

International Economics Monthly

July 2015



[Redacted] and [Redacted]

What should we make of the recent weakness in world trade?

Main message: World GDP and trade growth weakened around the turn of the year. Survey indicators and monthly trade data suggest much of that appears to reflect temporary factors with growth expected to recover in Q2. More generally, though, world trade growth has been weak over the past few years. In part, that simply reflects the weakness of world GDP. But there is also evidence that the relationship between world trade and world GDP (valued at market exchange rates) has changed, due to the continued rise in the importance of emerging markets. Because we expect this rise to continue, trade growth is expected to remain subdued over the forecast relative to the past. A box discusses data developments on the month. The latest developments in Greece will be covered at Pre-MPC, but [Redacted]

Introduction

At the time of the February *Inflation Report* we had expected to see a continued gradual recovery in global activity over 2015. But, despite the large fall in the oil price, which should have supported global growth, world GDP growth *softened* around the turn of the year. And monthly data show world goods trade fell sharply in Q1, growing at the weakest rate since the crisis (**Chart 1**). We have repeatedly been disappointed by the weakness in world trade over the past few years and the recent softening in the data raises the question of whether this year could prove to be another disappointment. This IEM focuses on both the weakening in trade growth since the turn of the year and the longer period since 2010 where trade growth has at first glance been weak relative to GDP. It also considers the implications for future growth in trade and GDP.

Chart 1: CPB world goods imports

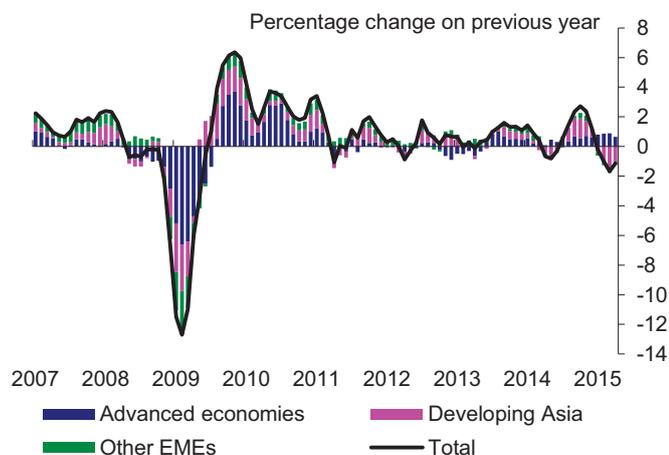
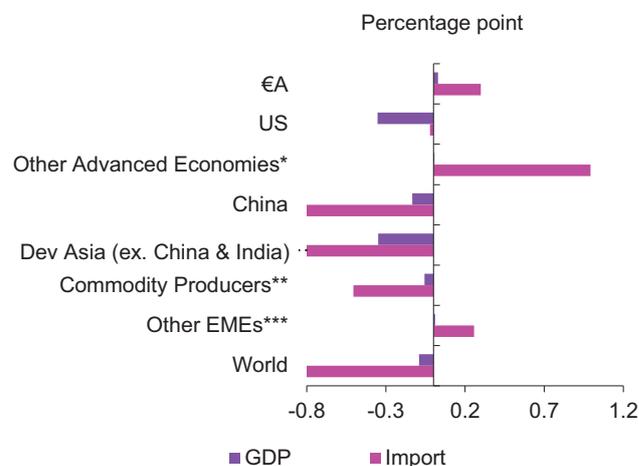


Chart 2: News in GDP and trade growth by region since the February IR



*Other Advanced Economies: Anzac, Canada, Japan, Other Western Europe and Newly Industrialised Asia
 **Commodity Producers: MENA, CIS and LATAM
 ***Other EMEs: CEE and Sub-Saharan Africa

The weakening in world GDP growth reflects downside news in the US and Developing Asia....

The latest available data show that global GDP growth fell around the turn of the year: our estimates suggest that UK-weighted world GDP growth slowed by around 0.2pp between 2014 Q3 and 2015 Q1, while PPP-weighted world GDP growth declined by 0.3pp. These data are somewhat weaker than expected in February, especially in PPP-weighted space where growth surprised on the downside by -0.1pp and -0.2pp in Q4 and Q1 respectively.¹

Mechanically, the slowing of world GDP growth was due to disappointing data in the US and Developing Asia (**Chart 2**). Activity in the euro area and other advanced economies has actually been a little stronger than expected. Similarly, outside of Developing Asia, growth in other emerging markets surprised to the upside a little.

¹ We currently do not have Q1 data available for countries that account for around 15% of world GDP. So it is possible that global growth could be weaker than our initial estimates suggest.

...whereas the decline in trade was almost entirely driven by Developing Asia

The decline in trade at the beginning of the year has been more extreme and a bigger surprise than the weakening in GDP (Chart 1 and 2). Monthly data on global goods trade have fallen sharply since late last year, with annual growth in March the weakest rate since 2009. Official quarterly national accounts data on imports across countries are somewhat stronger than the monthly goods trade data, perhaps indicating that services trade has been more resilient than goods, but nonetheless these still show a decline in trade growth in the first quarter (Chart 3). As for GDP, the weakening in world imports was accounted for by a decline in Developing Asia, although imports slowed more rapidly than the decline in GDP growth would have suggested. Chinese imports were particularly weak, but there were also large falls across a number of other Asian economies. Elsewhere imports generally held up (Chart 1 and 2). The fall in developing Asian imports pulled down on exports across the world, such that the weakness in global exports was much broader based.

Chart 3: MER-weighted world GDP and trade

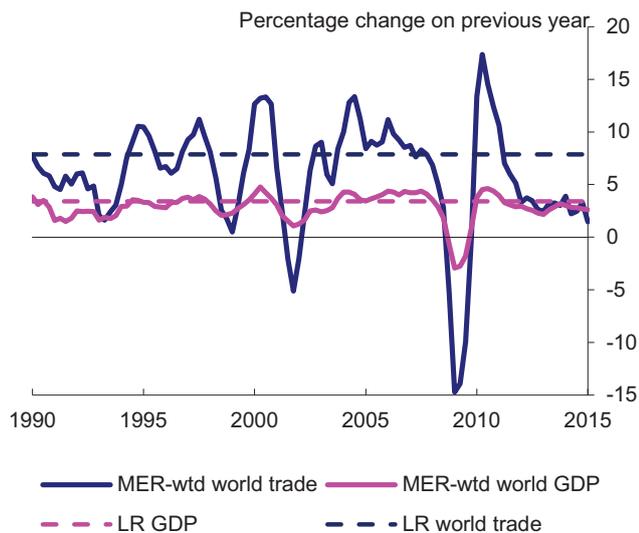
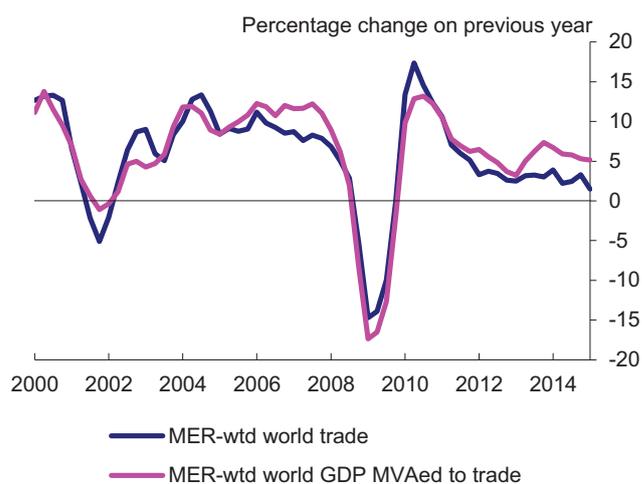


Chart 4: MER-weighted world GDP mapped to trade



Mean and variance calculated over 1990-2007

The sharp fall of trade in Q1 is likely to have been erratic but follows several years of weak trade growth...

Stepping back, though, world trade growth has been subdued over the past three years and this is something that seems likely to continue. Pre-crisis, world trade grew at around twice the rate of GDP, whereas in the past few years trade growth has barely matched GDP growth (Chart 3). This has drawn a lot of attention from externals, who have suggested it may reflect structural factors, such as rising protectionism or slower growth of global supply chains.² If structural factors were to blame then these could have persistent implications for trade growth and perhaps also for GDP growth.

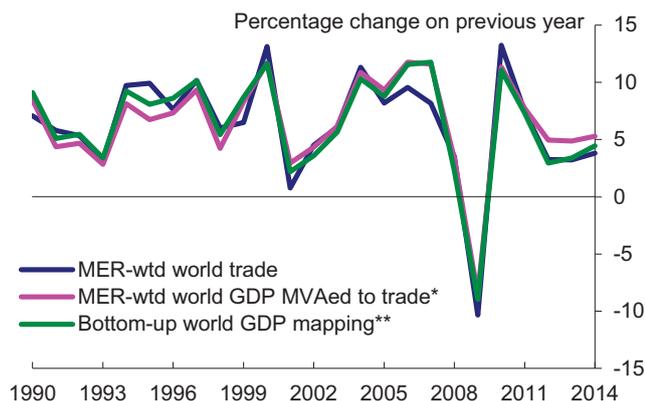
...and although some of this is likely to reflect the weakness of GDP growth...

However, much of the weakness in world trade growth since 2011 simply reflects the weakness in final demand worldwide that is already captured in world GDP growth. Chart 4 shows that once you adjust for the difference in variances of the two series, a great deal of the weakening in trade is explicable in terms of the decline in world GDP growth. This is because, while world trade tends to grow more quickly than world GDP, it also has a much larger variance. So as global GDP growth slows below average, world trade growth tends to slow by even more as its high variance amplifies the impact of the shock. This means that we would expect the ratio of trade to GDP growth to fall when GDP is growing below trend.

That said, even accounting for the weakness of aggregate global GDP growth, measures of world trade based on market exchange rates have still been weaker than a simple mapping would have expected (the blue line in Chart 5 has been below the pink line for some time), suggesting a structural change in the GDP to trade relationship.

² Understanding the weakness in world trade, ECB Economic Bulletin Issue 3 (2015) is only one of the many external comments on this issue.

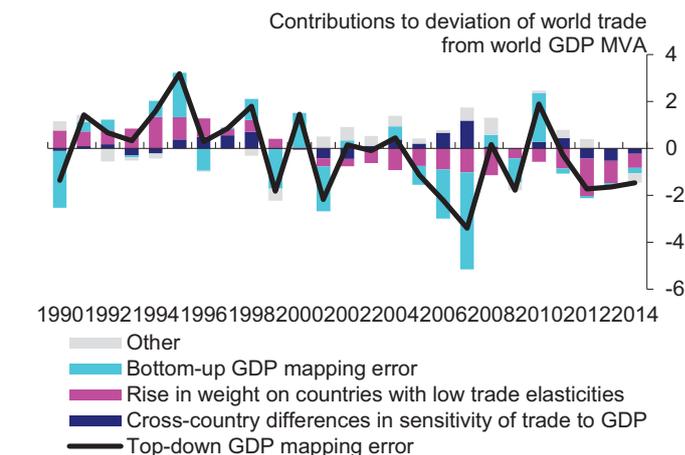
Chart 5: Bottom-up and top-down mapping of MER-weighted world GDP to trade



*Mean and variance taken over 1990-2007

**The bottom-up mapping shows each country's GDP MVAed to imports and then weighted up.

Chart 6: Explaining the deviation of MER-weighted world trade from world GDP³



Mean and variance calculated over 1990-2007

..some of the weakness likely reflects structural factors which may suggest persistent weakness in trade.

There are three factors that could explain the breakdown in the relationship between MER-weighted world GDP growth and world trade growth:

- 1) If the relationship between GDP and imports growth for some, or all countries, had changed. This could occur if there had been a slowing in the growth of global supply chains, which would reduce gross trade growth for a given rate of GDP growth.
- 2) If there had been an increase in the share of activity accounted for by countries where the import elasticity of GDP (i.e. the ratio of average import growth to average GDP growth) is lower.
- 3) If the slowing in world GDP growth has been concentrated in countries where imports tend to be more responsive to changes in GDP (i.e. where the variance of import growth relative to the variance of GDP growth were higher).

The weakness of trade between 2011 and 2014 does not reflect the first of these, a change in the relationship between imports and GDP within countries. To demonstrate this, the green line in **Chart 5** maps GDP to imports for more than 100 countries and then weights each country by its share in world imports, using annual data to the end of 2014 from the WEO.⁴ This bottom up approach shows that if we were to look at each country individually, we would not be surprised by the weakness in trade in recent years. And given imports have moved in line with GDP within countries, it is not obvious that we need to appeal to factors such as the changing nature of global supply chains in order to explain the weakening in global trade.⁵ The turquoise bars in **Chart 6** show the contribution of bottom-up GDP mapping errors to the overall divergence in MER-weighted world trade from world GDP.

Instead, most of the recent weakness of world trade relative to GDP reflects the fact that countries where the trade elasticity of growth is lower, such as China, now account for a higher share of global GDP, whilst some AEs which have higher trade elasticities (most notably some euro-area countries) make up a smaller share (**Table 1**). The pink bars in **Chart 6** show this has been weighing on trade growth for a number of years. But the drag has increased since 2009 following the financial crisis. Finally, a small portion of the divergence in MER-weighted world trade from world GDP can be explained by the slowing in world growth being concentrated in countries where the variance of trade relative to GDP is high, such as China. These are shown by the dark blue bars in **Chart 6**.

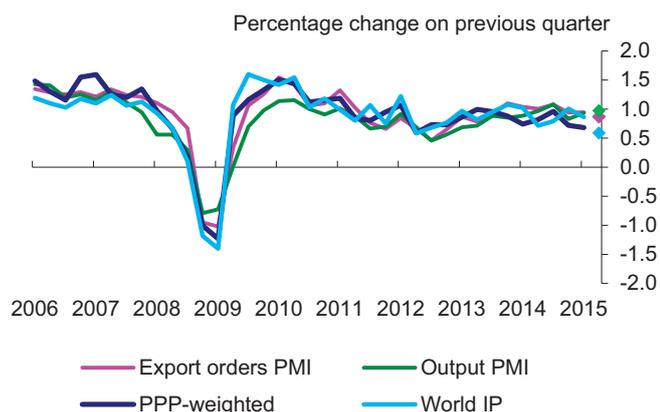
It is worth noting here that whilst there has been a structural change in the relationship between MER-weighted world trade and GDP, the relationship between UK-weighted measures of world imports and GDP has been significantly more stable. UK export markets continue to be dominated by advanced economies, and the share of EMEs in UK-trade-weighted global GDP has increased by much less than for MER-weighted measures.

³ The category 'other' captures the countries for which GDP and imports data are not available over the whole 1990-2007 period to calculate the mean and variance, so they are excluded from the bottom-up analysis.

⁴ The pink line in this chart is just a version of the pink line in Chart 4 that uses annual IMF data.

⁵ The puzzling weakening of trade in Q1 on the other hand, does appear to reflect a breakdown of the relationship between trade growth and GDP growth in Developing Asia. But the monthly trade data suggest this should largely unwind in Q2.

Chart 7: World GDP, global IP and global PMIs



Note: PPP-weighted GDP growth and Export orders PMI projected the same growth in Q2 at 0.9%

Table 1: Regional trade elasticities

	Change in MER share of world trade since 1990, pp	Mean GDP growth, %*	Mean trade growth, %*	Trade elasticity**
World	NA	3.4	7.4	2.2
China	9.7	10.2	16.3	1.6
France	-3.3	2.1	5.4	2.6
Germany	-3.6	1.9	6.3	3.2
Italy	-3.0	1.5	4.6	3.1
Japan	-3.2	1.5	4.0	2.7
UK	-2.9	2.5	5.5	2.2
US	-3.3	3.0	7.1	2.4

* Mean growth rates taken between 1990 and 2007.

** Trade elasticity calculated as mean trade growth / mean GDP growth between 1990 and 2007.

We expect world trade and GDP growth to recover from Q2...

Looking forward, we think much of the weakness in world trade and GDP growth in Q1 was temporary. And growth is forecast to recover from the second quarter. In the US, the monthly consumption indicators are showing signs of recovery and the monthly trade data have picked up somewhat following the reopening of the ports. Given this, we expect GDP to rise by 0.8%. In China, growth is also expected to recover somewhat in Q2. But the indicators have been a little weaker than expected, suggesting GDP growth will only rise to 1.6% (0.1pp weaker than expected in February). We continue to expect a further rebound in Chinese growth in H2 2015, though, as policy stimulus that has already been implemented should kick in.

Similarly, while the improvement in the CPB monthly goods trade data in April suggests trade growth should recover in the second quarter, they do not suggest a bounce back in the level of trade.

Overall, our forecast is for world GDP growth to pick up by approximately 0.2pp in Q2 (to 0.7% for UK-wtd and 0.9% for PPP-wtd). That is broadly in line with the steer from the global PMIs, although they have over predicted growth recently (**Chart 7**). But there are probably near-term downside risks to the forecast treatment, as world industrial production growth was weak in April (**Chart 7**) and we would want to see an improvement in May and June to be confident that the expected bounce back in global activity is materialising. World trade growth is also expected to recover in Q2 (MER-weighted world trade is expected to rise from -0.2% to 1.0%).

...but it is likely that world trade growth will remain somewhat weaker than pre-crisis.

Going forwards, while much of the surprising weakness of trade in Q1 is likely to be temporary, we expect world trade growth to remain subdued relative to pre-crisis averages. And we do not expect the trade elasticity of global growth to return to its pre-crisis level over the forecast horizon for two reasons:

- 1) Global growth is expected to remain weaker than prior to the crisis, due to weaker global potential supply growth. Given the higher variance of trade growth relative to GDP growth, that will continue to weigh on the trade growth to GDP growth ratio.
- 2) The weight on EMEs, which have low trade elasticities, is expected to continue rising (albeit at a slower pace than the past given the slowdown in potential growth expected over the forecast), further depressing the global elasticity. This second point will be less relevant for the UK, where the relationship between UK export-weighted trade and GDP growth has been much more stable.

The weaker outlook for trade is captured in our forecast, which suggests trade will recover in Q2 but remain subdued throughout the forecast relative to pre-crisis rates (particularly in MER-weighted space). And this is expected to weigh on UK export demand. But because the past relationship between UK-weighted world GDP and trade does not appear to have changed significantly, this analysis does not suggest any significant change in the way shocks from abroad spillover to the UK through trade relative to our standard treatment.

Assessment of data and policy news on the month

By

Region	Judgement on the month
Euro area	<i>The PMI rose to a 4 year high in June, and is consistent with growth of 0.5% in Q2. Inflation rose in May, to 0.3%, driven by a pick-up, before falling back slightly to 0.2% June. Greece requested a new two-year programme on 30 June, following the announcement of a referendum on the creditors' proposals by PM Tsipras on 26 June.</i>
US	<i>US GDP grew by 0.0% qoq, according to the third estimate. Real consumption growth increased to 0.6% mom in May (after remaining flat in April), as the monthly savings rate fell by 0.3pp to 5.1%.</i>
Asia/EMEs	<i>In China, policy support is starting to stabilise growth, albeit stock markets fell sharply recently. Elsewhere, Japanese Q1 GDP revised up to 1.0% oqa. Trade in Asia were weak.</i>
World activity	<i>As the service sector growth slowed, the May Global PMI fell to 53.6, below its long run average (53.9), from 54.0 in April, CPB world trade showed signs of recovery as it grew 0.3% (mom) from -0.1% in March.</i>
Commodities	<i>Oil prices have fallen 3%, and 2% across the futures curve since last pre-MPC. In May, OPEC crude oil supply was the highest since August 2012, and 1mbpd above the official target. The IEA revised up 2015 global oil demand, and non-OPEC supply.</i>

Euro area

The second release of euro-area GDP confirmed growth of 0.4% qoq in Q1. The expenditure split revealed that growth was driven by domestic demand, in particular, strong private consumption and investment which grew by 0.5% and 0.8%, respectively. Net trade provided a drag, contributing -0.2pp to growth in Q1.

In terms of high frequency data, the flash composite PMI rose to 54.1 in June, reaching a four year high. The euro-area consumer confidence was unchanged at -5.6 in June but fell by 3.2 points in Greece to -46.8. Industrial production increased by 0.1% in April, a little weaker than expected, due to weak energy production. On balance, we expect GDP growth of 0.5% oqa in Q2, unchanged from last pre-MPC. Inflation rose to 0.3% in May, driven by an increase in core inflation, before falling back slightly to 0.2% in June. We now expect inflation will remain at around its current level over the coming months.

Greece requested a new two-year programme on 30 June, following the announcement of a referendum on the creditors' proposals by PM Tsipras on 26 June. Greece is expected to be unable to pay its €1.6bn payment to the IMF on 30 June, although this is unlikely to affect its other loans. On 29 June, the ECB decided to maintain the current level of ELA to Greek banks at €89bn. In response to the ECB's decision, the Greek government announced a bank holiday until 7 July and imposed capital controls.

US

The third estimate of Q1 US GDP was revised up by 0.1pp to 0.0% qoq (2.9% yoy), with upward revisions to non-durable consumption and fixed investment.

Our nowcast for GDP growth in Q2 stands at 0.8% qoq. In May, real consumption growth picked up to 0.6% mom (3.4% yoy), after remaining flat in April, as the monthly personal saving rate fell by 0.3pp to 5.1%.

The FOMC did not change policy in their June meeting, and their economic projections for 2016 and 2017 were largely unchanged. Although, the median point in the "dot plot" for the midpoint of the FFR at the end of 2015 remained at 0.625%, the mean fell by 0.2pp to 0.56%.

The FOMC requirement for "further improvement in the labor market" appeared to be on track in May with strong non-farm payroll growth, of 280k, and the softer March data revised upwards. But an increase in the participation rate, to 62.9%, caused the unemployment rate to increase by 0.1pp to 5.5%, as border measures of slack remain elevated (e.g. U6 measure remained at 10.8%).

At the press conference Yellen stressed the stabilisation in energy price falls, but fell short of saying that the FOMC were now confident "that inflation will move back to its 2% objective." The continued weakness of headline PCE inflation in May (unchanged at 0.2%), in part reflects prices for government-paid medical services, as core PCE inflation fell by 0.1pp to 1.2%.

Asia/EMEs

In China, we continue to expect a slight rise in growth going into Q2 as past policy measures take effect. In May our preferred survey indicators, the official NBS manufacturing PMI (50.2, +0.1), and HSBC services PMI (53.5, +0.6), both picked up. IP also rose slightly (6.1% oya in May, +0.2pp), with an acceleration in investment, while the property market has shown firmer signs of stabilisation: prices in Tier 1 cities have been rising for the past 3 months (mom) while the 70 city index has risen for the first time in a year. Overall, our nowcast points to growth of 1.6% oqa, up 0.1pp from Q1.

The 20% fall in Chinese equities prompted the PBoC to cut benchmark lending and deposit rates by 25bps – the fourth cut since December – and the RRR by 50bp for some lenders. The authorities appear fearful of a disorderly correction – the MoF also announced draft plans to allow pension funds to invest in stocks. Overall, we think it is unlikely that the fall in equities will affect the macro outlook and the cut by PBoC brought forward a move that we had expected in H2. Further policy actions in June included: the local government debt swap was doubled to RMB 2tn (enough to cover all debt maturing in 2015), and Pledged Supplementary Lending (PSL) was extended to selected policy banks, to support infrastructure lending.

Elsewhere, Japanese Q1 GDP growth was revised up by 0.4pp to 1.0% oqa, due to a stronger estimate of business investment.

Commodities

Oil prices have fallen by 3%, and 2% across the futures curve since last pre-MPC. In May, OPEC continued to produce above its official target, at around 31mbpd. The IEA revised up global oil demand growth in 2015 by 0.3mbpd relative to the May report to 1.4mbpd. This is because of stronger-than-expected oil demand in 2015Q1 due to colder-than-year earlier winter weather, particularly in the euro area. This is one of the factors driving oil prices during the beginning of 2015. It also revised up non-OPEC oil supply growth in 2015 by 1mbpd as it expected fewer fields in the US being shut down.