Supply Chain Survey

Less than 15% of companies consider reshoring. When aggregating responses, we find around 30% consider nearshoring, i.e. bringing production to a nearby country (particularly if it's part of the same customs union or FTA)

MONETARY POLICY: LOWER-FOR-MUCH-LONGER



Central banks balance sheets (Index Jan 2005 = 100)

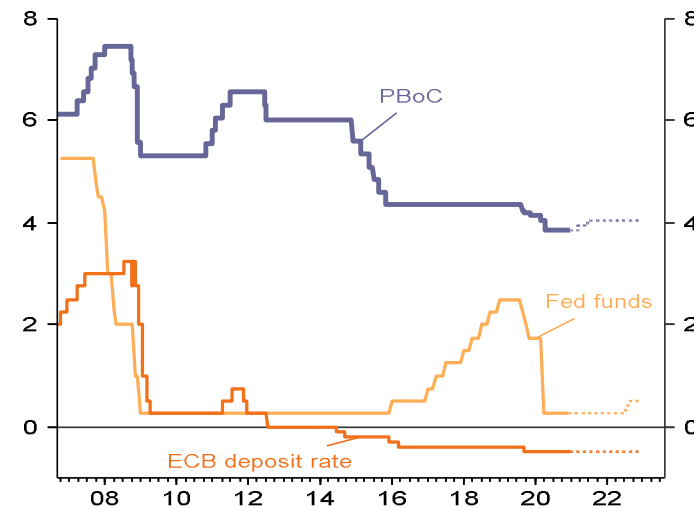


Sources: national sources, Allianz Research

Global liquidity is at a record high level and should continue to increase. The ECB has announced EUR500bn additional QE purchases in December. The Fed is likely to continue to expand its balance sheet to USD7.7tn end of 2021, before a progressive tapering starting in H2 2022.

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Key interest rates, %

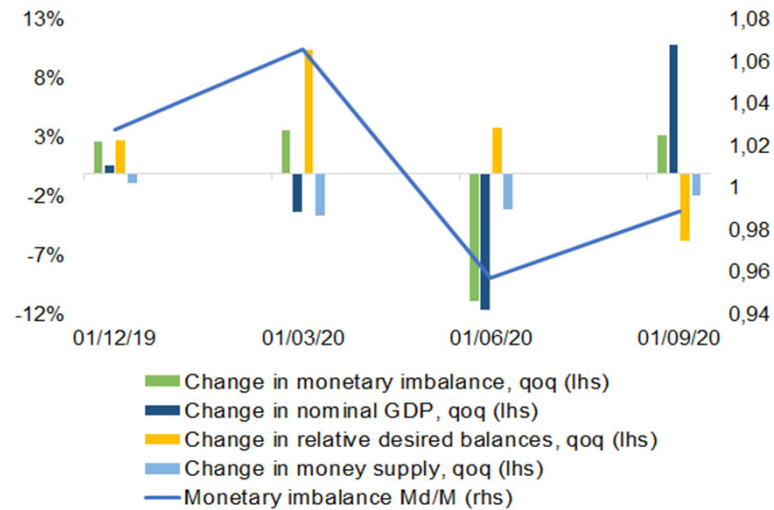


Sources: national sources, Allianz Research

We expect a start of tightening in monetary and financial conditions in H2 2022, as markets anticipate the Fed will hike interest rates in H2 2023. In the upside scenario the normalization by the Fed can come in H1 2022 on the back of temporary inflation and labor market overshoot. In China we expect two rate hikes (+20bp) in H1 2021.

FINANCING: LIQUIDITY TRAP?

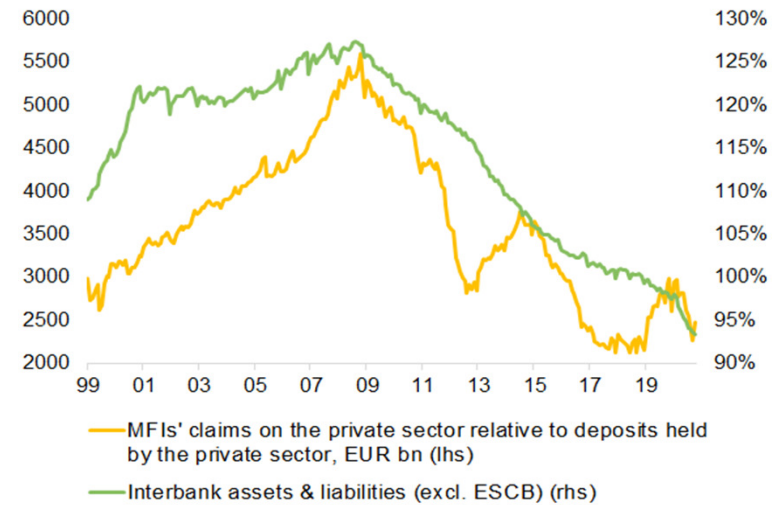
Decomposition of changes in monetary imbalance in the EMU



Sources: Allianz Research

Money velocity evolves in function of excesses (supply of money above demand) or gaps (demand above supply) in liquidity. In Q2, the pre-existing liquidity gap morphed into excess liquidity due to the fall in nominal GDP. In late-Q3, the EMU was still experiencing (decreasing) excess liquidity. A too rapid recovery could create a situation of liquidity trap via a progressive or even abrupt decline in money velocity

EMU banks' claims on the domestic private sector



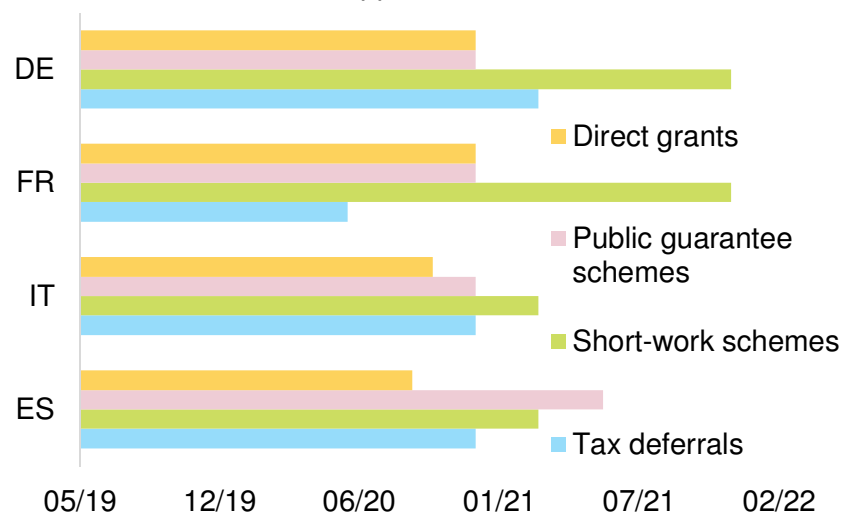
Sources: Allianz Research

In a fractional reserve banking system, money creation depends on the banks' willingness to lend and on their clients' willingness to borrow. Private lenders and borrowers share responsibility for the decline of banks' claims on the private sector relative to the deposits held by the latter. This decline has started in September 2008 and has accelerated in 2020.



CORPORATE FINANCING: RISKS OF A CREDIT CRUNCH

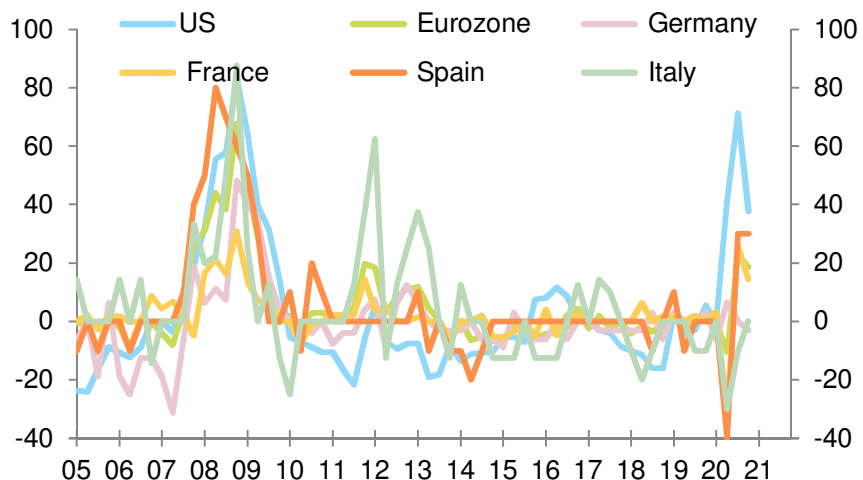
State support measures



Sources: various, Allianz Research

Demand for loans for cash-flow needs has more than doubled in H1 2020 as cash from operating activities fell into negative territory. During the recovery phase, and if the phasing-out of the State support is not well managed, companies could see further stress on the financing of their working capital requirements.

Net Percent of Domestic Respondents Tightening Standards for Commercial and Industrial Loans (%)



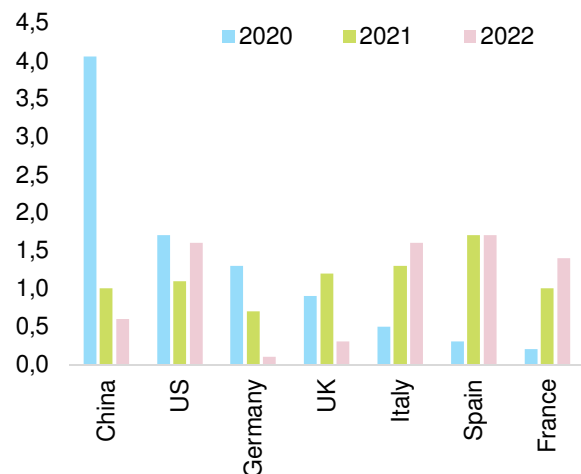
Sources: Euler Hermes, Allianz Research

US and European banks have significantly tightened their credit conditions as they anticipate a multiplication of defaults among non-financial companies. USD300bn of additional corporate financing are in the pipeline early 2021 in the US while in Europe State Guaranteed Loans are likely to be extended beyond mid-2021

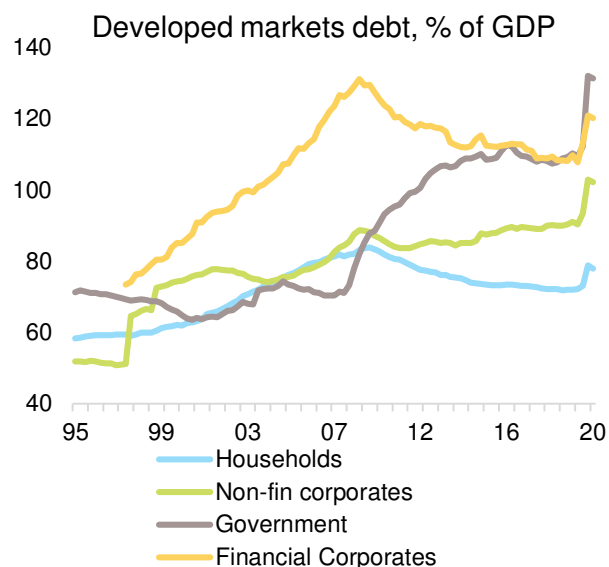


FISCAL POLICY: LONGER STIMULUS, EXECUTION RISKS AND DEBT CONCERNS

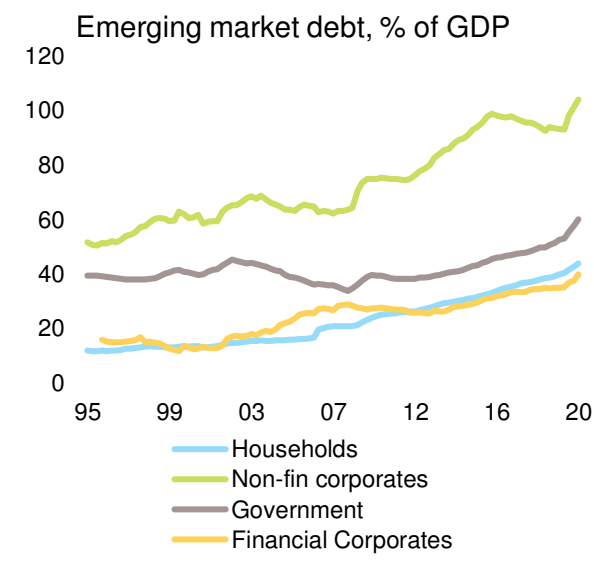
Expected impact on GDP growth from fiscal stimulus packages, pp



Sources: national sources, Allianz Research



Sources: IIF, Allianz Research



Sources: IIF, Allianz Research

In response to the Covid-19 shock, global public debt will hit an all-time high of 130% of GDP or USD277trn in 2020, exceeding even the levels seen during the Second World War. This won't be without consequences for debt sustainability in the medium-run, particularly for the most fragile (mainly emerging) economies. Spending paths matter even more than size: supply side stimulus packages (e.g. France, Italy) will need more time to see positive impact on growth (vs. Germany, China).

INSOLVENCIES: +27% BY 2022 AFTER -10% DRIVEN BY EUROPE'S WHATEVER IT TAKES POLICIES

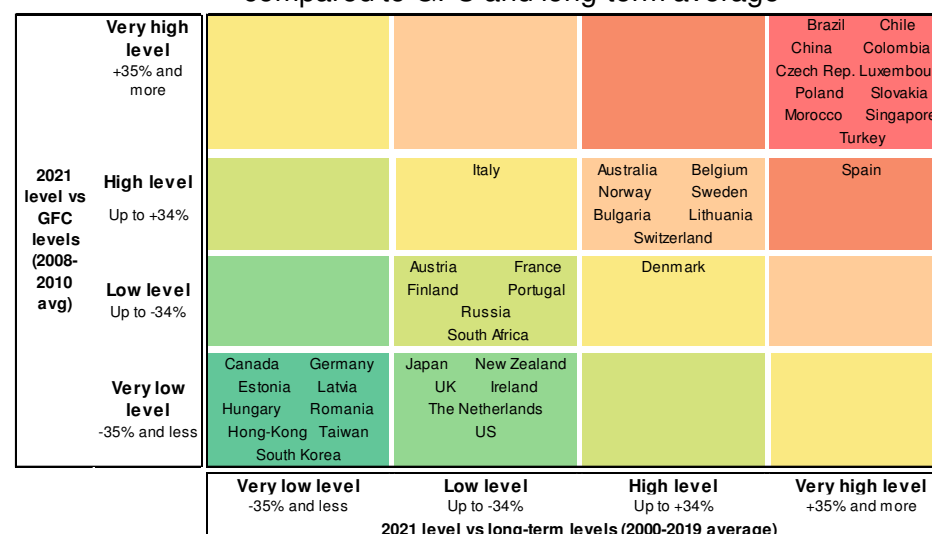


Corporate insolvencies, selected countries

	in number				annual change in %		
	2019	2020f	2021f	2022 f	2020f	2021f	2022 f
U.S.	22 720	23 500	32 000	36 000	3%	36%	13%
Brazil	2 887	2 450	3 610	3 700	-15%	47%	2%
Germany	18 749	16 076	16 900	19 500	-14%	5%	15%
France	51 413	32 900	50 000	60 500	-36%	52%	21%
United Kingdom	22 078	15 410	20 250	25 300	-30%	31%	25%
Italy	11 106	5 500	9 500	12 500	-50%	73%	32%
Spain	4 162	4 080	4 900	5 640	-2%	20%	15%
The Netherlands	3 792	3 290	4 100	4 800	-13%	25%	17%
Russia	11 741	10 500	13 400	13 700	-11%	28%	2%
Turkey	14 050	15 700	17 850	18 400	12%	14%	3%
China	11 826	11 850	12 700	13 600	0%	7%	7%
Japan	8 383	8 200	8 900	9 500	-2%	9%	7%
India	1 895	740	1 600	2 500	-61%	116%	56%
Australia	6 405	3 750	7 050	7 050	-41%	88%	0%

Sources: various, Euler Hermes, Allianz Research

2021 number of insolvencies, by country, compared to GFC and long-term average



In our baseline scenario, most countries will post a significant y/y increase in annual insolvencies for 2021 due to the basis effect coming from the drop recorded in 2020. Yet, one out of two countries would still register a low number of insolvencies for the full year 2021, despite a rebound in H2, notably in advanced economies. Then, the phasing out of support measures will hardly avoid an increase of insolvencies of two kinds of companies: those that were no longer viable before the crisis and temporarily took advantage of emergency measures –the pre-covid-19 zombies’- and those weakened by the excess of indebtedness resulting from the crisis -the new ‘zombies’- notably in the sectors the most impacted by the pandemic.

INSOLVENCIES: ARTIFICIALLY LOWER FOR LONGER ON THE BACK OF RENEWED SUPPORT MEASURES



European insolvencies pulse check (selected countries)

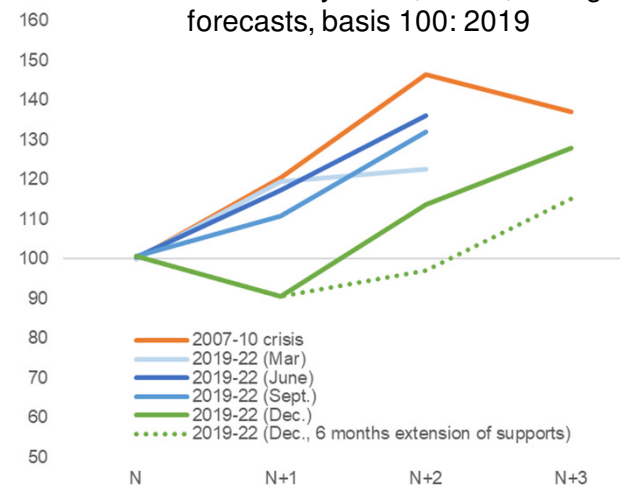
Country	Last data	y/y	Last 3m y/y	Last 6m y/y	Last 12m y/y	Ytd y/y	Trend
Italy	2020 Q2	-	-72%	-46%	-22%	-46%	Steady decrease
France	10-2020	-41%	-37%	-40%	-33%	-38%	Steady decrease
Austria	2020 Q3		-51%	-46%	-25%	-33%	Steady decrease
Belgium	10-2020	-34%	-30%	-39%	-25%	-31%	Steady decrease
United Kingdom	2020 Q3		-39%	-39%	-21%	-29%	Steady decrease
Norway	10-2020	-21%	-26%	-25%	-18%	-20%	Steady decrease
Switzerland	10-2020	-11%	-18%	-18%	-14%	-17%	Steady decrease
Denmark	10-2020	-34%	-17%	-13%	-8%	-13%	Steady decrease
The Netherlands	10-2020	-45%	-32%	-21%	-9%	-12%	Steady decrease
Germany	08-2020	-35%	-19%	-14%	-9%	-11%	Steady decrease
Luxembourg	10-2020	19%	13%	0%	-8%	-11%	Recent trend reversal on the upside
Finland	2020 Q3		-37%	-24%	-5%	-10%	Steady decrease
Spain	11-2020	15%	7%	10%	-4%	-6%	Recent trend reversal on the upside
Sweden	10-2020	-34%	-33%	-17%	-4%	-3%	Steady decrease
Ireland	09-2020	22%	22%	11%	-14%	-2%	Recent trend reversal on the upside
Portugal	10-2020	-26%	-3%	-2%	1%	-1%	Steady decrease

Sources: various, Euler Hermes, Allianz Research

The resurgence of the virus lead most governments to extend (or create new) measures to support companies struggling because of the renewed lockdowns and social distancing measures - by providing them liquidity, time and flexibility before they resort to filing for bankruptcy. Those extension have already prolonged the paradoxical drop in insolvencies (our Global Insolvency Index dropped by -13% y/y in Q2 and -12% in Q3).

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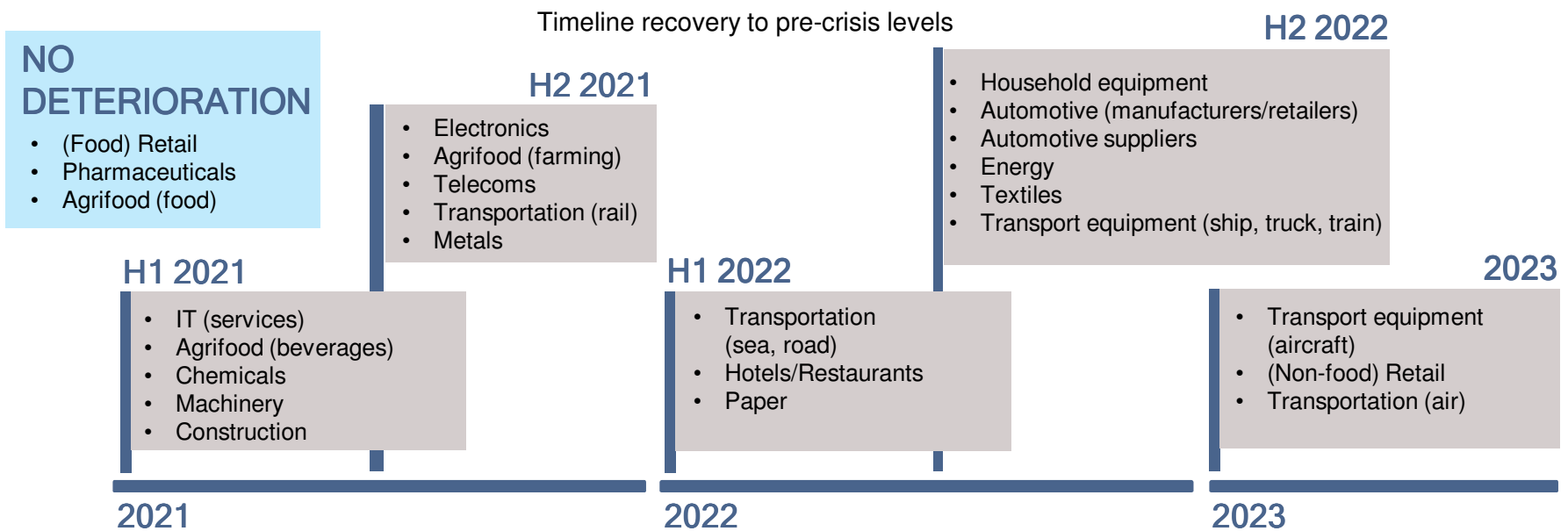
EH Global Insolvency Index, levels, changes in forecasts, basis 100: 2019



Sources: various, Euler Hermes, Allianz Research

The phasing out of the support measures will be key. The schemes in place as of early December should lower insolvencies in most of H1 2021. Our Global Insolvency Index, after a -10% y/y slump in 2020, would rebound by +25% y/y in 2021 and +13% y/y in 2022. Yet, a 6 months extension in a vast majority of countries would lower the rise in insolvencies in 2021 (to +7%) but increase it in 2022 (+19%) and 2023.

SECTOR DIVERGENCE: MOST GLOBAL SECTORS STILL BELOW PRE-CRISIS LEVELS UNTIL 2022

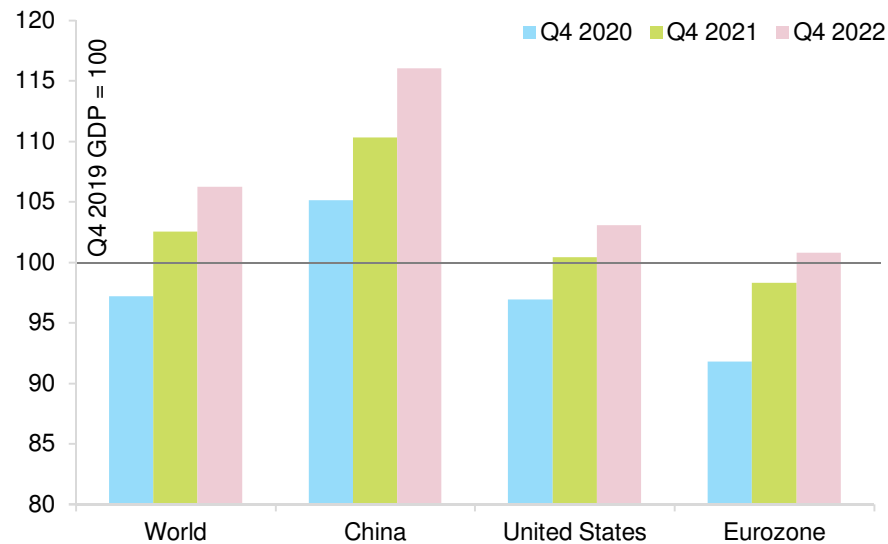


The faster-than-expected delivery of the vaccine may lead to a faster-than-expected return to 'business as usual'. Yet, the timing would remain uneven across countries and sectors due to the diversity of vaccination strategies and demand, and importantly to their relative exposure to the remaining social and mobility restriction measures. The covid-19 sensitive sectors would remain unequal with household goods – notably textile and wearing apparel - and non-essential retail trade first benefiting from a brighter outlook, ahead of food and accommodation, leisure activities and automotive, while international transportation would keep on lagging. A faster roll out of the vaccine would also have positive implications for less Covid-19 sensitive sectors, notably the cyclical ones.

GDP GROWTH: DELAYED BUT NOT DERAILED



Real GDP, Q4 2019 = 100



Sources: national sources, Allianz Research

China should continue to lead the way in the recovery while the US should reach its pre-crisis GDP levels end-2021. Europe will remain the laggard until 2022 even if divergence prevails (Germany and the Nordics to recover faster than Spain, UK, France)

Real GDP growth forecasts, %

	2019	2020	2021	2022
World GDP growth	2.5	-4.2	4.6	3.8
United States	2.2	-3.7	3.6	3.1
Latin America	0.2	-7.6	3.5	2.5
Brazil	1.4	-5.0	3.0	2.0
United Kingdom	1.3	-12.0	2.5	4.9
Eurozone members	1.3	-7.5	4.3	4.3
Germany	0.6	-5.6	3.4	3.8
France	1.5	-9.9	6.1	3.8
Italy	0.3	-9.0	4.1	3.8
Spain	2.0	-11.6	5.6	5.8
Russia	1.3	-4.5	2.2	2.5
Turkey	0.9	-1.4	5.0	4.4
Asia-Pacific	4.2	-1.6	6.4	4.6
China	6.1	2.0	8.4	5.4
Japan	0.7	-5.5	2.6	1.9
India	4.2	-10.2	9.7	6.0
Middle East	0.5	-5.0	2.2	2.0
Saudi Arabia	0.3	-4.1	1.8	2.1
Africa	1.9	-4.3	3.2	2.9
South Africa	0.3	-8.2	2.7	2.1

* Weights in global GDP at market price

NB: fiscal year for India

Sources: national sources, Allianz Research

CAPITAL MARKETS OUTLOOK

02



COVID-19: MARKET SCENARIO SUMMARY

	2020	2021		2022	
	U shape*	U shape	Protracted Crisis	U shape	Protracted Crisis
10y Sovereign yields	Narrow trading range as yields are capped to the upside by near-term economic and sanitary concerns and capped to the downside by mid-term perspective of crisis exit. Low trading volumes could trigger some volatility in view of year-end portfolio reshufflings.	Moderate increase due to reflationary expectations (10/20 bps). Modest curve steepening. Trading range with QE induced term premium compression acting as upside cap and expected crisis end as downside floor. More reflation effects in U.S. than EMU. EMU sovereign spreads with downside potential.	Downward pressure on safe assets with flattening curve. Term premium pushed further into negative territory while inflation expectation decrease. But no retesting of lows in spring 2020. EMU sovereign spreads constant at low levels.	Gradual increase as reflationary expectations rise with improving economic outlook and risk of overshoot leads to higher inflation risk premium. Gradual curve steepening as short term rates remain anchored. No spike as dampening effect of QE induced term premium compression prevails. Stronger in U.S. than EMU. EMU sovereign spreads constant on low levels..	Safe asset yields in tight trading range at low levels, flat yield curve. Negative term premium and subdued inflation expectations. Probability of new QE round leads to risk profile skewed to the downside. EMU sovereign spreads constant at low levels.
Corporate Credit	Monetary and fiscal policy to keep corporate spreads anchored at close to current levels aided by current the bullish investor sentiment.	Investment grade and high yield corporates to widen 20/30bps and 100/150bps respectively on the back of accelerating defaults and increased volatility in the second half of 2021. U.S. government transition set to add temporary widening pressures at the beginning of the year.	Fiscal and monetary policy mistakes paired with a sluggish economy to weigh on investors sentiment triggering a second round of flight to "traditional" safe haven assets. Spreads set to widen ~100bps for IG credit and ~300bps for HY. Default and insolvency risk starts to be repriced.	Investment grade and high yield corporates to stabilize and even compress throughout the year on the back of a brightening economy, decelerating defaults and reduced volatility. Sector picking to become relevant due to the Covid19 zombification toll.	The still deteriorated investor sentiment to prevent a full-fledged recovery to pre-Covid19 levels. HY debt to keep suffering from an accelerated default wave. Default and insolvency risk fully repriced.
Equities	Equities to stay close to current levels until year-end accompanied by high realized volatility. Erratic trajectory to be expected due to the current exacerbated dependence on both positive and negative news flows.	U.S. equities to remain under pressure throughout the year (-5%yoy). Sector rotation unwinding to continue (value vs growth) favoring EMU indices. Eurozone equities to timidly post positive returns (+5%yoy)	Fiscal and monetary policy mistakes to trigger a sudden U.S. equity correction on the back of a sudden change in investors sentiment (-20%yoy). Eurozone equities to follow the path but to prove slightly more resilient (-15%yoy).	U.S. equities to accelerate in 2022 on the back of a recovering economy (~+5%yoy). Eurozone equities to synchronize with U.S. performance. Sector picking to become relevant due to the Covid19 zombification toll.	The continued sluggish economic recovery to weight on companies balance sheets refraining investors from a bullish stance (0 to -5%yoy performance)
Emerging Markets	Global expansionary monetary and fiscal policy paired with bullish investors sentiment to keep EM spreads and equities anchored close to current levels.	EM long-term sovereigns to remain under pressure due to U.S. markets spillover effect (+50 bps higher). EM equity to trade sideways throughout the year (0%yoy) but to experience high intra-year realized volatility.	Global equity volatility to trigger a repatriation trend leading EM spreads 100 to 150bps higher. EM equity to prove more resilient than that of the U.S. (-15%yoy)	EM sovereign spreads to converge to pre-Covid19 levels and to stabilize. EM equities to join the recovery trade synchronizing with both U.S. and EUR equities.	EM sovereign remain under fire preventing capital inflows settling at structural higher levels. EM equities to suffer due to continued outflows (0 to -5%yoy)

* We understand there is close to no chance of shifting to protracted crisis in 2020 in the two remaining weeks of 2020.

COVID-19: MARKET SCENARIO SUMMARY (II)

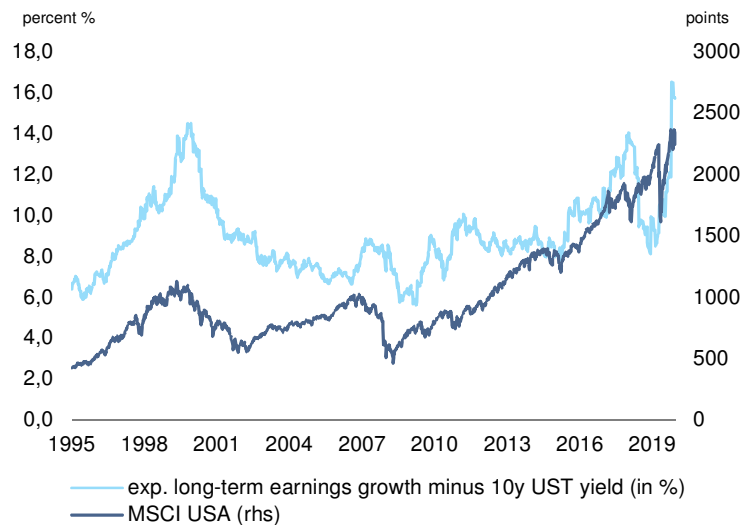


year-end figures	Latest Value	Unit	2020	2021	
			U Shape	U Shape	Protracted Crisis
Eurozone					
Sovereign Rates					
10y yield "risk-free" sovereign (Bunds)	-0.6	%	-0.5	-0.4	-0.9
10y Swap Rate	-0.3	%	-0.2	-0.1	-0.5
20y Swap Rate	-0.0	%	0.0	0.1	-0.3
10y yield other sovereign (Italy)	0.5	%	0.8	1.1	1.1
<i>Italy - Germany spread (10y)</i>	109	bps	130	145	200
10y yield other sovereign (France)	-0.4	%	-0.2	-0.1	-0.1
<i>France - Germany spread (10y)</i>	24	bps	30	30	80
10y yield other sovereign (Spain)	-0.0	%	0.4	0.6	0.6
<i>Spain - Germany spread (10y)</i>	60	bps	85	100	150
Corporate Credit Spreads					
Investment grade credit spreads	93	bps	120	150	210
High yield credit spreads	357	bps	550	600	750
Equities					
MSCI EMU: total return p.a.	-2	%	-22	5	-15
United States					
Sovereign Rates					
10y yield "risk-free" sovereign (Treasuries)	0.9	%	1.0	1.4	0.7
<i>10y US - 10y Bund Rate Difference</i>	153	bps	150	180	160
Corporate Credit Spreads					
Investment grade credit spreads	110	bps	160	160	250
High yield credit spreads	406	bps	650	650	800
Equities					
MSCI USA: total return p.a. in USD	10	%	-10	-5	-20
Emerging Markets					
Sovereign Rates					
Hard Currency Spread (USD)	287	bps	400	400	500
Equities					
MSCI EM: total return p.a. in USD	6	%	-15	0	-15

EQUITY MARKETS: THE OPTIMISM PREMIUM



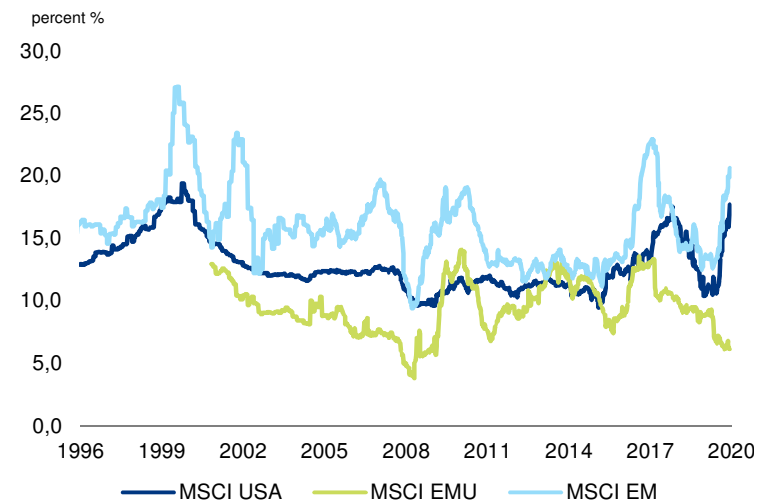
Stretched equity valuations with limited upside



Sources: Refinitiv, Allianz Research

The difference of expected long-term earnings growth and long-term yields has widened to 15.5% in the U.S, i.e. far above the 1999 and 2006 levels. A further widening cannot be ruled out, but this also means that most of the optimism story has been consumed, the upside is limited

Long-term EPS expectations diverge



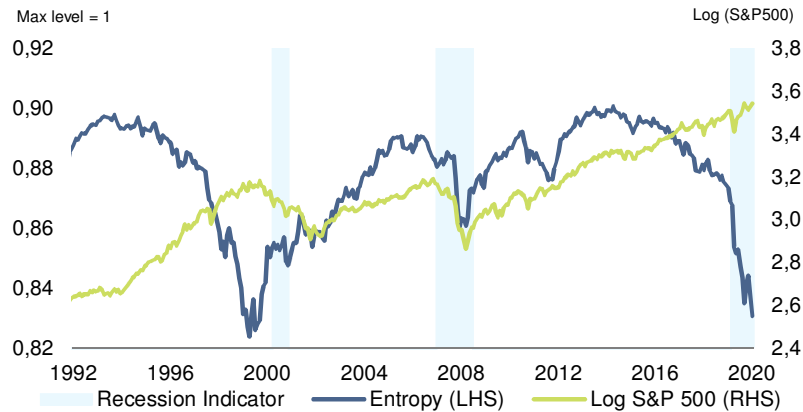
Sources: Refinitiv, Allianz Research

EPS growth perspective expectations in the U.S. and EMs are very high. Consensus for earnings growth in the U.S. at levels unseen since 2000, all-time highs for EMs. The Eurozone remains the laggard in terms of earnings expectations.

EQUITY CONCENTRATION RISK: AS HIGH AS IT GETS



U.S. entropy/concentration risk indicator

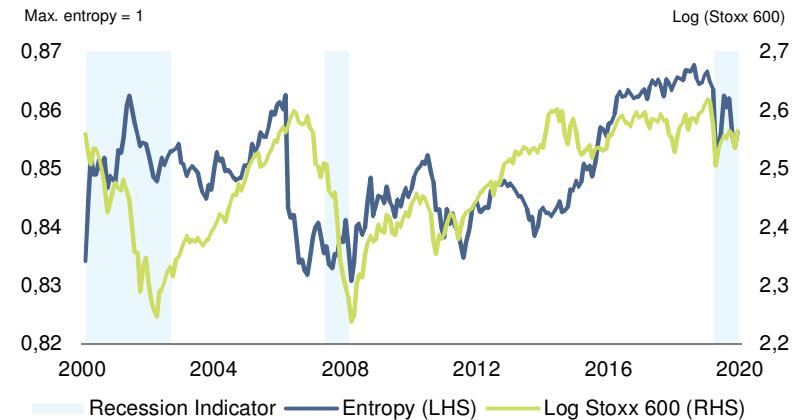


Sources: Refinitiv, Allianz Research

Market fragility also expressed in sector concentration. Our proprietary entropy index (measuring concentration risk) shows that both U.S. and Eurozone equity markets are still driven by a small number of companies within specific sectors (i.e. technology). This is similar to 2000 and 2008. Market performance at an extreme vulnerable spot and subject to sizeable market corrections

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Eurozone entropy/concentration risk indicator



Sources: Refinitiv, Allianz Research

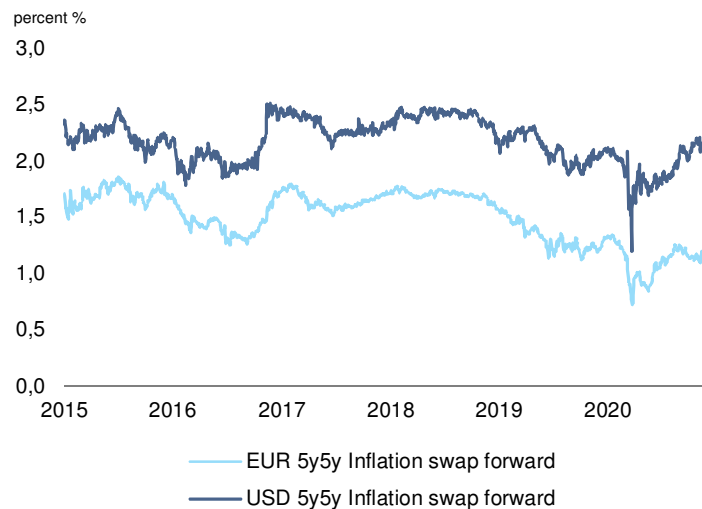
We believe “soft” monetary policy measures are no longer going to make the cut, leaving fiscal policy in charge of keeping equity markets afloat. However, we believe this fiscal stimulus could most likely arrive late, leaving equity markets subject to a harsh market correction in the near future. In this context, we expect Eurozone equity markets to be slightly more resilient than U.S. and EM ones in the wake of an equity correction on the back of slightly smaller fundamental mispricings.

26

BOND MARKETS: YIELDS CAPPED AND FLOORED



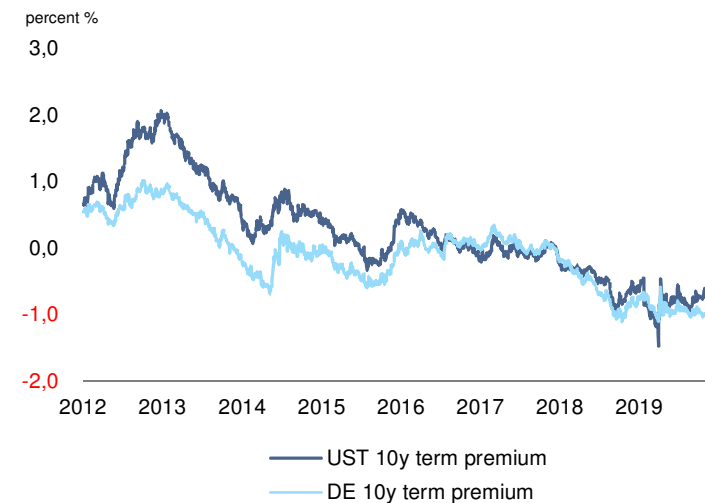
Some upside for reflationary expectations...



Sources: Refinitiv, Allianz Research

Bond markets remain cautious focusing on central banks and near-term risks. Yields on US and Euro government bonds have internalized the vaccination prospect (upward shift of up to 20 bp for 10y maturity), putting a floor to the downside. Risk profile skewed to the upside.

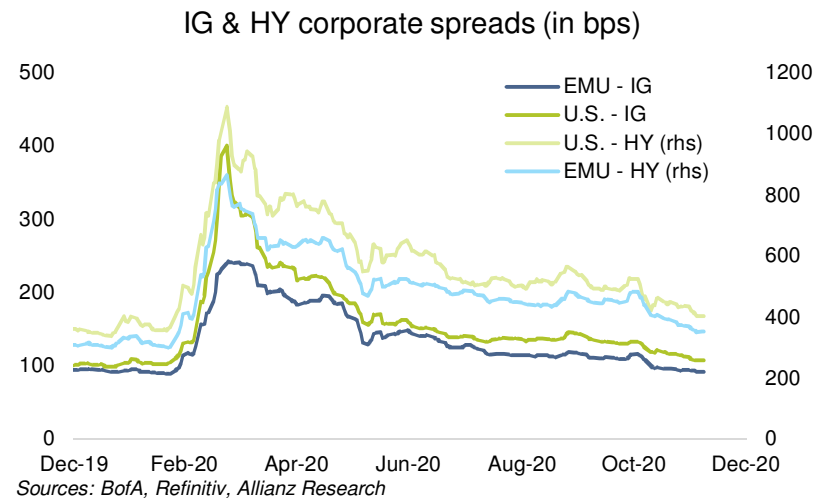
...but contained by term premium compression



Sources: Refinitiv, Allianz Research

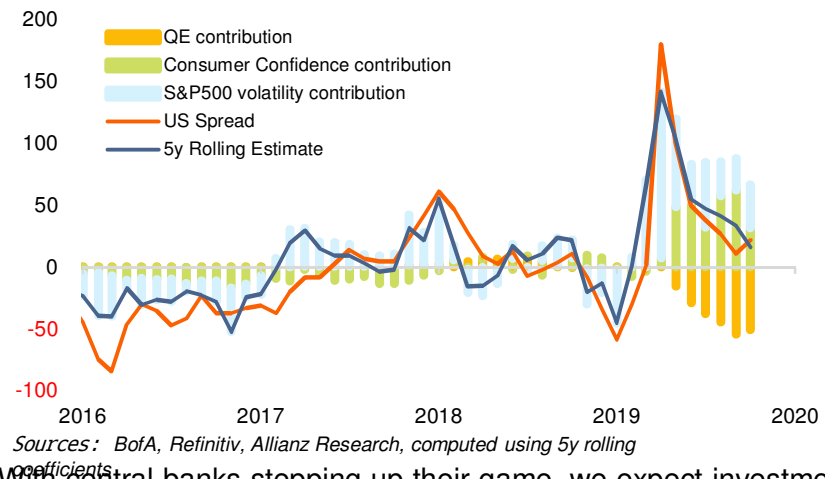
But the upside potential for yields is capped by central bank intervention. More than 50% of EMU and U.S. government bonds are held by central banks : domestic for QE, foreign for FX reserves. This reduction in free float compresses term premium and keeps it negative.

CORPORATE CREDIT: QE DEPENDENT



Due to tight valuations, the probability of experiencing higher spreads in the near future far outpaces the probability of experiencing tighter spreads, irrespective of the central bank actions. We expect central banks be forced to step up a notch (represented by the QE contribution in our decomposition) should widening pressures come into place due to spikes in market volatility (represented by the S&P500 contribution).

US yoy change in IG corporate spreads decomposition (in bps)

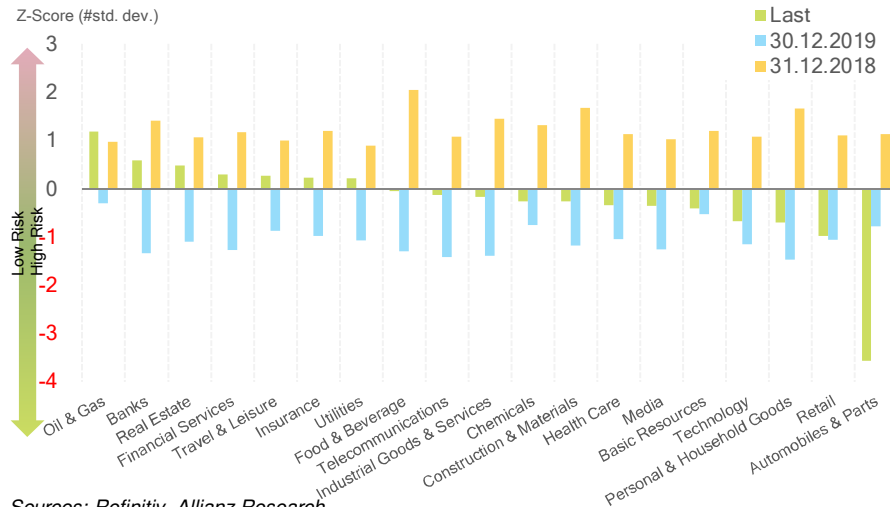


With central banks stepping up their game, we expect investment grade spreads to timidly widen due to a worse than expected economic outlook but to remain close to current levels because of extra QE compensating for extra volatility and sentiment deterioration. The same logic applies to EUR IG corporates, which currently depict a similar pattern. We expect high yield to remain under pressure in 2020 and 2021 due to the lack of central bank support (non eligible assets) combined with the acceleration of defaults and to stabilize in 2022 .

MARKET SECTORS: CLEAR WINNERS AND LOSERS



U.S. market sector sentiment

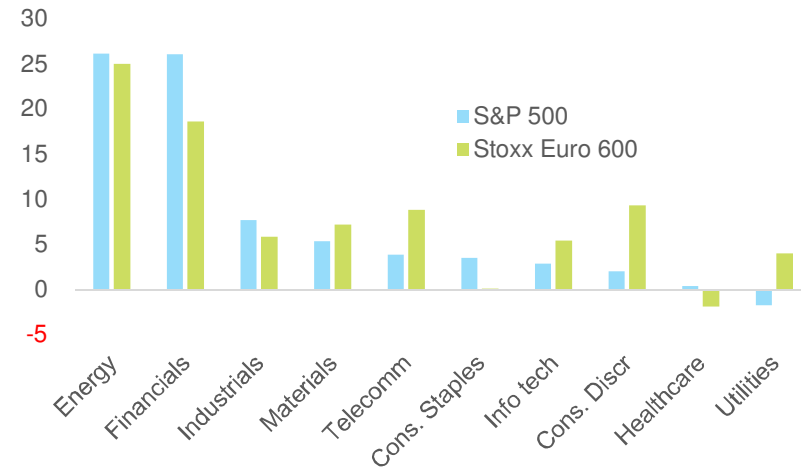


Sources: Refinitiv, Allianz Research

As of today, U.S. markets perceive oil & gas, travel & leisure and banks to be both the most risky and most likely to suffer a structural shock in their future cash-flow stream. On the other side of the coin, automotive (Tesla being the biggest driver of the market move), technology and retail are the sectors perceived to be the least risky (or, from another perspective, the most overbought sectors).

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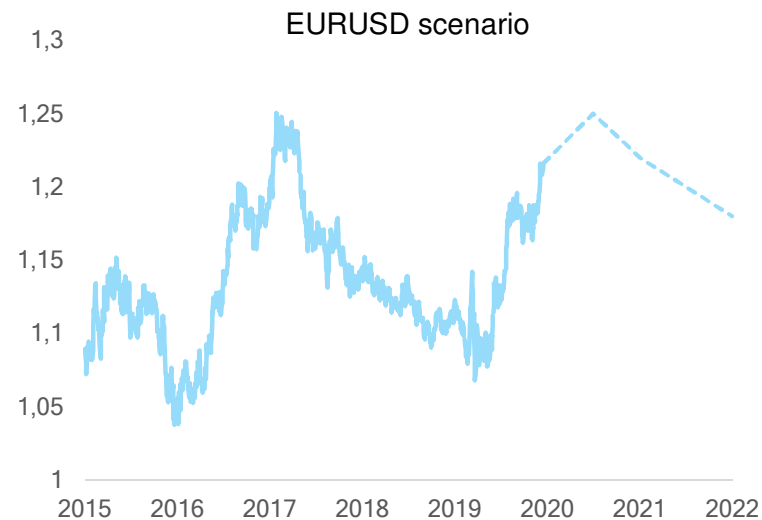
Sector performance since 06.11.2020



Sources: Refinitiv, Allianz Research

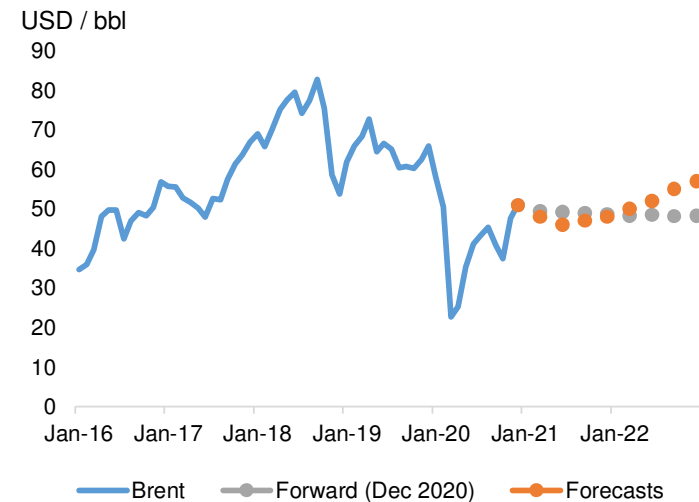
Nevertheless, this latest sector rotation seems to have changed after the clearance of the U.S. elections and the news around the vaccine. In this context, there has been a major equity strategy reversal in which market participants have started to sell growth stocks to buy value and cyclical stocks. This latest trend is more favorable for the performance of EMU indices than U.S. ones.

STRONG EUR VS. MODERATE OIL PRICE INCREASE



Sources: Refinitiv, Allianz Research

The USD is expected to remain under pressure until H2 2021 on the back of a sluggish economy and USD denominated capital market outflows reaching the bottom at 1.25 against the EUR. However, we believe this downside forces to start reversing towards year end (1.22 eoy) leading the USD towards an appreciation trajectory at a +2 to +3% yearly rate on the back of a faster than expected accelerating economy and a “hawkisher” central bank.



Sources: Refinitiv, Allianz Research

In Q1 2021, price are likely to consolidate around current levels as OPEC+ will only gradually phase out its production cuts. In Q2 2021, although demand should increase in line with our macro scenario, we factored in larger increases in supply. As the global recovery picks up, prices increase moderately in Q3 and Q4. **In 2021, prices should remain in a \$46-48 range.** Without any major shock, the positive momentum should remain in 2022. 30

REGIONAL OUTLOOK

03



US NEW ECONOMIC TEAM: BIDEN BETS ON BIPARTISANSHIP

- **Janet Yellen** – Treasury secretary
- **Adewale Adeyemo** – Deputy treasury secretary
- **Neera Tanden** – Office management and budget
- **Cecilia Rouse** – Chair of the council of economic advisers
- **Jared Bernstein** – Council of economic advisers member
- **Heather Boushey** – Council of economic advisers member
- **Brian Deese** – Director of the National economic council
- **Katherine Tai** – US Trade representative
- **Anthony Blinken** – Secretary of state



EXPERIENCED

- ❖ Experience of the **2008-09 crisis** within the Obama administration
- ❖ During this period, Janet Yellen was the **FED's vice-president**, Adeyemo helped set up the **consumer protection financial bureau**, Rouse was already serving in the **CEA**, Bernstein was one of the **stimulus plan architects**, and Deese was member of the **NEC**.

PRO-BUSINESS

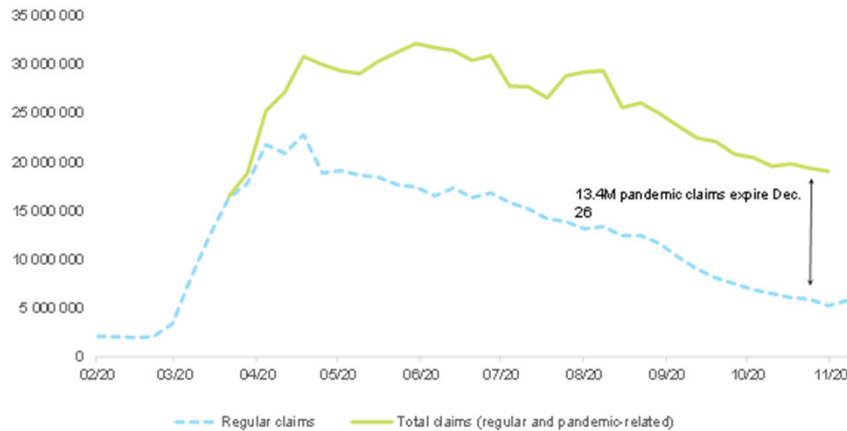
- ❖ All members of the team called for a **strong stimulus package** to revive the economy
- ❖ General will to **protect American companies** from foreign competition and **encourage national production**
- ❖ Corporations will benefit from the stimulus and seem unlikely to face strong regulations (Neera Tanden raised money from Wall street and the Silicon valley for Biden's campaign, while Brian Deese and Adewale Adeyemo used to work for BlackRock).
- ❖ **No vocal support for left wing priorities** (healthcare, environment, tax raise, minimum wage, student debt, entitlement expansion) which might affect corporate benefits.

BIPARTISAN

- ❖ Most members of the team were **not rejected outright by republicans**
- ❖ Janet Yellen appreciated on both sides of the aisle
- ❖ Neera Tanden, widely criticized by republicans for her contribution to Obamacare, may face greater scrutiny.
- ❖ As most republicans, all consider China as an economic and geostrategic adversary

US: FISCAL ASSISTANCE CLIFF CALLS FOR A NEW STIMULUS PACKAGE

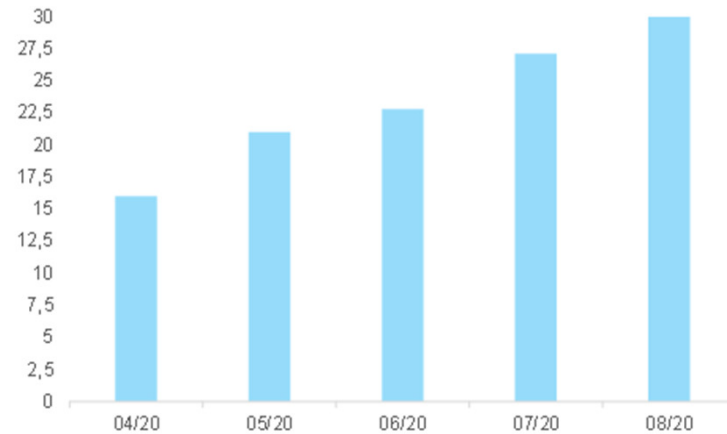
Unemployment insurance claims



Source: US Labor department, Allianz research

The Pandemic Unemployment Assistance (PUA) and the Pandemic Emergency Unemployment Compensation (PEUC) programs, covering 13.4M people as of November 26, are set to expire on December 26. A USD900bn new fiscal package will be voted during lame-duck session in order to prevent this risk scenario from materializing

Share of laid or furloughed workers who do not expect to be hired or brought back to work by their prior employers (%)



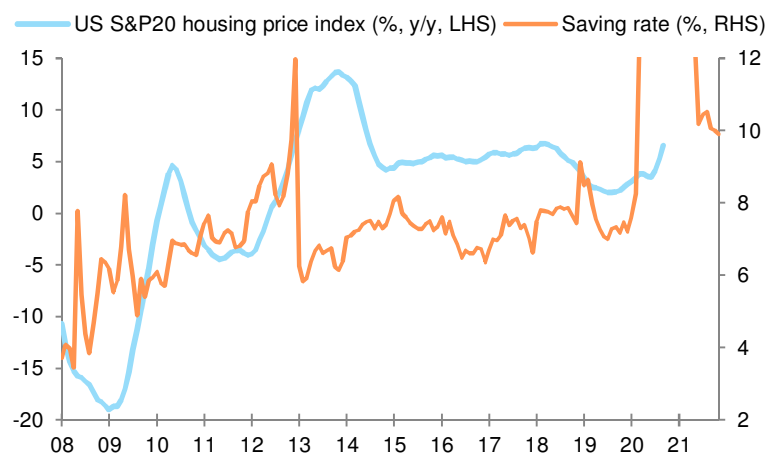
Source: Morning Consult, Allianz research

The adjustment of the US job market is far from being over. The share of temporary laid-off workers foreseeing the possibility of being permanently out of job is clearly oriented on the upside. Progress on the job front should be limited. We expect US unemployment rate at 6.1% at the end of 2021 compared with 6.7% today



US: HOUSEHOLD NET WORTH TO BOOST SPENDING POWER IN 2021

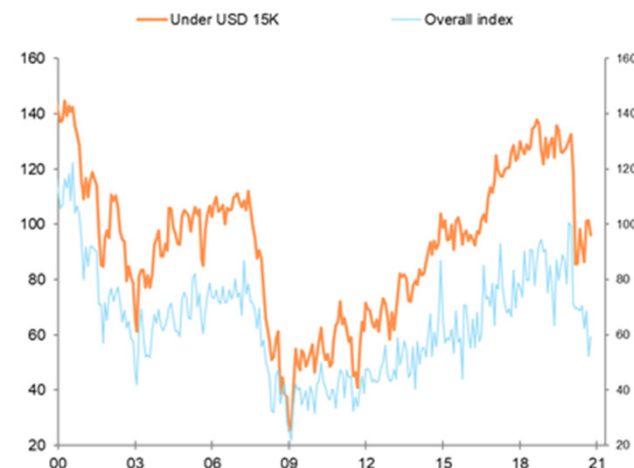
US Housing prices (% y/y) and saving rate (as % of gross disposable income)



Sources: FED Saint Louis, Allianz Research

Peaks observed at the level of the saving rate are generally accompanied with a significant acceleration of housing prices one year later because of the defensive aspect of residential investment (particularly true in the current crisis) and the because of the boost provided by lower interest rates. This acceleration of housing prices will create positive wealth effects

Conference Board consumer confidence index



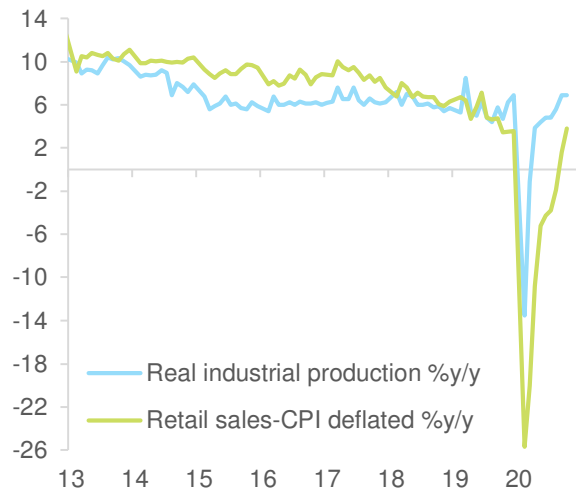
Sources: Euler Hermes, Allianz Research

Household consumer confidence mirrors the negative influence of different obstacles, such as anticipation of higher taxes, persisting vulnerabilities on the sanitary side, and doubts about the voting of a new fiscal supportive measure. We expect the multiplier impact of upcoming fiscal initiatives to be stronger in 2022 at +1.6pp compared with +1.1 pp in 2021



CHINA: START OF THE POLICY NORMALIZATION GIVEN A MORE BROAD-BASED ECONOMIC RECOVERY

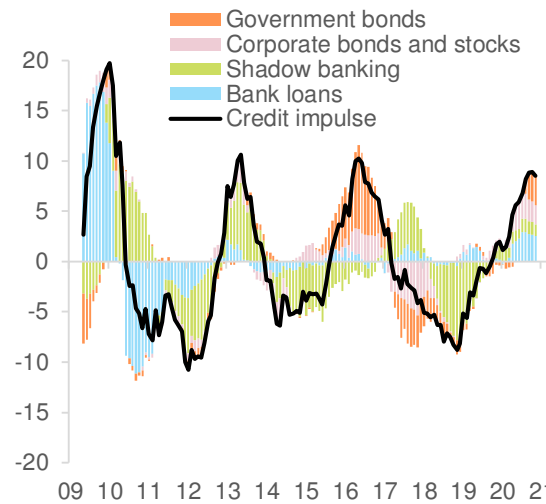
Economic activity indicators



Sources: national statistics, Allianz Research

We expect China's GDP growth at +2.0% in 2020, +8.4% in 2021 and +5.4% in 2022. Private consumption took longer to bounce back but the recovery will extend into 2021.

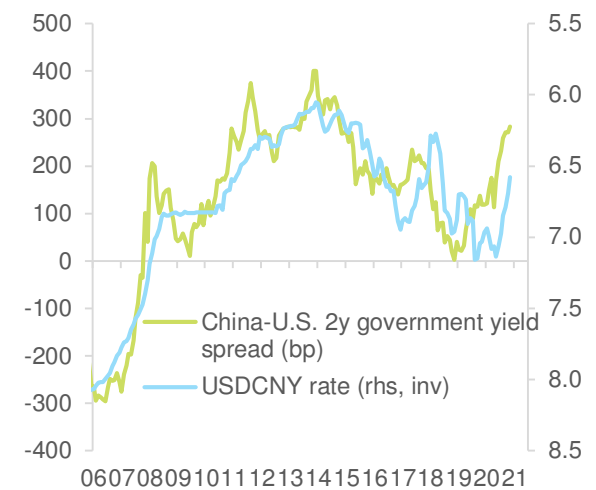
Credit impulse index



Sources: national statistics, Allianz Research

Authorities' focus has turned from short-term economic support to long-term structural issues. Policy easing is peaking: we expect a PBOC rate hike in Q1'21 and fiscal support worth c.5% of GDP in 2021 (vs. 7.2% in 2020).

USDCNY and Government yield spread



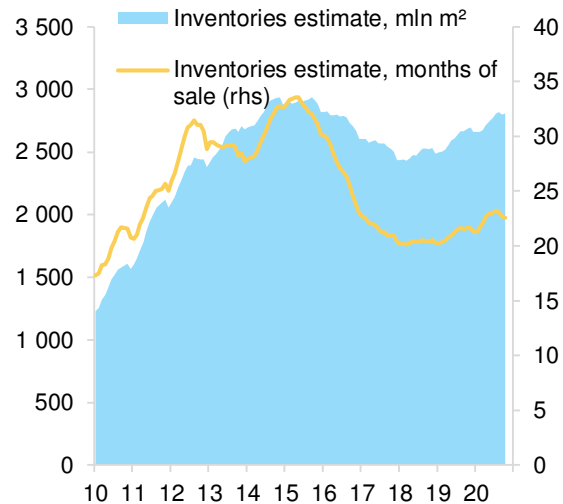
Sources: Refinitiv, Allianz Research

The recovery and policy context means that the renminbi could appreciate further (USDCNY towards 6.3 at 2021-end). The PBOC focuses more on the CFETS basket index, which rose by +4% in 2020 (CNY +6% vs. the USD).

CHINA: AUTHORITIES WILL FOCUS ON LONG-TERM CHALLENGES



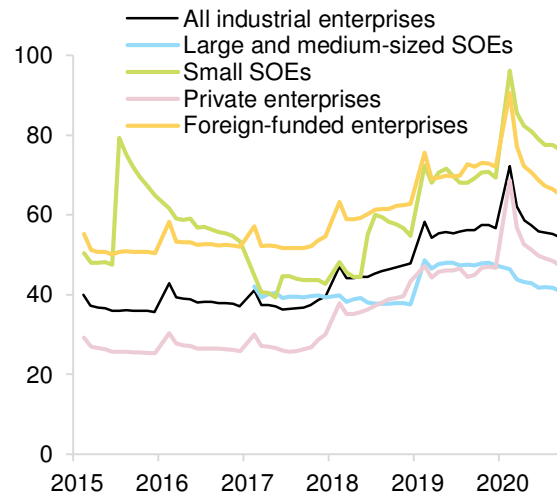
Housing inventories



Sources: national statistics, Allianz Research

The real estate sector is crucial for the Chinese economy (c.25%), and has been one of the drivers of the recovery in 2020. But policymakers will likely aim to slow the recent rise in inventories.

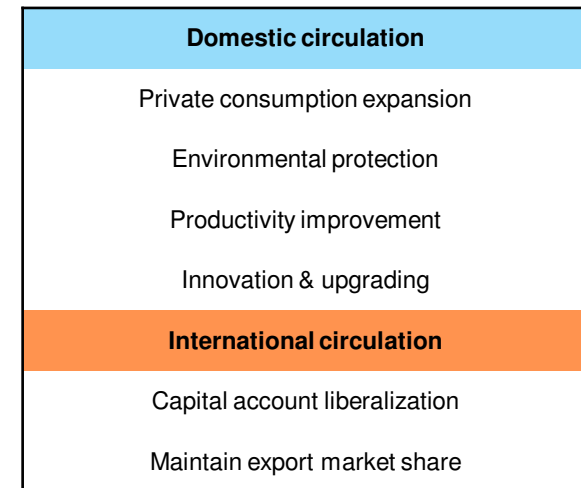
Days sales outstanding (ytd average)



Sources: national statistics, Allianz Research

State sectors have also helped drive the recovery. Large SOEs did not experience any increase in the duration of payments in 2020, contrary to small SOEs and foreign-funded firms in particular.

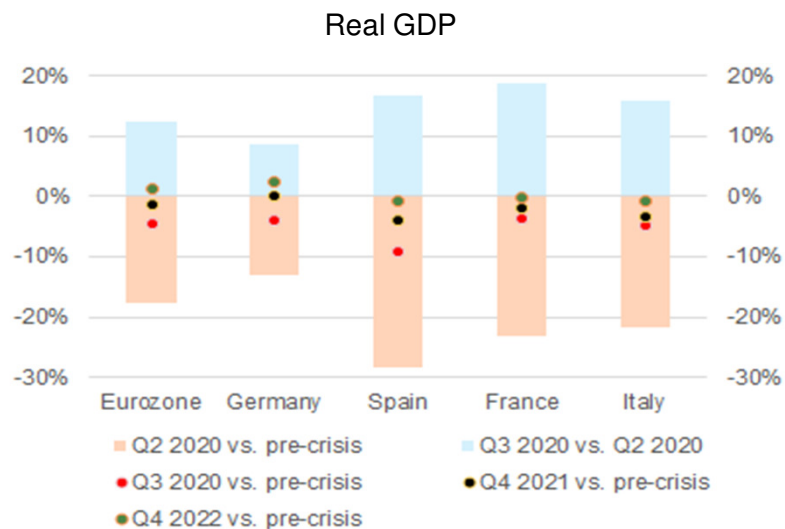
China's long-term strategy: dual circulation



Source: Allianz Research

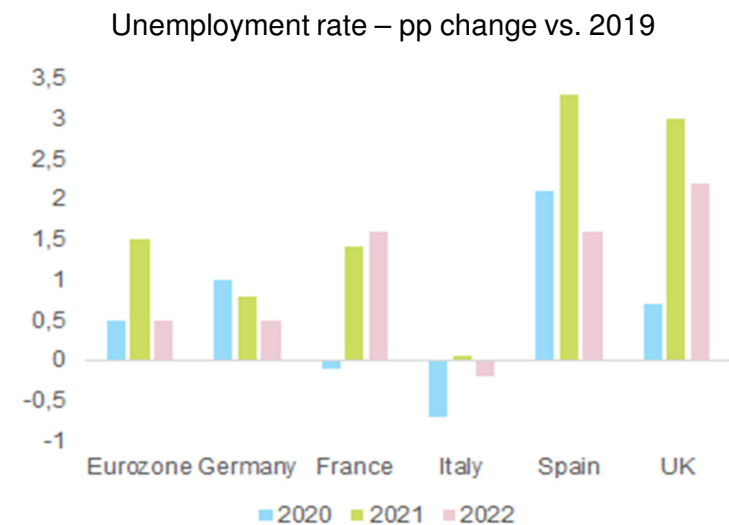
The dual circulation strategy is China's response to structural issues and long-term growth slowdown. It should consist in public investment (social, R&D, environment, etc.) and reforms (market and business friendly, etc.).

EUROZONE: THE GROWTH ROLLERCOASTER CONTINUES



Sources: Refinitiv, Allianz Research.

Following a -7.5% contraction in 2020 Eurozone GDP looks set to grow by +4.4% & +4.3% in 2021-22 allowing for a return to pre-crisis levels by mid-2022. Hard hit countries due to higher dependence on “social spending” are in for strong catch-up growth from H2 2021 onwards assuming the vaccination of at-risk populations.

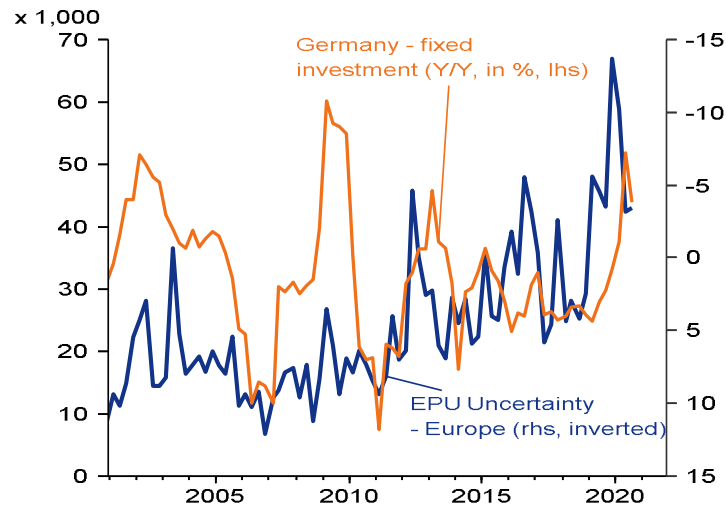


Sources: Refinitiv, Allianz Research.

The relatively contained impact of the Covid-19 on European labor markets – do mind the hidden unemployment as inactivity rates rose notably in 2020 in Italy and France - will allow for a swift recovery of private consumption as sky-high precautionary savings are tapped into.

EUROZONE: INVESTMENT NEEDS POLICY SUPPORT AMID POLITICAL UNCERTAINTY & STRETCHED FINANCES

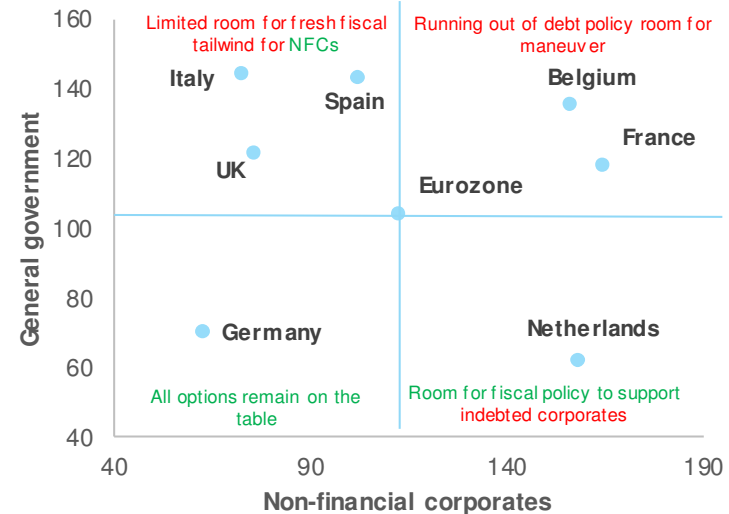
EPU political uncertainty for Europe (lhs) vs. German fixed investment (rhs, y/y, in %, inverted)



Sources: Refinitiv, Allianz Research.

Keeping a lid on political uncertainty in 2020-22 is key to support the investment recovery. Next to Covid-19 developments, key risks include Brexit, the EU recovery fund implementation, general elections in Germany & France as well as relations with the US and China.

Sector debt in % of GDP: General government vs. non-financial corporations



Sources: Refinitiv, Allianz Research.

Given stretched public & corporate finances as well as substantial excess capacities, EU recovery resources will add important tailwind particularly in countries where room for maneuver is already limited to help ensure the green & digital transition remain on track.

THE PHASE OUT OF THE SUPPORTS WILL BE KEY: 1 OUT OF 4 CORPORATES AT RISK



Covid-19 sensitive sectors, European countries

	Enterprises - number	% of the country	% of EZ total	Turnover - million euro	% of the country	% of EZ total	Gross operating surplus - million euro	% of the country	% of EZ total	Employees in full time equivalent units - number	% of the country	% of EZ total
Germany	647 468	25%	16%	1 247 794	18%	29%	119 737	18%	32%	5 837 758	24%	31%
France	689 825	24%	17%	858 997	22%	20%	50 377	19%	13%	2 854 689	23%	15%
Italy	798 442	22%	19%	711 730	23%	16%	68 411	20%	18%	2 644 887	27%	14%
Spain	603 865	23%	15%	475 917	23%	11%	42 705	21%	11%	2 633 668	28%	14%
Belgium	125 132	20%	3%	219 163	20%	5%	17 588	13%	5%	422 813	21%	2%
Netherlands	252 204	21%	6%	236 430	14%	5%	26 353	15%	7%	772 645	19%	4%
Portugal	241 590	27%	6%	99 057	26%	2%	8 730	23%	2%	933 132	34%	5%
other countries	793 529	29%	19%	499 717	18%	11%	40 904	12%	11%	2 848 296	29%	15%
Eurozone	4 152 055	24%	100%	4 348 805	20%	100%	374 805	17%	100%	18 947 888	25%	100%

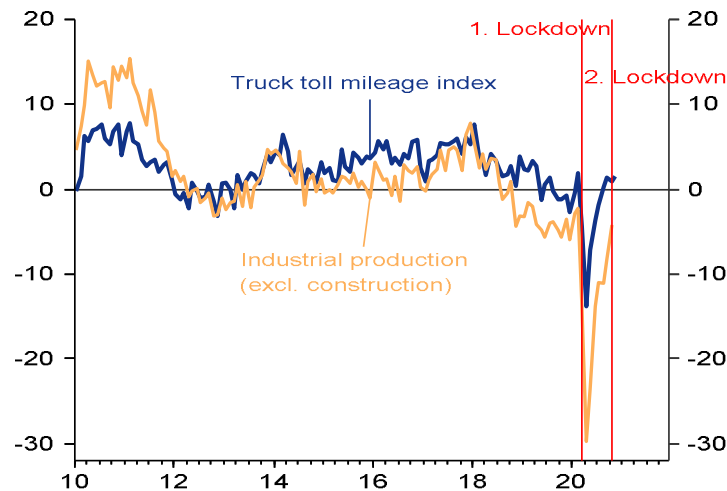
(*) Automotive: retailers, wholesalers, suppliers, car rental (excludes car manufacturers)

Sources: Eurostat, Euler Hermes, Allianz Research

Lockdowns will have an heavy cost for Covid-19 sensitive sectors across the Eurozone (with operating losses averaging - 15%/-20% in 2020 compared to pre-crisis levels). In the absence of prolonged fiscal policy support or an aversion to taking on more debt, this could dry up cash buffers, putting around 24% of Eurozone companies at risk of a cash-flow crisis next year. One out of four in France and Germany are directly exposed to the Covid-19 sanitary restrictions.

GERMANY: DOUBLE DIP AND ELECTION YEAR

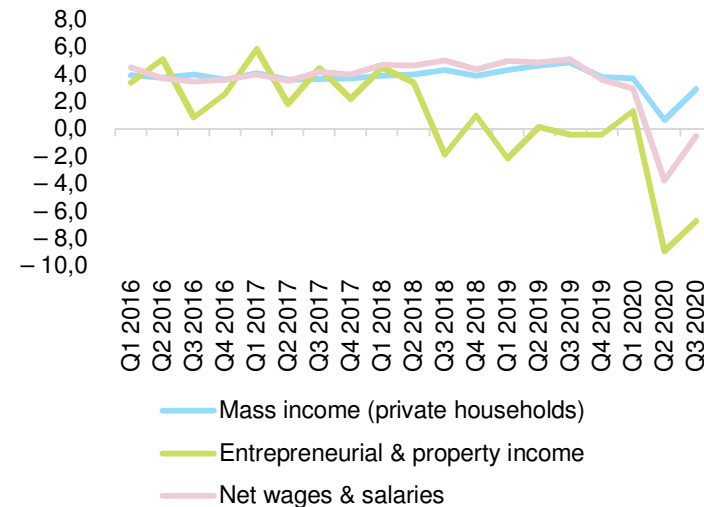
Daily truck toll mileage index vs. industrial production (excl. construction)



Sources: Refinitiv, Allianz Research.

Resilient industry has been a bright spot during the 2nd lockdown driven above all by strong export demand from China. With the tightening of restrictions in December a recession at the turn of 2020/21 has become our base case. After -5.6% in 2020 we expect GDP to rise by +3.4% and +3.8% in 2021-22 with the recovery to pre-crisis GDP completed as soon as Q1 2022.

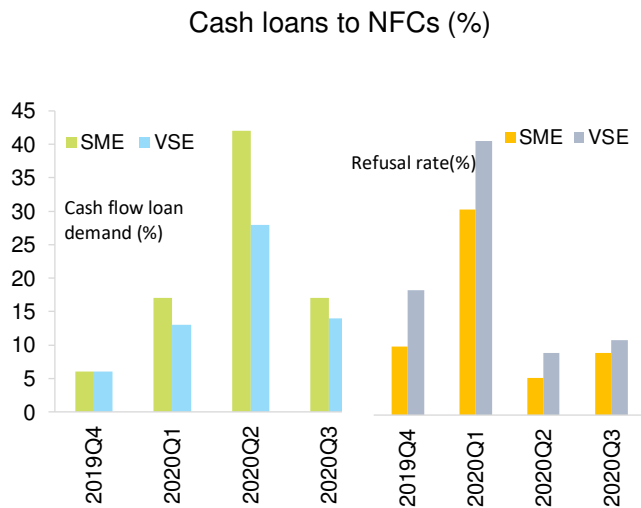
Mass income (private households), entrepreneurial & property income, net wages & salaries (y/y, in %)



Sources: Refinitiv, Allianz Research.

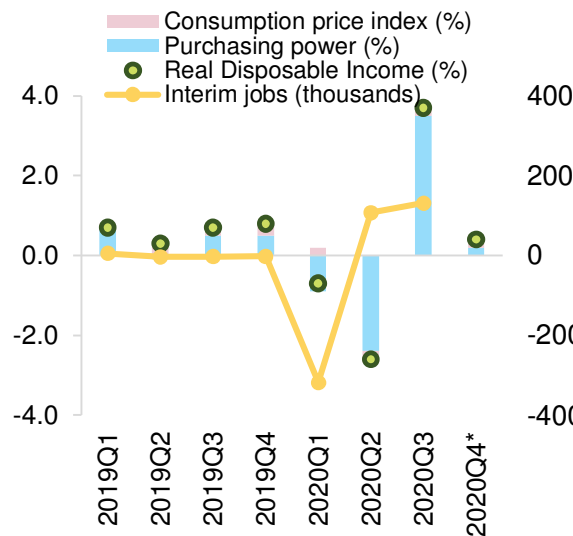
So far fiscal policy has propped up above all consumers, which should help unleash precautionary savings once contagion fears fade. Now the focus amid the 2nd lockdown should shift to the corporate sector. The upcoming September election will be a decision between “business as usual” or a vote for a more radical rethink of “made in Germany”.

FRANCE: PASCAL'S WAGER



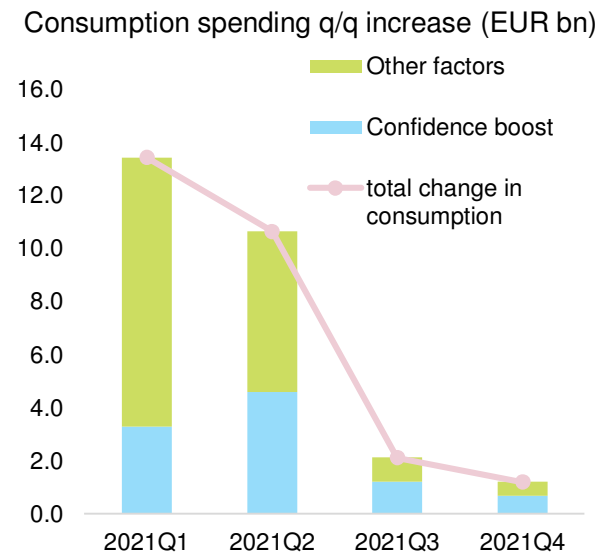
Sources: Banque de France, Allianz Research
 *The survey covers 3000 NFCs; VSE = very small enterprises

SMEs demand for State Guaranteed Loans soared in Q2 2020. The refusal rate of cash loans increased to near 10% in Q3.



Sources: INSEE, Euler Hermes, Allianz Research
 * Forecast

State support and muted price developments helped to preserve real disposable incomes in 2020. However, interim jobs declined -10.3% y/y (81100 job destructions within a year).

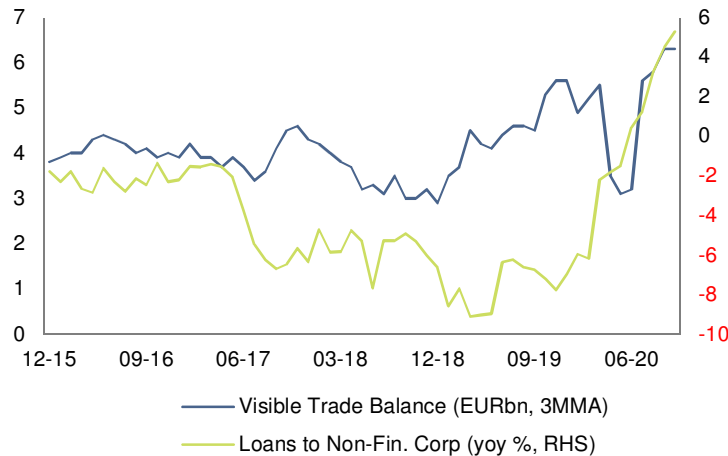


Sources: INSEE, Euler Hermes, Allianz Research

Consumer confidence recovery to pre-crisis levels is a key element to unleash savings and may explain up to 1/3 (EUR 10 bn) of consumption gains in 2021.

ITALY: MANUFACTURING AND EXPORTS TO THE RESCUE

Corporate sector showing resilience

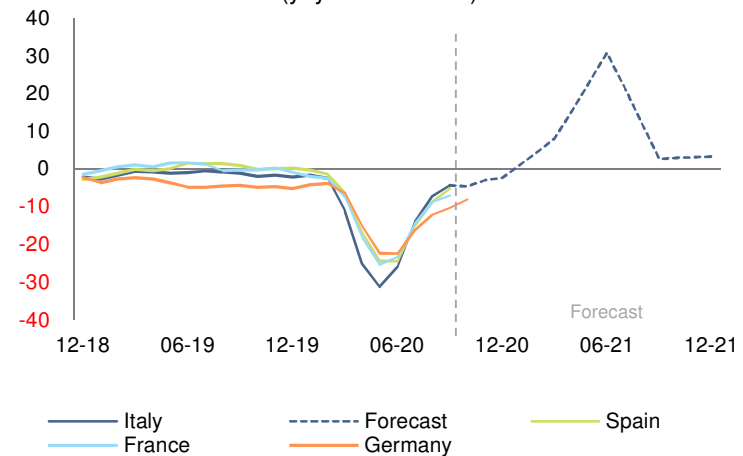


Sources: Refinitiv, Euler Hermes, Allianz Research

Despite GDP contraction in Q4 Italian GDP will decline less than previously expected in 2020 (-9.0%) thanks to exceptional rebound in Q3. Corporate sector saved the day (exports, investment) as government spending remains cautious.

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Industrial production (yoy in % - 3MMA)



Sources: Refinitiv, Euler Hermes, Allianz Research

Industrial production with strongest rebound in EMU, benefiting from global demand and positioning on value chain. PMI readings suggest that the industrial sector's recovery should continue. Downside risk should global demand weaken or extension of lockdown measures.

SPAIN: SHORT TERM V. MEDIUM TERM



Change in employment and inactive population (in mn) and unemployment rate



Sources: IHS Data Insight, Euler Hermes, Allianz Research

While the economy is recovering, we expect the unemployment rate to peak at 17.5% next year, before gradually decreasing – but remaining at an elevated level.

Funds to be disbursed per type of measure (EUR bn)

The ten "policy levers" of the Spanish stimulus	Fund allocation 2021-2023 (EUR bn)
Urban and Rural Agenda, fight against depopulation and development of agriculture	11.5
Infrastructure and resilient ecosystems	8.8
Fair and Inclusive Energy Transition	6.4
An Administration for the 21st Century	3.6
Modernization and digitalization of the industrial and SME fabric, recovery of tourism and promotion of an enterprising nation	12.3
Pact for Science and Innovation. Strengthening the capacities of the health system (SNS)	11.9
Education and knowledge, continuous training and capacity building	12.7
New care economy and employment policies	4.1
Promotion of the Culture and Sports Industry	0.8
Modernizing the tax system for inclusive and sustainable growth	-
Total	72

Sources: Spanish government, Allianz Research

The focus of Spain's stimulus plan is public investment. Preparing Spain for long-term challenges (infrastructure, green growth, innovation). We can expect a higher fiscal multiplier, but few pro-business quick wins.

BREXIT: TRANSITIONING TOWARDS A FULL DEAL



Goods

Zero tariff and quotas if “level playing field” rules are respected as well as the “rule of origin”

Rules of origin

45% of foreign input is recognized as UK originated (vs. 20% for CETA and 10% for WTO terms)

Customs checks

Transition on the UK custom declarations until July 2021; immediate implementation on the EU side

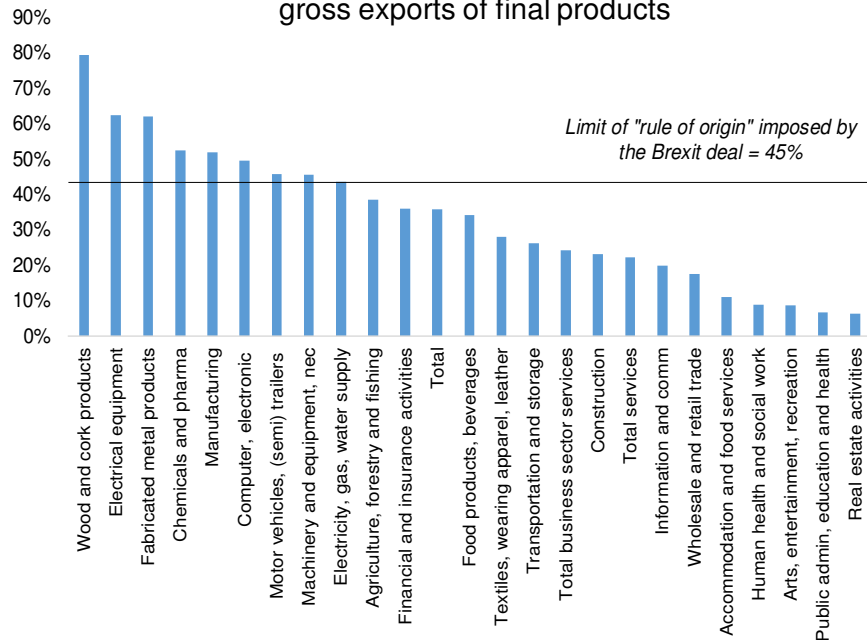
Financial services

18-month equivalence for derivatives, other financial products are still under “temporary fix” for the next 6 months as well as data adequacy

BREXIT: 35% OF UK COMPANIES LOOKING FOR DOMESTIC SUPPLIERS (VS. 17% IN ITALY)



Foreign value added content of gross exports in % of gross exports of final products



Sources: OECD, Allianz Research

Estimates of increase in UK import prices in H2 2021

**NTBs of 5 to 10%;
GBP/EUR
depreciation of -3%**

Product type	Import price change	Impact in GBP, bn
All products	4.9%	22
Agricultural products	6.6%	2
Non-agricultural products	4.8%	20
Capital goods	4.5%	4
Intermediate goods	5.1%	13
Consumption goods	5.4%	5

**NTBs of 5 to 10%; No
GBP depreciation**

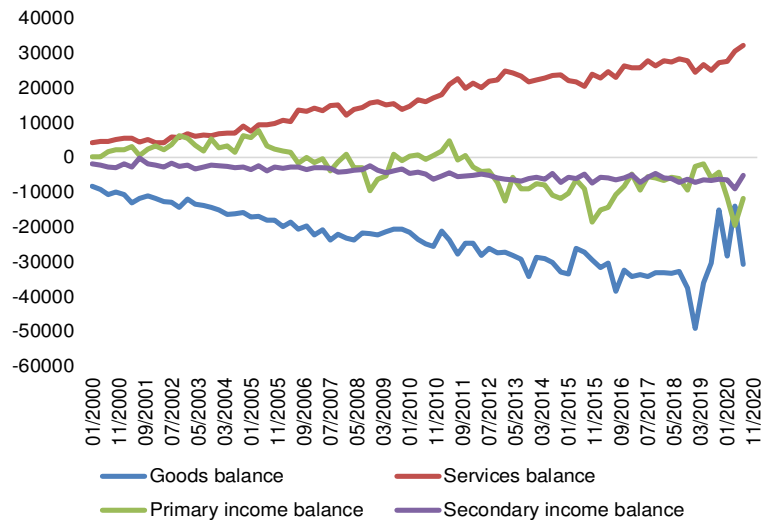
Product type	Import price change	Impact in GBP, bn
All products	1.9%	8
Agricultural products	3.5%	1
Non-agricultural products	1.7%	7
Capital goods	1.5%	1
Intermediate goods	2.0%	5
Consumption goods	2.3%	2

Sources: various, Allianz Research

BREXIT: LOWER SURPLUS OF SERVICES BALANCE



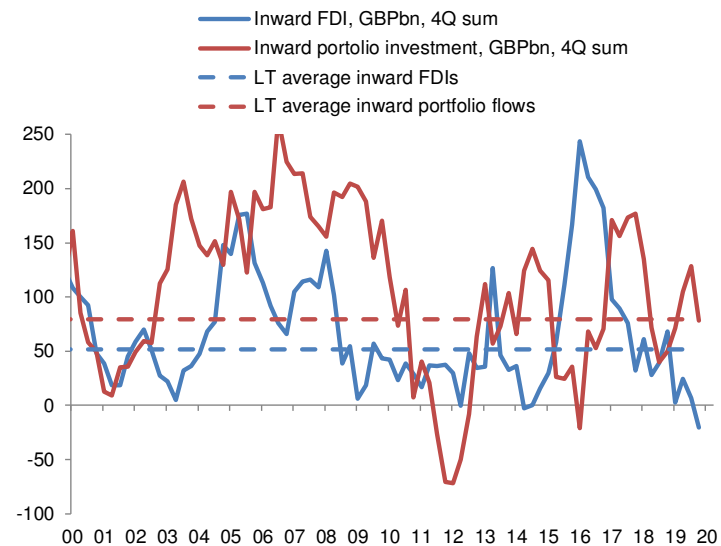
Current account balance decomposition, GBPmn



Sources: ONS, Allianz Research

The services surplus is likely to shrink in the absence of mutual recognition and the financial model will need to evolve away from “classical financial products”

UK balance of payments (latest data point Q3 2020), GBPbn



Sources: ONS, Allianz Research

Investment flows have already suffered significant outflows over the past years and the loss of competitiveness (notably due to the business environment) will not make things easier

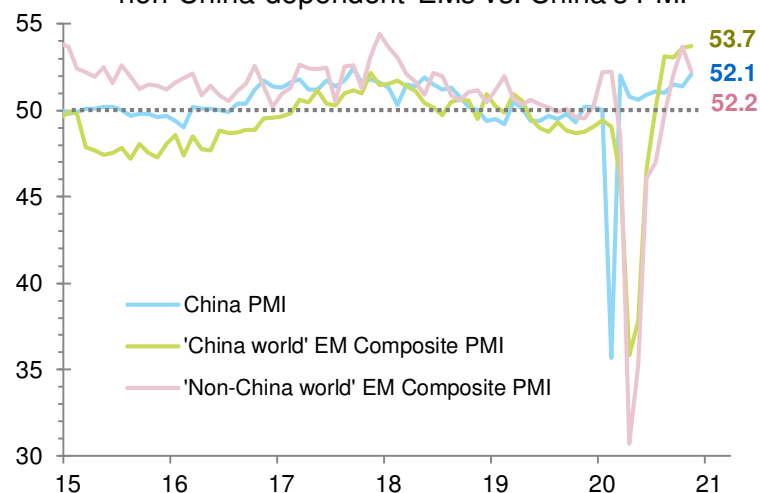
BREXITING IN TIMES OF COVID-19: LIMITED TRADE DISRUPTION



	Soft Brexit with very-last minute compromise and full FTA implementation by mid-2021		
	2020	2021	2022
GDP growth, %	-11.0	+2.5	+7.8
Consumer spending, %	-13.0	+5.7	+8.9
Total investment, %	-16.0	+4.0	+8.3
Exports, %	-14.0	+1.5	+7.3
Inflation	0.9	1.8	2.2
Unemployment rate	4.5	6.8	6.0
Business insolvencies, number (2019 = 22,078)	15,410	15,000 – 20,000	~25,400
GBP/EUR, annual change	-1.0	-3.0	-2.0
Monetary policy	Status quo after the increase of GBP150bn announced in November		
Fiscal policy	5% of GDP in 2021 (after only 1.5% in 2020) mainly focused on infrastructure spending and tax cuts		
10y GILT expectations and equity strategy	10y GILT at 0.4% (eoy) FTSE100 at -22%yoy (eoy)	10y GILT at 0.6% (eoy) FTSE100 at 10%yoy (eoy)	10y GILT at 0.8% (eoy) FTSE100 at 5%yoy (eoy)

EMERGING MARKETS: CAPITAL INFLOWS TO CONTINUE IN 2021

Composite Manufacturing PMIs of 'China-dependent' and 'non-China-dependent' EMs vs. China's PMI



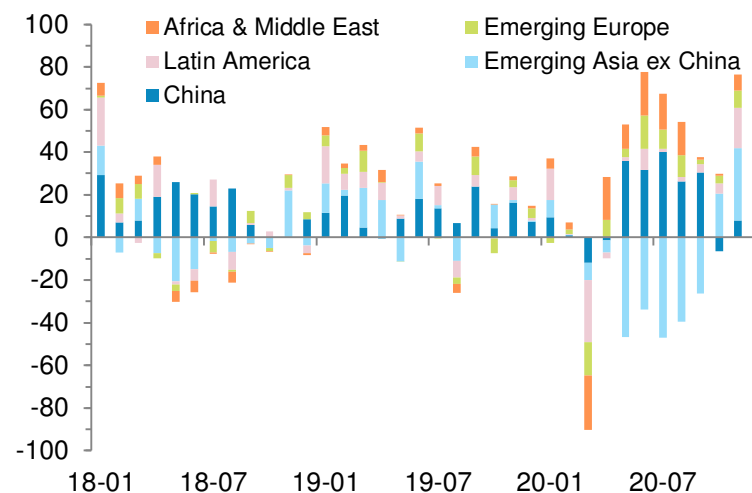
NB: 'China world' includes Taiwan, Hong Kong, Singapore, Indonesia, South Korea, Brazil, Russia, South Africa.

Sources: IMF, IHS, Allianz Research

EMs highly dependent on exports to China follow the latter's business cycle with a lag.

Other EMs experienced a deeper recession and will probably see a double-dip recession.

Net non-resident portfolio flows to EMs by region (USD bn)



Sources: National statistics, IIF, Allianz Research estimates

Rebound in net capital flows: Net portfolio flows to EMs posted a record low of -USD 90 bn in March. But after a mixed recovery from April to October, November saw a record net inflow of +USD 77bn, driven Biden victory and good vaccine prospects.

RISING RISK OF SOVEREIGN DEBT CRISES



Rank	Country	Public Debt Sustainability Risk Score	Gross public debt (% of GDP)	FX public debt (% of total public debt)	Debt to Average Maturity, 2020 (% of GDP)	Interest payments 2021 (% of revenues)	Effective interest rate 2021 *	Fiscal discipline **	Sovereign rating downgrades since June 2020
1	Mozambique	2.47	121.3	80.0	97.5	11.9	2.6	-4.4	
2	Zambia	2.25	120.0	80.0	28.8	44.5	7.0	-8.0	S&P (SD), Fitch (RD)
3	Ghana	2.23	76.7	41.2	75.0	44.3	7.4	-5.9	S&P (B-)
4	Sudan	1.98	259.4	80.0	30.0	0.3	0.0	-6.7	
5	Venezuela	1.95	232.8	43.6	30.0	0.3	0.0	-17.1	
6	Timor-Leste	1.93	11.7	80.0	30.0	0.5	2.3	-36.4	
7	Sri Lanka	1.79	98.3	49.1	18.0	61.8	6.8	-6.3	Moody's (Caa1), Fitch (CCC)
8	Egypt	1.46	86.6	29.4	25.8	42.6	9.8	-10.1	
9	Pakistan	1.41	87.2	42.9	35.6	39.2	7.2	-6.2	
10	Zimbabwe	0.94	2.4	80.0	0.9	7.7	47.1	-4.4	
11	Laos	0.85	70.9	78.3	30.0	16.7	3.3	-5.2	Moody's (Caa2), Fitch (CCC)
12	Congo Rep	0.82	104.5	80.0	30.0	5.5	1.3	-5.6	S&P (CCC+)
13	Angola	0.73	120.3	48.1	11.7	31.3	5.1	-2.2	Moody's (Caa1), Fitch (CCC)
14	Oman	0.72	81.5	74.7	9.4	7.2	2.8	-13.2	S&P (B+), Fitch (BB-)
15	Argentina	0.61	90.4	48.7	30.0	12.0	4.7	-5.9	
16	Kenya	0.49	66.4	48.2	9.6	24.8	6.1	-7.9	
17	India	0.42	89.3	16.6	9.3	31.9	6.8	-7.0	
18	Ecuador	0.37	68.9	97.2	11.8	5.0	2.3	-5.0	
19	Kyrgyzstan	0.36	68.1	83.9	30.0	3.8	1.8	-2.6	
20	Cote d'Ivoire	0.36	41.7	80.0	30.0	11.0	3.8	-2.7	
...									
36	Brazil	0.03	101.4	12.1	16.1	11.5	3.4	-8.1	
...									
44	South Africa	-0.14	78.8	23.4	6.2	18.8	6.4	-4.7	Moody's (Ba2), Fitch (BB-)
...									
55	Turkey	-0.41	41.7	39.0	7.7	12.4	8.5	-3.0	Moody's (B2)

* interest payments in % of public debt at end of previous year
 ** five-year average fiscal balance in % of GDP

Source: Allianz Research

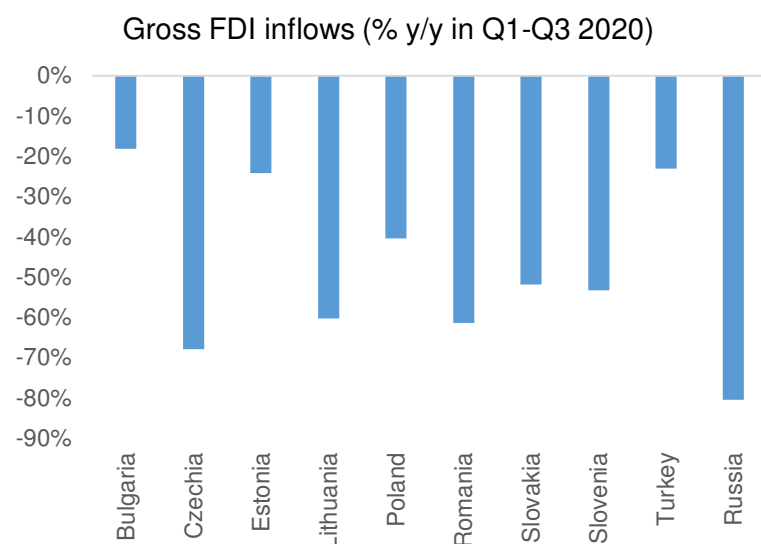
Public Debt Sustainability Risk Score is calculated across 78 selected larger EMs and LDCs (Low-income Developing Countries).

Argentina, Ecuador, Zambia along with Lebanon and Suriname already defaulted in 2020. Venezuela still in default.

Adding anecdotal evidence, **Angola** (already partial default with China), **Mozambique, Ghana, Sri Lanka, Pakistan** and **Laos** could be the next in line.

Sovereign debt crises don't need to be always with the drama of a default, but may still require debt restructurings and IMF programs or so.

EMERGING EUROPE: PENT-UP INVESTMENT AND REDUCED FISCAL LEEWAY WILL SLOW RECOVERY



Sources: IHS Markit, Allianz Research

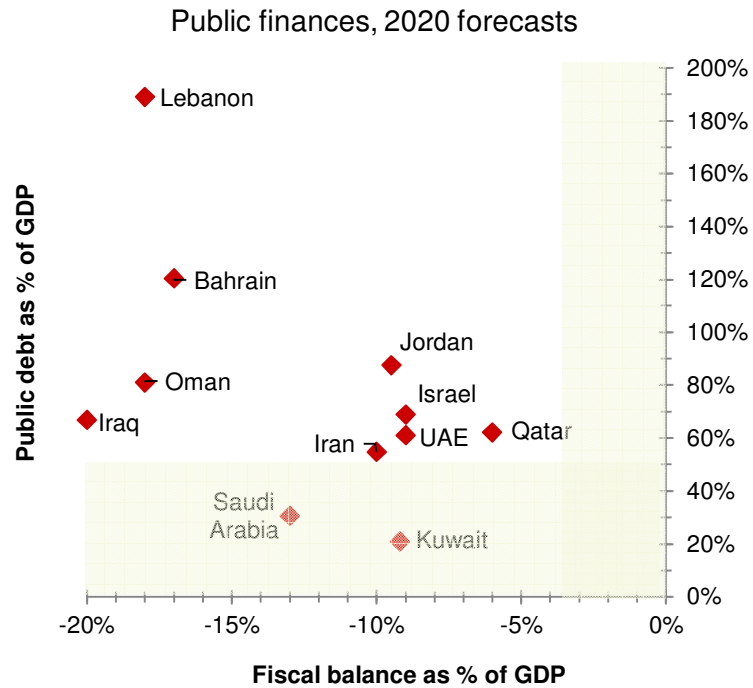
FDI inflows markedly down in 2020, with medium-term impact on growth in the next years.

Economy	Fiscal Leeway Score	Discretionary fiscal response to Covid-19 crisis (% of GDP, announced as of September)	Estimated change in fiscal deficit in 2020 (% of GDP)	Total public debt forecast in 2020 (% of GDP)	Trajectory of public debt-to-GDP ratio in 2015-2019*	LT government bond yield (% latest month available)
Bulgaria	-1.60	6.7	-3.7	24.0	1	0.85
Russia	-1.30	3.4	-5.4	18.9	1	6.31
Estonia	-1.27	7.9	-4.8	18.7	1	2.88
Mexico	-0.89	1.1	-3.2	65.5	2	6.21
Nigeria	-0.73	1.5	-2.1	35.0	4	11.76
South Korea	-0.64	13.8	-2.2	48.4	2	1.19
Lithuania	-0.64	8.3	-3.7	48.3	3	0.16
Slovakia	-0.64	7.0	-4.6	61.8	2	-0.27
Latvia	-0.60	11.2	-3.2	44.1	3	-0.20
Saudi Arabia	-0.57	3.1	-3.9	33.4	5	3.38
Indonesia	-0.33	3.8	-4.5	38.5	4	7.25
Romania	-0.29	5.4	-6.1	44.8	3	3.49
Slovenia	-0.29	14.6	-2.7	81.0	1	-0.08
Egypt	-0.28	1.7	-0.5	86.6	3	13.82
Czechia	-0.22	19.8	-4.2	39.1	1	0.98
Thailand	-0.20	12.5	-5.0	50.4	2	1.53
UAE	-0.19	2.1	-7.1	36.9	5	0.78
Morocco	-0.04	3.3	-4.5	76.9	4	2.62
Hungary	0.04	8.5	-6.7	77.4	1	2.43
Croatia	0.05	5.2	-7.9	87.7	1	0.79
Israel	0.05	9.7	-7.0	76.5	1	0.70
Poland	0.16	11.7	-7.9	60.0	1	1.35
Chile	0.45	10.7	-6.6	32.8	5	2.59
China	0.50	5.9	-5.6	61.7	5	4.90
Turkey	0.67	13.8	-3.2	41.7	4	13.73
Colombia	0.91	5.3	-8.6	68.2	4	5.93
India	0.94	7.0	-5.9	89.3	4	6.45
South Africa	1.73	9.6	-7.3	78.8	5	10.65
Argentina	2.27	6.0	-3.3	100.0	5	29.89
Brazil	2.94	18.0	-9.8	101.4	5	6.29

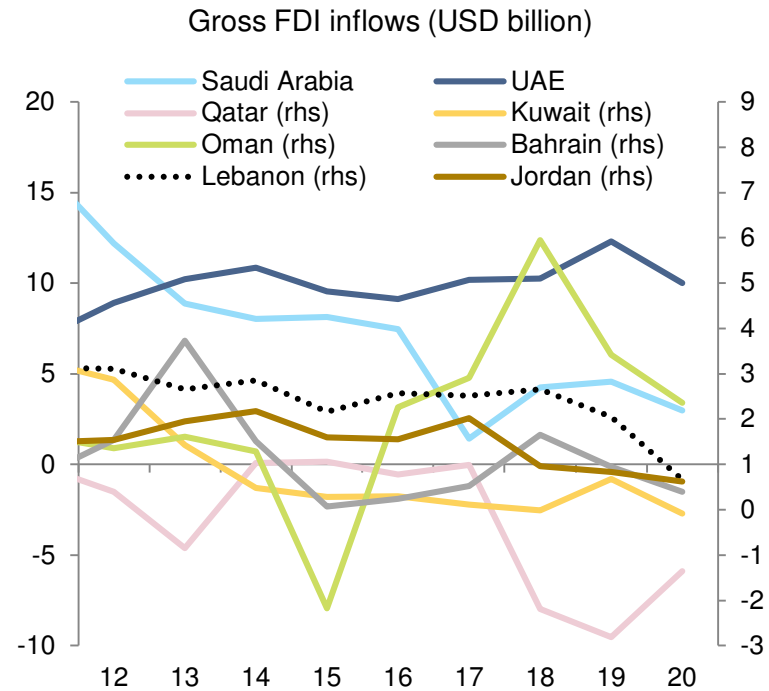
* 1 = declining; 2 = stable; 3 = up and down; 4 = rising; 5 = rapidly rising

Sources: National statistics, IMF, Eurostat, IHS Markit, Allianz Research

MIDDLE EAST IN DOUBLE DILEMMA: NO FISCAL LEEWAY AND WEAK FOREIGN INVESTMENT



Sources: National statistics, IMF, Allianz Research



Sources: IHS Markit, Allianz Research

LATAM: PRE-PANDEMIC WEAKNESSES, LITTLE ROOM FOR MORE STIMULUS, RISING SOCIO-POLITICAL RISK

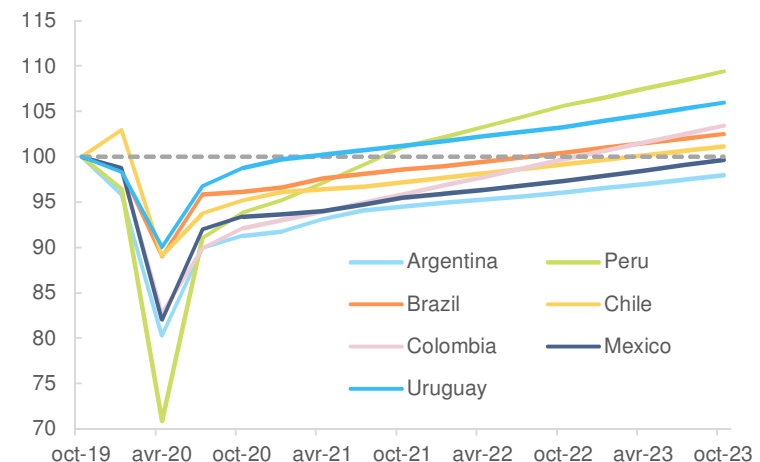
	Fiscal balance (% GDP)	Public debt (% GDP)	Fiscal policy leeway
Argentina	-11.4%	100.0%	●
Brazil	-16.8%	100.4%	●
Chile	-8.7%	33.1%	●
Colombia	-9.0%	65.0%	●
Mexico	-5.0%	64.6%	●
Peru	-10.0%	39.4%	●

	Inflation target	Inflation Q3 2020	Inflation latest month	Policy rate	Monetary policy leeway
Argentina	30.0%	38.3%	35.7%	38.00%	●
Brazil	4.0%	2.6%	3.9%	2.00%	●
Chile	3.0%	2.7%	2.9%	0.50%	●
Colombia	3.0%	1.9%	1.7%	1.75%	●
Mexico	3.0%	3.9%	4.1%	4.25%	●
Peru	2.0%	1.8%	1.7%	0.25%	●

Sources: National statistics, IHS, Euler Hermes, Allianz Research

Only Chile and Peru still have fiscal leeway, while Colombia has monetary policy leeway. Brazil most at risk in case of a second wave. In LatAm, higher probability of scarring effects (high unemployment)

Real GDP level vs. pre-crisis level (100 = Q4 2019)



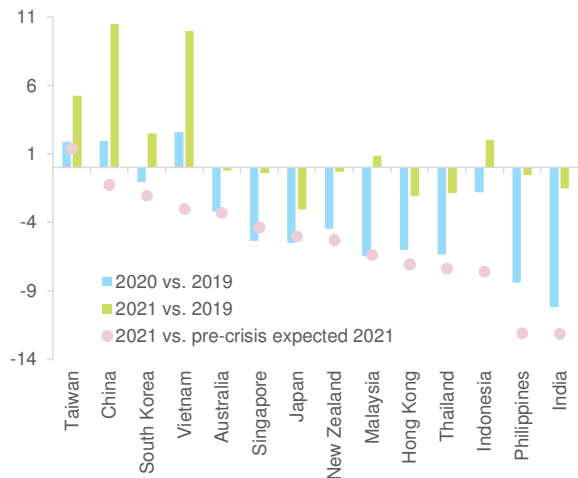
Sources: National statistics, IHS, Euler Hermes, Allianz Research

Regional GDP growth forecast -7.3% in 2020, +3.5% in 2021 and +2.5% in 2022. Diverging recoveries, but mostly sluggish, due to pre-pandemic weaknesses (anemic growth Mexico, unemployment + debt in Brazil, political risk in Chile, inflation in Argentina...

APAC: DIVERGING RECOVERIES



Real GDP changes (forecasts)

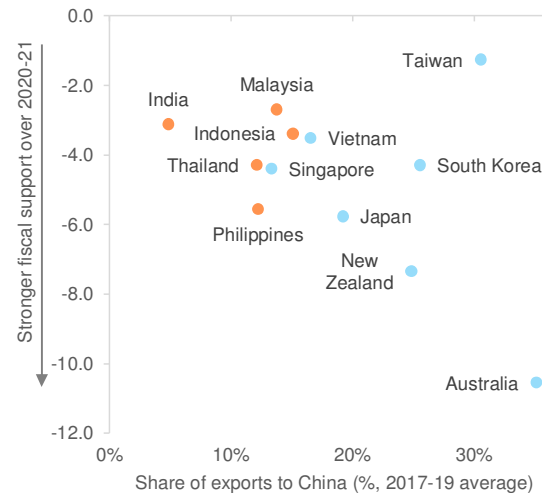


Sources: IMF, Allianz Research

While most APAC economies should exhibit strong growth rates in 2021-22, GDP losses caused by the Covid-19 pandemic vary a lot. Only few will see GDP return to 2019 levels next year.

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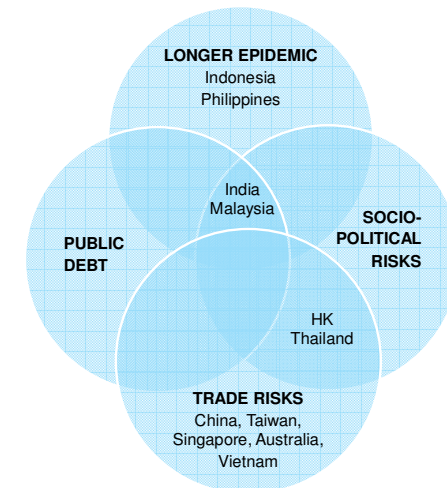
External vs. domestic drivers of growth



Sources: Various, Euler Hermes, Allianz Research

South Korea, Taiwan, Vietnam, HK and Singapore will continue to benefit from China's earlier recovery. India, Indonesia and the Philippines are comparatively less open and have limited room for fiscal stimulus.

Downside risks



Source: Allianz Research

We do not expect sharp intensification in U.S.-China or China-Australia trade tensions. Other risks to keep in mind are related to the socio-political situation, the epidemic and public debt sustainability.

AFRICA: SIGNIFICANTLY LESS FISCAL SPACE FOR AN INVESTMENT RECOVERY



WATCH-LIST

Social risk in : Ethiopia, Nigeria, South Africa

Debt solvency/FX liquidity: Angola, Mozambique, Ghana, Tunisia, Kenya

Key challenge: Lack of basic infrastructure in energy and connectivity

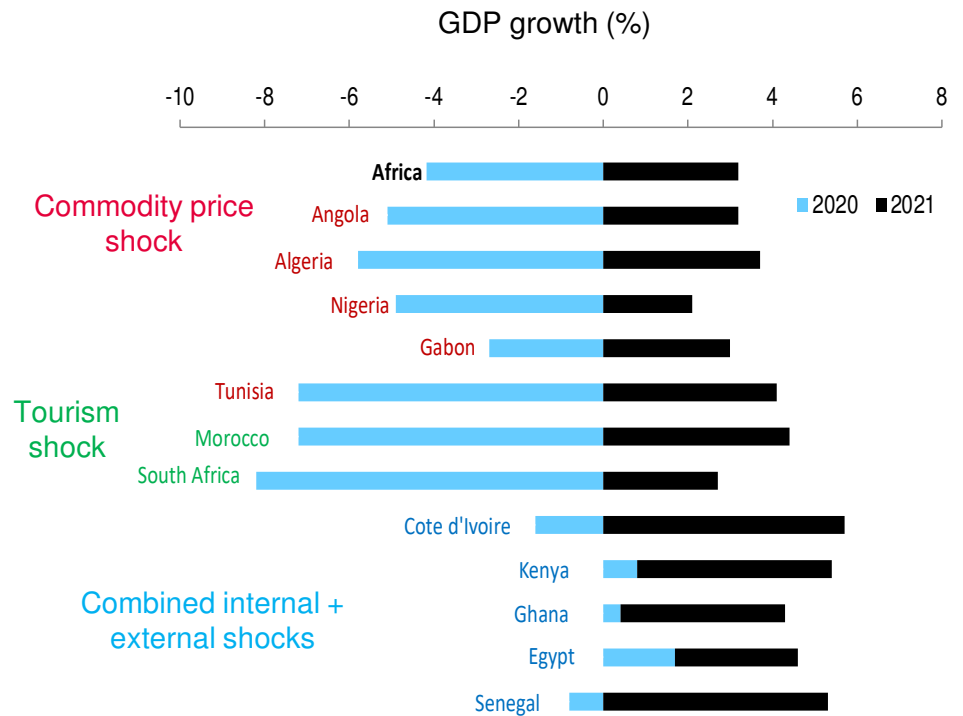
How to attract private investment to start the growth cycle in 2021?

OPPORTUNITIES 2021-2025

Strong potential for renewable energies

Morocco, Algeria, Egypt, South Africa

Fast digitalization Kenya, Ghana, Nigeria, South Africa



Sources: Euler Hermes, Allianz Research

THANK YOU

Allianz Research

08 January 2021



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