

GERMANY 2021-2023 SCENARIO

WINTERS ROLL BY, BUT EACH ONE IS DIFFERENT...

13 January 2022

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SUMMARY

WINTERS ROLL BY, BUT EACH ONE IS DIFFERENT

German economic growth slowed in Q3 2021 (+1.7% quarter on quarter, from 2% in Q2) as investment and net exports both lost momentum and consumer spending support accelerated to arowth. Unfortunately, the latest virus surge dampened the outlook at the year-end. However, the economy should be able to avoid the damage inflicted on businesses during previous waves, given the success of the vaccination campaign in reaching more people (70% of people in Germany are vaccinated) and the new restrictions targeting the unvaccinated which take a more sweeping lockdown off the table. Even so, we think that restrictions to contain a resurgent virus will hit growth hard in Q4 as spending on services stumbles. With orders still high, industry should fare relatively well, but bottlenecks will continue to push up production costs and squeeze company margins. Investment is expected to continue to contract in the short term, especially productive investment. Exports should rebound on stronger Chinese demand, but rising imports will erase some of positive effects of higher net exports. For full-year 2021, our outlook is for GDP to grow +2.7% as the latest winter wave of coronavirus hampers the recovery. A more robust rebound should take shape during the first half with growth

picking up to 4.2% in 2022 and returning to its pre-crisis level from the start of the year – if the new Omicron variant does not set back the catch-up in German economic activity. Activity should start to normalise again in 2023 with more modest growth of 1.9% expected.

We see growth in private-sector consumption slowing to +0.2% in the fourth quarter. It should stay in positive territory however with the vast majority of businesses staying open and very targeted restrictions in place. In this environment, consumers will delay spending the excess savings they have accumulated with more robust household spending over the next few months. Shorttime work is expected to tick up if the latest coronavirus wave lasts, but measures should be limited to sectors most affected by the "2G rule" (only vaccinated and recovered residents with a Covid pass can enter), i.e. hotels, restaurants and leisure facilities. Government supports for business have been extended to April to cushion the blow from the latest wave. Fiscal policy will remain expansionary: the deficit is on course to fall to -3.2% of GDP in 2022 (from -7.8% in 2021) and improve further in 2023 to -1.4% when the debt brake is reinstated. Under our projections, the public debt ratio will be a modest 72% of GDP over the forecast horizon. Germany's new coalition between the Social Democrats, Greens and Liberals could take a more flexible fiscal approach to fulfil its bold and ambitious commitments to the digital transition and the greening of the country's economy.

Uncertainties stemming from the course of the pandemic and resulting supply chain bottlenecks will curb investment in Q4. Despite a high capacity utilisation rate, the risk of lasting higher production costs could weigh on company margins and eat away at investment opportunities. The crisis has spared investment construction, with demand still ahead of supply. With many new investment projects due to start in 2022 under the national stimulus plan, construction, energy, industry and mobility should all get a boost.

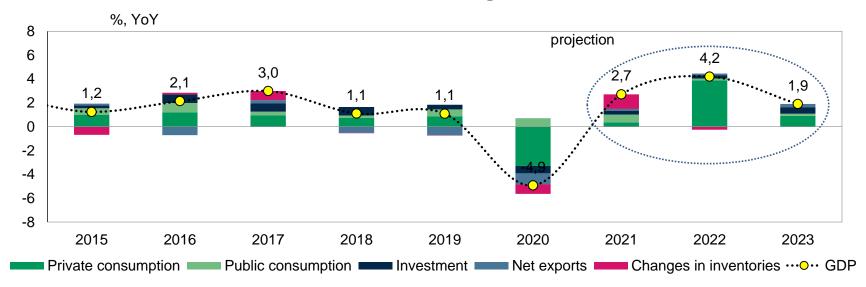
The trade balance's contribution to growth will recover only slightly in Q4 (+0.1%) and improve moderately in 2022 as supply chain difficulties are gradually ironed out. Once the catch-up effect fades, trade flows are expected to slow in 2023 as global demand returns to normal, especially demand from Germany's main trading partners, China and the US.



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Contributions to annual growth



	Yearly average (YoY, %)					
Germany	2020	2021	2022	2023		
GDP	-4,9	2,7	4,2	1,9		
private consumption	-6,1	0,7	7,4	1,7		
investment	-3,0	1,4	1,3	2,7		
change in inventories *	-0,8	1,2	-0,3	0,0		
net exports *	-0,9	0,2	0,1	0,3		
unemployment rate	3,9	3,6	3,4	3,2		
Inflation	0,4	3,2	3,2	1,8		
Government net lending	-4,3	-7,8	-3,1	-1,4		

Quaterly growth (QoQ, %)											
	2021			2022			202	23			
Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
-1,9	2,0	1,7	0,2	1,3	1,2	0,7	0,6	0,3	0,3	0,3	0,3
-5,3	3,8	6,2	0,2	1,6	1,4	0,8	0,6	0,2	0,2	0,2	0,2
-0,6	1,2	-2,2	-0,1	0,9	0,9	0,9	0,9	0,5	0,5	0,5	0,5
2,4	-0,4	-0,3	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
-1,1	-0,7	-0,2	0,1	0,2	0,2	0,1	0,1	0,0	0,0	0,0	0,0
3,9	3,6	3,4	3,4	3,4	3,4	3,4	3,4	3,2	3,2	3,2	3,2
1,7	2,2	3,5	5,4	4,0	3,7	3,0	2,3	1,6	1,8	2,1	1,6

Sources: Crédit Agricole SA / ECO, prévisions



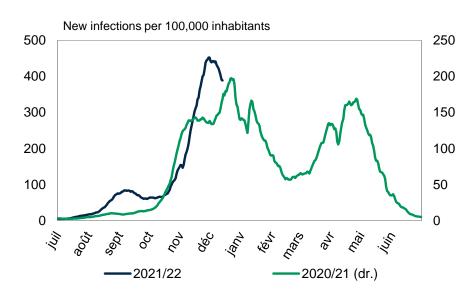
^{*} Contributions to GDP growth

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WINTER CORONAVIRUS SURGE

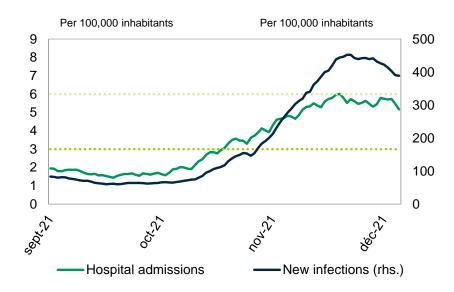
Yet another wave to ride



Sources: DIVI, RKI, Crédit Agricole SA / ECO

November was the hardest month with exploding case numbers in most of Germany's Länder. Infections were twice what they were in the same period last year (452 per 100,000 population at the end of November), prompting the re imposition of restrictions based on numbers in hospital. At a hospitalisation rate of 3 per 100,000, only those who are either vaccinated or have recovered from Covid-19 can enter restaurants, bars, hotels and cultural venues, or attend concerts or events (this is known as the 2G rule (for *genesen* (recovered in the past six months) or *geimpft* (vaccinated)). At a rate of 6 per 100,000 people must show a negative test to enter or attend. When numbers in hospital break the 9 per 100,000 threshold, federal

Infections and admissions to ICU rise



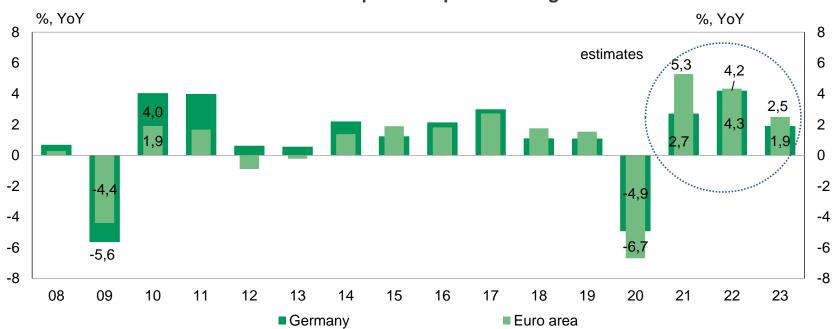
Sources: DIVI, RKI, Crédit Agricole SA / ECO

states can also introduce even more restrictions. However, the high vaccination coverage (69.6% of the population fully vaccinated) should translate into fewer deaths, especially as the booster campaign intensified in early December. The Bundestag will debate a motion to make vaccination mandatory in January. Our growth scenario factors in the forced slowdown in the economy in Q4 as the latest wave battered the services and retail sectors. Consumption can only start to pick up when restrictions are lifted, probably towards the end of the first quarter if Omicron does not derail the recovery, now with a more pronounced tilt to the downside.



REBOUND DELAYED





Sources: Eurostat, Crédit Agricole SA / ECO

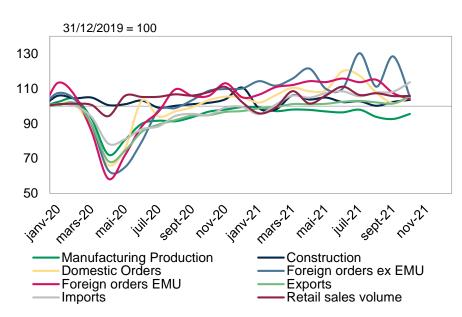
Germany's recovery lagged behind the rest of the Eurozone. There are a number of reasons for this: for one, the German economy declined less than most Eurozone countries last year; second and most importantly, private-sector consumption is still below its pre-crisis level; and third, new restrictions have been introduced earlier to tackle the latest wave. What's more, the recovery in productive investment has stalled, unlike in other countries in the Eurozone, due to overly timid use of the stimulus plan. In comparison, trends for France are slightly better as its economy recovers and private-sector consumption

holds up. Our projections put Eurozone growth at 4.4% in 2022 with inflation cooling in the second half of the year and pressures easing on the supply of essential raw materials and production inputs. We expect Eurozone growth to slow to 2.5% in 2023 as economic activity normalises. In Germany, we expect the economy to grow 4.2% in 2022 and a catch-up effect in consumer spending and investment (both holding up) to drive a recovery. The pace of growth will be a more modest 1.9% in 2023 on more muted demand.



PANDEMIC CHALLENGES COULD DAMPEN THE RECOVERY FOR LONGER

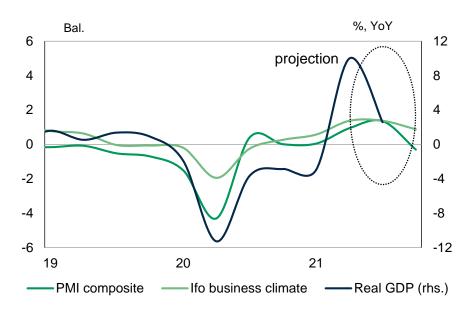
Trends of the main indicators



Sources: FSO, DB, Crédit Agricole SA / ECO

The most recent activity data point to a pronounced slowdown in growth at the end of the year. Although domestic orders remain upbeat they slowed in the fourth quarter. The slide in orders from abroad, both from the European Union and other countries, is sharper. Industrial output still trails pre-pandemic activity by 4.5%, held back by persistent supply chain bottlenecks that are compounding difficulties for the automotive industry in particular. Retail sales have stabilised at an acceptable level, but risks remain since restrictions were reimposed. Trade has intensified with imports outstripping exports.

Business surveys and real growth



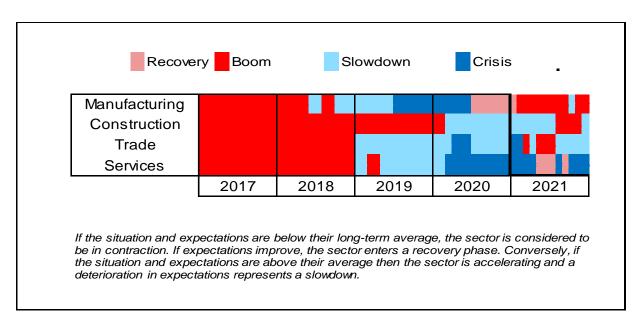
Sources: IFO, Crédit Agricole SA / ECO

Survey data clearly show a change in the pace of activity in Q4. The composite PMI registered a sharp drop as demand for services swung into contraction territory, offsetting the rise in manufacturing activities. The ifo business climate index fell again in December, for the sixth consecutive month. Companies were more pessimistic on their six-month outlook, notably in services, hospitality and leisure, all hard hit by public health restrictions, which could remain stubbornly in place throughout the winter months if the surge of Omicron infections is not contained.



SERVICES PAY THE PRICE

Heat map of sector activity based on ifo business surveys



Sources: IFO, Crédit Agricole SA / ECO

The business climate index points to another slowdown in Q4 induced by the restrictions imposed in November. Order books grew in manufacturing, but supply chain strains have not eased and 74% of manufacturing companies grapple with major supply issues. The picture is still favourable for construction, in contrast to retail which is struggling with social distancing rules. Services are the most exposed and expectations plummeted as the latest wave of coronavirus uncertainty clouded

sentiment. In view of these negatives, we have cut our outlook for growth to 0.2% in Q4, due to the recessionary effect on consumer spending and the incentive to keep on putting precautionary savings aside. We expect a quasi-automatic jump in consumer spending at the very end of the first quarter, activity to pick up speed more gradually over the entire second quarter and more subdued growth for the rest of the year.

HIGH-FREQUENCY INDICATORS (CONSUMPTION)

More caution in crowded places

Open Table site traffic as a variation of the same week in 2019. Retail footfall as % of median weekday between 3 January and 6 February 2020, 7 days rolling



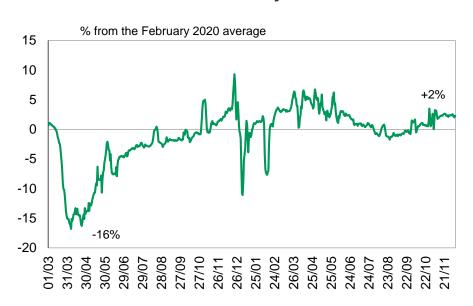
Sources: Opentable, Google-Mobility, Crédit Agricole SA / ECO

Household consumption rose a robust 6.2% qoq in Q3 when restrictions were loosened in the summer, but undershot prepandemic performance by 2%. While infection risk returned in force in November, Germany opted not to impose a sweeping lockdown and instead reintroduced more stringent social distancing measures for the unjabbed with the "2G rule". Only those who have been vaccinated or recently recovered from Covid will be allowed in

restaurants, bars, hotels and leisure facilities. Although the measures target only some of the population, their effects will be felt by retail and restaurants. Restaurant reservations fell 10% and footfall in retail outlets was down more than 33% in mid-December relative to before the pandemic. Despite the additional boost in December, we expect consumption to contract significantly in the fourth quarter.

HIGH-FREQUENCY INDICATORS (TRAVEL AND ACTIVITY)

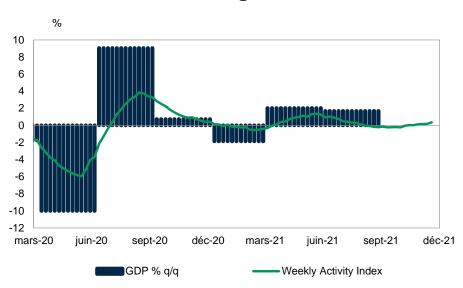
Truck traffic since February 2020



Sources: Destatis, Crédit Agricole SA / ECO

The truck traffic index has recovered since October, indicating more intense industrial and commercial activity than in the previous quarter. This suggests activity is close to 2% ahead of where it was before the virus hit. The index confirms strong industrial activity, less affected by supply chain bottlenecks — although these have not disappeared. Sustained vigorous demand from industry and higher productive capacity should help underpin growth at the end of the year, despite the evolution of the virus.

Weekly activity index and GDP growth



Sources: Apple mobility, Crédit Agricole SA / ECO

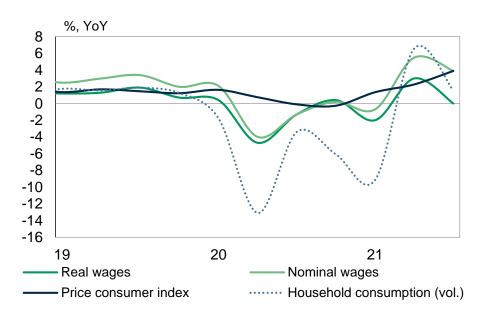
The Bundesbank's weekly activity index indicates activity slowing slightly to +0.4% for the week of 13-19 December, compared to the previous thirteen weeks. The WAI-implied GDP growth rate was +1% throughout the whole of the fourth quarter, a more optimistic performance than our forecast for 0.2% growth. In our opinion, the adverse impact on consumption of the restrictions introduced to fend off the latest coronavirus wave will offset the expected improvement in industrial activity.

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JOBS, WAGES AND CONSUMPTION

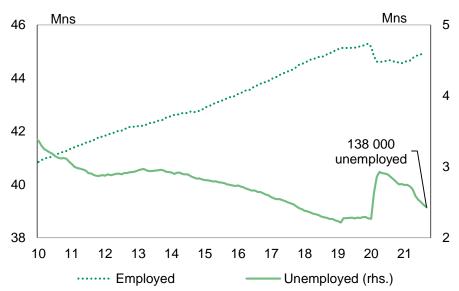
Wages, inflation and consumption



Sources: FSO, Crédit Agricole SA / ECO

Nominal wages rose 3.9% year-on-year in the third quarter, which is a little less than in Q2. Since the consumer price index also rose 3.9% on an annual basis, real wages have stagnated in the period, despite the recovery. Negotiated wages are expected to grow at a moderate rate in the next few years, by 1.8% in 2022 and 2.6% in 2023. This is well short of the pre-pandemic wage growth rates of around 3% since 2015. The unemployment rate dropped to just 0.3 points above its pre-crisis level, as labour market conditions revert to the norm. The savings rate fell to 12.2% in Q3 from the pandemic high of 20%. Estimates put the savings pile collected by households

Number employed and unemployed

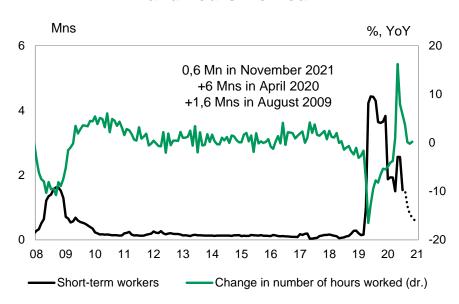


Sources: Agentur für Arbeit, Crédit Agricole SA / ECO

at more than €190 billion since the start of the pandemic. Although this glut is a powerful lever, we still think the measures imposed at the end of the year will once again rein in consumer spending. We estimate consumption could inch up by barely 0.2% in Q4 and then gather speed in Q1 – provided the spread of the virus is curbed – which is uncertain. In full-year 2022, consumer spending should recover by a robust 7.4% year-on-year, fuelled by accumulated savings and carefully targeted restrictions. Spending growth will drop back in 2023 as the catch-up effect fades.

BACK TO SHORT-TIME WORK

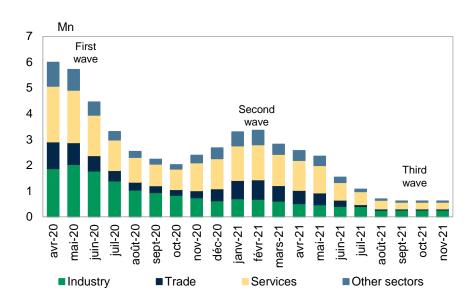
Short-time work and hours worked



Sources: Agentur für Arbeit, Crédit Agricole SA / ECO

Numbers on short-time work have fallen significantly since the first wave of the pandemic. After peaking at nearly 6 million people in April 2020, short-time work initially started to decline in summer 2020 before rising to 3.5 million in February 2021 when the second wave hit. With vaccinations rolled out and the economy recovering, workers on the scheme fell to nearly 600,000 in November. Before the crisis, approximately 145,000 people on average were on short-

Short-time work by sector



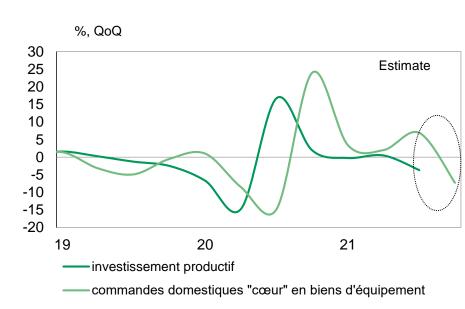
Sources: BA, Ifo, Crédit Agricole SA / ECO

time work each year in 2019, so it has not yet fully returned to its pre-crisis level. Going by the ifo's estimates, the number of short-time workers increased again in November, especially in hospitality, which has taken the brunt of the tighter measures imposed to curb the spread of the virus. It is likely that recourse to short-time work will increase as companies try to cope with the latest developments, since government supports for business has been extended to April.



INVESTMENT: SHORT-TERM OUTLOOK

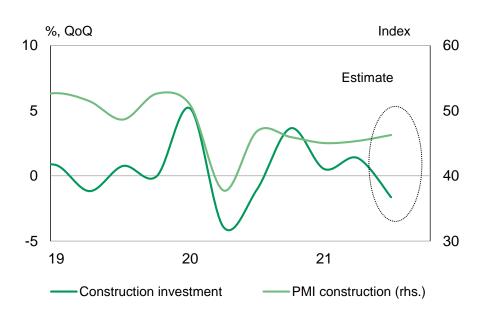
Productive investment



Sources: FSO, Crédit Agricole SA / ECO

Severe supply constraints pushed productive investment down a sharp 3.7% in Q3, leaving it 8.7% short of where it was before the virus hit. Falling domestic orders for capital goods suggest a short-term decline in productive investment. Orders from industry have held up well, but the short-term outlook is clouded by the latest wave of the virus and the potential fallout from Omicron for activity in the near future. Investment in construction seems to be weathering the storm and proving resilient, in all probability because

Construction



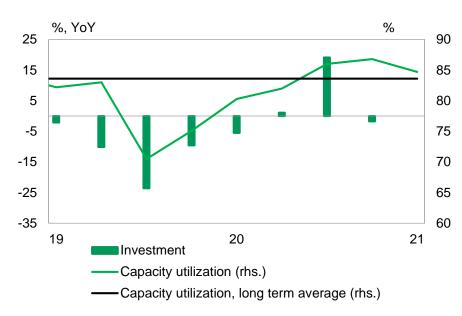
Sources: FSO, Markit, Crédit Agricole SA / ECO

supply has failed to keep up with demand and construction has been relatively spared by public health restrictions. The construction PMI points to firmer investment in construction in Q4 and a probable pick-up in the industry in December, albeit too subdued to offset the declines of the previous two months. As a result, signs are that total investment will fall in Q4, followed by a more solid recovery if pandemic pressures ease as the sector makes up significant remaining lost ground.



INVESTMENT: LONG-TERM OUTLOOK

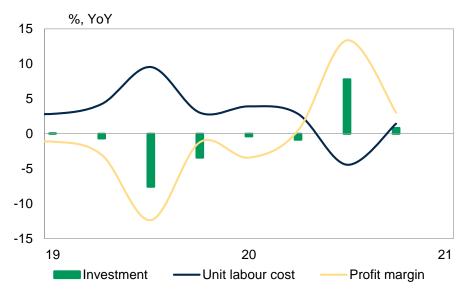
Productive capacity utilisation rate



Sources: Destatis, Crédit Agricole SA / ECO

The production capacity utilisation rate has exceeded its pre-crisis level and its long-term average. It reflects vigorous demand from industry, which has held up despite the ongoing supply disruptions that continue to ripple across production chains. Nonetheless, the rate has fallen somewhat with supply tensions easing and less robust external demand. Moreover, rising production costs are gradually eroding company margin rates and therefore their capacity to invest.

Margins, unit wage costs and investment



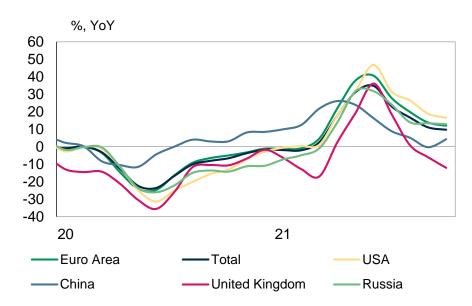
Sources: Destatis, Crédit Agricole SA / ECO

We think total investment could inch up a mere 1.3% in 2022 with activity still labouring under measures to contain the pandemic, before taking off by 2.7% in 2023, on the prospects of the German stimulus plan, which earmarks a substantial portion of investment spending to the drive to decarbonise the economy, develop green mobility, launch a major renovation plan for public buildings and build the infrastructure needed to modernise the country.



FOREIGN TRADE

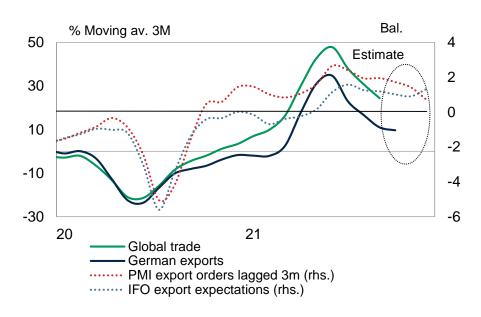
Exports by main partners



Sources: Bundesbank, Crédit Agricole SA / ECO

German exports dropped 1% in Q3 due to the pronounced slowdown in both China and the United States, the country's main export markets. Initial data for the fourth quarter seem encouraging with a rebound in exports to China. Although high, exports to the Eurozone and the United States fell. Congestion at Chinese ports seems less intense and maritime traffic is moving more freely in Asia, although still dense. The PMI indicator for export orders and the ifo Institute's Export Expectations paint different short-term

Export outlook



Sources: Destatis, Crédit Agricole SA / ECO

pictures. According to the PMI indicator, exports will continue downward, while the ifo's survey shows exports ticking up in the fourth quarter. We come down on the side of a short-term improvement in exports, but with net exports largely offset by the sharp increase in imports. In our scenario, trade will make a positive but very small contribution to growth in 2022 of 0.1 point improving to 0.3 point in 2023.



RISKS TO OUR SCENARIO

Risk matrix associated with our scenario

		Probability	Impact
\	Reduced vaccine effectiveness against the Omicron variant	Medium	High
	Worsening supply problems	High	High
1	Acceleration of global growth	Medium	High
	Lower savings rate supporting consumption	High	High

Source: Crédit Agricole SA / ECO

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FOCUS 1: WHAT THE NEW COALITION IS AIMING TO DO

TOWARDS A SOCIAL GREEN MARKET ECONOMY

The coalition agreement signed between the Social Democrats, Greens and Liberals sketches the outlines of a new model, dubbed "a social green market economy". The model is a bold one. It seeks to lay the foundations of a more modern and greener society through ambitious long-term investment projects, while preserving Germany's priorities of social protection and the family. The challenge will be to marry the imperative of higher investment spending in the next few years with the need to stick to the European stability and growth pact and the debt brake rules from 2023. To avoid any additional fiscal burden, the coalition partners have agreed not to raise personal or corporate income taxes.

The minimum hourly wage will increase from the current €9.60 per hour to €12. In addition, the new government has vowed to keep pensions at a guaranteed 48% of salary throughout its term and plans to introduce incentives for people to invest in more profitable supplementary retirement plans through subsidised funds. The surcharge on electricity will be withdrawn as of 1

January 2023 to help companies and households with cost of living increases. Rent increases will be capped at 11% over three years, instead of 15% before. The government has committed to build 400,000 new homes every year, including 100,000 with public funds.

But the measures to protect the environment and green the economy form the pillar of the transformation. Germany will phase out coal as a source of electricity by 2030, eight years ahead of previous targets. Wind energy will expand. 2% of Germany's land area will be allocated to wind farms (double previous targets) and offshore wind capacity will get a massive boost over the same period (from 20 to 30 GW). This expansion in renewable energy capacity should raise the share of renewables in its power mix to 80% by 2030, compared to 65% planned to date and far above the 45% recorded last year. And that's not all. The target of 15 million all-electric cars on German roads is also part of the tripartite agreement.

The other priority is the new government's commitment to

modernising the state and make government administration simpler, faster and more efficient. This bold ambition necessarily means developing digital infrastructure, laying fibre optic cable across the entire country and rolling out the latest mobile communication standards. To meet these challenges, Berlin will drastically speed up approval and implementation procedures, especially for renewable energy development projects, which have involved particularly lengthy review times to date.

The coalition agreement also includes a pro-Europe agenda and wants a stronger, sovereign EU, leading on foreign, security, development and trade policies based on common European interests. Its vision extends to developing а European digital infrastructure, a common rail network, and the energy infrastructure required to develop the renewable and hydrogen energy that will be needed to collectively coordinate and create the conditions for a fresh European strategy.



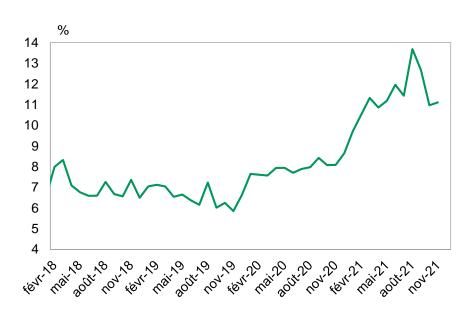
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TEMPORARY REDUCTION ON CARGO PRESSURES

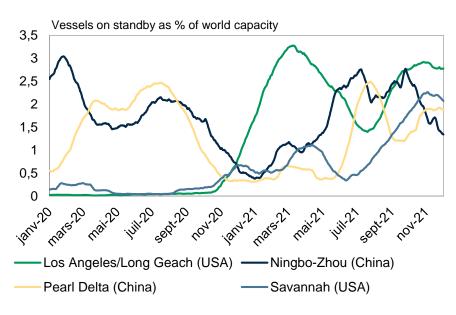
Goods held up in shipping traffic



Sources: Ifw Kiel trade Indicator, Crédit Agricole S.A.

The share of goods stuck in containers peaked at 13% of global goods in August last, giving concrete form to the bottlenecks that formed when all the world's economies switched back on at the same time after the first coronavirus wave. The port gridlock seems to have improved slightly as the record backlog fell back to 11% at the end of November, which is still twice as high compared to before the pandemic. The temporary easing of the traffic jam essentially boils

Port congestion eases



Sources: Ifw Kiel trade Indicator, Crédit Agricole S.A.

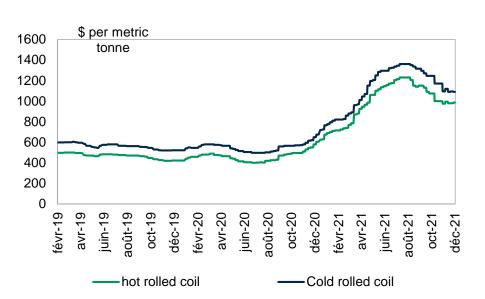
down to less congestion in the Chinese port of Ningbo-Zhou. But there is still major gridlock in ports all along the US coast and in other Chinese ports. Adding to this, the global virus surge this winter and Omicron's emergence could well exacerbate supply problems again with port traffic expanding and contracting as demand surges and recedes with successive waves of restrictions.



FOCUS 2: EASING OF SUPPLY CONSTRAINTS MAY TAKE LONGER

COMMODITY PRICES DIP SLIGHTLY

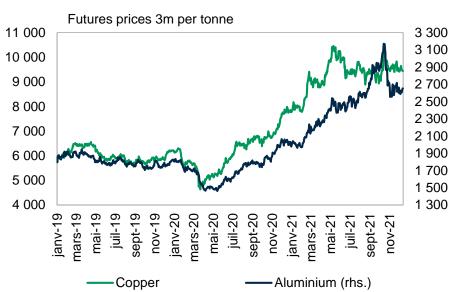
Steel price



Sources: Bloomberg, Crédit Agricole S.A.

The impacts of scarcities are still evident in persistently high metal prices, even though steel, coper and aluminium prices – the backbone of global industry –have fallen a little. Microchip, steel, copper, aluminium and wood prices have fallen somewhat in recent months, but shrinking inventories threaten to push them up in the short term. Companies continue to overwhelmingly report supply bottlenecks for almost 75% of these inputs. While we may have

Copper and aluminium prices



Sources: Bloomberg, Crédit Agricole S.A.

thought the peak of supply strains was behind us at the end of Q3, the renewed virus surge in Q4 could well lead to widespread lockdowns in Asia. These would in turn generate more tension on supply chains and send the cost of the most essential raw materials up — a situation that could drag on at least until the end of the first half. The process of normalising value chains is likely to take longer than initially expected.



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