

## Shortages to send eurozone goods prices higher, but probably not for long

Goods inflation is set to rise more as shortages and supply chain disruptions will be priced through to the consumer. We find that shortages do lead to price rises, but that there is no lasting effect once shortages end, suggesting the surge in prices will be temporary



Supply chain problems and the surprisingly quick recovery of demand for goods after the first lockdown have caused shortages for all sorts of inputs. A perfect storm has hit the market for lumber, plastics and semiconductors, which is unfortunate but also illustrative of how tight markets are anyway. With demand returning quickly and supply having been scaled down in the aftermath of the first wave, isolated events can have significant ripple effects. Think of the Texas freeze which impacted plastic production, the fire at a large computer chip production facility in Japan and the beetle infestation which has devastated Canadian forests. Despite all of the supply-side pressures, this has not yet resulted in surging goods inflation. However, in May, goods inflation increased from 0.4% to 0.7% and we expect this to be the start of higher trending goods inflation, as businesses grappling with shortages have indicated they will pass higher costs onto the consumer.

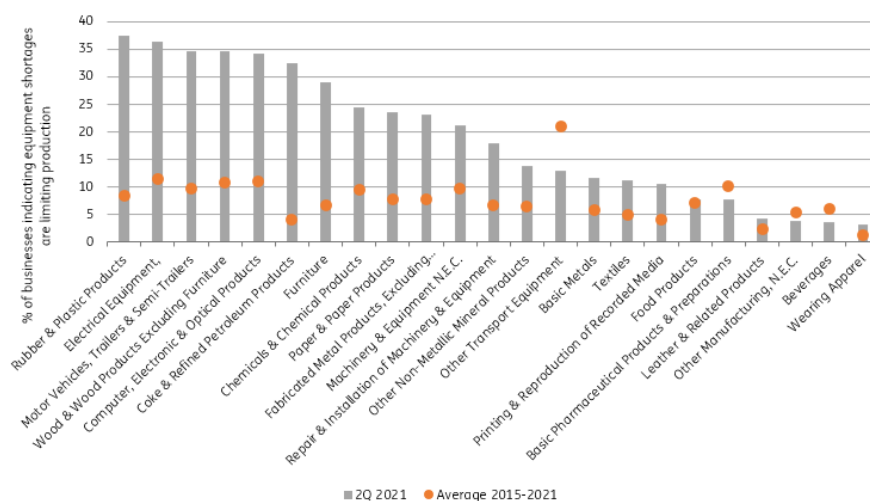
## Shortages have popped up in several sectors, causing hiccups in industrial production

Across eurozone industry, multiple sectors are now reporting significant shortages in equipment. The European Commission's Economic Sentiment Indicator provides quarterly information on which factors are limiting production and 'equipment' has spiked as a factor in 2Q 2021. In fact, for total eurozone industry, it is now at its highest level since the start of the indicator in 1985, with 22.8% of businesses reporting equipment shortages as a key factor limiting production.

Shortages are rising across sectors, but the sectors affected most by this are logical given the pressing problems in computer chips, plastics and lumber. Rubber and plastics producers top the list, with electrical equipment producers a close second. Automotive, wood and computer and electronics producers round out the top five, showing a clear link to the problems in finding chips, plastics and lumber at the moment.

The impact on production has varied for now, with the main problems accumulating in the auto sector so far due to semiconductor shortages. This has brought production down -14.3% from its November peak. Other sectors are seeing less impact in terms of outright production declines. Furniture production is also down 6% from its recent peak, while smaller declines are reported among computer and electronics producers.

## Shortages have become a key issue in several industrial sectors



Source: Eurostat, ING Research

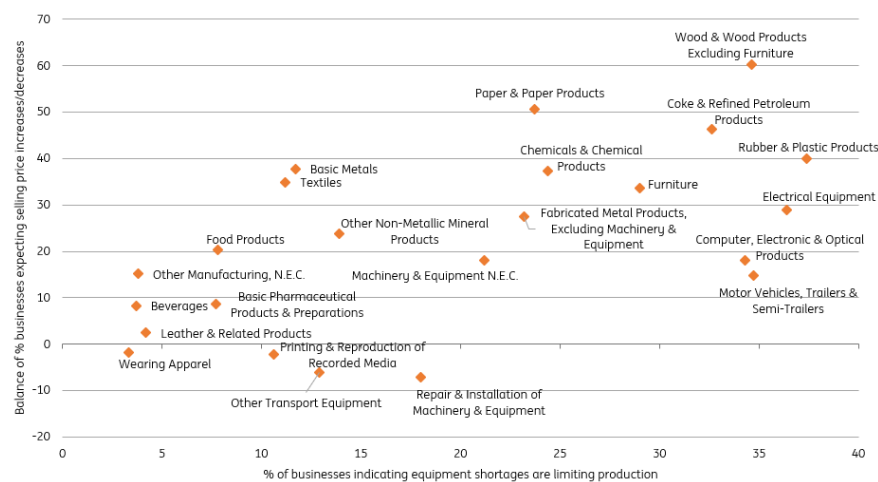
## Producer prices are rising and businesses seem keen to pass these onto the consumer

The impact on producer prices has started to show. In April, producer prices increased by 7.6% year-on-year, the strongest increase since 2008, much of which is because of energy price base effects. For some of the sectors most affected by shortages, the lack of availability of inputs has not yet translated into excessive increases in producer prices up till now. This could be because the data lags a bit; producer prices for May have not yet been reported. It could also be because the shortages represent a small amount of total inputs in the production process, think of computer chips in car production. In wood production, we're starting to see elevated producer prices at 6.3%

YoY in April, but the spike in lumber prices continued in May so this is not yet the peak. The sectors for which we have seen large increases in producer prices have been base metals and the manufacture of coke and refined petroleum products, at 18.3 and 53.1% YoY. So for many of the sectors experiencing shortages, margins have not yet come under huge pressure, which has limited the pressure to raise prices so far.

Even though producer prices have had differing responses to shortages, businesses do seem ready to start increasing prices. Selling price expectations among businesses have shot up dramatically in recent months, which has been led by sectors depending on lumber as its main input, but also the oil and chemicals sector, rubber and plastics and basic metals sector have seen a rapid rise in expected selling prices. While other sectors have seen a more muted response, almost all goods-producing sectors currently face a much higher percentage of businesses expecting to increase prices than was the case on average in the 2016-2019 period. This shows that businesses do intend to increase prices on the back of the disruptions facing the supply chain.

## Selling price expectations are the highest for industries experiencing shortages



Source: European Commission, ING Research calculations

## Historically, equipment shortages have had only temporary impact on consumer prices

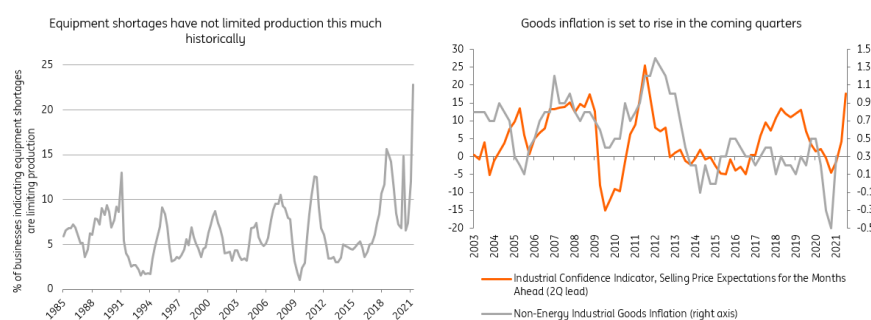
The question is how this is going to influence consumer price inflation and importantly, whether the impact is temporary or more long-lasting. When looking at past behaviour of businesses experiencing equipment shortages, we find that the impact on selling price expectations is usually coincident with the shortage. This means that once shortages fade, selling price expectations normalise again. [1]

What firms are currently facing is not a normal event though as chart 3 shows. We're currently at the highest level of reported shortages limiting production since the start of the time series. When we look at the impact for another period with significant shortages like 2011 when supply chains were significantly disrupted by an earthquake and tsunami in Japan, and flooding in Thailand, we find a slightly longer-lasting effect of higher expected selling prices into the next quarter. Given the extent of the current issue, that could be expected in this period as well.

Now ultimately, we see that this relation between shortages and selling price expectations does translate into consumer prices, but the effect is more watered down and uncertain. Chart 4 shows that the relationship between the two is stronger with a lag of two quarters, which would result in an acceleration of non-energy industrial goods prices for the consumer over the summer.

[1] We have found this using a panel regression of industry-level data of firms' selling price expectations, with equipment shortages and output as explanatory variables (data from the European Commission Industrial Confidence Indicator). The t=0 variables for both explanatory variables are highly significant, but higher order lags of the shortages variable are not significant.

## Shortages are at historic highs, expect goods inflation to trend higher over the summer months



Source: European Commission, Eurostat, ING Research

## Expect surging goods prices from here on, but we do expect it to remain mostly temporary

Goods prices have only risen cautiously so far, but this is just the start. With supply chain issues, shortages of inputs and strong demand, they are going to increase from here and add to inflation that is already above the European Central Bank's target. This means that when energy base effects start to fade, the ECB will not be out of the woods and we expect inflation to remain above 2% for a large part of 2021.

Still, we do expect most disruptions, and the shortages, to ease over the course of this year and early next, with semiconductors being the major exception, as tight markets are likely to remain. This means that we expect goods inflation to rise over the coming months, but the effect of shortages should fade over the course of 2022 because we find that the impact of shortages on inflation is usually only temporary.

For the ECB this means that, bar any second round effects, the spell of above-target inflation is likely to end sometime early next year. Still, with a strong economic rebound and above-target inflation, a discussion around tapering will be unavoidable in the coming months.

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