How will rising shipping cost affect inflation in OECD countries?

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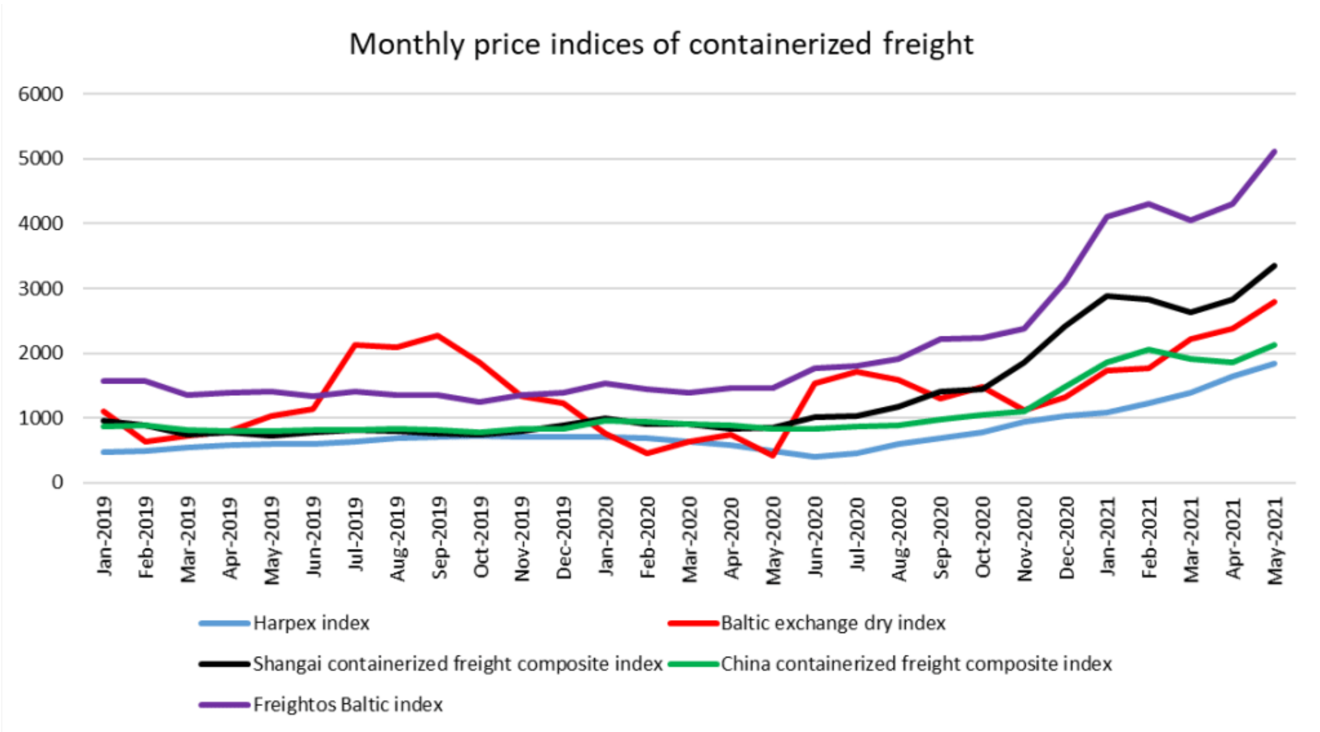
Extraordinary demand and supply factors have pushed up freight prices

Shipping cost rates have soared in recent months due to the conjunction of booming demand for consumer durables from Asia and supply-side bottlenecks created by sanitary restrictions in ports and terminals. These have slowed loading and unloading operations and crew changes. Prices of containerised freight started to rise in the second half of 2020 and rose further in the first quarter of 2021, when the average quarterly increase across the main indices of global shipping costs ranged between 30% and 65% (Figure 1).

Figure 1: Container shipping prices are on the rise since mid-2020



Source: Refinitiv.

On the demand side, the pandemic led to a global demand drop at the start of 2020, followed by a quick recovery at the end of the same year. Pent-up demand caused by lockdowns in the first half of 2020, shifts in consumption patterns towards durable goods, and government income support all strengthened demand for goods when transportation services were still limited.

On the supply side, multiple factors are compounding shipping delays. Vessels are currently used at almost full capacity and containers remain scarce. Congestion at ports, and lower productivity at terminals and inland depots have also led to bottlenecks. Distancing rules and reinforced hygiene standards have increased intervals between crew shifts. These have prolonged processing times at ports, hampered the return of containers to Asia and generated delays along the entire shipping chain. The March blockage in the Suez Canal also added to shipping disruption and tensions.

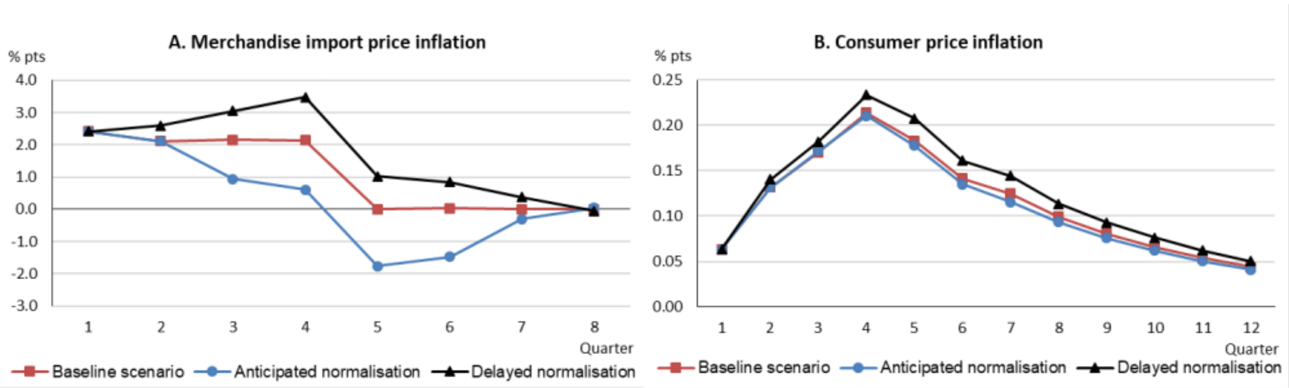
This atypical situation is expected to persist for a few more months. Port congestion continues to be a big bottleneck in the United States, where all loading/unloading slots for cargoes from/to Asia are fully booked throughout the second quarter of 2021. The reopening of European economies is also impacting supply and demand. In this context, industry experts do not foresee any normalisation of prices before the end of 2021.

Rising shipping costs could push up inflation temporarily in OECD countries

To which extent will the observed rise in global shipping costs impact inflation across OECD countries? The empirical approach to answer this question proceeds in two steps: first, quantifying the pass-through of shipping costs to merchandise import price inflation, and, second, assessing the transmission of import price inflation to consumer price inflation.

In the baseline scenario, shipping costs are assumed to rise by 50% in the first quarter of 2021 and to stabilise at the same level for the rest of the year, in line with the recent industry experts' projections. However, the uncertainty around forthcoming container freight rates remains high and, therefore, two alternative scenarios are considered: one of *anticipated* normalisation in which shipping costs gradually decline to a price level slightly higher than prior to the pandemic starting from the second half of 2021, and one of *delayed* normalisation in which the initial rise is followed by a further 10% increase in each of the three remaining quarters of 2021.

Figure 2 – Effect of global shipping costs developments on OECD merchandise import prices and consumer prices



Note: The charts show the percentage point change in year-on-year inflation resulting from the shipping costs shock. More details about the estimations can be found in the Box 1.3. of the Economic Outlook 109 (2021) and in the underlying working paper (Guilloux-Nefussi and Rusticelli, forthcoming).

In the first quarter, the observed rise in shipping costs is estimated to boost merchandise import price inflation (year-on-year) in OECD countries by 2.5 percentage points on average. After four quarters, depending on the scenario, the impact on merchandise import price inflation could still be between 0.6 to 3.5 percentage points (Figure 2, Panel A). Notwithstanding the swift reaction of import costs, the pass-through to consumer price inflation would be modest. The overall rise in CPI inflation would be by about 0.2 percentage points after four quarters, with no major divergence across the three scenarios (Figure 2, Panel B). Consumer price inflation would start to recede gradually thereafter and settle back over the following 2-year period, reflecting the large inertia in price adjustments of consumption goods. Given the relatively small portion of transport costs normally incorporated in final goods value, this result is not surprising[1] and is in line with previous estimates available for the US economy (based on a different methodology).[2]

Arguably, the rise in ocean shipping costs could compound with other input costs pressures – due to global shortages in specific industries like semiconductors – and rising commodity prices to further push up inflation in the coming months. However, these cost-push pressures are expected to be temporary. Inflation expectations are well anchored and global spare capacity remains sizeable. As a result, a significant and sustained pick-up in underlying inflation is unlikely beyond a few quarters and monetary authorities should look through these transitory relative price shocks.

References:

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