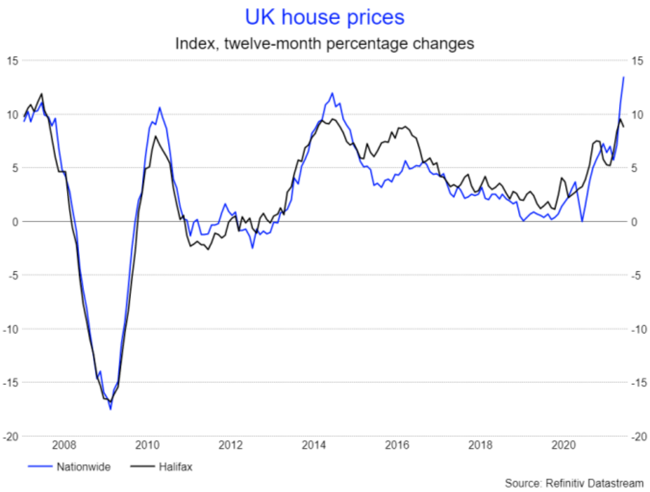
SUPPLY-SIDE SHORTAGES

July 2021

As the stamp duty holiday draws to a close, a shortage of removal people, bubble wrap and packing boxes has made life difficult for those moving house. Whilst the stamp duty tax break has stimulated demand, the dramatic rise in UK house prices has also been driven by a lack of supply. In this month's overview we look at the industries that are suffering from supply shortages linked, at least in part, to COVID. We assess whether these dynamics are likely to be a temporary concern or if more deep-rooted structural constraints that will continue to stoke inflation.

In the UK, the number of properties available per estate agent registered with Propertymark stood at 25 in May; the lowest level recorded in just over 18 years. As supply has waned, demand has continued to rise. The average number of house hunters registered per estate agent branch stood at 506 in May. This is an increase from 427 in April, and the highest figure ever on record for May. On average there are currently 20 other buyers looking at each available property on the market.

UK Average House Price



THE ECONOMICS

In a normally functioning market, there is an equilibrium between the quantity demanded and quantity supplied of goods and services, at a price point dictated by market forces.

Shortage - when demand for a product or service exceeds the available supply, this creates a shortage, and the market is said to be in a state of disequilibrium. Usually, this condition is temporary as the market moves to fix the problem – either production will be increased to replenish the product or prices will increase to reduce demand, and so the market regains equilibrium.

There are three main causes of a shortage:

1. An increase in demand - for example, a sudden heatwave leads to an unexpected demand for paddling pools that cannot be met.
2. Decrease in supply - for example, an unexpected freeze results in the destruction of orange crops leading to a drastic reduction in the supply of orange juice.
3. Government intervention:
   - Imposed price ceilings
   - Embargoes or trade war – e.g., restrictions on sausages sales

Scarcity - whilst shortages are usually temporary and can be corrected, scarcities tend to be systemic and possibly can never be corrected. In this instance the only solution is an increase in price to such a level that demand once again equals supply.

AREAS OF THE GLOBAL ECONOMY CURRENTLY IMPACTED BY SUPPLY CONSTRAINTS:

Medical Supplies

A well-publicised issue since the spread of COVID-19 has been a global shortage of medical products. By April last year prices for isolation gowns had spiked by 2,000%, and 3M's masks were up 6,136%.

The US Food and Drug Administration (FDA) publishes regular updates on device shortages and despite manufacturers shifting their plants into the production of medical supplies there are still shortages across Personal Protective Equipment (PPE), Testing Supplies and Equipment and Ventilation-Related Products.

Hopefully, as more of the global population is vaccinated (another supply issue) the shortages of medical supplies will be alleviated and equilibrium between demand and supply will be restored.

Building Supplies

The Office for National Statistics has projected a rise of 7-8% in material prices this year, with increases for certain materials such as timber expected to more than double. Travis Perkins says the price of bagged cement will rise by 15%, chipboard by 10% and paint by 5%.

Mothballed industrial and commercial projects have all come back online at the same time. For instance, domestic homeowners planning on a staycation or not holidaying at all have looked to renovate their houses, build home offices, sheds and treehouses.

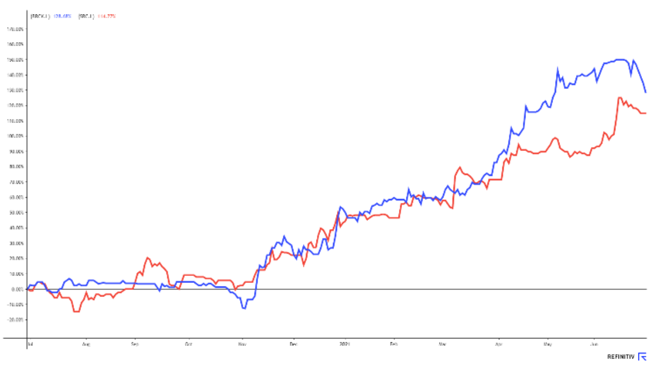
This increased demand has coincided with supply side issues such as a warmer winter affecting timber production in Scandinavia and the cold winter weather in Texas affecting the production of chemicals, plastics and polymers.

Some UK managers have been looking to capitalise on the current demand/supply dynamics by increasing weightings to the likes of brick manufacturers and cement companies.

The UK's Construction Leadership Council said that supplies are likely to face constraints for the next six months due to strong national and global demand, but that ultimately equilibrium will be restored fairly quickly.

The chart below shows just how positive the pandemic has been for manufacturers of building materials.

One-year share price performance of Brickability (brick manufacturer, blue) and Sigmaroc (cement manufacturer, red):



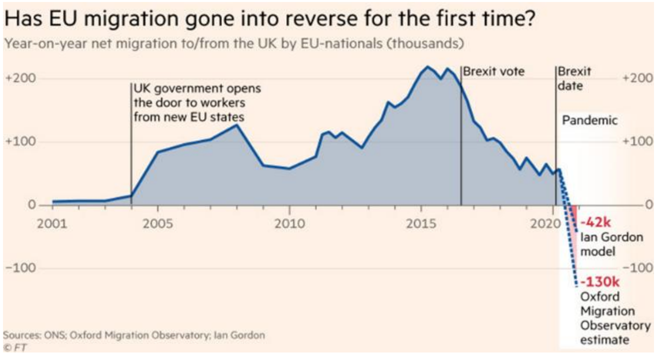
Source: Refinitiv

Lack of Workers

Building projects are not only being held up by a lack of materials but also by a lack of workers. Employment in the construction sector fell from 2.3m in 2017 to 2.1m at the end of 2020. This represents a 4% fall in UK-born workers and a 42% fall in EU workers, according to the Office for National Statistics (ONS).

The number of UK construction vacancies has now risen to 35,000, which is the highest figure since records began 20 years ago.

The situation in the hospitality sector is even more extreme, as most pub landlords and restauranteurs who managed to navigate the pandemic would testify. UK Hospitality recently reported there was a shortfall of about 188,000 workers, with the shortage of front-of-house staff and chefs being "particularly acute".



A combination of Brexit, causing workers to "go home", and the pandemic lockdown, has been cited as the reasons for a large proportion of workers leaving these industries. The furlough scheme was not favourable for casual labour, the short-term employed or the self-employed. With restaurants and pubs re-opening and building sites returning to full capacity again, those individuals who left seemingly either can't or don't wish to return.

Whilst many other industries are offering more flexible working environments, the hospitality sector is demanding longer and more varied shift patterns. Several hospitality firms have put in place training schemes and apprenticeships to attract staff, but it is likely that this shortage is going to prevail for some time to come. The price of a pint of beer won't be returning to pre-pandemic levels anytime soon!

Overall, this means that wages will have to rise to attract staff back to these industries and this will prove inflationary.

More chips please!

The term "semiconductor" refers to a critical component of millions of electronic devices. Personal computers, smartphones, cars, datacentre servers and gaming consoles rely on semiconductors for both core operations and advanced capabilities. Sales of semiconductors equate to circa £370bn a year.

Whilst, during the pandemic many hospitality venues were forced to shut, semiconductor manufacturers like Taiwan Chip Semiconductor Manufacturing Corp (TSMC) were able to maintain production by re-assigning their spare production capacity away from industries that were impacted by the pandemic, like car manufacturers, and into companies making smartphones, laptops and gaming devices, which were experiencing a surge in demand.

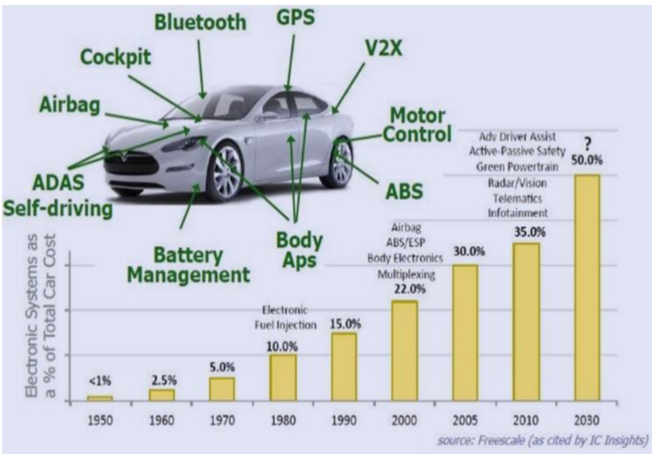
There is, however, an acute shortage of chips now impacting many industries. Goldman Sachs is forecasting a 20% average shortfall of computer chips among affected industries, with some of the components used to make chips in short supply until 2022. This shortage is both demand and supply side driven. Demand fluctuations from the pandemic struck industries like car manufacturers, which came back online at the end of last year with pent up demand, whilst global supply has been impacted by the double blow faced by TSMC due to the US-China trade wars and droughts in Taiwan.

Some chip manufacturers consume as much as 1 billion gallons of water per year per location. Drying rivers in Taiwan have caused TSMC to take desperate measures such as transporting water to factories in trucks. Adding to these supply-led woes, a fire that struck a major Japanese chipmaker called 'Renesas Electronics' further hindered attempts to raise production.

Apple reported last month that the chip shortage will incur a cost of $3-4bn in its financial third quarter to June, with the biggest impact felt on Mac and iPad products.

To try to resolve this supply shortage the US Senate passed a bipartisan bill in June with $52bn in funding aimed at increasing chip production and cutting-edge research - competing directly with China's ambitions of becoming the global semiconductor champion, although adding significant new capacity can take years.

Also, TSMC, which is responsible for producing about 80% of the micro-controller chips used in cars is also looking to alleviate supply issues. They are investing US$2.87bn to expand mature capacity at its plant in Nanjing, China, but even though they already have the technology, the additional capacity is not expected to come online until the second half of 2022.



Car Sales

If you are looking for a new car, you must either accept what you see on the forecourt or be a little patient. Many dealers are suggesting that orders for new cars are taking up to six months to fulfil at present. A typical new car will contain more than a thousand chips and missing chips are now expected to lower global output by 3.9 million vehicles in 2021, or 4.6%.

UK carmaker Mini suspended a production line for three days in May because of a scarcity of chips, while Ford recently warned that the shortfall would cut its output by 1.1m vehicles this year.

Shipping

Whilst the technology now integrated into cars has led to significant supply-side constraints, the supply of other consumer goods has suffered as result of the inability to transport stock to the point of sale. During the pandemic shipping containers were stuck in ports in the West when they were needed in Asia. The surge in demand for containers sent the price sky-high, with shipping containers that were $2,000 before COVID-19 being priced as high as $18,000 during the pandemic. Also, the Suez Canal blockage in March didn't help matters. Data from Lloyd's of London showed that the stranded ship was holding up an estimated $9.6bn of trade along the waterway each day. That equates to $400m and 3.3m tonnes of cargo an hour, or $6.7m a minute. The consumer will ultimately suffer the most as a result.

At the same time as supply constraints impacted production, demand soared across various industries during the COVID pandemic.

Bicycles

Sales of adult leisure bikes soared 121% early in the pandemic and the wheels came off the supply of new bikes as a result. The situation has been alleviated somewhat by increased supply, but one bike manufacturer summed up the current position:

"Today there are products that we can deliver right away and there are products for which we have an 8-10 month wait."

CONCLUSION

Over the coming months we all hope to see a lessening of the impact of the global pandemic, with daily life returning to some form of normal. It is likely that many of the supply-side shortages highlighted above will prove to be shortages rather than scarcities and those markets will regain equilibrium. So, whilst these shortages will in likelihood lead to higher prices, inflationary pressures should be temporary.

However, in the same way that medical officers are warning us to prepare for further pandemics we should also be fearful of more frequent short-term supply shortages.

With a quickening pace of technological change and deeper penetration of e-commerce, stockpiling of goods on shelves is no longer thought of as an appropriate strategy for many industries. Thus, there is an ever-increasing likelihood that stocks will be impacted by short-term events such as a blocked Suez Canal or a fire at a microchip manufacturer. The prevailing political environment also seems likely to lead to further constraints as evidenced by the impact of Brexit and US/China trade tensions.

The net result is higher inflation, whether short or longer-term, and this theme will continue to influence markets over the months ahead.