



Air freight 5-year forecast

March 2019

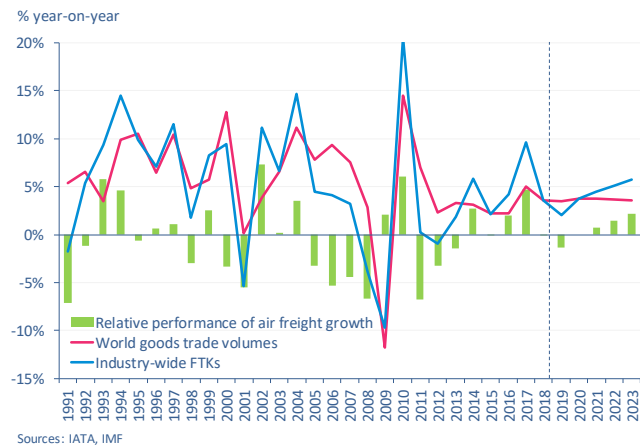
Downgrade on weak start to forecast period

- We have downgraded our forecast for growth of global Freight Tonne Kilometers (FTK) flown over the next 5 years to an average of 4.4% a year, down from the 4.9% average we forecast a year ago.
- The downgrade is partly due to the weak start in 2019. FTKs did not grow on average after January 2018 and then declined in Q4 and further in January this year. We anticipate growth of 2% at best this year.
- In addition, the macroeconomic outlook has deteriorated, with GDP and world trade forecasts revised down,
- We continue to be optimistic that air freight can outperform world trade over the forecast period, as e-commerce and other beneficial structural changes impact the trend.

Revised outlook shows weak start then improvement

We have downgraded our forecast for global FTK growth in 2019 from 3.7% to 2%, reflecting cyclical weakness. Thereafter, we forecast air freight to outperform world trade growth, boosted by emerging structural gains, as can be seen in Chart 1. Growth over the coming 5 years is now forecast to average 4.2%, lower than our previous forecast of 4.9%, due partly to the weak start this year but also because GDP and world trade forecasts are weaker.

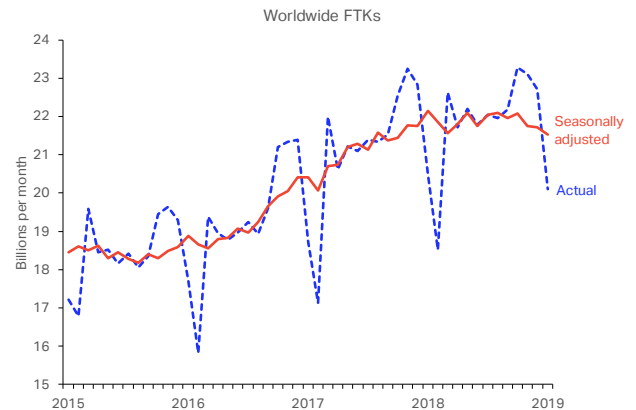
Chart 1: FTK, world trade growth, growth differential



Air cargo volumes shrinking at start of forecast

Cargo volumes stopped growing more than a year ago. That might look odd, since FTKs were on average 3.5% higher in 2018 than in 2017, but Chart 2 shows that average growth was entirely due to the high starting point at the beginning of last year. The data adjusted for seasonal ups and downs shows that, after January last year, there was no more growth during most of 2018 and then in the final quarter FTKs began to shrink, which continued in January this year.

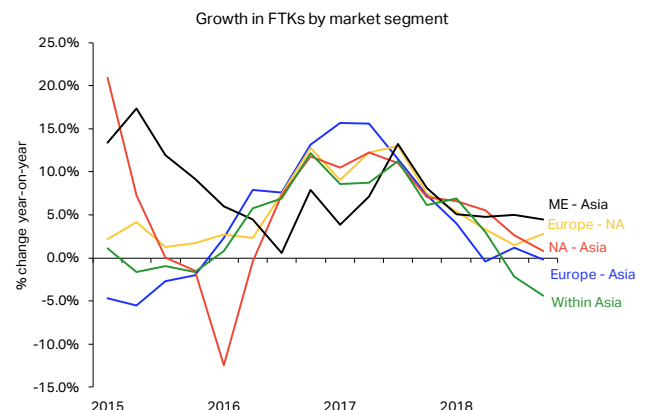
Chart 2: FTK levels, actual and seasonally adjusted



Source: IATA

The FTK levels shown in Chart 2 show that the seasonal peak at the end of last year was weaker than in 2017. Weakness was evident across all major trade lanes during 2018 and in the first month of the forecast period, as Chart 3 shows.

Chart 3: FTK growth by major trade lane segment



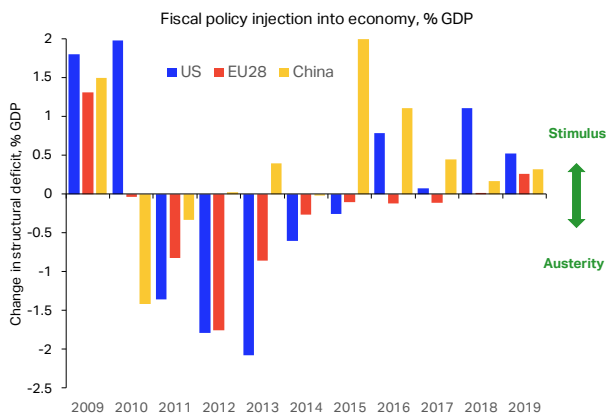
Source: IATA

Economic outlook slowing but multiplier holding up

On top of the weak start to 2019, most forecasts for GDP growth and world trade have been downgraded, particularly for 2019. With the expansion in its

eleventh year a recession is overdue, but most fundamental drivers of growth (except for trade) are positive. Chart 4 shows that government fiscal policy remains expansionary.

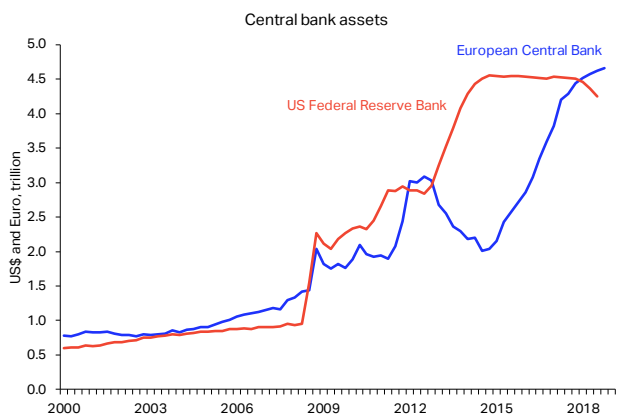
Chart 4: Government fiscal policy support as % GDP



Source: IMF World Economic Outlook

Moreover, central banks continue with their extraordinary support of banks and financial asset prices, as Chart 5 indicates.

Chart 5: Central bank support to banks & asset prices



Source: Thompson Reuters Datastream

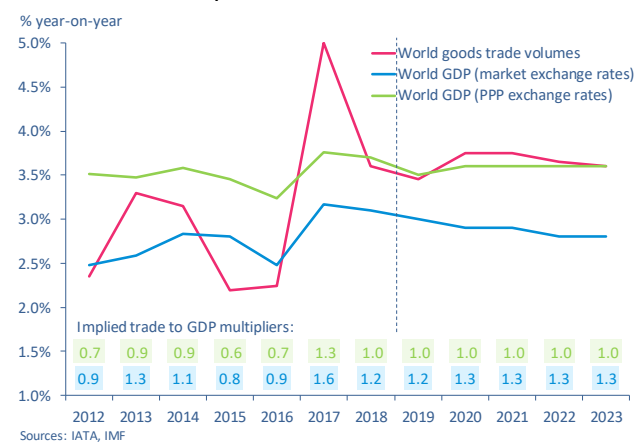
Weak cross-border trade is slowing economic growth and will continue to do so in 2019. However, with fiscal and monetary policy supporting domestic spending, most forecasters expect continued economic growth at a slower but reasonably strong pace this year, rather than recession.

What should be considered though is that a recession, caused by a shock, is highly likely during the next 5 years, even if unpredictable in its timing. There are no regular cycles but there are plenty of risks, particularly geopolitical but also related to high levels of debt, that could cause a recession. Usually air freight volumes rebound quickly from recessions. After the 2001 recession, the previous trend was regained 3 years later. If that is repeated, then the CAGR or growth between 2018 and 2023 will be little changed. However, if the next recession is driven by

debt, then the experience of the GFC may be more relevant when the previous trend was not regained. In that case the CAGR between 2018 and 2023 could fall from 4.4% to less than 3%. Unfortunately, this is a standard forecasting uncertainty. We just don't know.

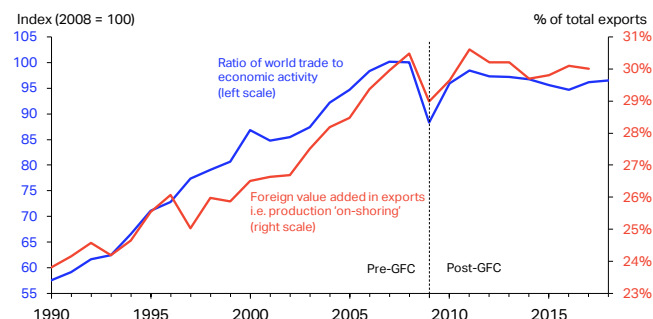
Another important feature of last year was that the world trade multiplier to GDP also fell, back to 1.0 measured against GDP at Purchasing Power Parity exchange rates (which gives a higher weight to China). However, that's still higher than the years before the 2017 late-cycle upturn which is a positive result. One of the key issues for the forecast is where that multiplier goes now.

Chart 6: World trade and GDP forecasts and the world trade multiplier



The assumption we make in our baseline forecasts is that the growth multiplier is 1 i.e. world trade grows in line with GDP growth (PPP basis). A decade ago the typical experience was for world trade to grow twice as fast as GDP. The world has changed since then, as shown in Chart 7.

Chart 7: World trade/GDP ratio and the foreign value-added content of exports



Source: UNCTAD, IMF, IATA

Since the global financial crisis (GFC) supply chains have stopped extending across borders. Chart 7 shows that the foreign value-added content of exports (a good measure of cross-border lengthening of supply chains) stopped rising at the time of the GFC. There was then a small slow decline after the post-recession recovery as companies 'on-

shored' production and assembly facilities to some extent. As seen in the data there was a minor uptick in 2017, or at least the decline stopped. Chart 7 also shows that the path of cross-border supply chains or the foreign value-added content of exports mirrored the ratio of world trade to GDP. We believe that this factor is the principle explanation for the changes we have seen in the world trade growth multiplier.

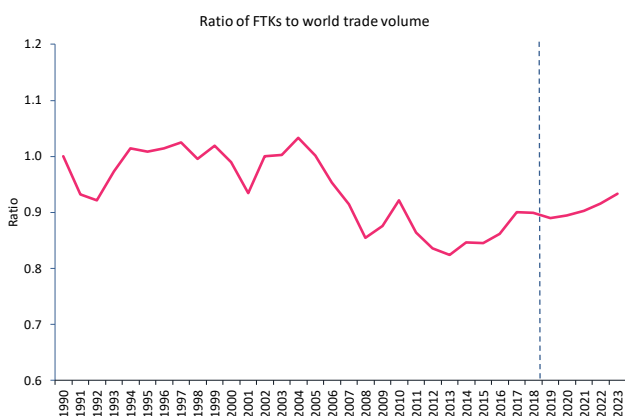
The reasons for this change are less certain. In many ways the 1990s and 2000s were exceptional decades, since they were transformed by the entry of China into global markets and trade. Over this period trade deals brought most tariffs down to relatively low levels. This process was a step change benefit to trade, though extended over decades. It would not be surprising for this process to end and for world trade to return to its longer-run average of growing just in line with GDP.

Of course, we have also seen growing protectionism, both the softer and the tariff-war versions. We think these adverse developments caused an abrupt end to the previous two decades of globalization. On that basis we think the most reasonable baseline assumption for the trade/GDP growth multiplier would be flat at a value of 1.

Air freight share of world trade now trending upwards

The second key influence on the FTK forecast is the expected path of air freight's share of world trade.

Chart 8: Air freight share of world trade (ratio)



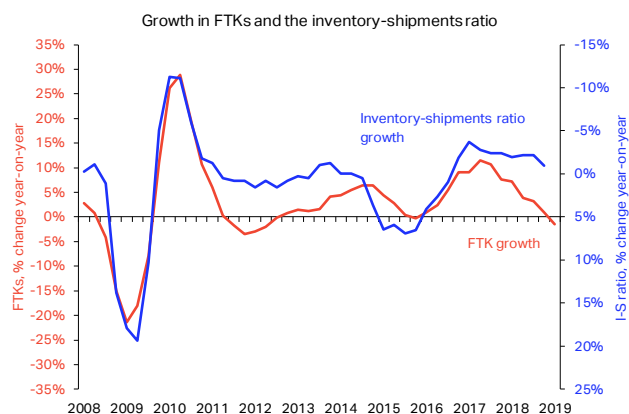
Source: IATA, IMF

Air freight's share of world trade is always very cyclical. Whenever there is an economic upturn, as there was in 2017, shippers turn to air to speedily restock inventories. Once inventory-sales ratios are back to a comfortable level the need for speed diminishes and there is a switch back to slower but cheaper surface modes of transport. So, the troughs in the FTK/world trade ratio in Chart 8 correspond to recessions in 1991, 2001 and 2009. Peaks correspond to upturn periods, such as 1993, 2002, 2010 and, most recently, 2017. But these cycles

move around a varying trend. Having been a flat trend for the 1990s and early 2000s, air began a decade-long trend loss of market share (which we investigated in a joint study with [Seabury](#)). That decline ended 4 years ago, arguably as e-commerce reached a critical point with respect to the use of air transport.

Another point to note is that the 2017 economic upturn was unusual coming late in the expansion period, rather than after a recession. The resulting business restocking cycle, as firms face an unanticipated call on their inventories of goods and components, was also different. There was no sudden modal shift away from air as inventories reached normal levels. Instead this period coincided with overall trade weakness, so air did not lose as much its share of trade as in previous cycles.

Chart 9: Restocking cycle different this time



Source: IATA, Thompson Reuters Datastream

We think the cyclical downturn process has a little further to run, as we saw in the weak January data. We are also a little skeptical of the world trade forecasts for this year. As a result, we have factored in a further fall of air's share in world trade for 2019 to account for these factors.

Thereafter, we would expect the structural changes in retail and other sectors to slowly improve air freight's modal share, continuing the upward trend apparent since 2013 in Chart 8.

Average 5-year FTK growth of 4.4% in our baseline

Our baseline forecast combines the IMF's January 2019 view of global GDP and trade (we have interpreted what their forecast for trade in goods and services implies for goods trade only) with our assessment of the future path for air freight's share in world trade, as shown in Chart 8. This is implemented in the forecast through the multiplier between FTK growth and world trade growth, shown in table 1. The average for this multiplier of 1.2x over the period 2018-2023 is lower than the average for the past 5 years. However, we think this is a

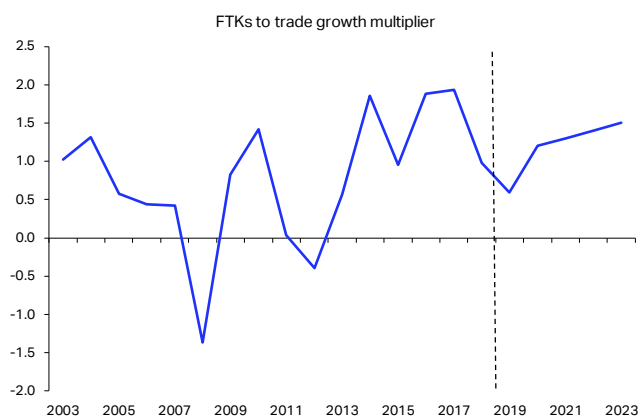
distortion of the trend because of a cyclical rise in the multiplier in 2016 and 2017 due to the business restocking cycle. In fact, the baseline projection for this multiplier continues the trend established in the 2013-2018 period. Having said that, there is clearly considerable uncertainty around this key parameter, which we test in the scenarios below.

Table 1: Baseline forecast

% CAGR, unless specified otherwise	2013-2018 (actual)	2018-2023 (forecast)
A Global GDP (market ex. rates)	2.9%	2.9%
B Global GDP (PPP ex. rates)	3.5%	3.6%
C Global goods trade	3.2%	3.6%
Trade to GDP multiplier (=C/A)	1.1	1.3
Trade to GDP multiplier (=C/B)	0.9	1.0
D Industry-wide FTKs	5.0%	4.4%
FTK to trade multiplier (=D/C)	1.56	1.20

Sources: IMF, IATA

Chart 10: FTK to trade multiplier



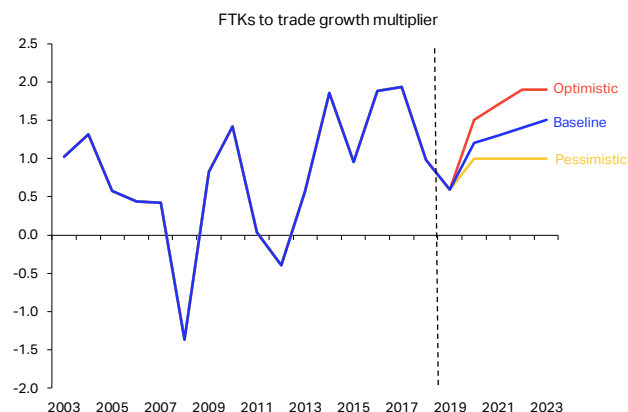
Source: IATA, IMF

Testing one key uncertainty

In last year's 5-year air cargo forecast we examined scenarios based around the world trade to GDP multiplier. The optimistic scenario modelled a return to open borders. We now doubt that this multiplier has that degree of uncertainty over a 5-year horizon. But there is uncertainty about what share air freight

could take from other modes, should changes, in sectors like retail and pharmaceuticals together with industry facilitation initiatives, progress significantly.

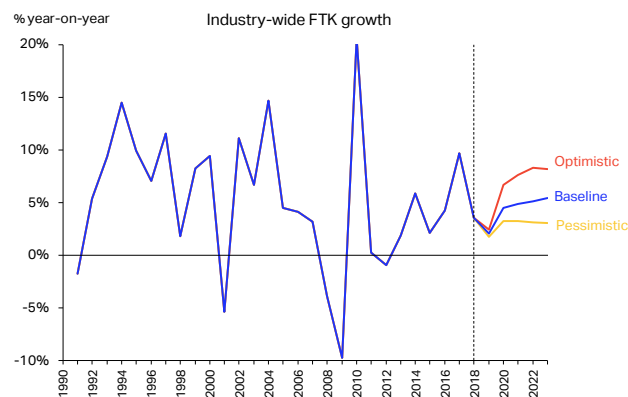
Chart 11: Scenarios around the FTK/WT multiplier



Source: IATA

Chart 11 shows an optimistic view of the FTK multiplier, where this returns to 2016-17 levels on the assumption that the recent dip in the multiplier was a temporary cyclical fall. The pessimistic scenario treats the 2016-17 levels of the multiplier as the aberration. Chart 12 shows the impact on the 5-year outlook. Note that these are trend projections and do not consider a recession which, though unpredictable in its timing and source, is highly likely in this period.

Chart 12: FTK growth scenarios



Source: IATA

IATA Economics
economics@iata.org
 12 March 2019

Get the data

Access data related to this briefing through IATA's Monthly Statistics publication:
www.iata.org/monthly-traffic-statistics

IATA Economics Consulting

To find out more about our tailored economics consulting solutions, visit:
www.iata.org/consulting

New release alerts

To receive email notifications from IATA Economics, select 'Economic Briefings' from:
www.iata.org/optin

Terms and Conditions for the use of this IATA Economics Report and its contents can be found here: www.iata.org/economics-terms
 By using this IATA Economics Report and its contents in any manner, you agree that the IATA Economics Report Terms and Conditions apply to you and agree to abide by them. If you do not accept these Terms and Conditions, do not use this report.