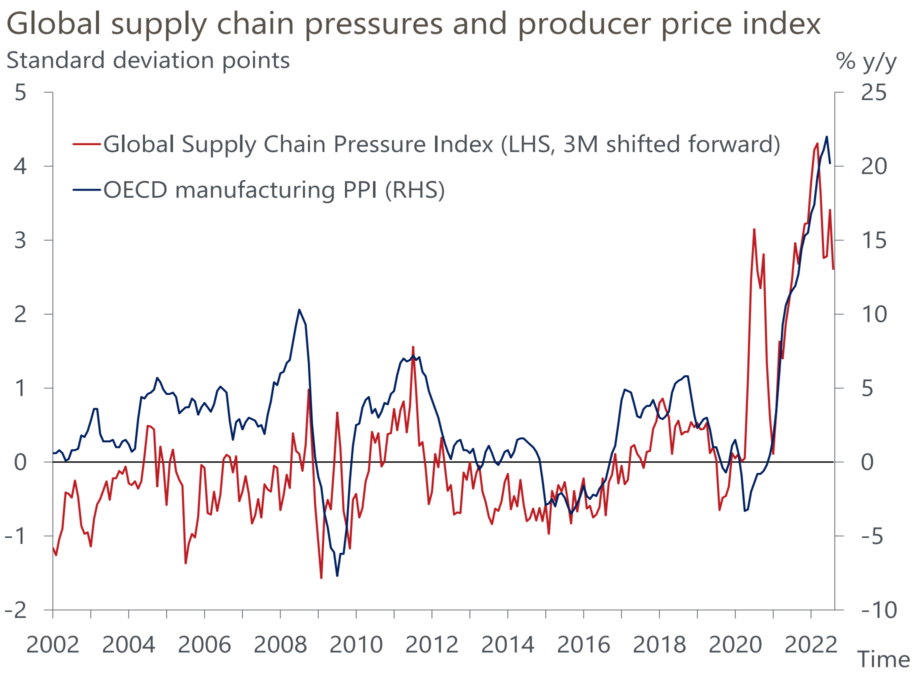
Research Briefing | Global

Supply chain pressures are easing, but new hurdles await

- **Although easing restrictions in China have helped to reduce global supply chain pressures, we expect rising costs and weakening demand to weigh on global supply chains for the second half of this year and into 2023.**
- **The global container freight index has followed a downward trend in recent months, likely underpinned by dampening world goods demand. A continued demand slowdown, driven by a combination of high inflation and interest rate hikes, could lead to a negative bullwhip effect along supply chains, as retailers potentially begin overreacting to reductions in demand.**
- **Moreover, while some measures of producer price inflation are showing signs of peaking, the complete shutdown of gas supplies from Russia to Europe means price risks for energy-intensive producers, in particular, will be skewed to the upside. Although increasing gas storage across European countries may provide temporary relief, with wholesale gas and electricity prices set to remain higher for longer, we expect European firms to cut back on production and even face some closures.**
- **As a new set of supply chain challenges emerge, it is worth noting that existing input and labour supply shortages have yet to fully dissipate.**

Lockdowns in China, the Russia-Ukraine war, higher cost pressures, and a tightening monetary policy backdrop have rattled supply chains in recent months. However, supply chain pressures are demonstrating signs of loosening. The Global Supply Chain Pressure Index—an index measuring manufacturing and transportation pressures—continued to tumble over August. Nevertheless, levels still remain elevated and just below those seen during the first Covid-19 lockdown in Q2 2020 (**Chart 1**).

Chart 1: Recent easing of supply chain pressures fosters a pullback in producer price inflation

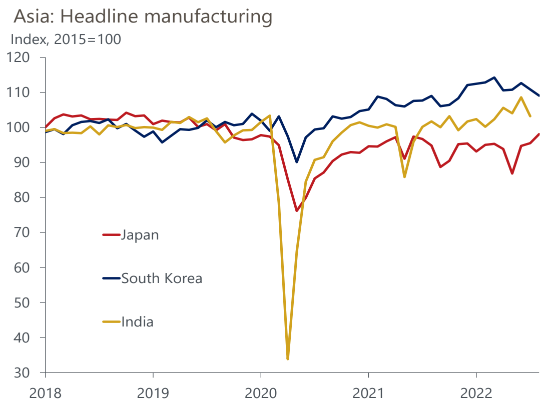


Source: Oxford Economics/Haver Analytics

Kiki Sondh - Economist - ksondh@oxfordeconomics.com

Despite initial concerns that China lockdowns could trigger a further wave of bottlenecks, these initial fears seem to have been exaggerated. Japanese industrial firms, which have strong links with Chinese manufacturers and might be expected to suffer hard from the lockdowns, have recovered fairly quickly. It seems that measures taken by China to limit disruption to the manufacturing sector, such as requiring staff to work in socially isolated bubbles, proved relatively successful (**Chart 2**).

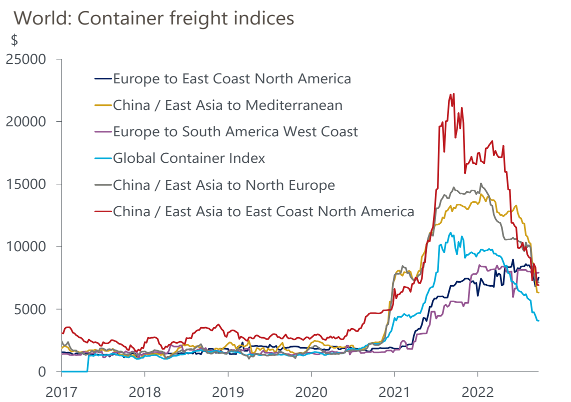
Chart 2: Japanese manufacturing output springs back



Source: Oxford Economics/Haver Analytics

Ocean freight rates are also declining, with the Global Container Index falling further over September. Although ongoing congestion at ports and labour shortages mean container rates continue to remain around three times the pre-Covid-19 average, freight rates are more than 50% less than what they were over April 2022. This is largely being driven by rates from Asia to East Coast North America continuing their descent (**Chart 3**).

Chart 3: Global container index declines further as China-to-US freight rates continue to slide



Source: Oxford Economics/Thomas Reuters Datastream

The recent slowdown in shipping rates coincided with lockdown measures being introduced in China. But encouragingly, freight rates have continued to drop since restrictions eased. A key factor behind this is likely to have been easing goods demand. While this partly reflects a rotation of demand from goods back to services, the sharp deterioration in the global economic outlook has also clearly played a role, meaning that the drop in shipping rates is not quite as good news as it initially seems.

Other cost measures are beginning to paint an encouraging picture. While the OECD's producer price index of global headline manufacturing climbed to its highest level in June since the data began in 1983, the index also peaked as supply chain pressures continue to ebb (**Chart 1**).

That said, while easing supply chain cost pressures may push down in inflation, this may be swamped by surging energy costs, particularly across Europe. Russia's move to indefinitely suspend natural gas supplies to the continent at the start of September and several leaks recently found in the Nordstream 1 and 2 pipelines means we expect gas prices to remain elevated over the coming months. This, combined with the euro falling below $0.99 for the first time in the last two decades, means LNG imports from the US will be more expensive for eurozone economies (**Table 1**).

Table 1: Accelerating producer price inflation across a number of countries

Global producer price inflation (PPI)			
	Jul-22		
	y/y growth	m/m SA growth	Relative to previous month
United States	9.69%	-0.50%	Accelerating decline
Japan	8.63%	0.24%	Decelerating growth
United Kingdom	17.14%	1.40%	Decelerating growth
France	25.94%	1.65%	Accelerating growth
European Union	37.88%	3.29%	Accelerating growth
Germany	37.26%	5.33%	Accelerating growth
Italy	45.87%	6.49%	Accelerating growth
China	1.41%	-	-

Source: Oxford Economics/Haver Analytics

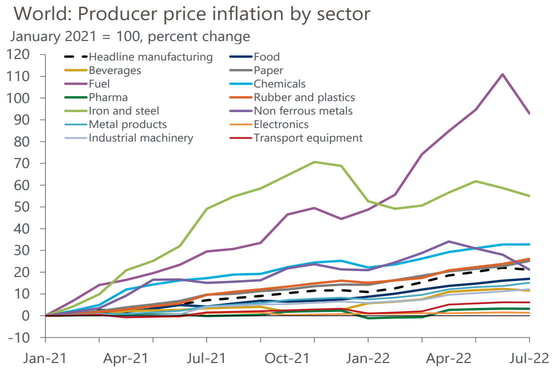
With firms set to face a prolonged period of higher energy bills, it is likely energy-intensive industries, in particular, will pass on rising input costs to their end-consuming sectors in varying degrees. At a global sectoral level, factory gate prices have been rising the most in the fuel refining industry. Although selling prices fell in July, they remain around double what they were at the start of 2022 (**Chart 4**).

Downstream sectors that are heavily reliant on refined petroleum products, such as

Kiki Sondh - ksondh@oxfordeconomics.com

transportation, are expected to take a hit. As higher prices feed through to employees in the transport and logistics industry, rises in the cost of living could lead to further rail and port strike action, fuelling additional trade disruptions.

Chart 4: Producer price inflation strongest in the fuel refining sector



Note: This chart shows a global composite producer price measure using weighted output price data by sector from the US, EU27, Brazil, Mexico, Korea, and Japan.

Source: Oxford Economics/Haver Analytics

On balance, while there is some good news of supply chain bottlenecks unwinding, the outlook remains gloomy.

Inventory levels relative to underlying demand are generally improving since this same time last year (**Table 2**) and are a good sign in the context of managing supply chain pressures. However, if they rise further amid a continuing demand slowdown, this could lead to a negative "whiplash effect". In this instance, if retailers begin overreacting to falling consumer demand for manufactured goods, this could result in further misalignments along the supply chain in the form of too much stock and holding costs for manufacturers and distributers. While we do not see a risk of this yet, monitoring inventory trends carefully will be key.

Table 2: Improving world inventories relative to underlying demand

Global inventory relative to demand							
	Q3 2021	Q4 2021	Q1 2022	Q2 2022	May-22	Jun-22	Jul-22
Pharmaceuticals	0.04	-0.24	-0.15	-0.39	-0.58	-0.28	-0.40
Petroleum products	0.05	0.04	-0.04	-0.02	-0.16	0.03	-0.05
Aerospace	0.49	0.40	0.25	0.18	0.09	0.16	0.00
Autos	0.11	-0.02	-0.04	0.06	0.04	0.14	0.00
Food products	-0.14	-0.15	-0.02	0.00	0.05	0.05	0.00
Textiles	-0.03	-0.03	0.01	0.06	0.06	0.09	0.00
Wearing apparel	0.03	-0.05	-0.03	0.02	0.02	0.04	0.00
Leather goods	-0.16	-0.17	-0.15	-0.04	-0.02	-0.05	0.00
Wood	-0.72	-0.53	-0.47	-0.21	-0.20	-0.09	0.03
Industrial machinery	-0.23	-0.20	-0.07	0.18	0.22	0.20	0.15
Electronics	-0.05	0.00	-0.12	-0.03	-0.08	0.00	0.17
Basic metals	-0.12	0.05	0.12	0.18	0.17	0.22	0.26
Electrical equipment	-0.33	-0.18	-0.09	-0.01	0.00	0.04	0.32
Metal products	-0.29	-0.13	-0.10	0.23	0.24	0.25	0.34
Paper products	-0.40	-0.41	-0.32	-0.02	-0.08	0.11	0.49
Chemicals	-0.08	0.02	0.22	0.45	0.37	0.57	0.63
Rubber and plastics	0.15	0.23	0.31	0.74	0.85	0.80	1.00

Note: This table shows a global composite inventory score using the weighted z-scores of monthly inventories, orders, activity expectations, and shipments data from the EU, US, Korea and Japan. Auto data is retail for US and EU. Number less than 0 indicates inventory relative to underlying demand below historic norms.

Source: Oxford Economics/Haver Analytics

Elsewhere, with Russia tightening its grip on natural gas supplies to Europe, higher gas prices and possible gas rationing across European countries could mean energy-intensive industries face the risk of temporary shutdowns of production, creating shortages further up the supply chain. Increasing gas storage across European countries, however, may help alleviate some of this risk.

Greater demand and competition between European and Asian countries for liquified natural gas (LNG) is also anticipated to drive market prices higher. With this, further global supply chain imbalances could emerge as advanced economies outbid developing countries for LNG, disrupting their energy needs and production processes.

Kiki Sondh - ksondh@oxfordeconomics.com