Article

Recent trends in the international trade flows of G7 economies

Trade performance of G7 economies over the last decade, showing trends accompanying the UK's EU Exit, the coronavirus (COVID-19) pandemic, and conflict in Ukraine.

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Notice

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Figure 2 has been amended to include UK trade flows which exclude non-monetary gold and other precious metals. This is because movements in non-monetary gold, an important component of precious metals, can be large and highly volatile, distorting underlying trends in goods exports and imports.

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1 . Main points

- The UK's level of trade openness - the size of its trade flows relative to GDP - has fallen further than that of other G7 countries in recent years, coinciding with EU Exit and the coronavirus (COVID-19) pandemic, following which the UK has experienced a later rebound in trade openness than other G7 countries.

- The EU Exit process has been accompanied by more volatility in UK goods trade than has been experienced by other G7 economies, where survey evidence points to there being heightened uncertainty and some border frictions.

- Trade in services by G7 economies has been more adversely affected by the coronavirus (COVID-19) pandemic than trade in goods, which reflects how the provision of some cross-border services has been more susceptible to border restrictions, as businesses, which relied on personnel to travel overseas to provide, and/or to purchase a service being more severely affected than businesses, which could trade remotely.

- There has been a change in the composition of goods trade, reflecting the shift in demand for products owing to the pandemic, which includes personal protective equipment and pharmaceuticals and household electrical and non-electrical equipment - but it is too early to conclude if other changes are temporary or permanent.

- Recent energy and commodity price movements have had a significant impact on the current price trade positions of France, Germany, Italy, Japan, and the UK, who are net importers of these products.

2 . Overview

There has been much interest in the trade performance of advanced economies over the last decade, particularly given some of the structural changes that have taken place. The impact of the global financial crisis, EU Exit, and the coronavirus (COVID-19) pandemic have affected the trade intensity of GDP. These events have influenced global trade flows in recent years, particularly for the UK, including changes in their level and composition.

There is now a focus on how the large energy and commodity price movements that have accompanied the conflict in Ukraine this year have affected the trade positions of these countries, including how trade volumes might respond over the next few years. There is also now some uncertainty as to how the forward and backward participation in global value chains (GVCs) that have formed over the past few decades might evolve in the future in response to these developments.

3 . The impacts of EU exit

The size of a country's trade flows relative to its GDP is a proxy of trade openness, which captures the relative importance of the rest of the world to demand and supply in an economy. Figure 1 shows how trade openness for the G7 economies has changed relatively over time, which points to whether there has been a relative cyclical or structural change in a country's trade intensity.

There have been elevated levels of volatility in trade flows in recent years, reflecting the impacts of the coronavirus (COVID-19) pandemic. This captures that there was a fall in the size of trade flows relative to GDP for all G7 countries, implying that coronavirus restrictions had more of an impact on foreign demand than on domestic demand. However, this effect has been larger for the UK. The UK's level of trade compared with its level of GDP fell further than that of other G7 countries in recent years, particularly in services trade. It has experienced a rebound in the most recent periods, although it is still behind the relative recovery of other G7 countries.

This might be explained by EU Exit as there is some evidence that border frictions have come into effect, which may have been more pronounced as part of this initial adjustment phase. The Office for Budget Responsibility (OBR) has highlighted the impact on UK trade of the implementation by the EU of full customs requirements and checks on UK exports from the beginning of 2021. Our Business insights and impact on the UK economy bulletin at the time highlighted the challenges of additional paperwork and transportation costs. There was also evidence, published by the Bank of England, that heightened uncertainty remained persistent in early 2021, which might have reflected "uncertainty about the exact implementation of the trade deal and precisely how the new trading arrangements will work".

Figure 1: There was a fall in the size of trade flows relative to GDP for all G7 countries following the pandemic, although this effect has been larger for the UK

Trade openness of the UK and other G7 economies, Quarter 1 2010 to Quarter 2 2022

Notes:

1. Trade openness is measured as the sum of a country's exports and imports divided by its gross domestic product (GDP).

2. This is shown in volume terms. This removes the impact of relative changes in the price of exports and imports for these countries.

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Figure 2 shows that the UK has seen more volatility in its goods trade compared with the rest of the G7 economies, specifically from early 2019 onwards. These movements likely reflect the effects of EU Exit and the coronavirus pandemic, in particular the elevated levels of uncertainty surrounding the withdrawal process. This led to the stockpiling of goods by UK and European businesses ahead of the Brexit deadlines in 2019, which explains the particularly large movements in trade flows around this time.

This has complicated some of the international comparisons in trade flows regarding how much of a rebound there has been relative to pre-pandemic levels. Despite these volatile UK trade movements through 2019 and 2020, Figure 2 also shows that there has not yet been the same rebound in goods trade flows for the UK over this period so far, which might reflect the role of border frictions as businesses have had to adjust to new trading arrangements.

Figure 2: The UK has seen more volatility in its goods trade in recent years than other G7 countries

Exports and imports of goods volumes, G7, Quarter 1 2016 to Quarter 2 2022

Notes:

1. The peak-to-trough fall in goods exports volumes are for Canada (19.0%), France (31.3%), Germany (23.0%), Italy (28.2%), Japan (20.8%), UK (22.7%), UK excluding precious metals (22.3%) and USA (24.4%). These are relative to Quarter 4 2019 volume levels.

2. The peak-to-trough fall in goods imports volumes are for Canada (21.0%), France (23.0%), Germany (14.4%), Italy (21.5%), Japan (4.1%), UK (24.4%), UK excluding precious metals (24.3%) and USA (17.3%). These are relative to Quarter 4 2019 volume levels.

3. Trade flows include international transactions of non-monetary gold (NMG) and other precious metals. Movements in non-monetary gold, an important component of precious metals, can be large and highly volatile, distorting underlying trends in goods exports and imports.

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4 . The impacts of the coronavirus (COVID-19) pandemic

Trade in services by the G7 economies has been more adversely affected by the coronavirus pandemic (Figure 3). There was a much larger peak-to-trough fall in services trade for the G7 than for goods, and services trade volumes have not rebounded by as much compared with goods. This reflects the nature of restrictions that were in place. Services trade has typically been more exposed to the impact of border restrictions, specifically on international travel where mobility of people between and within countries has been limited. This had an impact upon the cross-border provision of services.

The pandemic has also changed how and what we consume, as reflected in the shift in consumer demand from services to goods explained in our article, Coronavirus and its effects on household consumption, UK: January 2021. More recently, services trade has seen a strong improvement in its recovery over recent quarters as international travel restrictions have been lifted across the G7.

Figure 3: Trade in services among the G7 economies have been more adversely affected than trade in goods by the coronavirus pandemic

Exports and imports of services, G7, Quarter 1 2016 to Quarter 2 2022

Notes:

1. The peak-to-trough fall in services exports volumes are for Canada (20.1%), France (28.5%), Germany (18.5%), Italy (44.7%), Japan (24.0%), UK (18.0%) and USA (23.8%). These are relative to Quarter 4 2019 volume levels.

2. The peak-to-trough fall in services imports volumes are for Canada (34.0%), France (25.5%), Germany (32.5%), Italy (30.9%), Japan (7.5%), UK (34.9%) and USA (31.6%). These are relative to Quarter 4 2019 volume levels.

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Table 1 reinforces this ‘between’ effect in trade flows – that is, the change in the composition of trade between goods and services for the G7 countries in response to the pandemic. It shows how much of G7 trade flows comprised of goods over the period 2019 to 2021. It shows how the USA, Japan, and Italy all experienced a shift towards goods exports – or that the decline in goods exports was less than the decline in services exports. This effect was even more marked for goods imports for the G7 economies. This also reinforces that the rebound was larger in goods trade, which still comprises a higher share of exports and imports compared with before the pandemic.

Table 1 also highlights that services trade has a higher share of the UK’s total trade flows in comparison to the rest of the G7, particularly in its exports. Given that there has been a larger pandemic impact on the cross-border provision of some services so far, the composition of trade flows for the G7 countries might also play some role in the relative performance of these total trade flows over the pandemic. We would need to look at the composition of goods trade and service trade to understand better the trade performance of countries.

Table 1: The USA, Japan and Italy experienced large changes in the composition of exports, while Canada experiences the largest change in goods imports from 2019 to 2021
Exports and imports of goods as a percentage of total exports and imports, G7, 2019 to 2021

	Goods Exports (%)			**Goods Imports (%)**		
	2019	**2020**	**2021**	**2019**	**2020**	**2021**
Canada	80.2%	81.5%	81.9%	79.7%	82.6%	83.3%
France	70.1%	71.4%	70.4%	73.2%	75.1%	75.4%
Germany	81.2%	82.0%	82.4%	77.0%	79.8%	79.1%
Italy	80.7%	84.6%	84.5%	78.4%	81.6%	81.5%
Japan	78.6%	81.2%	82.9%	77.3%	77.7%	78.4%
UK	52.0%	51.4%	51.6%	69.5%	72.7%	72.0%
US	69.6%	71.7%	72.5%	84.0%	86.4%	86.7%

Source: Organisation for Economic Co-operation and Development (OECD)

Notes

1. This shows how much of G7 total trade flows were comprised of goods over the period 2019 to 2021.

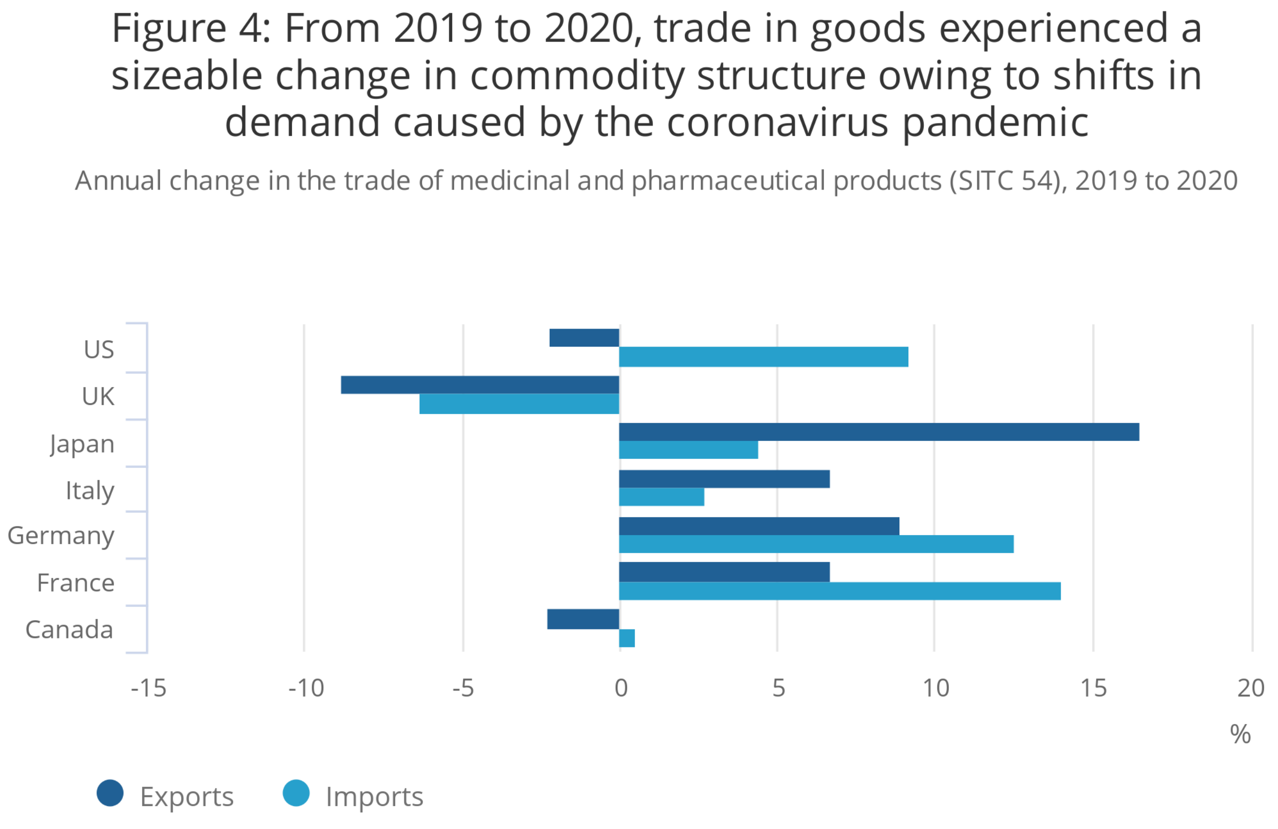
2. The EU comprised 42.6%, 41.9% and 42.0% of total UK exports over these 3 years, respectively. The EU comprised 51.6%, 50.0% and 44.7% of total UK imports over the same period.

3. The EU comprised 24.5%, 19.2% and 18.6% of total US exports over these 3 years, respectively. The EU comprised 23.4%, 18.7% and 18.3% of total US imports over the same period.

There have also been 'within' effects, which capture the large movements among specific types of goods and services. This could also help explain some of the relative trade performances of these countries, especially if countries have prominent levels of trade in those products most affected by the pandemic. For example, trade in machinery and transport equipment experienced declines of more than 10%, while chemicals and related products remained stable over this period. "Chemicals and related products" (SITC 5) was one of the most traded product categories over the pandemic period, reflecting the nature of the pandemic. "Trade in medicinal and pharmaceutical products" (SITC 54) increased in the G7 between 2019 and 2021, reflecting increased global demand for pandemic-related products, such as personal protective equipment and pharmaceuticals (see Figures 4 and 5).

Figure 4: From 2019 to 2020, trade in goods experienced a sizeable change in commodity structure owing to shifts in demand caused by the coronavirus pandemic

Annual change in the trade of medicinal and pharmaceutical products (SITC 54), 2019 to 2020



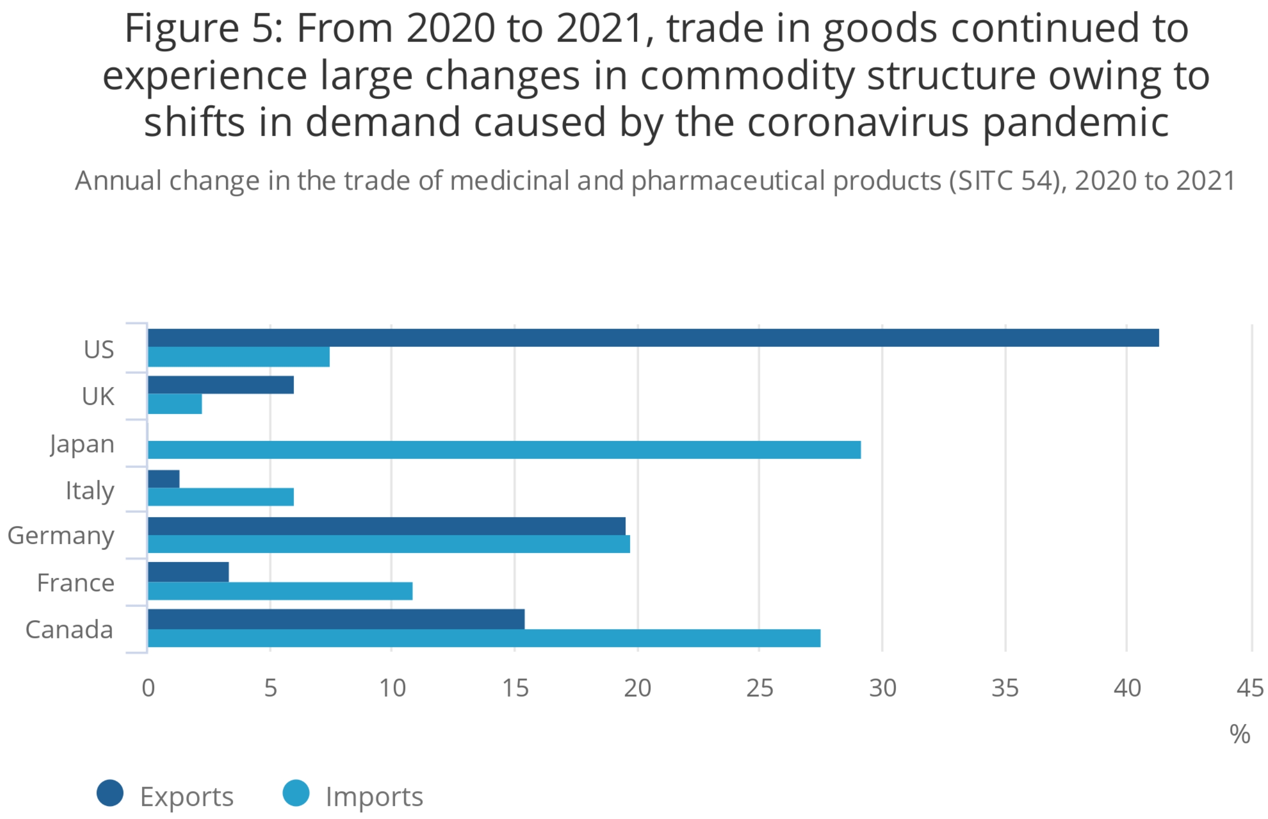
Source: UN Comtrade

Notes:

France was the largest exporter of chemicals (SITC 5) (20.9% of total goods exports by France), and of medicinal and pharmaceutical products (SITC 54) (7.9% of total goods exports by France) in 2020. The corresponding figures for Germany were 17.1% and 7.3%, respectively. The UK was the third largest exporter of chemicals (16.7%) and the fourth largest exporter of medicinal and pharmaceutical products (6.6%) in 2020.

Figure 5: From 2020 to 2021, trade in goods continued to experience large changes in commodity structure owing to shifts in demand caused by the coronavirus pandemic

Annual change in the trade of medicinal and pharmaceutical products (SITC 54), 2020 to 2021



Source: UN Comtrade

Notes:

France remained the largest exporter of chemicals (SITC 5) (20.9% of total goods exports by France) but exported fewer medicinal and pharmaceutical products (SITC 54) (6.9% of total goods exports by France) in 2021 than 2020. The corresponding figures for Germany were 17.7% and 7.4%, respectively. The UK was fourth largest exporter of chemicals (14.9%) and of medicinal and pharmaceutical products (5.9%) in 2021.

There was also a shift in consumer preferences captured through the increases in household electrical and non-electrical equipment, which includes goods such as home appliances and technology as individuals spent a larger proportion of time at home owing to lockdown restrictions. The increases in these commodities continued in 2021. There was also a sizeable contraction in the international trade in road vehicles for all G7 economies in 2020, which in part also likely reflects how international supply chains came under pressure. Despite the increase in household electrical and non-electrical equipment, this was not enough to offset the overall fall in the machinery and transport equipment, which was driven by heavy declines in important commodity classes such as road vehicles. These declines in road vehicles reversed in 2021.

One of the uncertainties is around whether the change in trade flows over this period is likely to be temporary or permanent. Future research will look at whether these ‘between’ and ‘within’ trade effects have shown some persistence for these countries.

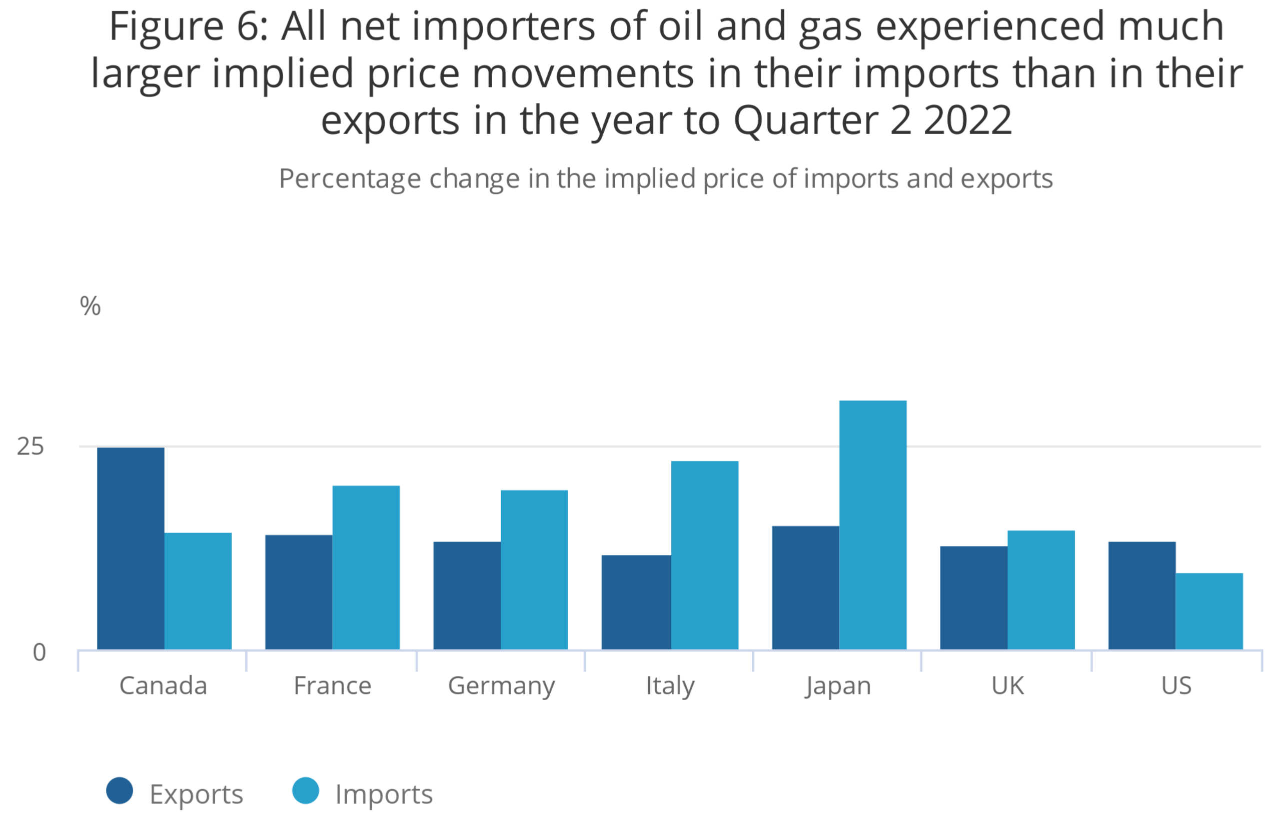
5 . The impacts of higher energy and commodity prices

There have been changes to the geopolitical landscape this year, where the conflict in Ukraine has led to a substantial increase in energy and commodity prices. The implementation of economic sanctions against Russia has had an impact on global trade flows, including UK trade with Russia, as explained in our article, The impact of sanctions on UK trade with Russia: June 2022. The increase in wholesale gas prices over the last year has further pushed up global prices of gas and refined and crude oil in 2022, and has had an impact on global trade, including on UK imports and exports of fuels, as explained in our Trends in UK imports and exports of fuels article.

Figure 6 shows the implied price movements of the exports and imports of the G7 countries in the year to Quarter 2 2022. This implicitly captures those countries that are a net importer of oil and gas, which would have been expected to be reflected in relatively larger price movements in the value of their imports, particularly in goods, all else the same. This would also reflect the indirect effects of these price increases, given that energy is an intermediate input into the production of other goods and services. There has been an increase in these underlying price movements over the last year, compared with the changes in export and import prices experienced over 2021.

Figure 6: All net importers of oil and gas experienced much larger implied price movements in their imports than in their exports in the year to Quarter 2 2022

Percentage change in the implied price of imports and exports



Source: Organisation for Economic Co-operation and Development (OECD)

Notes:

1. Over 2021, the implied export price movements are Canada (16.8%), France (6.7%), Germany (5.4%), Italy (4.8%), Japan (6.8%), UK (3.4%) and USA (11.6%).

2. Over 2021, the implied import price movements are Canada (2.3%), France (6.9%), Germany (8.3%), Italy (10.0%), Japan (15.2%), UK (4.4%) and USA (7.4%).

Table 2 shows the impact of these energy and commodity price movements, by showing the changes in the value and volume of trade flows in the first half of this year. This captures how these large price movements are being reflected in the nominal trade figures, which are having an impact on the trade balances of these countries. For these countries that are net importers of oil and gas, it would be expected that there is an initial worsening in their net trade positions, reflecting the initial sharp increase in the value of imports.

It takes time for import volumes to adjust to higher prices, particularly for products like oil and gas for which demand is price inelastic, so these higher import prices initially increase the value of these imports. Price movements also have an impact on a country's terms of trade – the relative price of its exports to its imports – so that net energy importers of energy would be expected to have experienced a reduction in their purchasing power.

Table 2: Higher rates of inflation have fed through to current price trade movements
Percentage change in trade flows in the first half of 2022

	Current Price		**Volume**	
	Exports (%)	**Imports (%)**	**Exports (%)**	**Imports (%)**
Canada	14.8%	11.4%	0.5%	5.1%
France	11.1%	15.4%	3.6%	4.1%
Germany	7.5%	13.5%	0.7%	3.1%
Italy	12.8%	22.2%	6.1%	9.5%
Japan	9.4%	18.0%	1.7%	4.0%
UK	10.0%	21.8%	2.0%	11.0%
US	10.7%	12.9%	3.1%	6.8%

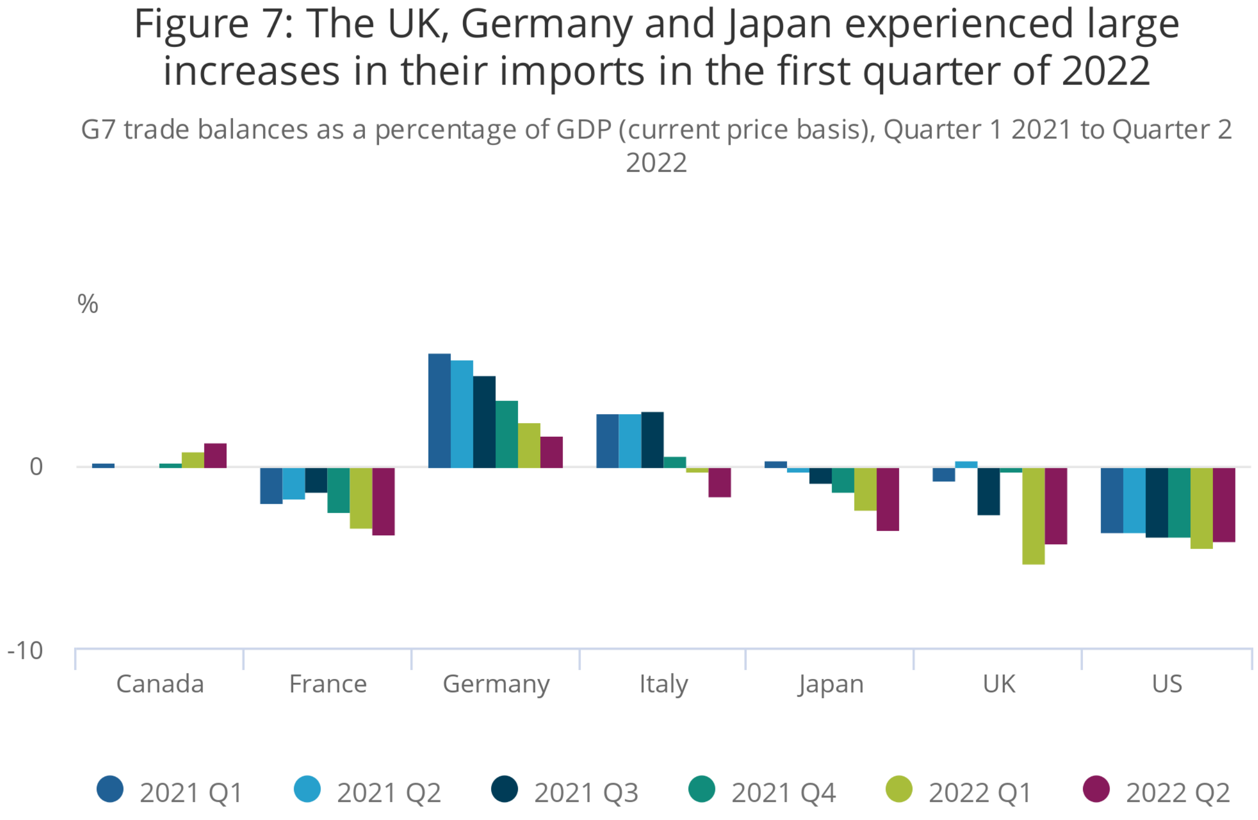
Source: Organisation for Economic Co-operation and Development (OECD)

France, Germany, Italy, Japan, and the UK were net importers of oil and gas in 2021. Figure 7 shows that those countries experienced a worsening in their trade balances in the first half of this year. There was a significant increase in total imports (up 26%) in the first half of 2022, driven by a near doubling in energy imports since the second half of 2021, as shown by estimates published by the French government. Imports increased by 26.5% in the first half of 2022 compared with the same period in 2021, as shown by estimates published by the German federal statistical office. The value of imports by Germany from Russia increased by 51.3%, one of the reasons cited being higher energy prices, while import volumes from Russia fell by 24.0% compared with the first half of 2021.

In contrast, Canada is a net exporter of key commodities that have been affected by the conflict in Ukraine. Canada reported that in June 2022 goods exports were up for the sixth consecutive month, driven by an increase in the exports of energy products (up 3.2%), which capture almost a third of the value of Canadian goods exports, showing the increase in energy prices driving up the value of these exports.

Figure 7: The UK, Germany and Japan experienced large increases in their imports in the first quarter of 2022

G7 trade balances as a percentage of GDP (current price basis), Quarter 1 2021 to Quarter 2 2022



Source: Organisation for Economic Co-operation and Development (OECD)

6 . Future developments

The increase in energy and commodity prices had pronounced impacts on the trade positions of the G7 countries in the first half of this year, reflecting how it takes time for volumes to adjust to price changes.

The response of households and businesses to these higher prices will also likely have wider impacts on these international trade flows, including any transition to a less energy intensive economy. Businesses might change their production processes in response to higher production costs while households might change their consumption patterns in response to the squeeze in real incomes. We will continue to monitor these developments and their impact on international trade flows.

7 . Related links

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8 . Cite this article

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