Fastmarkets RISI

August 2022

Monthly Economic Commentary

ANALYSIS AND FORECASTS OF THE US AND INTERNATIONAL ECONOMIES

Even before the news of the Russian attack on Ukraine shook the world during the last week of February, the economic landscape in the United States and around the globe continued to be severely affected by the COVID-19 pandemic. The full-scale war that has now continued for more than six months in Europe increases the already elevated uncertainty of the path of the global economy to a level not seen in decades. The economic impact of the war depends on many factors, including its duration and outcome, the sanctions, and – for Europe in particular – the cost and availability of energy. Our economic forecast was fully revised in August, and in the near term we have again made a downward revision from the previous forecast. However, it is evident that the development of the global economy could change course rapidly, which would affect the forecast shown here.

Inflation summary

Inflation remains elevated around the globe. The producer price indices (PPIs) that had already skyrocketed in all regions globally in the second half of 2021 – i.e., before Russia attacked Ukraine – would seem to have peaked over this past summer. Despite the apparent peak, inflation levels remain high and the multiple forces simultaneously pushing rates higher have not eased up. Energy, the usual inflation driver, has now been joined by supply-chain, labor market, and monetary- and fiscal-policy-based factors, which all together create price pressure through the economic structure. In the United States and the euro area, consumer prices saw year-over-year inflation significantly higher than in many decades, but while the US consumer price inflation came slightly down in July, the euro area continued higher. Producer prices in China and Japan have been elevated as well – in Japan reaching a level last seen in the 1970s. Those figures were slightly lower in July than in June, however, and lower than in the United States and Europe. Consumer price inflation has been lower in both China and Japan, but rates have begun moving higher in Japan. Many central banks are now facing the fact that the only way to extinguish the flaming inflation is with heavy interest-rate hikes, with the US Federal Reserve demonstrating this by raising the Fed Funds rate by 0.75 percentage points in both June and July. The European Central Bank (ECB) also bumped its policy rate up by 0.5 percentage points for the first time in over a decade in July, and it is expected to announce another – and possibly even higher – bump in the near future.

Economic insights

- **Global inflation high, peak may have passed**
- **Regional differences in energy, rates, policies**
- **War, China risks highlight need for vigilance**

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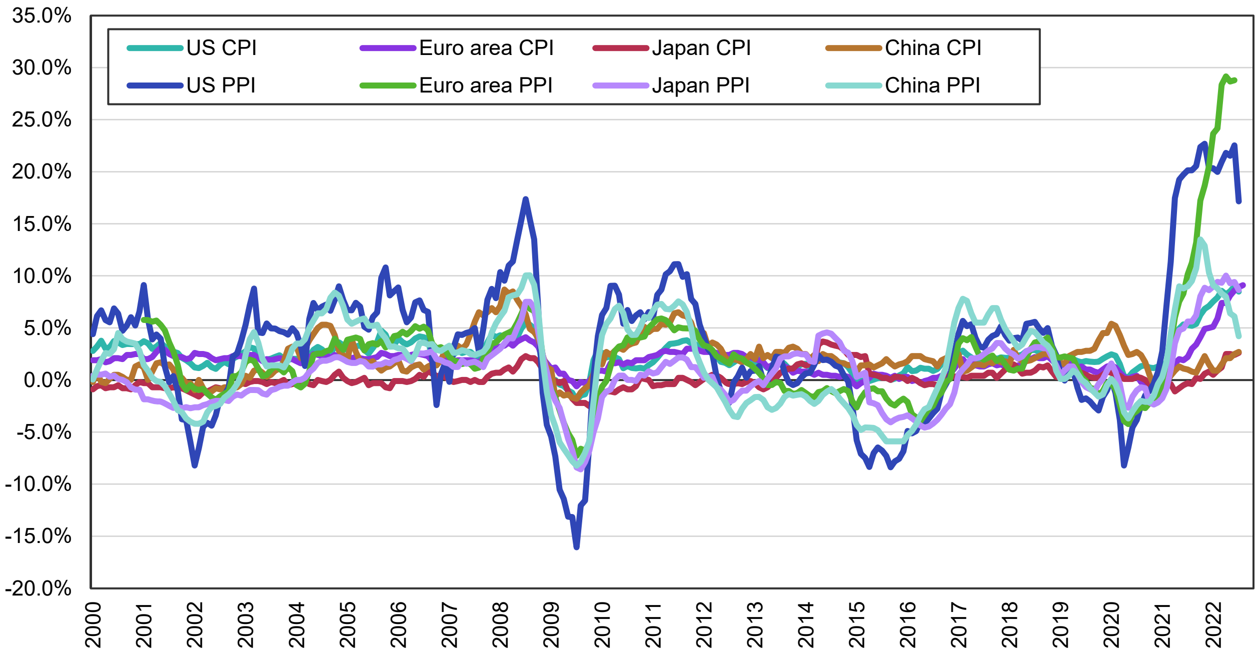
Figure 1

Global inflation levels remain high, though peak may have passed

Year-over-year percentage change



United States

Despite the high uncertainty, high inflation and overall global economic turmoil, the US economy has remained upbeat. Still, the growth figures for the first two quarters of 2022 were negative, indicating both slowing growth and a technical recession. The second estimate of the gross domestic product figures from the second quarter, released at the end of August by the Bureau of Economic Analysis (BEA), showed annualized growth of -0.6% (revised up from -0.9%), which is better than the -1.6% posted in the previous quarter. The second-quarter figure showed a clear deceleration in economic growth, and, as the second negative quarter in a row, also indicates a technical recession, albeit a very shallow one. There remains a certain degree of contradiction in the figures, due to increasing consumer price inflation and the continuing high number of job openings indicating a period of strong growth, with these factors together showing ongoing dual-shock-induced exceptionality in the economy.

In the second quarter, one significant item was goods consumption continuing negative for the second quarter. Nondurable goods showed quarter-over-quarter growth of -3.7% annualized, the same as in the previous quarter, while durable goods registered quarter-over-quarter growth of -0.1% annualized, down from 5.9% in previous quarter. The key component pushing growth in the second quarter into negative territory was gross private domestic investment contributing -2.67 percentage points to the total change of -0.6%. While consumption of goods contributed -0.57 percentage points, consumption of services contributed 1.56 percentage points. The second-quarter figures indicate that economic growth declined due to weakening goods consumption and investment. Growing services consumption along with net exports, which turned positive after seven negative quarters, could not offset the losses. The third estimate for the second quarter will be released on September 29.

We have fully revised our forecast outlook in August. This new forecast, updated with the latest US GDP data, projects the US economy will expand by 1.8% in 2022 (down from 2.3%) and by just 0.8% in 2023 (down from 1.0%). Even before the onset of the Russia/Ukraine war, our forecast was somewhat cautious, and with this forecast we continue to look into a significant slowing of the economy, although it is expected to remain in positive territory in 2023 as well. The impact of inflation is expected to be met with interest-rate hikes, and that, along with the effect of inflation on consumption and industries, will drive growth down again in late 2022 and the first half of 2023. With the economy remaining fragile due to the evolving crisis, it is important to remember that the risks related to this forecast are high because new data coming in may change the outlook substantially. Likewise, the political and monetary measures taken during such turbulent times can also rapidly change the economic outlook considerably, with one example of such measures being the rate hikes by the Fed in June and July.

Judging by the real indicators, the US economy moved out of the short but very deep pandemic-induced recession and back to normal speed – initially via a growth surge – and is now progressing forward in a very volatile environment in a stagflation-resembling situation. We are now facing the symptoms typical of an overheating economy, such as high job openings and increasing inflation, which are exacerbated by soaring energy prices partly driven by the Russia/Ukraine war. But at the same time, the growth has stalled, which further complicates the economic picture. The COVID-19 pandemic has in many ways been put aside – at least from the economic task lists – in the US and in Europe, but it continues to have significance in terms of global supply chains.

The employment situation deteriorated substantially due to the COVID-19 lockdowns and recession. By calculating the sum of the monthly net changes in employment, we can see that, as of June 2022, the total number of jobs added exceeded the number of jobs lost since January 2020. According to the latest data, as of August 2022, the sum of net changes stood at 955,000. This means that the US job market has since the start of the pandemic gained close to 1 million jobs – equivalent to the growth seen during the six months preceding January 2020. The job market has remained at a good level despite the loss of growth speed since the first quarter this year. The market added 386,000 jobs in May, only 293,000 jobs in June, a higher 526,000 jobs in July and 315,000 in August. In February 2020, the US civilian labor force was approximately 164.6 million; in August 2022, the labor force was at 164.7 million, and that figure is now at an all-time high. The labor force participation rate stood at 62.4% in August. It will be important to observe the number of new hires, the size of the labor force and the overall participation rate over the coming months to understand the impact of the labor market on inflation. If hiring continues or the labor market remains tight, the economy could remain relatively resistant to a deeper recession, but weakening hiring and a lowering participation rate could also indicate a turn of the tide.

In the household survey, unemployment was at 3.6% in March, April, May and June, dropped to a low of 3.5% in July and rose to 3.7% in August. As a comparison, after the 2008/2009 financial crisis, unemployment finally retreated to 3.6% in April 2019, and this level is just 0.1 percentage points higher than the multi-decade low of 3.5% seen in July 2022 as well as in September 2019 and January-February 2020. The reason for the higher unemployment in August could well match that seen earlier this year – namely, that the increase in the labor force overshot the number of jobs added. The labor force increased month over month in August by 786,000, or 0.5%. In the two previous months, the month-over-month change in the labor force was negative, while the jobs added were positive, which then pushed the unemployment rate lower.

Average earnings in the US increased month over month by $0.12/hour in May, $0.13/hour in June, $0.15/hour in July and $0.10/hour in August. The May-August changes correspond to year-over-year growth of 5.3%, 5.2%, 5.2% and 5.2%, respectively. The high earnings figures in these months indicate continuing tangible inflationary pressure, a situation that needs to be closely watched.

In 2021, inflation began to rise at its fastest pace in decades, and this trend has continued even more strongly in 2022. The headline consumer price index (CPI), which measures average month-over-month changes in prices paid for consumer goods and services, was 0.3%, 1.0%, 1.3% and 0.0%, respectively, in April through July. This translates to year-over-year inflation of 8.2%, 8.5%, 9.0% and 8.5% for those months, pointing to continued significant inflationary pressure. The core CPI (excluding energy and food) stood at 0.6% in both April and May, 0.7% in June and 0.3% in July, resulting in a year-over-year gain of 5.9% for July. The key components behind the year-over-year increase in the headline CPI in August were energy overall (32.9% year over year), food overall (10.9% year over year) and new vehicles (10.4% year over year). The PPI posted consecutive months of climbing year-over-year growth through 2021 and early 2022, peaking in March at 11.7%. Since March, the trend of growth has been stalling and even slowing, but the levels remain very high and in line with figures seen only in mid-2008 during the past 20 years. Year-over-year PPI growth was at 11.2% in April, 11.0% in May, 11.2% in June and 9.7% in July.

For April-July, the Federal Reserve's preferred inflation measure, the personal consumption expenditure (PCE) price index, which measures average year-on-year changes in prices for goods and services, showed the same pattern as the CPI, coming in at 6.3%, 6.3%, 6.8% and 6.3%, respectively. Due to the pandemic and the global economic slowdown, the Fed delivered two emergency interest-rate cuts that left the upper limit at 0.25% in March 2020. These dramatic moves used a big share of the Fed's rate weaponry and were boosted with massive stimulus measures. Thanks to the stimulus packages and vaccinations, the pace of the US economy accelerated, as did inflation. On March 16, the Fed issued its first rate hike since 2018, raising the benchmark rate by 25 basis points to a range between 0.25% and 0.50%. It issued another two increases in early May and mid-June, which respectively bumped the rate up by a further 50 basis points to a range of 0.75-1.00% and by 75 basis points to a range of 1.50-1.75%. As of early September, the latest hike was done in late July, with an additional 75 basis points bringing the target rate to 2.25-2.50%. Due to the pace of inflation and based on statements by the Fed, it is likely that the central bank will continue to issue rate hikes during 2022. The inflation data is being viewed by the financial markets very carefully.

In April 2020, motor vehicle sales dropped by 47.2% compared with April 2019, hitting a rate lower than any seen during the 2008/2009 financial crisis. Motor vehicle sales did improve significantly in the following months, but growth in July 2021 was down to 1.0% year on year because sales in July 2020 were relatively normal after the huge drop earlier in the year. In September 2021, motor vehicle sales were only 12.6 million on a seasonally adjusted annual rate (SAAR) basis. Sales rebounded in January 2022 to 15.5 million but dropped again early 2022. On an SAAR basis, motor vehicle sales stood at 13.2 million in May, 13.5 million in June, 13.8 million in July and 13.6 million in August. The September 2021 figure was a low not seen since October 2011, omitting the pandemic-influenced months in 2020, and May 2022 was very near that level. The latest dismal figures can be partly attributed to the availability challenges in the motor vehicle supply chain, the impact of which can also be seen in the used vehicles inflation figures given above and the fact that the January figure, which showed a positive change, was followed by lower sales later on this year. Similar issues with motor vehicle availability and supply-chain disruptions are being seen globally. And in some regions, such as Europe, availability of electric vehicles has been particularly problematic, while internal combustion engine vehicles have slightly better availability.

Industrial production data, which is maintained by the Federal Reserve, showed month-over-month growth of 0.7% in April, -0.1% in May, 0.0% in June and 0.6% in July. Overall, US industrial production rose by 3.9% year over year in July, and output for the broad manufacturing sector was up by 3.2% year over year. The increase in industrial production in the final quarter of 2021 and through this year has been driven by the mining industrial group. This industry group, which includes drilling from oil and gas wells, registered month-over-month growth of 0.9%, 2.0% and 0.7% in May, June and July, respectively, as well as growth of 7.9% for July.

The US Census data release for housing starts shows that total starts reached only 1.446 million units (SAAR) in July, down from the revised 1.599 million starts in June and 8.1% lower than a year earlier. Total housing permits hit 1.674 million units (SAAR) in July, down from 1.696 million units in June but 1.1% higher than July 2021.

Sales of existing homes for July decreased to only 4.81 million (SAAR) from 5.11 million (SAAR) in June, showing a 5.9% month-over-month decrease and a 20.2% year-over-year decrease. New home sales for July were at 511,000, a 12.6% decrease from the revised 585,000 in June and 29.6% below July 2021. The existing inventory was at 3.3 months of supply in July, up for the sixth month in a row from a long-term low of 1.6 months in January and 26.9% higher than the 2.6 months recorded a year earlier.

Despite the apparent rather rapid deceleration in housing sales and the increase in inventory, home prices continued on an upward trend that has beaten earlier records. Instead of housing supply being the driver for lower sales figures, it is likely that the rising interest rates reflected into mortgages and the overall inflation impact are now slowing the housing market's momentum. That does not mean, however, that the demand-side pressure has weakened, but rather that the demand has been postponed; it is quite likely that whenever both the interest rates take a turn back and consumers feel that they have regained their purchase power, the housing demand has potential to support decent growth. An alternative scenario for a major housing market recovery would require a significant property price venting, which would seem unlikely given the current relative fundamental strength of the US economy and its consumers; still, it remains a possibility, particularly should inflation persist despite the expected rate hikes leading to longer-term significant increases in mortgage rates. Such an event would also have a further impact on the economy, because the current very good household leverage ratio is to a large extent a result of the relatively high level of housing and equity asset values.

According to the National Association of Realtors, the median existing-home price increased by 10.8% in July from a year ago, marking the 125th consecutive month of year-over-year growth. It is noteworthy that the National Association of Realtors reported that the median existing-home sales prices exceeded $400,000 for the first time in May, and in July they reported that the stretch of year-over-year consecutive price growth was the longest in their records. Home prices, as reported by the Case-Shiller Index, continue to rise. In June, the Case-Shiller 20-City Composite Home Price was up again from the previous month, increasing 0.41% from May and coming in 18.65% higher than a year earlier.

As previously mentioned, the US economy is now in a situation where it shows simultaneous signs of growth and stalling. The amount of uncertainty on the pathways of the US and other global economies is significant and stems from the fallout of the pandemic: the crash, connected stimulus, supply-chain troubles and now soaring inflation topped with the war in Europe that Russia started. One of the biggest risks is inflation, which has flared up and is being fanned by the turmoil in the commodity markets caused by Russian warfare. Additionally, the ghost of the US/Sino trade war is still hanging around. Even though the pace of growth in the economy has declined, currently available information suggests the US economy will continue to grow, the rate will just be very slow and potentially close to nonexistent before picking up again.

Oil prices rapidly declined at the end of January 2020 with the emergence of the novel coronavirus but recovered soon after. There was a slight rise in oil prices in December 2021, a significant increase in January this year due to increased geopolitical tensions, and finally a huge jump when the war broke out and the West started to embargo Russian oil. Oil prices are extremely sensitive to geopolitical crises, natural disasters and demand changes; any sudden incidents of these kinds can affect oil prices significantly, as was clearly seen

Figure 2

Oil prices at around $100 per barrel after summer

West Texas Intermediate, Brent North Sea crude oil; US dollars per barrel

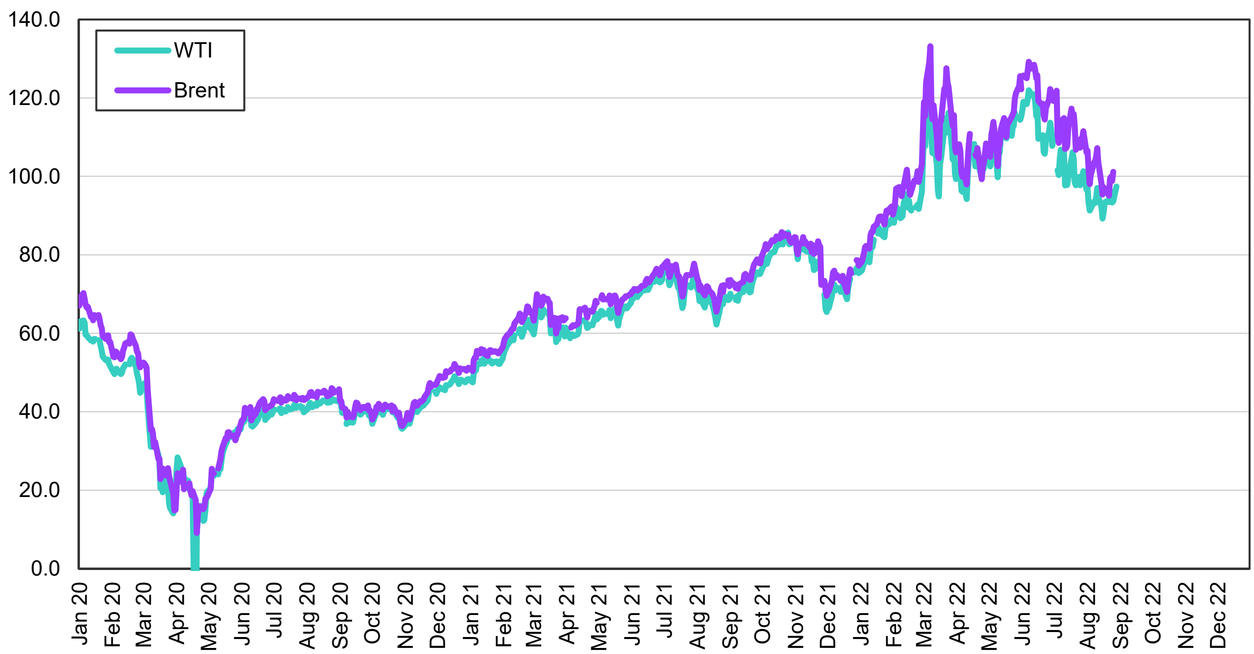


Figure 3

Job growth remained high in August, but lower than in July

Change in non-farm payrolls, thousands; three-month moving average of payrolls

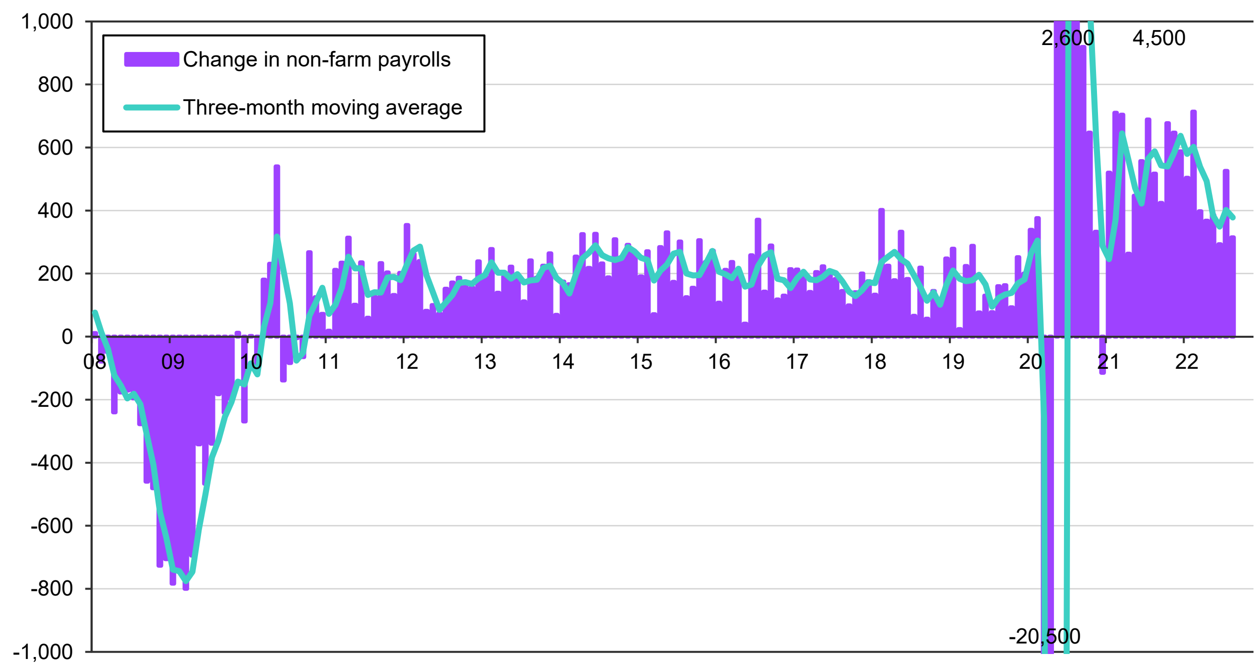


Figure 4

Earnings growth held at elevated levels from June through August

Average hourly earnings of all employees, year-over-year percentage change

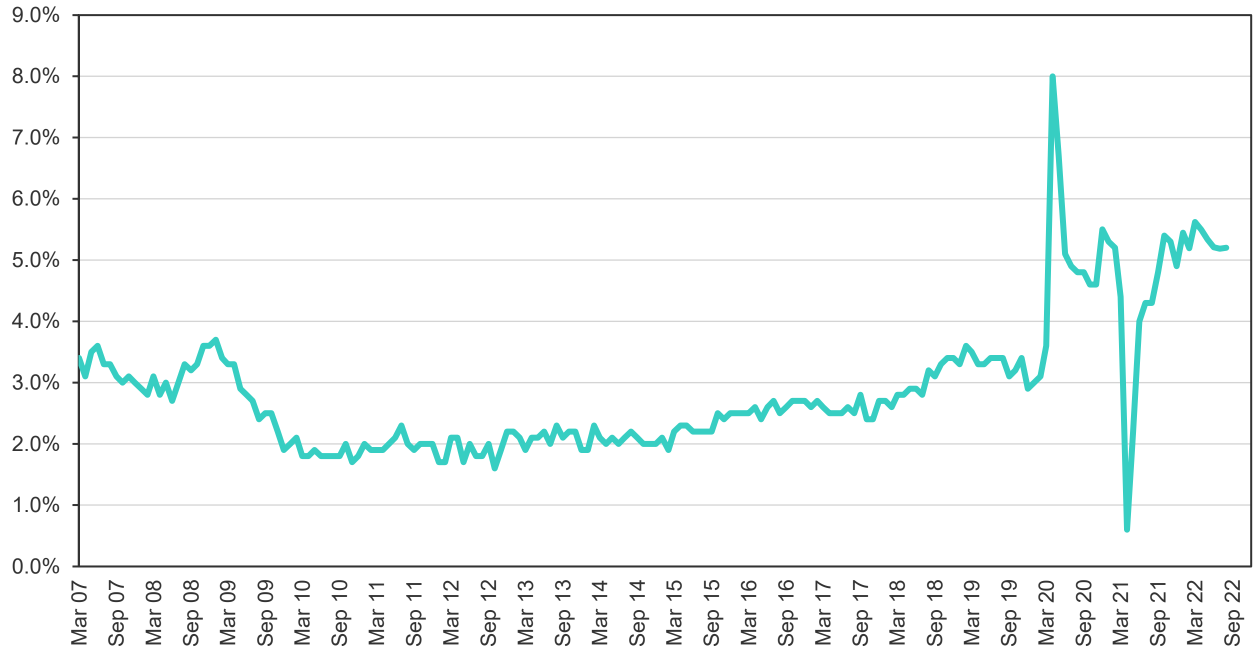


Figure 5

Retail sales growth improved in June, July, inflation impact possible

Retail sales, retail sales excluding autos, year-over-year percentage change

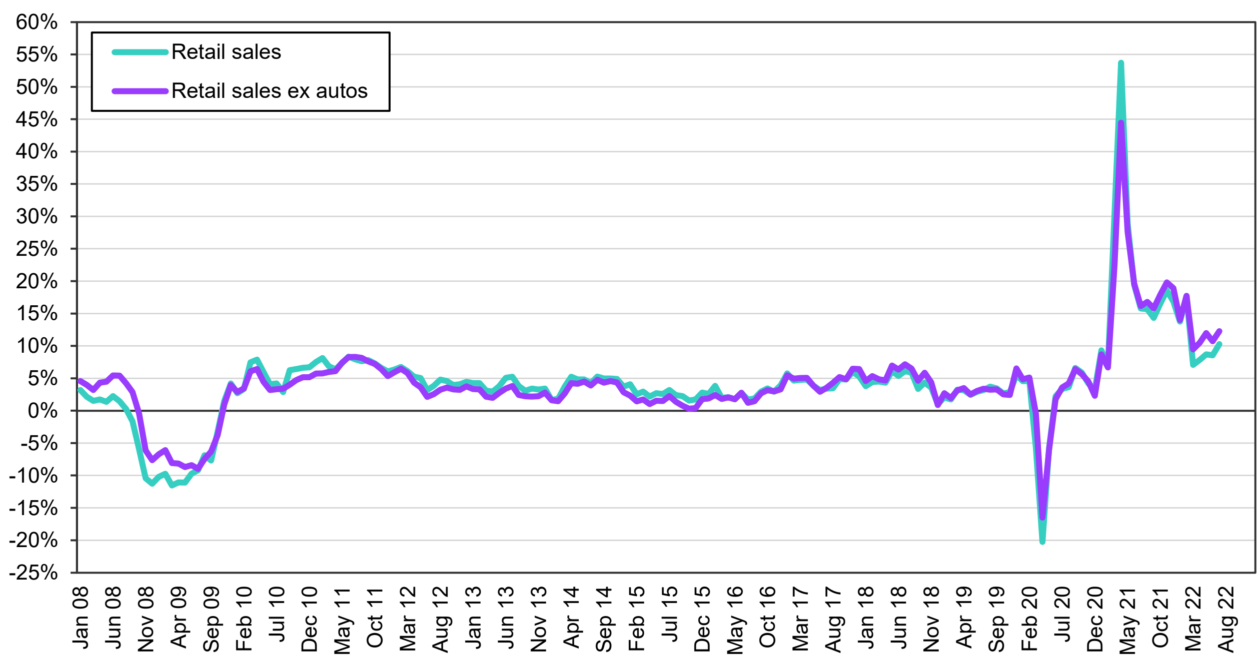


Figure 6

Motor vehicle sales continued below normal and declining through August

Motor vehicle sales, millions, seasonally adjusted annual rate (L), year-over-year percentage change (R)

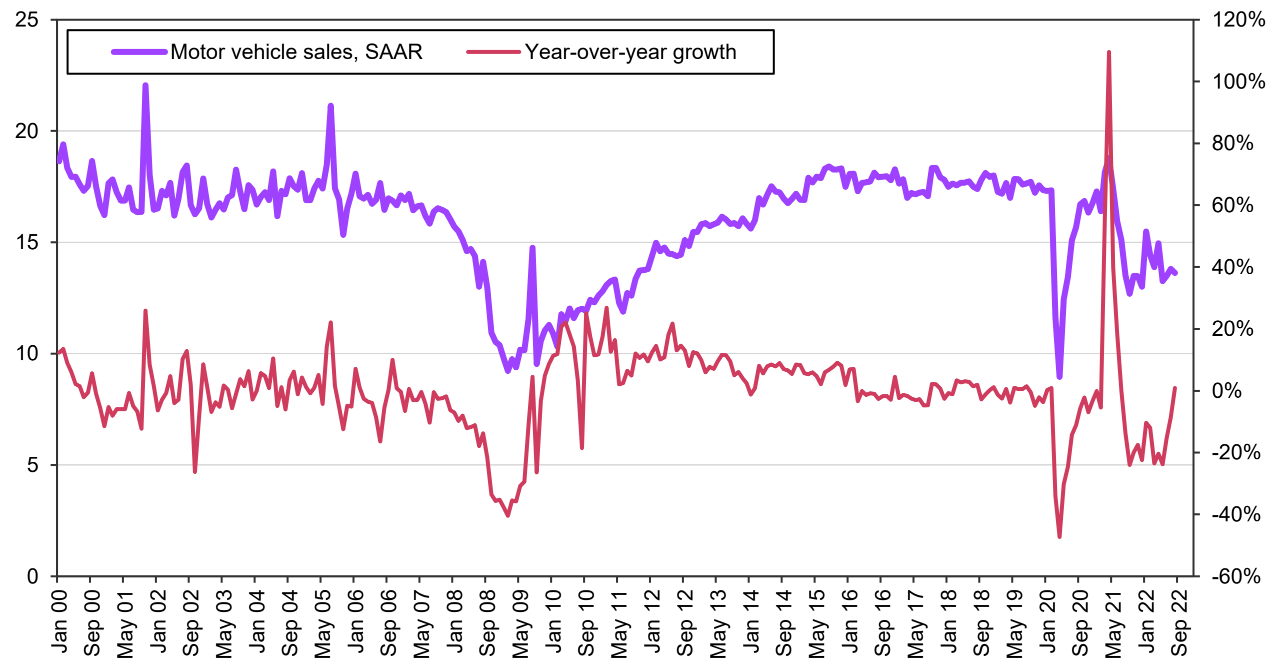


Figure 7

Manufacturing production index up in July, PMI stalled for July, August

Industrial production (manufacturing) index, 2017 = 100; Purchasing Managers' Index

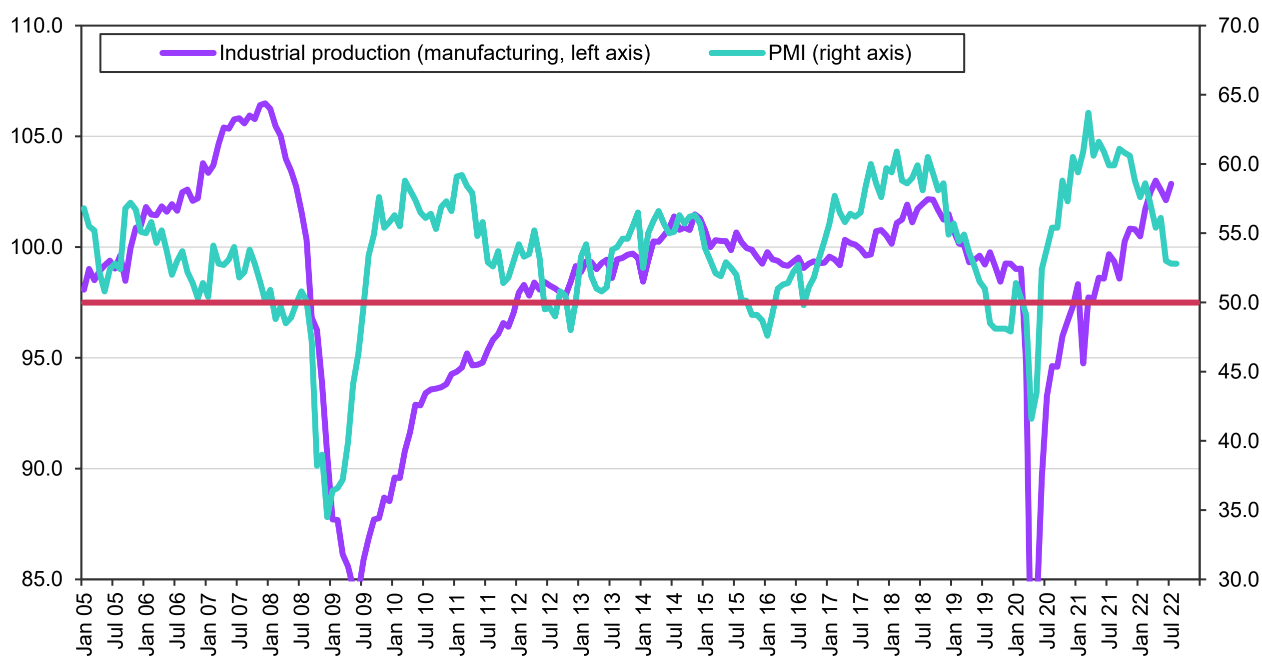
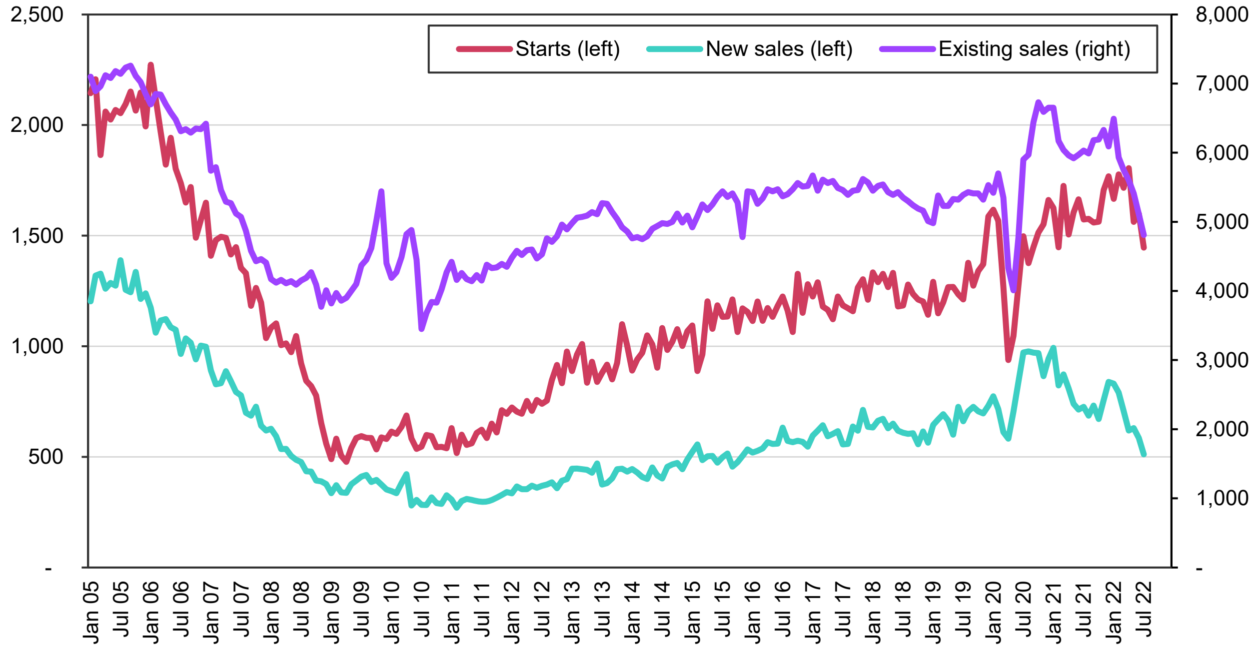


Figure 8

Housing: Starts, sales point down in July

Housing starts stalling, existing home sales and existing home sales in thousands



in early March and the following months through August. Any escalation of the European-Russian energy supply situation or the Russia/Ukraine war could have further immediate global impacts on energy prices.

At the moment, the market's adaptation to the new reality has gone reasonably well, and definitely much better than some of the worst expectations – including possibly some of those that were behind the Russian gamble.

Table 1

US economic outlook

	Quarterly data, annual rate							
	3Q21	**4Q21**	**1Q22**	**2Q22**	**3Q22**	**4Q22**	**1Q23**	**2Q23**
GDP, billion 2012 $	19,479	19,806	19,728	19,699	19,797	19,856	19,846	19,841
Real % change	2.3	6.9	-1.6	-0.6	2.0	1.2	-0.2	-0.1
Consumption, billion 2012 $	13,732	13,818	13,881	13,931	13,907	13,886	13,883	13,876
Real % change	2.0	2.5	1.9	1.4	-0.7	-0.6	-0.1	-0.2
Industrial production, % change	3.5	4.7	4.8	5.4	1.7	0.8	1.1	0.8
Housing starts, million units	1.57	1.68	1.72	1.65	1.30	1.31	1.47	1.52
Trade account, billion $	-876	-900	-1138	-1005	-981	-961	-956	-949
Consumer prices, % change	6.7	7.9	9.2	10.5	2.5	3.9	3.7	2.9
Producer prices, % change	12.8	13.8	18.3	22.6	0.3	0.1	-2.9	-2.3
West Texas Intermediate oil price, $/bbl	71	77	95	109	106	104	100	96
Natural gas, Henry Hub, $/MMBtu	4.35	4.77	4.66	7.49	7.61	7.77	7.46	6.69
Federal funds interest rate, %	0.09	0.08	0.12	0.77	2.25	2.50	2.50	2.50
Prime rate, %	3.25	3.25	3.29	3.94	5.25	5.50	5.50	5.50
10-year T-bond yield, %	1.32	1.54	1.94	2.93	3.03	2.95	2.88	2.83

	Annual data							
	2020	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**
GDP, billion 2012 $	18,386	19,429	19,771	19,925	20,364	20,833	21,240	21,455
Real % change	-3.4	5.7	1.8	0.8	2.2	2.3	2.0	1.0
Consumption, billion 2012 $	12,629	13,628	13,902	13,931	14,232	14,521	14,791	14,934
Real % change	-3.8	7.9	2.0	0.2	2.2	2.0	1.9	1.0
Industrial production, % change	-7.0	4.9	4.2	1.4	1.5	1.8	1.5	1.2
Housing starts, million units	1.40	1.61	1.49	1.51	1.62	1.66	1.54	1.27
Trade account, billion $	-655	-845	-1,020	-936	-861	-793	-745	-720
Consumer prices, % change	1.3	4.7	7.6	3.0	1.8	2.3	2.4	1.0
Producer prices, % change	-1.3	8.9	13.5	-0.7	-0.9	1.7	1.9	0.4
West Texas Intermediate oil price, $/bbl	39	68	103	95	83	77	79	81
Natural gas, Henry Hub, $/MMBtu	2.04	3.90	6.87	6.58	5.36	4.76	4.85	4.95
Federal funds interest rate, %	0.38	0.08	1.42	2.25	1.75	1.75	2.04	1.68
Prime rate, %	3.54	3.25	4.50	5.25	4.75	4.75	5.04	4.68
10-year T-bond yield, %	0.90	1.44	2.71	2.70	2.30	2.15	2.16	1.98

Europe

The Russian attack on Ukraine altered the European economic landscape significantly and will affect the euro area economic outlook. In our completely revised forecast from August, we see euro area GDP growth slowing to 2.7% in 2022 and only 0.1% in 2023. The impact of the war and the sanctions overall is much more significant in Europe than in the US, due to the supply-chain connections between Ukraine and the European Union, higher energy prices and lost trade with both Russia and Ukraine. The growth figure estimate for this year – which is surprisingly high-looking, particularly when compared with the US – is mainly due to the significantly deeper crash in 2020 and much slower rebound in 2021; as a result, part of the growth regained already in 2021 in the US has rolled over to 2022 in Europe. One could claim that the European economy is doing better in figures than in reality. At the same time, however, the crisis in Europe has not only brought huge energy price-related problems, but also much government stimulus and investment into defense, energy transition projects, etc.

The ECB has now indicated that its stimulus policy, including purchases of euro area member state government bonds, has ended. We anticipated in previous issues of this report that the ECB would have introduced a positive policy interest rate for the euro area during the summer – and so it did in July, raising rates by 50 basis points and putting the refinancing rate at 0.50%, up from 0.00%, and the deposit facility rate at flat zero, up from -0.50%. This was a major change in the euro area after a decade of negative rates, and it is very likely that further hikes will take place sooner rather than later due to the level of inflation currently seen in Europe. These hikes will have a significant impact on euro area consumers, industries and governments, since the market rates have already reacted to this expectation by increasingmarket interest rates. Similarly, the euro, which weakened significantly against the US dollar, falling almost to parity, gained strength in late May thanks to the prospect of the ECB's move. The euro has weakened again, however, and passed below parity with the US dollar in late August, with Fed rate hikes tangibly in the pipeline, emphasizing the major difference in economic perspectives of these two major advanced economies.

The mid-August estimate of euro area real GDP figures for the second quarter released by Eurostat shows the quarter-over-quarter pace of economic growth in the European Union maintaining the slow growth seen in the previous quarter. Quarter-over-quarter GDP growth in the second quarter was only 0.6% in both the euro area and the EU-27, while the year-on-year rates stood at 3.9% and 4.0%, respectively.

The figures for the fourth quarter of 2021, the first quarter of 2022 and the second quarter of 2022 show that the European economy, which had already peaked and stalled before this dual crisis and which felt the full force of the COVID-19 pandemic, could not sustain the long-awaited higher pace of growth seen in the two middle quarters of last year. Despite these three positive quarters, the huge losses earlier continue to have an impact on the European economy, which has now been dealt a substantial blow by the Russian war in Ukraine. To a lesser degree, the easing growth in both the US and China indicates slowness in the coming quarters, which is not helped by spiking energy costs and rising crop prices and which will affect both European consumers and industry. The euro area economy only barely crested the pre-pandemic growth level in the final quarter of 2021, leaving that region significantly behind the US in its recovery. The preliminary flash estimate for third-quarter EU and euro area GDP growth data will be released at the end of October; until then, the full impact of the current significant issues with energy, prices and availability that the European industries, consumers and governments are struggling with will have to be evaluated based on other indicators.

Seasonally adjusted unemployment in the euro area in July stood at 6.6%, down from 6.7% in June, May and April. At this rate, unemployment in the euro area is now significantly below the levels reached in the second quarter of 2018 and also below the lows seen in mid-2008 before the financial crisis. The structures that supported low unemployment levels during the crisis are likely to keep the euro area unemployment structurally higher than in the US. Still, it is noteworthy that the unemployment has not – at least at this point – bumped up despite the occasionally extreme struggles businesses are experiencing with energy costs. It is unfortunately likely that, should further improvement in unemployment come through employment and not from people exiting the labor force, the "tightening" labor market could give further impetus for inflation.

Industrial production in the euro area and the EU-27 has suffered for quite some time, with the peak seen in 2017 still not regained in the euro area, while the EU-27 index passed that level only in May this year. After the losses seen in March, there has been continued month-over-month growth in both regions. In June, industrial production in the euro area and EU-27 increased by 0.7% and 0.6% month on month and by 2.4% and 3.2% year on year. In the euro area, capital and durable consumer goods showed year-over-year growth (rising by 7.6% and 4.0%, respectively), while energy was at flat zero. The impact of the Russian war on supply chains, raw material availability and energy remains as a major and immediate risk factor for the European industrial sector, particularly as the heating season is approaching. In this context, much is dependent on the measures taken to stabilize the electric power market. Spot market power prices have thus far been driven by the price of the most expensive production type at a given time, with the limited availability of natural gas making that the price benchmark even for power produced via wind, hydro or nuclear power. Should the suggested price caps for natural gas power be effective, the coming winter may be somewhat easier for power users, although for natural gas users the situation will continue to result in high costs and potential production losses that may accumulate through supply chains. The industrial sector has additional risk connected to the potential slowing of the US and Chinese economies, due to these two being significant destinations for European industrial and consumer goods exports.

The seasonally adjusted volume of retail trade has been on a roller coaster during the past year. The data for the euro area for July 2022 showed growth of -0.9% on a year-over-year basis and 0.3% on a month-over-month basis. The “Mail orders and internet” segment recorded 4.2% month-over-month growth and 1.8% year-over-year growth.

According to Eurostat, euro area annual inflation that escalated in March has continued to push higher. After spending many years below the ECB’s target of 2%, consumer price inflation started to edge up in early 2021 but was still at just 1.9% in June; the rate has since moved higher, with some ups and downs. Inflation hit 7.4% in March, remained there in April and then jumped to a staggering 8.1% in May, 8.6% in June, 8.9% in July and 9.1% in August. Although the ECB indicated during the summer of 2021 that it had flexibility, the figures this year have been multiples of its target rate. Every reading since November 2021 has broken the record to become the highest ever reported in euro area inflation history since January 1997. It is currently thought that inflation has risen as a result of the huge, decade-long stimulus in the region, together with supply-chain struggles, demand for commodities, energy price increases and labor market pressures, which have all been bubbling under the surface. The impact of the labor market component has so far remained lower than in the US, but continuing improvements in unemployment could make labor a greater factor quite quickly. For some countries, the August inflation figures continue to be at – or at least close to – multi-decade highs. The 8.8% posted for Germany is a new record and significantly above the 6.0% seen last November, which made the news then as the highest in more than 30 years. The highest euro area inflation in August was the 25.2% for Estonia – a figure quite certain to have an impact on consumers’ wallets. The core inflation rate was 3.8% in May, 3.7% in June, 4.0% in July and 4.3% in August. Monthly inflation in August was 1.0% for food, alcohol and tobacco (10.6% annual); 0.0% for energy (38.3% annual); and 0.4% for services (3.8% annual). With the annual level of inflation for the “food, alcohol and tobacco” segment reaching above 10%, the purchasing power of the European consumer is likely to be significantly lower, because it is unlikely that salary and wage increases will meet the level of inflation on these very basic daily-used consumer goods. For businesses, the high inflation and reduced purchasing power during times of low unemployment can mean increased competition for labor and talent throughout the spectrum of employees.

The inflation outlook for Europe has not been helped by the steady increase in energy prices that began last October, continued through January and accelerated with Russia’s invasion of Ukraine. Because oil has a major impact on inflation, possible oil production capacity increases should ease prices when that capacity comes on line and if transport can be arranged; if capacity is added and the additional output can be transported, the pace of euro area inflation growth could ease somewhat. However, in Europe, the energy costs that have risen the most are those for electrical power and natural gas. Electricity is quite expensive in Europe, which in the past has made Russian natural gas rather attractive and one of the key European fuels. But last winter, Russia limited supply to raise the price of its natural gas. Now with the sanctions, Europe must source its natural gas requirements from other, likely more expensive, sources – if any are even available – which will raise the cost of that energy source as well. If – or more likely when – this inflation transfers through to consumer prices and then to the labor market, the impact could be severe. Looking at the current situation, the ECB opting not to make direct stimulus payments to consumers – a route also known as "helicopter money" that had been supported by some politicians – might have been good choice, or at least was lucky. The question that remains for the European economy is, if it is currently seeing high inflation while economic growth is seemingly not as great as it should be, what happens when the ECB now has to raise rates? There is at least a risk for a similar situation as that seen in 2011, when the ECB's reactive rate increase froze consumption in the euro area and the economy stalled badly for several years. With a rate hike, the euro could gain strength from its current relatively competitive position against the US dollar, which has the potential to negatively affect European exports. At the same time, the war in Europe will have an impact on monetary and fiscal policies, and it is also possible, if not even likely, that another EU-wide stimulus package will be launched to tackle the impact of the war and to increase European independence in energy production. Such a package is likely to also contain support for the already announced increase in defense spending.

The German IFO Business Climate Index plunged to a historic low of 74.3 in April 2020 and then gradually improved during the rest of the year and the first half of 2021. The impact of the war was felt in March 2022, when the index dropped to 90.8, but it stabilized and rose slightly to 91.9 in April and further to 93.1 in May, before dropping again to 92.2 in June and deep-diving to just 88.6 in July. The index had remained below 100 from early 2019 until June 2021, but it fell below that level again a year ago and has remained there since. The earlier hopes of growth driven by the German economy have been wiped out by the decline of the index. Compared with the previous month, German businesses saw both their current situation and expectations deteriorating in July. Before the pandemic, the German economy was in an ongoing downturn, and the hint of optimism seen in March 2019 was quickly lost the following month and not regained. The COVID-19 crisis, and now the war, continue to hurt the German economy severely and have held the country and the eurozone in a slowdown since they began. Unfortunately, the hope for the market has again been lost. That can affect the whole euro area economy – not necessarily with a decline, but certainly with lower growth – and much depends on the region's ability to solve the problem of using Russian natural gas that is starting to become not only an availability issue, but also, to some degree, a potential burden for the businesses using it. Because the European electricity market is interconnected, the German energy policy of progressively abandoning nuclear power – including a recent decision to only maintain a few nuclear power plants as a reserve capacity – at a time of limited fossil fuel availability has partly pushed Germany's energy struggles beyond its borders, underpinning the power price headaches plaguing industries through the region.

The business climate indicator from France's Institut National de la Statistique et des Etudes Economiques (INSEE) showed a similar rapid downturn during spring 2020. After a gradual improvement, with ups and downs, that indicator posted higher figures early in 2021 and has continued to climb. In 2022, the indicator was at 112.6 in February but came down to 105.6 in May, 104.0 in June, 102.8 in July and 103.4 in August. The French index, which finally rose above the long-term mean of 100 in May 2021 and reached its highest point since July 2007 in June 2021, has since remained above 100. President Emmanuel Macron confirmed a second term at the Élysée Palace, but his political struggles in France are far from over. French National Assembly elections in June did not bring enough direct support to Macron, which makes it more difficult to implement legislative changes.

The IHS Markit Eurozone purchasing managers' index (PMI) was at 55.8 in April and 54.8 in

May, before dropping to 52.0 in June, 49.9 in July and 48.9 in August. The index has sunk below the 50-point waterline, which indicates contraction in the euro area economy. The IHS Markit Eurozone Manufacturing PMI recorded figures of 55.5, 54.6, 52.1, 49.8 and 49.6, respectively, for April through August. The European economy has been substantially damaged by the pandemic, and now with the war in Ukraine, a full recovery from this double crisis is likely not going to come easily or quickly. Even though economic growth is expected to speed up in 2024, nevertheless, there are risks related to the war, inflation and the global economy as a whole.

With the onset of COVID-19, the eurozone sank into a deep recession in 2020 – one of the deepest among the large advanced economies, despite the efforts of governments and the ECB to hold the region afloat. The simultaneous slowdown of both the industrial sector and consumer demand severely affected the eurozone economy, and its service sector could see those consequences enduring into the medium term. The attack on Ukraine by Russia has affected the European political, business and economic landscape significantly. The EU and euro area economies will be damaged, but at this stage indications do not point toward negative annual growth but rather to significantly slower growth than would have otherwise been expected. For the eurozone, the key economies are Germany and France, because growth in those two countries – or the lack of it – should filter into the rest of the

Table 2

Euro area economic outlook

	Quarterly data, annual rate							
	3Q21	4Q21	1Q22	2Q22	3Q22	4Q22	1Q23	2Q23
GDP, billion 2015 euros	11,385	11,429	11,486	11,558	11,529	11,494	11,472	11,492
Real % change	9.7	1.6	2.0	2.5	-1.0	-1.2	-0.8	0.7
Consumption, billion 2015 euros	6,022	6,009	5,985	6,026	6,014	5,998	5,953	5,968
Real % change	19.5	-0.9	-1.6	2.8	-0.8	-1.1	-3.0	1.0
Industrial production, % change	-4.7	0.6	3.3	-0.3	-1.3	-4.8	-1.7	2.1
Consumer prices, % change	2.2	7.1	9.1	14.0	4.4	4.1	3.5	1.3
Producer prices, % change	20.4	35.3	39.9	22.2	15.0	8.0	1.0	-5.0
Brent North Sea crude oil, €/bbl	62	70	90	107	111	108	104	100
3-month Eurocurrency rate, %[1]	-0.51	-0.57	-0.56	-0.54	-0.04	0.34	0.44	0.51
10-year bond yield, %[1]	-0.64	-0.52	-0.17	0.76	0.82	1.12	1.14	1.16
Exchange rate, USD/EUR	1.18	1.14	1.12	1.07	1.01	1.01	1.01	1.01
	Annual data							
	2020	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**
GDP, billion 2015 euros	10,645	11,211	11,517	11,531	11,761	11,960	12,150	12,157
Real % change	-6.5	5.3	2.7	0.1	2.0	1.7	1.6	0.1
Consumption, billion 2015 euros	5,630	5,836	6,006	6,001	6,123	6,238	6,343	6,378
Real % change	-7.9	3.7	2.9	-0.1	2.0	1.9	1.7	0.6
Industrial production, % change	-7.5	7.9	-0.2	-0.4	2.2	2.1	2.1	1.4
Consumer prices, % change	0.3	2.6	7.7	3.5	1.8	1.8	1.9	1.4
Producer prices, % change	-2.5	9.9	25.8	3.0	0.1	2.3	1.7	0.5
Brent North Sea crude oil, €/bbl	37	60	104	98	81	74	75	77
3-month Eurocurrency rate, %[1]	-0.52	-0.57	0.34	0.00	0.42	0.71	1.00	0.48
10-year bond yield, %[1]	-0.60	-0.58	0.63	1.08	1.09	1.21	1.35	1.51
Exchange rate, USD/EUR	1.14	1.18	1.05	1.03	1.08	1.09	1.11	1.10

1. Germany.

eurozone. The fact that the European Union unified when Russia attacked Ukraine – as well as the way in which member countries came together and how quickly they moved to implement sanctions – is remarkable and shows the leverage the European structures can have. And that unity could be a good stepping-stone for future joint growth measures once the immediate crises – the war and the pandemic – are left behind. It is also good to note that if the EU sanctions all energy purchases from Russia, the immediate impact will naturally depend on the level of national and business dependence on Russian oil and gas; in the longer term, however, the impact of such sanctions would accelerate Europe's shift toward less carbon-intensive, as well as more predictable and lower-cost, energy both for consumers and industry.

China

While China continues to take a rather neutral stance – or at least appears to – on the war initiated by Russia against Ukraine, it has definitely not aligned itself with the Russian side and is keeping a distance from measures that could be interpreted as circumventing the sanctions set by the United States, the European Union and their partners. China continues to show a certain "understanding" for Russia, its warfare and geopolitical claims, but is in a way trying more to be in the audience of the battle it perhaps considers to be going on between Russia and the West. According to various news sources, some Chinese computer and mobile device manufacturers have stopped deliveries of their products to Russia; that act has been at least a headache for Russia and is likely to have a blessing from Beijing, and it could also be seen as a message. Still, Chinese and Russian leaders are meeting, which suggests another kind of signal. China is highly dependent on trade with and investments by both the US and the EU, and thus it continues to be unlikely that the Asian country would initiate any measures that could significantly and directly harm its own interests.

Chinese GDP data for the second quarter of 2022 showed year-over-year growth of only 0.4%, plunging from 4.8% in the first quarter of this year and 4.0% in the final quarter of 2021 and also significantly lower than the 6.8% average for the first quarters of the five years prior to the pandemic (2015-19). The extreme regional lockdowns and struggles in logistics for exports are taking a significant toll on Chinese growth this year and could also indicate a fundamental change in the growth potential in the Chinese economy. Growth in the manufacturing part of the "secondary industry" sector – i.e., industry – showed year-over-year growth of -0.3% (down from 6.1% in the previous quarter). Meanwhile, growth in the entire secondary industry was 0.9% (down from 5.8% in the previous quarter), with industry at 0.4% (down from 6.4% in previous quarter) and construction at 3.6% (up from 1.4% in previous quarter). GDP growth for the second quarter 2022 shows that the ramp-up and recovery of the Chinese economy seen in early 2021, which lost speed in the second half of the year, continues to struggle badly in 2022. This poses additional risks for a more structural compound impact for the Chinese economy, induced by the ongoing regional lockdowns and weaker consumption as well as global inflation, which is raising producer prices of goods and commodities and hampering consumer demand for goods produced in China.

As mentioned in earlier issues of this report, it has become evident – and now is even more evident – that the worrying signals regarding the economy's underlying strength that had been seen earlier were correct. The Chinese economy has had to cope with the global recession affecting the trade-driven portion of its markets, which has not been helped by the supply-chain-related struggles at ports and with components. Still, the role of the construction sector in driving degrowth should not be overlooked; outside of the second half of 2021, the only registered negative figure since the beginning of data in 1993 was seen in that sector in the first quarter of 2020, at the onset of the COVID-19 pandemic. However, the first quarter of 2022 did show positive year-over-year growth in construction, and so did the second. For the full year of 2021, growth reported by Chinese official statistics was 8.1%. In our full global economic forecast, we have revised down global growth figures, including for China. We now expect China to slow significantly this year and then gradually return to its previous deceleration pattern, but from a lower level than previously foreseen. Anticipated GDP growth is just 3.1% and 4.6% for 2022 and 2023, respectively. However – although this looks very unlikely at the moment – should China choose to align with Russia, the impact could be much more severe and would likely not be offset by cheap energy or other commodities becoming accessible from Russia as a result of such a move.

Meanwhile, the Chinese government has significant internal battlegrounds to focus on as COVID-19 infection hotspots have continued to pop up, with those still causing – or being addressed with – lockdowns in major cities. These lockdowns have a direct impact not only on the local and regional economy, but also on global supply chains and the way their reliability is assessed as well as the sentiment of the people in these Chinese metropolises.

The shifts in the timing of the Lunar New Year holiday affect the availability and comparability of the monthly data for the first quarter as well as the first months of the year. Additionally, caution should be exercised in interpreting the official figures from China, because they might not completely reflect the status of the economy.

In August 2019, the People's Bank of China (PBoC) introduced a new fluctuating monthly prime interest rate for both one-year and five-year loans to facilitate lending and better reflect changes in market rates. The initial rates were 4.25% and 4.85% for one-year and five-year loans, respectively. In September and October 2019, the rates were 4.20% and 4.85%, but they have since been adjusted several times. The rates stood at 3.85% and 4.65% from April 2020 until the end of 2021 and are now at 3.7% and 4.6%, respectively.

The latest data on Chinese industrial production shows year-over-year growth at 3.8% in July after posting 3.9% in June, 0.7% in May and -2.9% in April. Omitting the first three months of 2020, the April figure is the only negative industrial production figure since the start of the data series in January 1995, which emphasizes the significance of the Chinese lockdowns and production closures as well as the potential of a global economic fallout from these hiccups. The slightly positive growth in May is very minimal compared with earlier "normal" growth levels, although the year-over-year metric can again play some tricks, but the improvement seen in June and July is promising. The industrial production figures were much lower in the first half of 2020, due to the initial complete standstill of the Chinese economy and its subsequent slow recovery. Industrial production did rebound somewhat early in 2021, both in China and globally, but the pace of growth has now been declining – and faster than expected – which indicates much slower growth on the highly significant industrial side of the Chinese economy. Despite the slight pick-up, the slowdown could be indicative of lower global demand or supply-chain struggles or both, but it will be important to vigilantly monitor industrial production growth in the coming months, because further slowing or continued negative growth will have an impact on overall Chinese economic growth in the medium term as well. Any new lockdowns in the industrially important or business regions have significant potential to affect both industrial production and global supply chains, even if that impact is not fully seen in the official figures immediately or after a delay.

Retail sales figures for March came in at -3.5%, with April at a staggering -11.1% and May at -6.7%. June and July were both positive at 3.1% and 2.7%, respectively. Beyond the first six months of 2020, the March, April and May figures are the only declines in the retail sales metric since recording began in 1993, which illustrates the considerable effect of the lockdowns, as well as the general economic slowdown, on consumption. Even before the March-May dip, retail sales figures were significantly below the more than 7% growth seen before the pandemic, which shows that Chinese consumers are not spending as much as before the pandemic – another worrying signal.

Year-over-year fixed asset investment (FAI) growth ticked 9.3% in March, with April at 6.8%, May at 6.2%, June at 6.1% and July at 5.7%. The figures for the first two months of

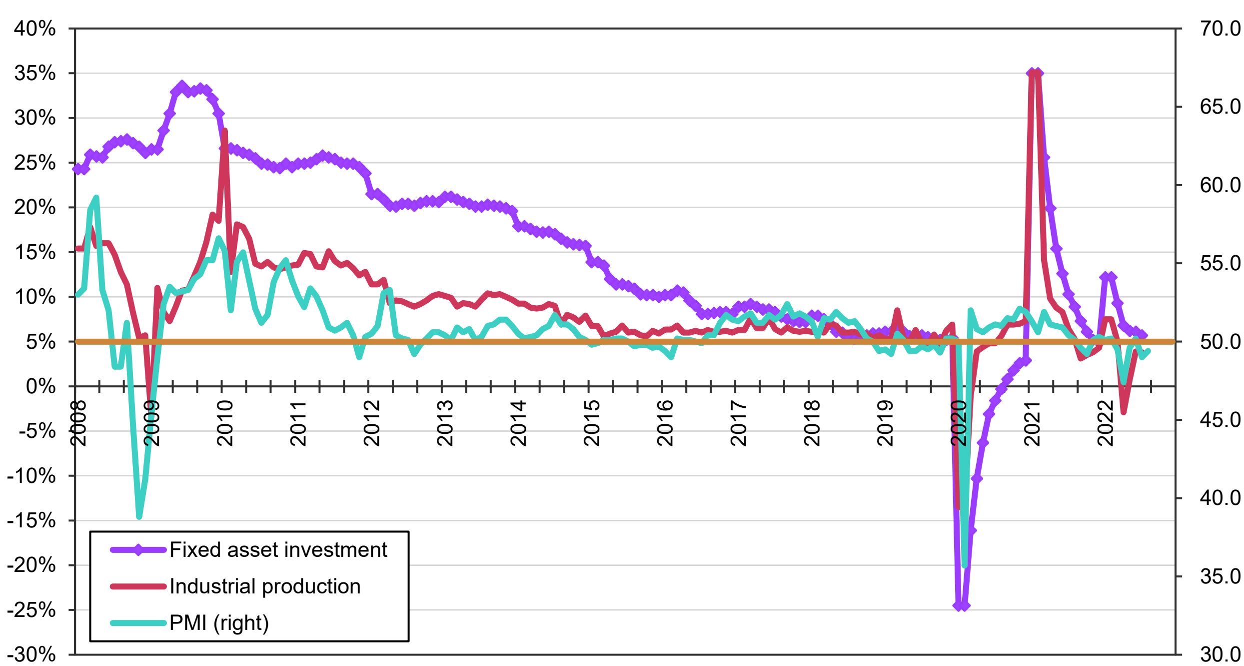
2022 and for March were much higher than the pre-pandemic range of 5-7%, which could be the result of higher investment or seasonality and a lockdown-induced shift from earlier months. However, April through July saw the metric return to a more normal range. As mentioned before, it will be important to compare the coming months' figures with the pre-pandemic level of more than 5% to ascertain whether investments are actually increasing or still lagging. Lagging investments would indicate the availability of existing production capacity – particularly when industrial production and retail sales are increasing – or alternatively that investments are being directed to other areas, including potentially other Emerging Asia countries. Low investment growth also signals low potential for returns on investment and can have a cumulative impact in the regions providing investment goods to China.

The official manufacturing PMI figure came in at 47.4 in April, rising to 49.6 in May and 50.2 in June before dropping to 49.0 in July and improving slightly to 49.4 in August. With the exception of the pandemic-induced 35.7 in February 2020, the April figure was the lowest official reading since the metric started in 2005. The PMI levels from mid-2020 through March 2022 illustrated rather restrained growth, with the index still not showing a decent rapid acceleration but rather already showing deceleration. The slight acceleration shown in the January/February 2022 figure quickly disappeared, with the readings from March onward again lower. The August figure shows the manufacturing economy is in degrowth again for the second consecutive month, with this indicator below the waterline of 50. Meanwhile, the Caixin-Markit Manufacturing PMI has also been declining again, posting 51.7 in June, 50.4 in July and 49.5 in August. Like the official PMI, in April, the Caixin-Markit PMI hit its lowest-ever reading outside of the 40.3 recorded in March 2020 when COVID-19 initially struck. Despite the fluctuations, these figures confirm the signal given by the official PMI of continued slowness and deceleration in the industrial sector. Like the FAI data, the PMI figures need to be carefully monitored in the

Figure 9

PMI below 50 in July, August, industrial production and investment slow

Year-over-year growth in industrial production, fixed asset investment; Purchasing Managers Index



coming months to ascertain how the Chinese economy is performing in the current global economic situation, where US growth has slowed and inflation worries have become tangible. If the PMIs continue to remain sluggish, as seems likely for the moment, one should use significant caution when considering the potential for Chinese growth.

Aside from the pandemic, the recent slowing from the pandemic growth peak and the ongoing – though somewhat hidden – trade war with the US, the biggest concern for China's economy remains high debt levels, with the government apparently still providing stimulus to support growth by allowing debt to increase. This risk is highly elevated, with the global economy running at a significantly slower pace due to the pandemic and the pace of growth decelerating both globally and within China. The de-facto defaults for debt payments in the construction sector by at least two reasonably sized companies are signals of the risks related to debt.

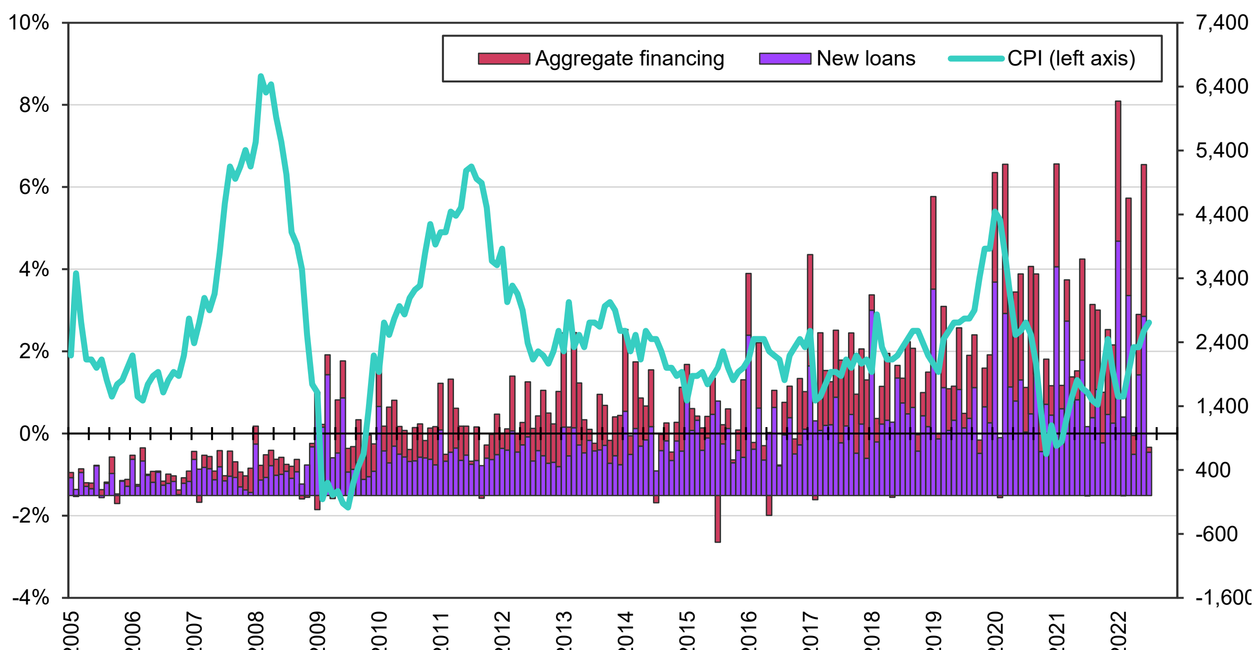
Net new bank lending has fluctuated wildly since late 2020 and posted an all-time high in January 2021. Recent figures show lending at RMB 1.89 trillion in May and RMB 2.80 trillion in June, but only RMB 679 billion in July. Total social financing (TSF) or aggregate financing also varied substantially over this period, registering RMB 2.84 trillion in May, RMB 5.18 trillion in June and only 756 billion in July. It is noteworthy that TSF has been generally rather high since August 2021, with March 2022 showing the second-highest figure for that month after March 2020 but April and July again recording very low figures. The PMIs and the pace of retail sales growth have all declined, but lending remains very high for some months, which is somewhat contradictory and suggests that the increasing lending is not directly supporting the Chinese economy. All of this indicates definite slowness in the Chinese economy and consumer markets, which can be worrisome not only for the Chinese economy but for other major economies as well.

The Chinese government appears to still be providing significant stimulus to its economy, which again will likely increase the debt in the economy as a whole. The built-in risks in

Figure 10

Inflation climbing higher, lending low in July

Year-over-year percentage change in consumer prices; new bank loans, aggregate financing, billion renminbi



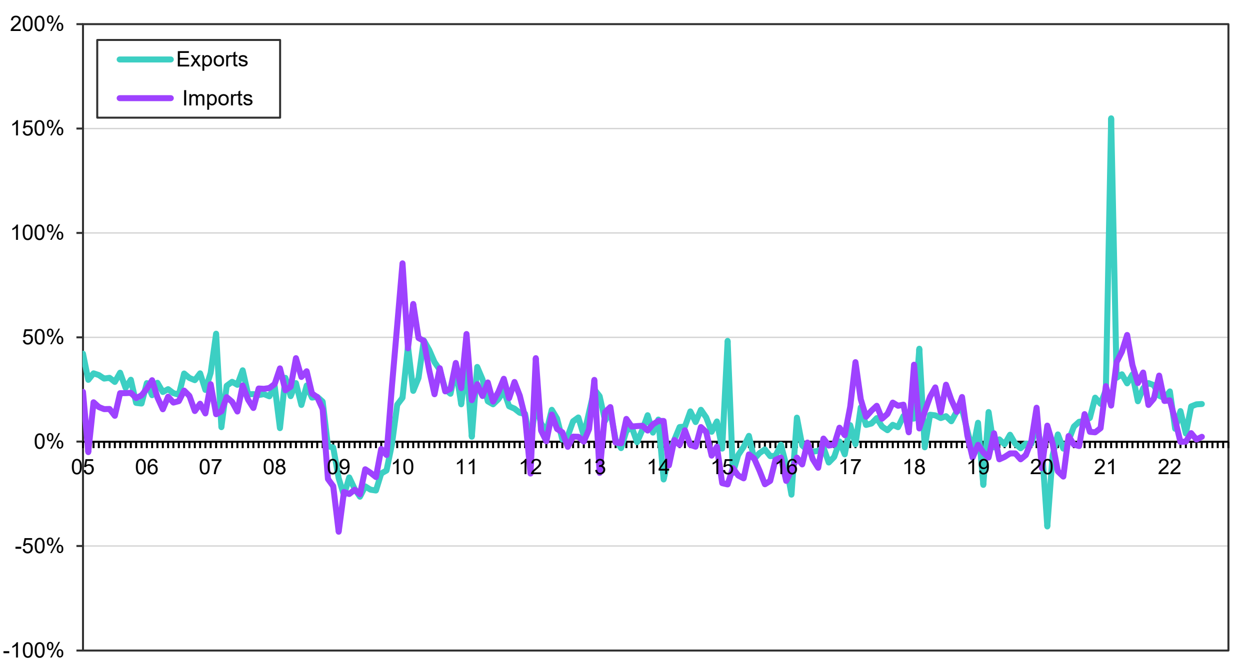
China's banking and financial sectors remain significant and could have major consequential risks should the economy continue to struggle. The government has continuously given the banking sector opportunities to give out more debt by cutting the reserve requirement ratio (RRR) to provide stimulus to the consumer market and the economy. The overall RRR was lowered again mid-April 2022 from 8.4% to 8.1%. This followed a succession of rate cuts over the past few years, from 14.5% to 12.2% at the beginning of 2019, 10.4% at the beginning of 2020, 9.4% in mid-April 2020, 8.9% in July 2021 and 8.4% in mid-December 2021. The lowering of the RRR should help the economy if it is able to absorb the available credit by finding reasonable and profitable targets for the debt taken, and if it has the means to handle the resulting debt servicing. However, new loans have not increased significantly with the cuts, which would indicate a lower appetite for credit. The worrying signals from both lending and consumption remain significant.

The exports sector saw big changes in 2021. Growth in exports skyrocketed to 60.6% year on year for the first two months of 2021 and posted high rates of 25.6% in August, 28.1% in September, 27.1% in October, 22.0% in November and 20.9% in December. For the first two months of 2022, however, year-over-year export growth declined to 16.3%, followed by 14.7% in March and only 3.9% in April; May posted a better rate of 16.9%, with growth in June and July hitting 17.9% and 18.0%, respectively. Year-over-year growth in imports moved similarly, although it took longer to gain traction. Last year, import growth was at 17.6% in September, 20.6% in October, 31.7% in November and 19.5% in December. For the first two months of 2022, imports grew by 15.5% year over year, but that figure retreated to -0.1% in March, 0.0% in April, 4.1% in May, 1.0% in June and 2.3% in July. The growth rates for both imports and exports, even during late 2021 and the beginning of 2022, remained good and should by themselves have indicated strong economic conditions, but their contradiction with many other indicators is so significant that it could not be overlooked. Indeed, the change came in March and April, with imports in particular

Figure 11

Chinese exports growth significantly higher than imports growth in July

Exports and imports, year-over-year percentage change



showing no growth at all. However, May brought improvement for both, although the recovery for imports was more or less lost in June and July. It is possible that import growth could also be affected to some degree by prices for oil, other fuels and commodities, which have all increased significantly. At the same time, the Chinese currency has gained strength against the US dollar, the currency that oil and other commodities are typically traded in; that appreciation should balance some of the impact, although not the impact on the imports and exports data measured in US dollars.

Setting aside the current state of the global economy – shaken by the war initiated by Russia, still recovering from both the pandemic-induced recession and the side effects from these crises on the global supply chains – there are still significant risks associated with the ongoing trade war despite the steps of de-escalation that took place before the focus of the world shifted to the pandemic. Additionally, both the war in Europe and the pandemic could result in changes in global supply chains, as some manufacturing could possibly return to Europe and the United States or head to alternative locations in Asia. This risk is tightly connected to the underlying concern of debt.

While not forgetting the high amount of debt in the country, it is also important to remember that the Chinese government has a lot of control over its economy, including monetary policy. This gives it more room to move in times when stimulus is needed – such as during the current war-induced commodity market turmoil, the recovery from the global recession, a trade war or any other kind of political or economic turbulence – but also sets certain constraints on the economy. The power of China as an importer is significant globally, and the possibility of rearranging those imports can also serve political goals. However, the role of exports is so big for China that disruptions, such as trade wars and global slowdowns, are often felt by the economy. At the same time, exports to China are critical for many global industries, which improves the country's negotiating position. This mutual dependence among major economies makes any politically induced disruptions complicated to handle and potentially more troublesome. These impacts and interdependencies are certainly being taken into consideration as Beijing positions itself on the Russian war.

Volatility in oil prices could have additional and significant direct and consequential impacts on the Chinese economy. The current global energy price surge will likely be strongly felt, most probably as inflationary pressure on the Chinese economy. Geopolitical tensions in the region remain, and while for many months they were buried under the battle against COVID-19, the trade war debate and now the war in Europe, recent news indicates these tensions have not vanished but are possibly becoming even more tangible. Also, one should not overlook Chinese interests and influence in conflicts beyond its obvious regional reach, including recent statements on the developments in Europe, especially in relation to energy and access to it. It is important, too, to remember that China and Chinese government-controlled institutions are significant creditors to many nations and companies, and warnings have been raised about the potential to cause financial market turmoil by various means, although such moves have so far been very limited, if they have occurred at all.

Table 3

Chinese economic indicators

	Quarterly data							
	3Q20	4Q20	1Q21	2Q21	3Q21	4Q21	1Q22	2Q22
Real GDP, Y/Y % change	4.8	6.4	18.3	7.9	4.9	4.0	4.8	0.4
Industrial production, % change	5.8	7.1	14.1	9.0	5.0	3.9	5.0	0.6
Exchange rate, RMB/USD	6.92	6.63	6.49	6.46	6.47	6.40	6.35	6.61
Consumer prices, Y/Y % change	2.3	0.1	0.0	1.1	0.8	1.8	1.1	2.2
Producer prices, Y/Y % change	-2.2	-1.3	2.1	8.2	9.7	12.2	8.7	6.8
Fixed asset investment, Y/Y % change	-0.4	2.4	31.8	16.0	8.9	5.4	11.2	6.4
Annual trade balance, billion US$	52.9	70.6	39.1	46.6	60.5	83.7	55.2	76.0

	Annual data							
	2020	2021	2022	2023	2024	2025	2026	2027
Real GDP, Y/Y % change	2.4	8.1	3.1	4.6	4.5	4.4	4.4	3.5
Industrial production, % change	6.9	6.5	6.7	7.1	6.9	6.8	6.7	6.7
Exchange rate, RMB/USD	3.37	9.15	3.50	5.50	5.02	4.64	3.95	3.30
Consumer prices, Y/Y % change	2.5	0.9	2.7	2.5	2.3	2.1	2.0	1.7
Producer prices, Y/Y % change	-1.8	8.1	6.5	-1.2	0.9	2.3	2.0	0.8

Table 4

Japanese economic outlook

	Quarterly data, annual rate							
	3Q21	4Q21	1Q22	2Q22	3Q22	4Q22	1Q23	2Q23
GDP, trillion 2015 yen	534	539	539	542	546	547	547	547
Real % change	-2.1	4.0	0.1	2.2	2.8	1.1	-0.1	-0.1
Consumption, trillion 2015 yen	286	293	294	297	298	298	299	299
Real % change	-3.5	10.1	1.2	4.6	1.0	0.4	0.3	0.2
Industrial production, % change	-6.9	0.6	3.1	-10.6	2.9	2.2	0.5	-0.1
Consumer prices, % change	2.0	0.8	2.7	4.0	3.0	4.0	-0.5	-0.4
Producer prices, % change	9.1	9.6	9.3	8.7	-0.2	0.0	-7.0	-4.0
Housing starts, million units	0.9	0.9	0.9	0.9	0.8	0.8	0.8	0.8
Exchange rate, JPY/USD	110	114	116	130	130	128	127	124

	Annual data							
	2020	2021	2022	2023	2024	2025	2026	2027
GDP, trillion 2015 yen	527	536	544	549	558	564	572	577
Real % change	-4.6	1.7	1.4	1.0	1.7	1.1	1.3	0.9
Consumption, trillion 2015 yen	285	289	297	300	304	307	309	311
Real % change	-5.2	1.3	2.8	0.9	1.5	0.9	0.7	0.7
Industrial production, % change	-10.6	5.5	-1.5	0.6	1.8	1.7	1.9	1.7
Consumer prices, % change	0.0	-0.2	2.3	1.1	-0.1	0.4	0.6	0.5
Producer prices, % change	-1.1	4.8	7.4	-2.4	0.1	0.9	1.0	0.1
Housing starts, million units	0.82	0.86	0.85	0.83	0.82	0.81	0.80	0.80
Exchange rate, JPY/USD	107	110	126	124	119	113	111	110

Table 5

Canadian economic outlook

	Quarterly data, annual rate							
	3Q21	4Q21	1Q22	2Q22	3Q22	4Q22	1Q23	2Q23
GDP, billion 2012 C$	2,091	2,125	2,141	2,167	2,182	2,193	2,192	2,189
Real % change	5.3	6.6	3.1	5.0	2.8	2.0	-0.2	-0.5
Consumption, billion 2012 C$	1,190	1,195	1,205	1,210	1,213	1,214	1,214	1,213
Real % change	20.1	1.8	3.4	1.7	1.0	0.4	-0.1	-0.4
Industrial production, % change	7.7	6.3	1.8	9.5	6.4	3.8	2.0	1.0
Consumer prices, % change	4.9	4.1	8.5	12.9	2.9	4.1	3.9	2.0
Housing starts, thousand units	262	261	245	252	238	240	228	231
Exchange rate, USD/CAD	0.79	0.79	0.79	0.78	0.78	0.77	0.77	0.76

	Annual data							
	2020	2021	2022	2023	2024	2025	2026	2027
GDP, billion 2012 C$	2,000	2,090	2,171	2,197	2,241	2,291	2,339	2,372
Real % change	-5.2	4.5	3.8	1.2	2.0	2.2	2.1	1.4
Consumption, billion 2012 C$	1,110	1,165	1,211	1,219	1,252	1,287	1,321	1,342
Real % change	-6.2	5.0	3.9	0.7	2.7	2.8	2.6	1.6
Industrial production, % change	-7.5	4.5	5.1	3.1	1.8	2.3	2.1	1.6
Consumer prices, % change	0.7	3.4	6.9	3.2	1.7	2.0	2.1	1.4
Housing starts, thousand units	219	277	244	232	240	242	222	185
Exchange rate, USD/CAD	0.75	0.80	0.78	0.77	0.78	0.80	0.83	0.83

Table 6

Real GDP growth for selected emerging economies

	Annual data							
	2020	2021	2022	2023	2024	2025	2026	2027
India	-6.6	8.7	7.0	5.5	6.7	7.5	7.8	6.6
South Korea	-0.9	4.0	2.4	2.1	2.5	2.3	1.9	1.5
Indonesia	-2.1	3.7	5.2	4.6	5.8	6.0	5.7	4.7
Philippines	-9.6	5.7	6.2	5.0	6.2	6.2	6.2	5.4
Hong Kong	-6.5	6.3	0.1	3.4	2.5	2.4	2.2	1.6
Singapore	-7.7	7.6	2.9	2.0	3.1	3.0	2.8	2.3
Brazil	-3.9	4.6	1.0	1.2	2.6	2.5	2.2	1.9
Mexico	-8.2	5.0	1.8	2.1	2.5	2.5	2.2	1.9
Argentina	-9.9	10.3	2.3	1.1	1.1	0.7	1.2	1.5
Chile	-6.1	11.9	1.5	0.5	2.2	2.5	2.4	1.8

Table A1

Monthly economic indicators

	Mar 22	Apr 22	May 22	Jun 22	Jul 22
United States					
ISM Manufacturing Index	57.1	55.4	56.1	53.0	52.8
Consumer confidence, 1985 = 100	107.6	108.6	103.2	98.4	95.3
Retail sales, M/M % change	1.2	0.7	0.4	0.8	0.0
CPI, M/M % change	1.2	0.3	1.0	1.3	0.0
CPI, less food & energy, M/M % change	0.3	0.6	0.6	0.7	0.3
PPI, finished goods, M/M % change	2.0	0.8	1.8	2.9	-1.9
Payroll employment, change in thousands	398	368	386	398	528
Industrial production, M/M % change	0.7	0.7	-0.1	0.0	0.6
Capacity utilization, %	0.799	0.803	0.801	0.799	0.803
Housing starts, millions, SAAR	1.716	1.805	1.562	1.599	1.446
WTI oil price, US$/bbl	108.50	101.78	109.55	114.84	101.62
Henry Hub natural gas, $/MMBtu	4.90	6.60	8.14	7.70	7.28
Federal funds rate, %	0.20	0.33	0.77	1.21	1.68
10-year government bond yield, %	2.13	2.75	2.90	3.14	2.90
Canada					
Housing starts, thousands, SAAR	246.4	260.7	281.4	272.4	275.3
Industrial production, M/M % change	1.2	1.6	-0.8		
CPI, M/M % change	1.4	0.6	1.4	0.7	0.1
PPI, M/M % change	3.53	1.09	-1.00	-1.05	
3-month T-bill rate, %	0.57	1.05	1.39	1.92	2.45
10-year government bond yield, %	2.126	2.646	2.918	3.286	3.098
Europe					
Eurozone industrial confidence indicator	9.0	7.7	6.2	7.0	3.4
Consumer confidence index	-21.7	-22.1	-21.2	-23.7	-27.0
Eurozone industrial production, M/M % change	-1.7	0.5	2.1	0.7	
CPI, M/M % change	2.4	0.6	0.8	0.8	0.1
PPI, M/M % change	4.6	1.4	0.7	1.3	
3-month Eurocurrency rate, %	-0.6	-0.6	-0.5	-0.4	-0.1
10-year government bond yield, %	0.0	0.6	0.9	1.3	1.1
Japan					
Housing starts, millions, SAAR	0.9	0.9	0.8	0.8	0.8
Industrial production, M/M % change	0.31	-1.45	-7.47	9.20	1.04
CPI, M/M % change	0.40	0.40	0.30	0.00	0.49
PPI, M/M % change	0.91	1.53	0.00	0.88	0.44
3-month Eurocurrency rate, %	-0.05	-0.01	-0.05	-0.05	-0.05
10-year government bond yield, %	0.266	0.158	0.162	0.192	0.182

Table A2

Monthly exchange rates

	2021 Average	Jun 22	Jul 22	Aug 22	31 Aug 22	2022 Average
Canada, USD/CAD	1.252	1.282	1.293	1.292	1.311	1.280
Mexico, MXN/USD	20.24	19.99	20.50	20.14	20.15	20.29
Brazil, BRL/USD	5.37	5.04	5.36	5.14	5.15	5.12
Chile, CLP/USD	752	865	964	906	895	854
Eurozone, USD/EUR	1.188	1.057	1.020	1.012	1.003	1.074
China, RMB/USD	6.46	6.70	6.73	6.80	6.90	6.55
United Kingdom, USD/GBP	1.380	1.232	1.200	1.197	1.164	1.274
Sweden, SEK/USD	8.54	10.03	10.37	10.39	10.67	9.79
Norway, NOK/USD	8.57	9.75	10.00	9.73	9.89	9.32
Japan, JPY/USD	109	134	136	135	139	126
South Korea, KRW/USD	1,142	1,279	1,308	1,322	1,343	1,254
Taiwan, THB/USD	28.0	29.6	29.9	30.1	30.4	29.0
Australia, USD/AUD	0.754	0.702	0.686	0.695	0.686	0.712
New Zealand, USD/NZD	0.710	0.636	0.620	0.626	0.613	0.653
India, INR/USD	73.86	78.05	79.55	79.61	79.56	77.04
Russia, RUB/USD	73.72	57.74	59.24	60.76	60.52	73.64
Nominal trade weighted, 1/2006 = 100	104.2	114.9	117.8			112.0
Real trade weighted, 1/2006 = 100	106.0	115.7	118.3			113.0

The *Monthly Economic Commentary* provides economic analysis of the US and international economies and is written and prepared by Lasse Sinikallas and Rafael Barisauskas.

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