Achilles

Because Insight Beats Hindsight

Supply Chain Risk Index

2022 Q3 Report

Intensifying economic headwinds continue to impact supply chains, despite respite in some areas. The ASCRI improved marginally by 1.2 points over the quarter to reach 39.8 – An improvement that sees risks classified as “high” risk, from last quarter’s “very high”.

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Foreword

The ASCRI improved marginally over the last quarter, as Governments, businesses and consumers have all had time to start to implement plans to mitigate the negative effects of the war in Ukraine and Chinese locks-downs. However, the overall perceived risk still remains “high”. This would not come as a surprise considering the press coverage of energy price costs, high inflation and other economic developments; developments that are now featuring in longer term forecasts.

Prime among these is the ongoing Ukrainian-Russian conflict. With the conflict in its seventh month and with no end in sight, businesses are having to adapt to the reality of “long conflict”. The first grain exports from the port of Odessa signifies some improvement to food supply, but logistics difficulties, like traversing mined shipping lanes, will keep flows to a fraction of those from before the conflict.

At the same time, China continues to feel the impact of the Coronavirus. Some of the lockdowns implemented as part of the “zero-tolerance” policy were eased before others were imposed. The impact will continue to be felt in the ability of workers to move freely, which is especially affecting the construction market and in some manufacturing hubs.

A third factor is steep inflation in all regions. This is reducing disposable income, so limiting purchasing expectations. Consumer confidence surveys are pointing to a sharp reduction in near-term retail consumption, even if this is not yet visible in other confidence indicators.

The combination of the weak supply and diminishing demand is seen in a series of reductions in economic growth expectations. With recessions in major economic areas, like the Europe Union, expected to persist throughout 2023, the outlook is for intensifying supply risks.

Key Findings

Supply risks plateau, remaining significant

Overall risk has come off marginally, but differences in specific counties reflect the different drives of risk. Suggesting no single cause or solution will improve the global situations.

Inflation and economic risks are undermining consumer confidence

Inflation remains very high, outstripping wage growth in all countries. Lower petrol prices have offered some respite but other categories such as food and clothing continue to surge. Consumers are reacting by cutting back on disposable spending and construction activity is also noticeably down. Inflation is meanwhile driving calls high wage demands and strikes, potentially causing a vicious price cycle and additional supply disruption.

Many commodity prices have peaked and are drifting downward

Many commodity prices have eased on a combination of weaker demand and lower perceived supply chain risks. Though some energy commodities, notably natural gas, are bucking the trend and rising further.

The headline ASCRI value has changed little over the last quarter. The risk profile was marginally lessened, with the reading increasing to 39.8 from last quarter's 41.1. This reduces the risk classification from "very high" to "high" and is a better result than expected. We had forecast a further decrease in resilience, but the progress made in overcoming difficulties has seen risks diminish marginally.

The root of the improvement is predominantly from many commodity prices sliding from their recent highs. This has feed into lower costs for businesses, and so reduced risks of cutbacks or failures. For agricultural commodities, reduced prices are especially important for consumers. The prices of key inputs, like vegetable oils, remain at unpalatable but more sustainable levels. However, the Ukraine-Russian conflict and impacts, such as exceptional weather in some growing areas have worsened the risk profile at the country level, with India, Thailand and Indonesia seeing notably higher risks; partly offsetting the improving financial resilience.

Irrespective of the risk profile, commodity prices remain high, which feed into inflation and are expected to depress resilience in coming quarters. Continued high prices of fuels, especially gas, have been significantly boosted by lost supply from Russia and Ukraine, and the inability to make up the lost capacity. For Europe, which has been shifting to gas-powered generation to reduce environmental emissions, the lost gas supply from Russia is a significant inflationary driver. Irrespective of the risk profile, commodity prices remain high, which feed into inflation and are expected to depress resilience in coming quarters. Continued high prices of fuels, especially gas, have been significantly boosted by lost supply from Russia and Ukraine, and the inability to make up the lost capacity. For Europe, which has been shifting to gas-powered generation to reduce environmental emissions, the lost gas supply from Russia is a significant inflationary driver.

The combination of higher fuel prices and food prices, which are at least starting to fall, has seen inflation hitting multi-decade highs. This feeds into the ASCRI's financial metric and offsets some of the risk-off view from the improving business risk.

The already high levels and the combination of threats to supply chains will keep risks high through the rest of the year. A cessation of the conflict, with fuel and food prices easing, will help risks dissipate. Conversely, other developments, such as further lock-downs in China, would hold levels where they are, or even increase the problems. Overall, the ASCRI continues to point to an extended period of "high" to "very high" risks, which will persist until global macroeconomic developments improve.

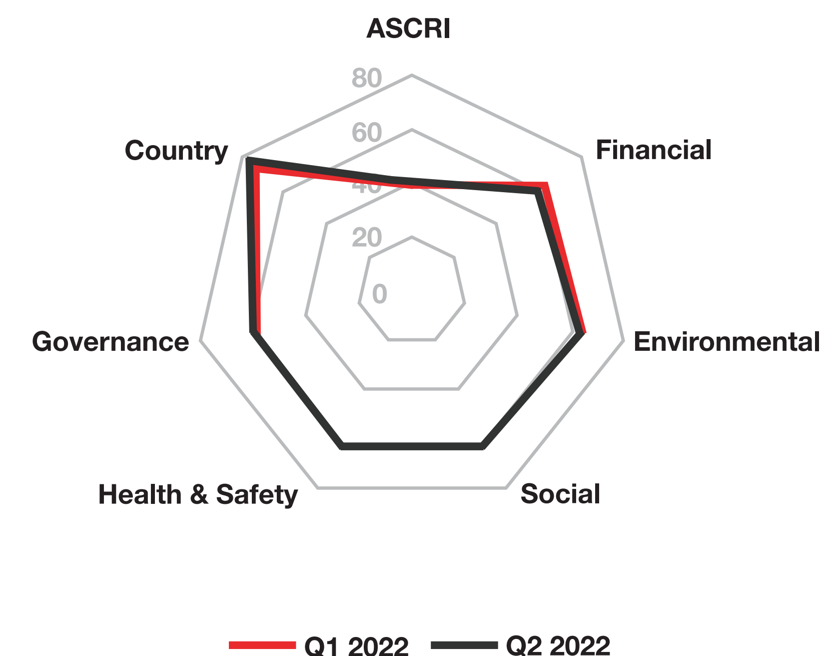

Fig 1. Quarterly comparison in ASCRI findings. Risk outlooks improves marginally – remaining poor

Commodity prices

Commodity prices remain a key driver of risk for many companies. Over the last quarter, many commodity prices have started to fall, though most remain above recent levels. Prices jumped at the end of Q1 2022 on the outbreak of the conflict in Ukraine and the supply shortages caused by lockdowns in some Chinese cities and ports. A combination of the relaxation of Chinse lockdowns and businesses adapting to the on-going conflict, have removed some of the pressures sustaining prices.

This is not to say prices have lost all of the recent jump. They are still elevated in terms of long-run levels. The IMF's broad "All Commodities Price Index" is still 7.8% higher in Q2 2022 than it was in Q1 2022. Specifically, it is the strength of fuel prices that is the main contributor. Without fuel, commodity prices rose only 2.6% Q-o-Q in Q2 2022, and July's provisional figures is showing a 9.4% drop on June's reading.

Oil and gas

Oil and gas continues to be the source of both commodity price inflation and a major contributor to risks in the supply chain.

Petrol demand has dropped as high prices saw motorists making fewer journeys. Combined with extra output by OPEC members and the fundamentals have loosened. While prices still rose 23% Q-o-Q in Q2, July has seen a 9% month-on-month drop. Prices at the petrol pumps have already started to reflect these lower costs.

The bigger problem, from a business point of view, is the natural gas price. Gas demand is being actively reduced by civil groups and businesses cutting requirements. However, this has had little effect on prices for gas, or on electricity which in Europe is based on gas prices.

During August average global gas prices rose some 38% and now stand at more than twice the cost of last year. In Europe the rises have been even more acute, with wholesale natural gas prices up 6-fold higher on the 2021-average. For Europe supply is an issue. Planned and unplanned stoppages of the key Nord Stream 1 pipeline have curtailed deliveries from Russia into Europe, especially Germany. European countries are increasingly looking to import gas from other sources. The UK, for example, is taking a delivery of liquified natural gas (LNG) all the way from Australia.

In preparation for the winter months, the European Commission has mandated that shortage should be 90% full by November. Without Russian gas this will be difficult to achieve, but good progress has been made. EU gas storage is at ~75%, according to GIE, so with deliveries from the Middle East and elsewhere, the 80% target for 2022 should be met, but this could see supply to businesses rationed to ensure residential users are fully supplied.

These higher fuel prices will not only feed into the prices consumers pay, but may also see rationing to conserve reserves. Weak supply and high costs will, in the short-term, require greater use of coal in a reversal of environmental goals. However, the build out of renewable energy is likely to see a boost, as a means to minimise reliance on fuel imports.

Agricultural commodities

Since the start of the conflict, prices of many staples have risen sharply due to reduced exports from Ukraine. The first price spike hit as availability of commodities, like sunflower, corn and wheat, were abruptly cut off with the closing of Black Sea ports and the mining of the waters.

The situation has started to improve, slowly. The first shipment of grains left the port of Odessa on 1 August 2022. This lifted the hope that lost supply could be restarted. More ships have made the journey, but given the navigational difficulties and the logistics issues of sailing in hostile waters the flows have recovered only to about half of what Ukraine would be exporting. However, this has helped prices to start to come off. The UN FAO's Food Price Index fell 8.5% month-on-month (M-o-M) in July, but stands 13.4% up on July 2021. The greatest increase is still seen in grains, which are 18.0% up on July 2021, but eased 8.3% M-o-M in July. The higher grain prices are also partly due to weaker production in other regions, such as caused by the tragic flooding that is hitting Pakistan's agriculture heartland in Punjab.

A second issue that will maintain food prices is the loss of fertiliser capacity. Ukraine was a major exporter of fertiliser, especially to Europe and Northern Africa. While this has been less of a problem over 2022, as stocks has been built up in preparation for the growing season, fertiliser availability in 2023 will be an issue. Other countries will increase output to make up some of the gap, but high fertiliser prices lead to lower use and so lower yields. This will constrain the availability of agricultural commodities into 2024 and keep prices above recent levels irrespective of how the conflict proceeds.

While most consumers' heating costs are sticky, in that they are fixed on annual contracts, food buying is fickle, with consumers being able to quickly changing food buying habits as prices rise. This is already noticeable through Europe where consumers are stepping down in the quality of which goods they purchase or even which supermarkets they frequent. Changes to supermarket supply chains can add risk to the financial security of the numerous players on the network, and is another way higher agricultural commodity prices feeds into a riskier reading for the ASCRI.

Commodities outlook

With no end in sight to the conflict in Ukraine, prices of many commodities will be supported into 2023 and beyond. However, after the initial shock from the lost supply, businesses have been quick to adapt to the loss of supply and will continue to do so. This will allow prices to come down, but not return to the levels of recent years. Even when the war is concluded, likely sanctions against Russia and the rebuilding of Ukrainian infrastructure will be a factor for several years.

Even though prices of key commodities may be coming down, high prices are a concern for economic growth and add to the risk-on view of supply. Ongoing fuel prices have seen the distress at the largest European energy utilities. Both Germany's Uniper and Wien Energie, Austria's largest energy supplier, have requested additional emergency government support. Actions by governments will be pertinent to the risk situation. Attempts to lessen the impact on consumers are likely and needed. However, direct intervention, like price caps, can push too much of the burden on utility companies, causing business failures and further adding to the problem.

The high fuel prices are bringing some renewed risk from climate change. Germany, who's economic growth was tied to Russian gas, has reduced its gas use by nearly one-third since the spring by making greater use of coal-fired power stations, in some cases reopening them. In the long-term Europe and the rest of the world are likely to make a renewed push into renewables. This will both satisfy the climate-change agenda, but also diversify energy supply. Though, in the short-term the greater use of coal will see emissions' levels rising and decrease the likelihood of hitting climate goals, bringing longer-term but more acute supply-chain risk.

> **After the initial spike, prices have started to ease. However, with no end in sight to the conflict, supply of key energy and agricultural commodities remain elevated. This increases the risk to global supply chains, as business contend with costs, while consumers reduce spending and change buying habits to reduce the impact of inflation.**

Inflation

Consumer price inflation is a growing topic of conversation for governments, businesses and households alike. An indication of the growing interest in inflation comes from Google, which reports that over the last month the number of searches of the terms “inflation”, “CPI” and “Consumer price inflation” have all increased 4-fold compared to the averages of the previous three years.

It’s easy to see why “Inflation” has become a prime topic of conversation. Levels, which are already at multi-decade highs, are continuing to rise and have typically far outstripped wage increases. With consumers seeing negative wage growth and contending with lower disposable income, they are minimising costs of essentials, like energy and food, and reducing discretionary spending.

As consumers adapt to the higher input costs and increased uncertainty, economic growth has weakened. This prompted a downward step in growth expectations in all countries after invasions, with the majority of forecasts revised down again in the latest analysis.

Governments, through policies and central banks, have been largely powerless in slowing inflation. The banks of several of the largest countries have made steep, consecutive upward steps in base lending rates to reduce the attractiveness of borrowing and slow the price rises. This though, does little to offset the ‘cost-push inflation’ of commodities in the short-term. In the longer term, reduced borrowing will likely undermine economic growth, which is a problem, as 2022 was the year where growth was meant to rebound after the pandemic. No government will want to prune the green-shoots of an economic recovery.

The risks to businesses and wider economies from inflation develop as the rate of price increases stays high. The least significant impact is likely to be felt as demand shifts to lower cost alternatives. Economic growth is maintained, even if one business gains from another’s loss. The issue evolves where businesses start to fail due to the lost client base. Price reductions are less of an option due to the high costs and many businesses have depleted financing options after the pandemic. The likelihood of business failures increases raising the risks for suppliers and support companies, and sometimes bringing a domino effect, where the loss of a major customers cannot be absorbed.

Inflation is a growing concern for both governments and consumers alike. Governments will want to implement measures to limit inflation or the impact of it on consumers, but have limited tools with which to do so, and even fewer that are effective in the short-term. Broad actions, such as using price caps on energy, will please consumers, but disincentivise them from reducing consumption. At the same time, businesses will have to be protected from the gap in the cost of gas, say, and what they can pass onto consumers. The failure of 30 energy utility companies in the United Kingdom over the last 12 months can be attributed to their inability to pass on charges fully. So, such broad measures may be necessary, but won’t be adopted lightly.

However, acute action will be needed in the near term as Europe moves towards winter. Ultimately it will be down to the success of policies at maintaining solvency at suppliers, sufficiently insulating consumers and balancing a push to reduce energy consumption that will dictate how severe the inflation crisis will be.

Low wage growth has seen a rise in industrial action. Added to this some residential consumers unable or refusing to pay energy bills, even before winter heating is needed, missteps in policy could not only undermine economic growth, but also lead to civil unrest.

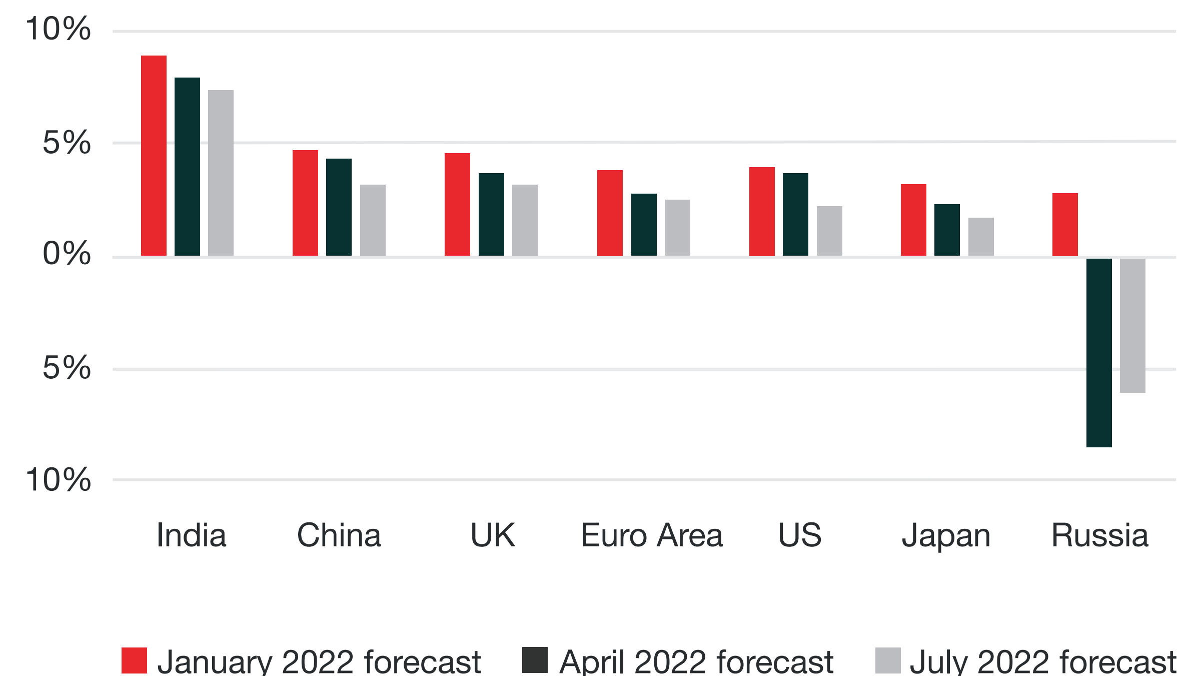

Fig 2. Revisions to the International Monetary Fund gross domestic product growth forecasts. Source: IMF

Consumer sentiment

With high prices being buoyed by inflation consumers are feeling the pinch in their pockets. Consumer surveys asking about the propensity to purchase a household appliance or vehicle over the next 6 months have dropped sharply in recent months. The effect on consumer sentiment shows an ongoing, growing issue for businesses and points to a difficult period for businesses supplying products to consumers.

Business confidence, on the contrary, is still optimistic. Less so than at the start of the year, but the majority of businesses see near-term positivity. This stark difference in the perceived confidence of businesses and consumers is highlighted by the EU's Business and consumer survey results for August 2022. When businesses – whether construction, retail trade or industry – were asked about the confidence, sentiment remains positive. This compares to consumer confidence which dropped for 10 months in a row and is at a level below those recorded in April 2020 – a low point caused by the effects of Covid-19 lock-downs undermining consumer confidence. That is to say, consumers are less confident about the future today than they were when a life-threatening pandemic was raging across the globe, most were restricted to their homes and no vaccine had been developed.

In the United States, a similar view is developing. A survey by consultancy McKinsey points to an accelerating drop-off in consumer sentiment. In July, more consumers (30%) expressed a pessimistic view of the economy than optimistic (26%). This compares to March 2020, during the pandemic, where 40% of respondents were positive and only 15% pessimistic.

As the graph of European confidence shows, until the middle of 2021 the indicators had been largely aligned. So it is difficult to reconcile the opposing views of businesses and consumers. This presents a strong indication of forthcoming risks to businesses. With consumers concerned about the future, they are likely to make fewer purchases and be more agile in where they purchase, seeking lower priced goods if possible. Businesses and service providers that are ill prepared for a fall in sales may see inventories rising and prices coming under pressure, leading to reduced profitability, liquidity challenges and even business failures.

The drop in consumer confidence is pointing to a sharp retraction in spending. Along with forecasts pointing at multi-quarter recessions in many countries, businesses need to be alert to the weakening sales. This will magnify the challenge to remain profitable in the face of high fuel and other commodity prices.

The real risk is that some businesses will not be able to sustain another period of low profitability and will become unable to pay their suppliers and service providers, endangering businesses through the value chain.

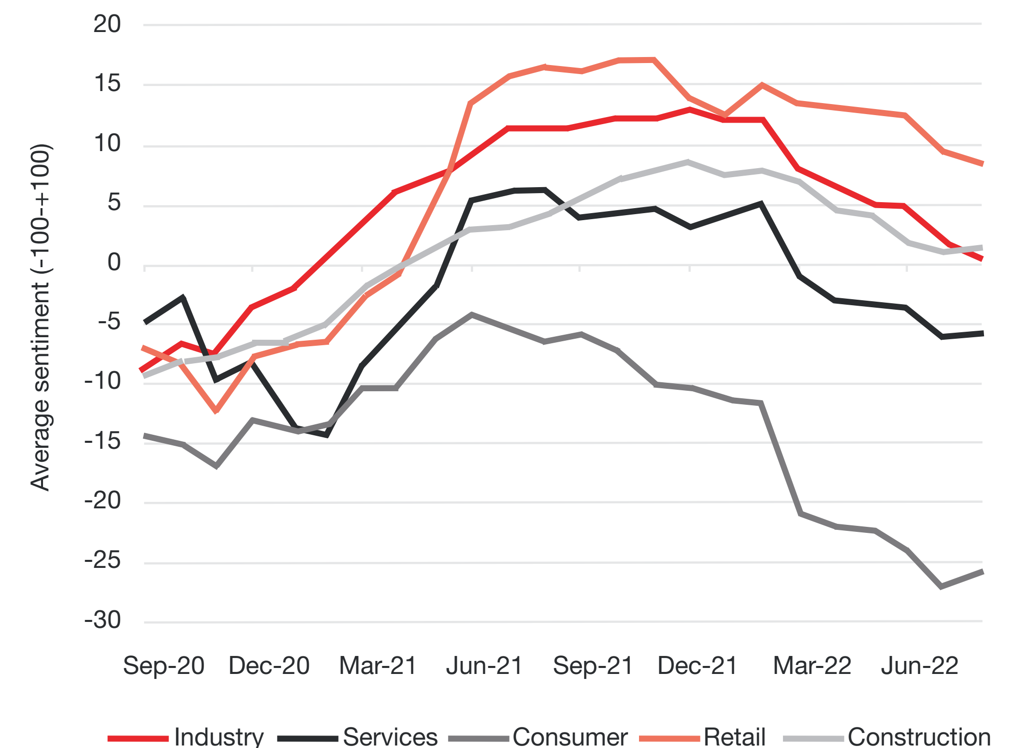

Fig 3. Economic sentiment indicators (EU27, SA). Source: Eurostat

Regional performance

> Deflating European electricity prices, but ensuring demand doesn't rise will be a difficult balancing act for European governments to achieve, but is crucial if citizens are to be shielded from an unaffordable winter and economic growth is not constrained.

Europe

Business operating in Europe will be acutely aware of the higher cost environment. All countries are being affected by significant step ups in energy and food costs. Higher input costs and some evidence of lower sales are affecting profitability at many businesses, with finances, especially at some smaller, consumer focused businesses already under strain.

The continuation of operations may be dictated by the outlook for energy prices. Improving supply will help. However, with Russian supplier Gazprom giving excuses for not pushing gas down the Nord Stream 1 pipeline, the supply picture is unlikely to improve in the short term, even with additional flows of LNG from other countries.

Instead demand will need to fall. As price caps and rebates would remove some incentive to be frugal, the European Commission (EC) is looking to reduce the impact by changing the relationship between electricity prices and input costs. In a leaked first draft of its proposal to tackle surging prices the EC is looking at a, "Price cap for inframarginal technologies for the benefit of consumers". Currently the marginal cost of production ties all electricity prices to the cost of the highest source – Presently gas. As the graph shows, all prices are high, but non-gas sources are offering super-profits because of the link between the price of electricity – the black line – and the cost of combined-cycle gas turbine (CCGT) generation.

Linking the price of the electricity to the actual cost of production would reduce prices, while also ensuring adequate profits for companies and incentivising demand reductions. Though whether it can be achieved given the hedging practices used in European electricity generation is unclear.

With the high inflation and weak consumer confidence, many businesses could be in jeopardy over the coming months. The risks to supply chains is acute, even if the effects are not yet being felt in bankruptcies at businesses yet.

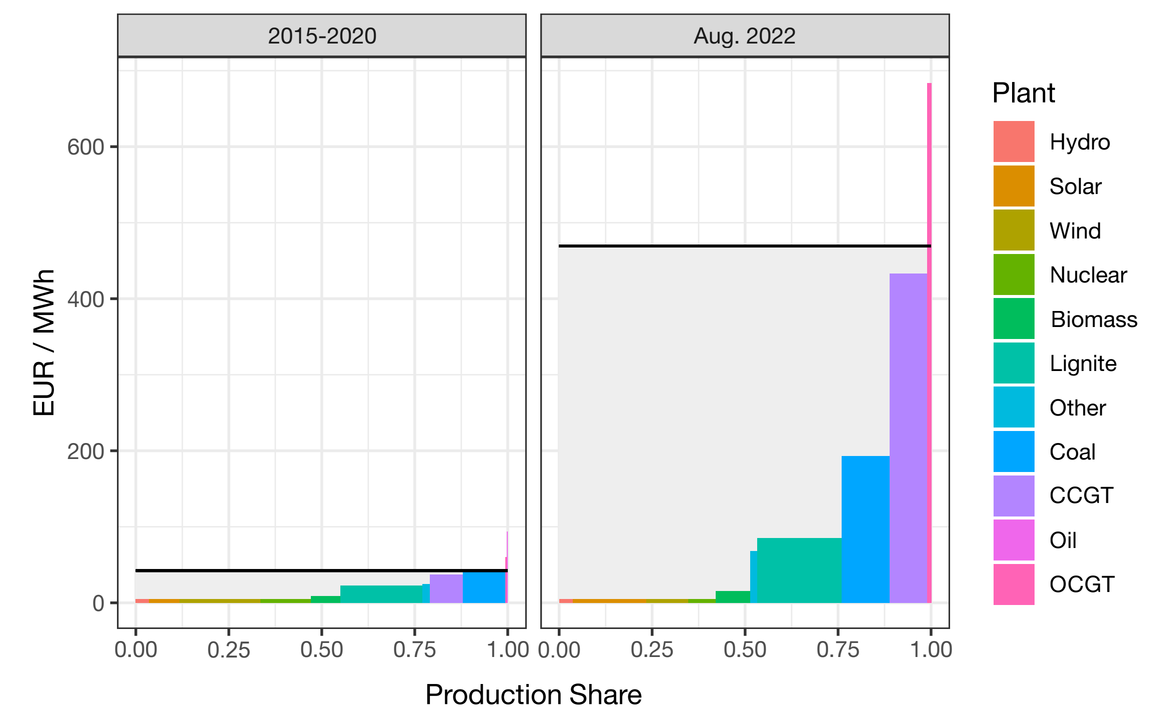

Fig 4. Electricity prices and variable costs in Europe
Source: Economics and R Blog

Asia

The already distressed Chinese construction sector has deteriorated further over recent months. Chinese data sources shows residential sector investment shrinking at an increasing rate, which is squeezing construction firms. In China, new-build homes are typically sold ahead of completion to fund the construction. Reduced construction activity has seen projects stall and some abandoned, leaving would-be homeowners unable to move into the properties for which they have already paid. This is prompting an estimated quarter of off-plan, would-be house owners to refuse to continue making mortgage payments on properties until there is progress. Not only further reducing constructors' funding, but also cutting funds available to local authorities. This is especially worrying for China, where the construction sector is responsible for about 10% of economic growth.

Adding in the economic drag from "zero-Covid" policies, which has seen cities put into lock-downs if confirmed cases rise, the Chinese economic GDP forecasts have been cut to 3.3% for 2022 and 4.6% for 2023. Weaker economic growth will see reduced investment and greater scrutiny of financing, so weakening the country's competitiveness. With many global supply chains reaching back and through China, the implications may be higher costs across the globe and additional risks to already frail demand in many geographies.

Americas

The direction of the United States economy is unclear. Even though the country is in a technical recession and consumer confidence is waning, the overall picture is noticeably better than those of Europe or China.

Energy prices have risen, but not as much as Europe and may help incentivise the restarting of further shale gas supply. On the positives, unemployment rates, industrial production and real retail sales are all strengthening. The overall view may be of near-term weakness, but not of an economy that will stay down as long as other major regions.

In part this is due to the Federal Reserve taking strong action to slow inflation, such as raising the base lending rate. Further increases are expecting. Additionally the economy will start to benefit from the Inflation Reduction Act which will promote economic and climate change objectives, broadly boosting the US manufacturing base.

Global economic developments will impact the United States. However, quick attention to the economy and low logistics frictions will help minimise the risks to businesses.

Summary: Looking forward

Preliminary data points to the ASCRI rising to 52.9 in Q4 2022, from Q3 2022's 39.8. This will see the risk classification shift into "moderate" and indicate that some of the negative drivers on supply-chain risks are easing.

The improvement can be attributed to two main drivers. Firstly, the drag from Covid 19 is diminishing. World Health Organisation (WHO) data shows confirmed cases fell 55.5% July 2022 and the start of September. Secondly, the monthly average price of Brent crude oil has fallen over 14% since its peak in March and August. This has already seen costs at fuels pumps coming down – Average UK petrol prices are down £0.14/litre since July – and will help rein in inflation. For example, the twelve-month CPI in the UK eased slightly from 10.1% in July to 9.9% in August, with the Bank of England expecting CPI to peak below its previous high of 11% in October, but didn't release a new forecast.

Lower inflation and a less negative outlook will feed into a lift to economic growth, so lowering risks for all companies along supply-chains.

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