



# How would a global trade war affect aviation?

## Air passenger and freight both at risk from an escalation in tariffs

- ➔ Recent developments in global trade protectionism have seen an escalation from rhetoric into action.
- ➔ Such developments are not positive for air transport – for either air cargo or passenger markets.
- ➔ At this stage, the likely industry impacts appear modest, but this may change as the dispute continues to evolve.
- ➔ A global trade war does not form part of our ‘central case’ global outlook, but it is an important risk.
- ➔ The nature, scope & geographic spread of any protectionist measures are key to understanding the industry impact.

### Protectionism has risen from a risk to a reality

After decades of globalization and the opening up of borders, trade policy is now heading down a more restrictive path. This has recently extended to the introduction of explicit tariff measures on a range of traded goods.

While the bulk of the tariff measures implemented to date have largely been between the US and China, the threat of a global trade war is rising.

This note considers what impact an escalation in trade restrictions could have on near-term aviation demand.

### Trade restrictions are nothing new...

Much of the recent focus has been on the implementation of import tariffs by the US – including on steel and aluminum products, and latterly US\$50bn worth of Chinese goods – as well as the retaliatory steps taken by the targeted countries.

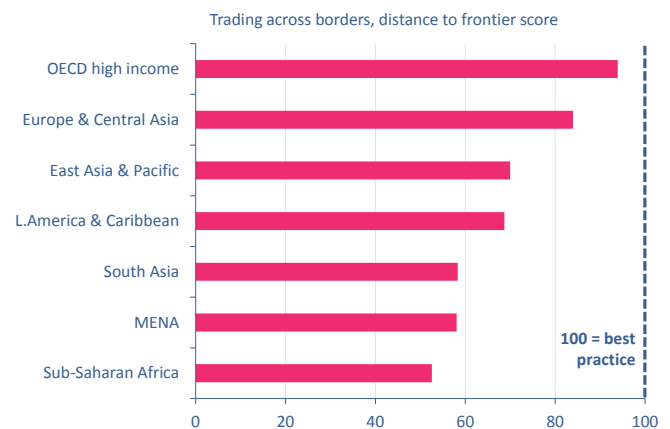
It is worth noting, however, that trade barriers also take other forms – particularly frictional barriers that add to the time and the cost associated with trading across borders.

These may not be intentionally protectionist and may just be a by-product of excessive amounts of bureaucracy or inefficiency in the trading process, for example. The World Bank’s annual *Doing Business* survey measures the time and cost associated with the logistics of trade around the world, and highlights the stark differences in the ease of trading from region to region.

As shown in Chart 1, it is considerably more time consuming and costly to import and export goods to/from Africa and South Asia, for example, than it is to/from the OECD countries.

Of course, frictional barriers to trade may also be put in place intentionally – notably in the form of so-called non-tariff barriers – with the intention of inhibiting trade flows but to (largely) stay out of the headlines.

Chart 1 – Ease of trading across borders

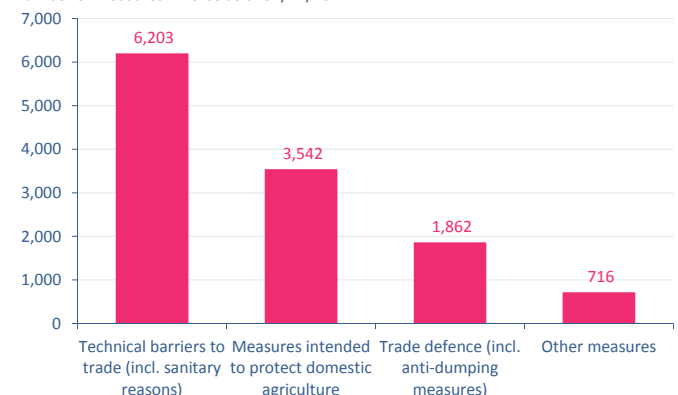


Source: World Bank Doing Business 2018

The World Trade Organization monitors the imposition of such measures and estimate that there were more than 12,300 non-tariff barriers in place at the end of 2017, mostly in the form of technical barriers to trade as well as measures intended to protect domestic agricultural industries.

Chart 2 – Trade restrictive measures

Number of measures in force as of 31/12/2017



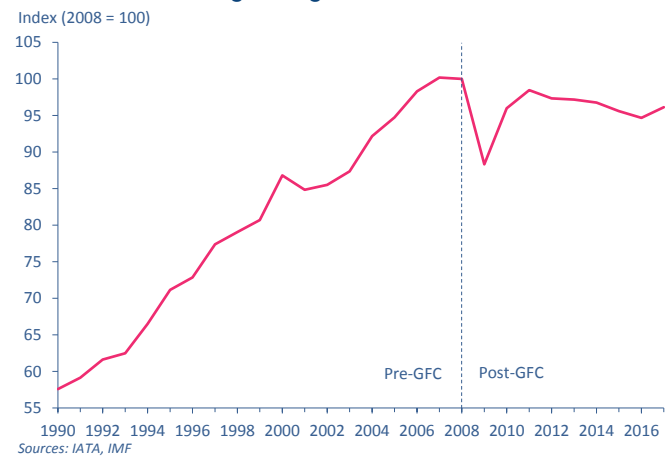
Source: World Trade Organisation I-TIP database

Such frictional barriers to trade serve as a reminder that we do not live in a fully open world, and also illustrate that the impact of trade protectionism on economic and aviation activity is not binary; in many occasions trade restrictions are already likely to be acting as headwinds on economic, trade, and passenger growth, but these

impacts are not as easily quantifiable or disruptive as bigger and more visible measures.

As we have pointed out before, the ratio of world trade to economic output has flattened considerably since the Global Financial Crisis (GFC). (See Chart 3.) Whereas it used to be normal for trade to grow at around twice the pace of global GDP growth in the years before the GFC, trade has broadly grown in line with output in the years since. The imposition of non-tariff barriers in the aftermath of the GFC is one of the factors thought to explain the change in the relationship between global activity and trade seen over the past decade.

**Chart 3 – Ratio of global goods trade to world GDP**



**...but escalating trade measures pose a bigger threat**

However, the recent imposition of explicit import tariffs represents a marked escalation in trade protectionism. These more direct and visible restrictions tend to inhibit trade to a much greater extent than softer forms of protectionism.

Indeed, standard economic theory says that there are no winners from a trade war: by adding to both consumer and company costs, they lead to inefficiencies and losses of economies of scale as firms relocate production to avoid the impact of tariffs, while wider uncertainty can also result in lost investment. In addition to the higher costs for consumers, there are also likely to be adverse implications for wages and jobs growth. The overall scale of the economic damage depends on both the extent and the severity of any tariffs and other restrictions that are put in place.

Table 1 summarizes the main trade measures that have been either put in place or proposed by the US. The trade measures that have been implemented to date are relatively small in the grand scheme of things, and it follows that they alone are unlikely to have a significant impact on economic activity.

For example, if no further trade measures are implemented, UBS estimates that global GDP growth in the next 12 months will be just 0.1% slower than it would

have been in the absence of a pick-up in trade restrictions.

**Table 1 – Selected trade measures implemented and /or proposed by the US**

Trade measure	Implemented?
20% tariffs on washing machines and 30% on solar panels	Yes
25% tariffs on steel and 10% tariffs on aluminum	Yes
25% on US\$50bn worth of Chinese products	Mostly
10% on US\$200bn worth of Chinese products	Proposed
Further tariffs on up to US\$500bn worth on Chinese products	Threatened
Tariffs on finished automobiles and car parts	Under investigation

Sources: IATA, investment bank research

However, with further tariffs being proposed, there is a clear risk that trade restrictions escalate. While much is currently uncertain, the general consensus is that global GDP growth could be in the region of 0.4 percentage points slower over the year ahead if the US were to increase tariffs to US\$200bn worth of Chinese products over the coming months – as many think likely – and, in turn, this is met with retaliatory tariffs and restrictions.

Economic activity is estimated to be hit even harder if tensions descend into a wider tit-for-tat trade war between the US & China with across-the-board tariffs. In this case, estimates suggest that global activity could be around 1.1% lower over the next 12 months, and in the region of 2-3% of GDP over the coming years, relative to a no-tariff alternative.

Economic impacts could be much larger still if tensions broaden to include restrictions on foreign direct investment and/or services, including tourism.<sup>1</sup>

**What does increased trade protectionism mean for air cargo demand?**

With tariffs directly impacting the price of goods and reducing the demand for trade, there seems to be a clear link with the demand for air cargo.

However, it is critical to note that, for the most part, the US import tariffs implemented to date have excluded many of the consumer goods that typically get transported by air (particularly smartphones). Tariffs on products like steel and aluminium, for example, will have little or no effect on air freight demand.

<sup>1</sup> China's targeted use of tourism restrictions has been a notable feature in recent years: <https://worldview.stratfor.com/article/chinas-unlikely-weapon-tourists>

## Tariffs to reinforce structural headwind of ‘reshoring’

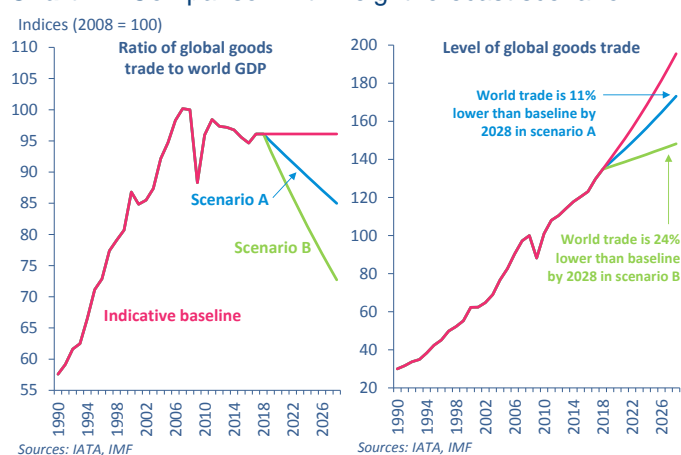
Having said that, the latest proposals appear to pose more of a threat to industries that tend to rely heavily on air cargo as a primary mode of transport – such as motor vehicle parts and semiconductors. Indeed, around ¼ of the proposed 10% tariffs on US\$200bn worth of US imports from China fall on these two items specifically.

While this appears to be significant, the initial impact on air freight demand may not be huge. The majority (84%) of semiconductor manufacturing equipment takes place outside the US, while Mexico and Canada export four times as many car parts by value to the US than China.

However, the key risk is that increased tariffs and trade escalation lead firms to reconsider supply chains – further reinforcing the process of ‘reshoring’ that has been a key structural headwind for the industry since the GFC.

Earlier this year, we published a simple freight forecasting framework ([link](#)) which incorporates two key relationships; the ratio of world GDP to trade and the ratio of trade to air freight. Chart 4 considers two illustrative scenarios around the former of these relationships to explore the implications for the level of world goods trade if globalization were to ‘reverse’ over the next decade.

**Chart 4 – Comparison with freight forecast scenario**



We can use these purely illustrative scenarios to get a sense of the scale of the potential loss over time. If we assume no change in the relationship between trade and air freight over time than in the baseline, the 11% loss in trade levels by 2028 in scenario A, for example, implies a 1-1.25 percentage point reduction in FTK growth each year over the next decade.

## What about the impact of trade protectionism on air passenger demand?

The link between trade protectionist measures and passenger demand is less obvious than for air freight. Fundamentally, the impact that economic disruption has on air passenger traffic depends on how sensitive passenger demand is to changes in incomes, which

reflect the impact of the trade restrictions on income, consumption and jobs.

Estimates of the income elasticity of air passenger demand vary – for example, between developed and emerging markets – but are consistently positive and greater than one. In other words, a 1% change in incomes will typically have a greater than 1% impact on air passenger demand.

Developed markets are estimated to have an income elasticity of 1.3 at a national level, while developing countries have a higher elasticity of around 1.8.<sup>2</sup>

That said, it may be that a simple income elasticity approach captures other factors that affect demand for air travel over the long run. As a result, a conservative approach is to use a unit elasticity between GDP and air travel as a measure of ‘underlying’ demand, and to provide a lower-bound.

## A headwind to growth in the near term...

Table 2 shows a number of estimates for the near-term impact of an escalation in trade restrictions on air passenger growth under a range of economic impacts and passenger income elasticities.

At one end of the scale, if trade tensions deescalate, the overall impact on global passenger traffic is likely to be modest. In the case of limited escalation the impact on passenger growth is expected to be in the region of 0.5% over the year ahead, while a broader trade war could see growth slow by around 1.5-2.0% relative to the baseline.

**Table 2 – Impact on passenger demand (% & #pax) over the next 12 months under a range of possible outcomes**

### Implied reduction on near-term passenger growth relative to baseline

Estimated negative impact on GDP	Assumed income elasticity		
	1.0	1.3	1.8
0.1%	-0.1%	-0.1%	-0.2%
0.4%	-0.4%	-0.5%	-0.7%
1.1%	-1.1%	-1.4%	-2.0%

### Implied reduction in global passenger numbers relative to baseline (million)\*

Estimated negative impact on GDP	Assumed income elasticity		
	1.0	1.3	1.8
0.1%	-4	-6	-8
0.4%	-18	-23	-32
1.1%	-48	-63	-87

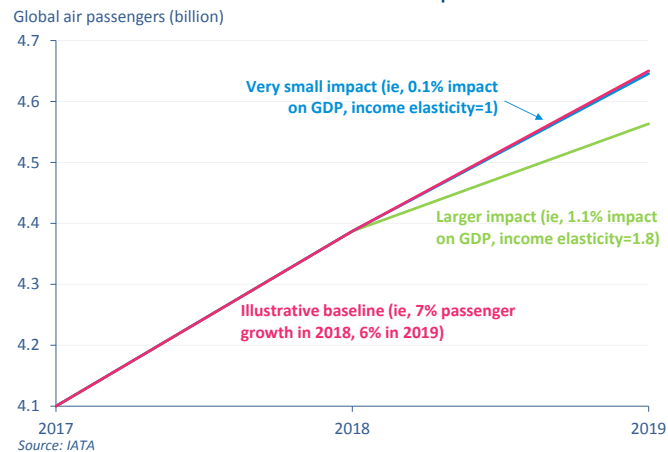
\*Assumes that the full impact arrives in calendar year 2019, relative to assumed baseline growth of 6.0%.

Source: IATA

<sup>2</sup> [https://www.iata.org/publications/economic-briefings/air\\_travel\\_demand.pdf](https://www.iata.org/publications/economic-briefings/air_travel_demand.pdf)

As shown in Chart 5, it is important to note that we would still expect to see growth in passenger numbers even in the largest impact case depicted in Table 2.

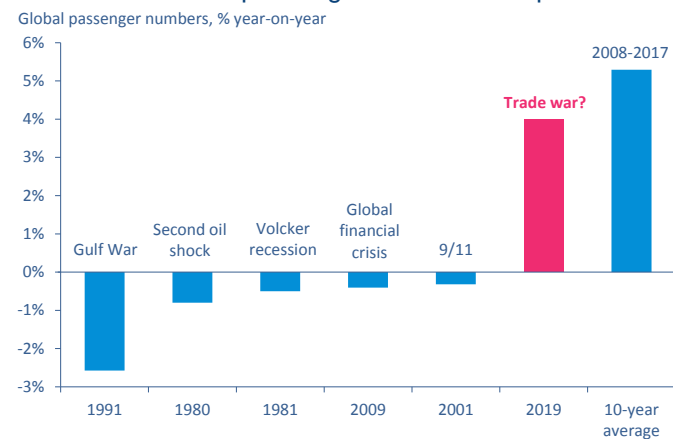
**Chart 5 – Illustration of near-term impacts**



Consequently, any disruption from a pick-up in trade restrictions alone is expected to present less of a shock to the air transport industry than has been the case for a number of other significant events in the recent past. (See Chart 6.)

As the chart below highlights, at the global level, passenger volumes are still expected to *increase* in the event of a rise in trade restrictions, albeit at a pace that is well-below the average rate of growth over the last 10 years. This sits in contrast with the other major shocks depicted, which were all associated with a *fall* in global passenger volumes in the year shown.

**Chart 6 – Selected passenger shocks in the past**



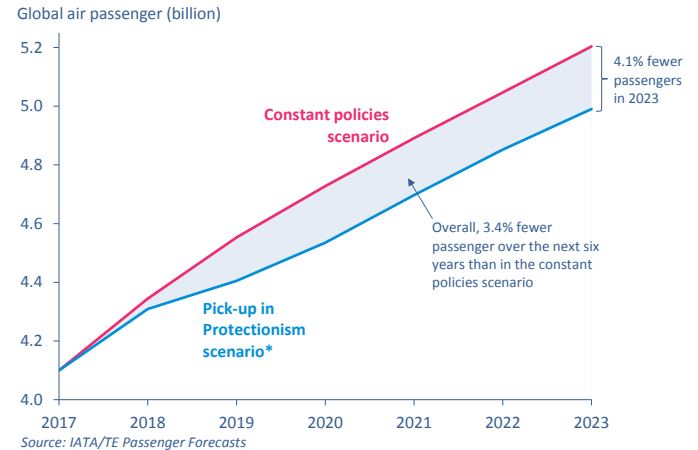
**...but any losses may add up and prove permanent**

Crucially, though, the losses in passenger traffic are likely to be permanent (although they could be limited if trade policy were to be reversed at some stage in the future).

This point is illustrated by the *Pick-up in Protectionism* scenario from IATA and Tourism Economics' long-term passenger forecast service, which is broadly consistent with a global trade war.<sup>3</sup>

We would still expect to see ongoing growth in passenger demand over the coming years even in this scenario. However, the losses would add up, with more than 3% fewer passenger journeys expected to take place over the next six years than in the no-escalation scenario. (See Chart 7.)

**Chart 7 – Comparison with passenger forecast scenario**



**Passenger slowdown would not be felt uniformly...**

The analysis up to now has considered the impact at an industry-wide level, but it is important to note that the impacts on passenger activity would not be felt uniformly, both in terms of the markets that are affected as well as with regard to the mix of business and leisure travel.

Indeed, even if trade restrictions remain largely bilateral between the US and China, analysts note the impact would be likely to spread to other regions, most notably the EU as lower economic activity in the US and China has a knock-on impact on demand for the EU's exports (and so on).

**...but most directly on premium-class travel**

Meanwhile, given the well-known link between business travel and trade, it is reasonable to expect that any negative impact on trade flows would be felt most directly on business demand. Although some business travelers do fly in the economy cabin, we would still expect the impact to be felt disproportionately on premium demand.

Premium demand is a relatively small proportion of seats flown in the industry (around 5% of the total) but a much larger proportion of total airline revenues (around 25%). As a result, the impact of increased protectionism on the passenger segment is likely to be more immediately visible in airline financial performance than in the demand data.

Leisure travel demand would be affected subsequently as and when any impact of protectionist measures become visible on economic activity, employment and household incomes.

<sup>3</sup> See [www.iata.org/pax-forecast](http://www.iata.org/pax-forecast) Note that this scenario is not an attempt to model the specifics of the current trade dispute.

### Are there any mitigating factors?

One potential mitigating factor for airline financial performance could be oil prices. Much depends on supply factors, but UBS estimates that a 0.5% reduction in global GDP growth – broadly in line with their expectation if tariffs escalate – would reduce the global demand for oil and drive oil prices lower, by around US\$8/bbl compared with their baseline assumption.

All else equal, this reduction in the price of a key component of industry operating costs would help to reduce airline breakeven load factors and help to cushion the financial impact of the trade restrictions.

In addition, if the trade dispute remains largely bilateral in nature, there may be opportunities for the countries involved to find alternative source or destination markets (ie 3<sup>rd</sup> party countries not caught up in the dispute) for the goods affected in order to avoid the trade restrictions.

In such a scenario, the result could be more of a change in the composition of trade and air transport demand rather than an impact on the aggregate (global) level of trade or demand.

### Concluding comments

A trade war is not good news for the air transport industry and has the potential to adversely impact both air freight and passenger demand.

However, as always, ‘the devil is in the detail’. The magnitude of any impact, and on whom it falls most, will depend on the type of protectionist measures enacted, the breadth of their coverage (eg, bilateral tariffs versus a global trade war), as well as their size.

At this point, such factors remain uncertain.

Finally, it is worth reiterating that we do not consider a full-blown global trade war to be a ‘central case’ scenario, but nonetheless it is important to be cognizant of the potential impacts such an unfortunate turn of events would have on the industry.

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