Schroders Economic and Strategy Viewpoint

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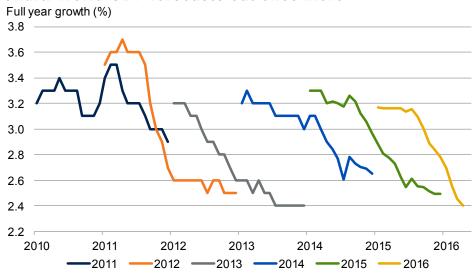
Global: here we go again (page 2)

- In what has become an annual ritual the International Monetary Fund (IMF) has
 downgraded its forecasts for global growth. Markets have been unmoved as
 growth expectations had already been marked down and, if anything, the outlook
 has brightened with commodity prices and business surveys perking up.
- However, whilst the IMF may have turned gloomy at the wrong moment there is no escaping that this is the sixth consecutive year in which economists have had to downgrade their forecasts for global growth. Hopes that the financial crisis would only have a temporary effect have been dashed. The IMF calls for more fiscal policy, but for countries with high public debts such as Japan the only option may be monetisation. Is it time to start the helicopters?

Views at a glance (page 7)

 A short summary of our main macro views and where we see the risks to the world economy.

Chart: World GDP forecasts cut once more



Source: Consensus Economics, Schroders Economics Group. 28 April 2016.

Global: here we go again

"The good news is that the recovery continues: we have growth; we are not in a crisis. The not-so-good news is that the recovery remains too slow, too fragile, and risks to its durability are increasing."

Christine Lagarde, Managing Director, IMF, 5 April 2016

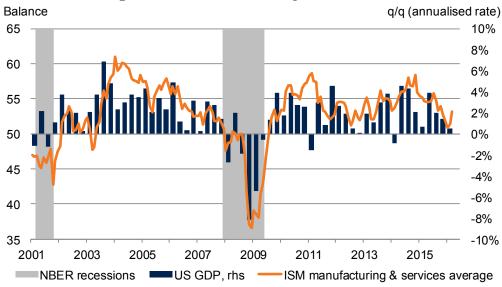
IMF confirms slowdown in world economy

In what has become an annual ritual, the IMF downgraded its expectations for global growth in its spring forecasts. On the IMF's measures the world economy is now expected to grow at 3.2% in 2016, down from 3.6% at the forecast made in October last year. The forecasts set the backdrop for a gloomy set of IMF meetings in Washington where countries were urged to increase co-operation and do more to support growth through fiscal policy.

The IMF forecast is one of the most comprehensive assessments of the world economy, however given the time it takes to produce it is often seen as a lagging indicator. In this case it reflected the concerns of the first quarter which was dominated by fears of a global recession. Markets received the news from the IMF with equanimity as most economists had already downgraded their forecasts in response to weaker growth in the US and Japan, and ongoing concerns over the emerging markets and commodity prices.

If anything the outlook has brightened recently. Commodity prices have been firmer: the oil price has rallied and industrial metals have shown signs of life. There are indications that the manufacturing sector may now be turning a corner having battled with the slowdown in global trade and an overhang of inventory. Purchasing managers indices have firmed and the US Institute for Supply Management (ISM) indices for both manufacturing and services turned up in March (see chart 1).

Chart 1: ISM signals turn in the US cycle



Source: Thomson Reuters Datastream, Schroders Economics Group, 6 April 2016.

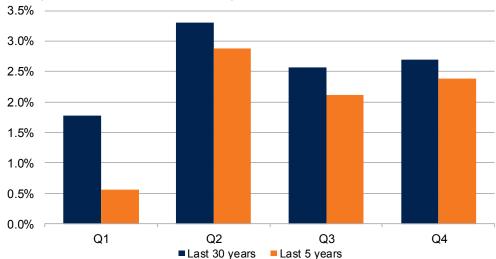
However, commodity prices, surveys and residual seasonality point to better growth ahead

It is also likely that forecasters have been caught out yet again by the "Q1 effect" in the US. This is the persistent tendency for GDP to be understated in the first three months of the year as the statisticians at the Bureau for Economic Analysis (BEA) struggle to fully account for the seasonal fluctuations in economic activity. We estimate that the bias, formally known as residual seasonality, is currently averaging around 1.5 percentage points off the annualised number. Given that the US is the largest economy in the world, this accounts for a significant part of the downgrade to global growth. The good news is that there is less bias in

subsequent quarters creating scope for a bounce back in Q2. The pattern of a weak Q1 followed by a stronger Q2 has been a feature of the US data for the past 30 years, but has become more pronounced since the financial crisis¹ (chart 2).

Chart 2: First quarter blues in the US

Average quarter on quarter US real GDP growth rate (saar)



Source: Thomson Reuters Datastream, Schroders Economics Group, 21 April 2016.

Bounce ahead, but the pattern of downgrades persists

These factors point toward a bounce back in growth in coming months led by a firmer manufacturing sector. Such an outcome could make the IMF look out of step by becoming more pessimistic just as the skies are clearing. However, notwithstanding the prospects for a turn in the inventory cycle and the statistical quirks of the BEA's seasonal adjustment process, we cannot escape the fact that 2016 is set to be the sixth consecutive year in which economists have had to substantially revise down their forecasts (see chart front page).

Each year since 2011, the consensus for global growth has started at above 3% and by the end of the year has fallen by around one percentage point to just above 2%. This is a remarkably persistent error which has occurred against a backdrop of lower and lower interest rates. This challenges the view that the impact of the financial crisis would be temporary. Even the significant drop in oil prices has not been enough to shake the world economy out of its torpor.

Putting aside doubts about economists' ability to forecast, the explanation, in our view, lies on both the demand and supply side of the economy. On the demand side, credit availability has been tightened by regulation and potential borrowers have been scarred by their past experience of debt. The increases in wealth created by quantitative easing (QE) have added many lucky asset holders to the rich list, but have not been spread wide enough to boost overall consumer spending. Meanwhile, the export-led emerging markets are struggling to adjust to weaker developed market demand and the related slowdown in China, which has reduced global trade to a crawl and brought an end to the commodity boom.

On the supply side trend growth has ratcheted down, primarily reflecting the deceleration in productivity growth in developed markets. Despite the developments in technology in recent years we have not seen this translate into higher output per worker. Meanwhile, demographics have turned less favourable for growth as the baby boomers have begun to retire, thus slowing the growth in the working population.

Forecasts have been persistently overoptimistic on demand and supply

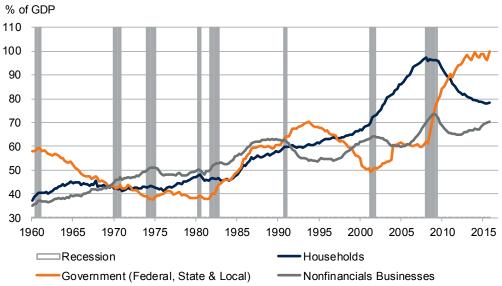
¹ See the Schroders Talking Point article: "Is the US heading for recession?"

Balance sheets have been repaired but little desire on the part of households to re-leverage These are significant challenges and not all are a consequence of the financial crisis. The demographics and productivity slowdown were in train before 2008, for example.

What has changed is on the demand side where the monetary transmission channel has been permanently impaired as a consequence of the crisis. Earlier in the recovery there was always the hope that once balance sheets had been repaired and banks had been recapitalised we would see a revival in credit and activity as borrowers took advantage of low interest rates. Seven years on and this has not happened. Balance sheets have been repaired, but there seems to be little desire to re-leverage.

Looking at the US, despite some strong growth in unsecured borrowing, overall household borrowing remains weak and gearing (debt to income) continues to decline. In the corporate sector gearing has picked up in the US but this would seem to be part of a shift in the capital structure of firms to take advantage of the low cost of credit relative to equity. Hence we continue to see companies issuing debt and buying back their shares, rather than increasing their capital expenditure. As a consequence the increase in leverage is not associated with stronger growth. Meanwhile, gearing in the public sector remains high and seemingly stuck at around 100% GDP (chart 3).

Chart 3: US household sector continues to de-lever



Source: Thomson Datastream, Schroders Economics Group. 25 April 2016.

Government debts remain high, or are increasing

The picture is similar elsewhere with a household sector unwilling or unable to gear up, whilst public sector debt remains high or is increasing. Such an outcome is not confined to the developed economies, the fiscal position in the emerging economies has deteriorated significantly as a result of the drop in commodity prices. According to the IMF, in the Middle East and North Africa, the cumulative fiscal balances of oil exporters alone are expected to deteriorate by over \$2 trillion in the next five years relative to 2004–08, when oil prices peaked.

Time to fire up the helicopters?

This suggests that after a short term bounce we will be back to slow growth. We are not forecasting a global recession, China hard landing or US recession. However, efforts to boost activity with monetary policy will have little success as the monetary transmission channels through credit and wealth effects remain blocked. Meanwhile, the supply side has deteriorated creating the "wobbly bike" world economy (in other words, slow moving and vulnerable to shocks).

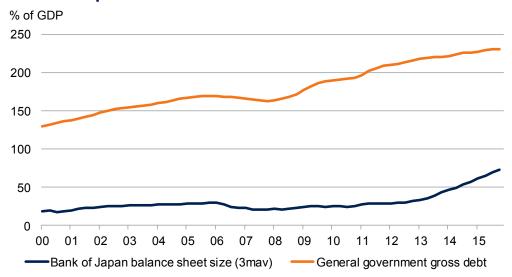
Clearly, looking at the economists' pitiful forecast record over the past six years

there is an adjustment of expectations which still needs to occur to a world of slower growth. Bond markets recognise this and, more contentiously, equity markets do too given the size of risk premia and the outperformance of income generating shares.

However, low growth is a serious problem for politicians and governments who have made promises on taxes and expenditure based on a world where growth is stronger. They are now caught between the need for austerity to control borrowing and fiscal expansion to boost growth.

Nowhere is this more acute than in Japan where government debt continues to rise and the budget deficit remains high. Japan ran a budget deficit of 5% of GDP last year, most of which was structural and outstanding public debt to GDP was 230%. And yet, despite the need for fiscal consolidation, the government is widely expected to deliver a stimulus budget ahead of the upper house elections in July and postpone the future increase in the consumption tax. The economy is weak and inflation expectations continue to soften, so stimulus is on its way.

Chart 4: Japan's debt mountain and QQE



Source: Schroders, Thomson Datastream, Oxford Economics 25 April 2016. QQE stands for quantitative and qualitative easing

On the monetary side, the Bank of Japan (BoJ) chose not to increase stimulus efforts on the 27th of April against market expectations. The inaction came despite the central bank pushing back the timing for hitting its 2% inflation target to "during fiscal year 2017", compared to the first half of that year previously, and a downgrading of its growth outlook.

However, that does not mean that the BoJ will stop trying and we expect it to add further stimulus by the end of this year. It is committed to beating deflation and getting inflation back to 2%. The BoJ has already acquired assets of JPY 405 trillion and this will rise considerably further.

Some say this can only end in inflation which may happen if the BoJ starts to feed printed money directly into the economy. This could be a "helicopter drop" of newly created JPY into personal bank accounts and would amount to monetisation, government spending with no increase in liabilities. It is widely seen as the road to ruin as such measures have often ended in hyperinflation. We would not rule this out, but monetisation may arrive through a different route.

The BoJ owns increasing amounts of the government's debt and institutional investors are being actively discouraged from holding Japanese government bonds (JGB's). The scene is set for a consolidation of the government balance sheet where the government writes off a large chunk of the BoJ's holdings of JGB's, or switches them into an ultra long dated zero coupon bond. Such a

Japan: fiscal stimulus on its way despite unsustainable public debt

The road to monetisation?

restructuring would be a default, but it is a default on its own bank. Japan would be downgraded by the ratings agencies, but the impact on yields and future borrowing costs can be contained by further QE, or by forcing domestic investors into bonds through capital controls, an extreme example of financial repression. Nonetheless, the JPY could well fall sharply as international investors take fright as debt will have been effectively monetised. The money originally printed to buy bonds will remain in the economy, now backed by only the flimsiest promise to withdraw it at some very distant date in the future.

Clearly we are some way from this and no other economies face quite the same challenges. Yet, such musings indicate where QE may end up if growth does not improve. As the European Central Bank (ECB) pushes its own QE programme further out and widens the range of its asset purchases, what is happening in Japan may be seen as increasingly relevant.

Schroder Economics Group: Views at a glance Macro summary – May 2016

Key points

Baseline

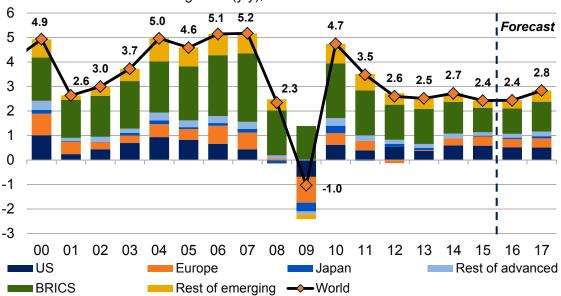
- We trimmed our global growth forecast in February to 2.4% for 2016 led by downgrades to the US, Japan
 and emerging markets. The inflation forecast for 2016 was also reduced for the advanced economies to
 reflect the lower oil price profile. Emerging market inflation is, however, higher as a result of currency
 depreciation and administered price hikes. For 2017, our forecasts were little changed, with growth
 strengthening modestly as a result of more stable emerging market activity.
- The US Fed is expected to raise rates in June and December by 25 bps, so taking fed funds to 1% by end year. Further increases in 2017 to 1.5% by end year, but this is a flatter profile than before to reflect lower inflation and concerns about global activity.
- UK recovery to continue, but to moderate as a result of Brexit uncertainty and the resumption of austerity. Interest rate normalisation to begin with first rate rise in November 2016. BoE to move cautiously, hiking 25bps in November, peaking at around 1% in February 2017 when weaker activity will force a pause.
- Eurozone recovery continues in 2016, but does not accelerate as tailwinds fade and the external environment drags on growth. Inflation to turn positive again in 2016 and rise modestly into 2017. ECB to cut rates further with the deposit rate falling to -0.5% by the end of the year where it stays through 2017.
- Japanese growth now forecast at 0.8% this year (previously 1.1%) and inflation reduced to 0.4%. The BoJ responds with further rate cuts, taking policy rates to -0.25% by end 2016.
- Emerging economies benefit from modest advanced economy growth, but tighter US monetary policy weighs on activity, while commodity weakness will continue to hinder big producers. Concerns over China's growth to persist, further fiscal support and easing from the PBoC is expected.

Risks

Risks skewed towards deflation on fears of China hard landing, currency wars and a US recession. The
risk that Fed rate hikes lead to widespread EM defaults would also push the world economy in a
deflationary direction. Inflationary risks stem from a significant wage acceleration in the US, or a global
push toward reflation by policymakers. Finally, an agreement between Saudi Arabia and Russia could limit
oil supply, leading to a jump in inflation and a hit to consumer spending.

Chart: World GDP forecast

Contributions to World GDP growth (y/y), %



Source: Thomson Datastream, Schroders Economics Group, February 2016 forecast. Please note the forecast warning at the back of the document.

Schroders Baseline Forecast

Real GDP

y/y%	Wt (%)	2015	2016	Prev.	Consensus	2017	Prev.	Consensus
World	100	2.4	2.4	↓ (2.6)	2.4	2.8	(2.8)	2.8
Advanced*	62.4	1.8	1.7	↓ (1.9)	1.7	1.9	(1.9)	1.9
US	24.7	2.4	2.1	↓ (2.4)	2.0	2.1	(2.1)	2.4
Eurozone	19.0	1.5	1.4	↓ (1.5)	1.5	1.6	(1.6)	1.7
Germany	5.5	1.4	1.6	↓ (1.7)	1.6	2.1	(2.1)	1.5
UK	4.2	2.2	1.9	(1.9)	2.0	1.6	(1.6)	2.2
Japan	6.5	0.5	0.8	↓ (1.1)	0.6	1.4	↓ (1.5)	0.5
Total Emerging**	37.6	3.4	3.6	↓ (3.9)	3.5	4.4	↑ (4.2)	4.3
BRICs	23.6	4.2	4.4	↓ (4.6)	4.3	5.2	(5.2)	5.1
China	14.7	6.9	6.3	(6.3)	6.5	6.2	(6.2)	6.3

Inflation CPI

y/y%	Wt (%)	2015	2016	Prev.	Consensus	2017	Prev.	Consensus
World	100	3.0	3.9	↑ (3.7)	4.6	3.7	↓ (3.9)	3.6
Advanced*	62.4	0.2	1.0	↓ (1.4)	0.8	2.0	↑ (1.9)	1.8
US	24.7	0.1	1.2	↓ (1.6)	1.3	2.3	↑ (2.1)	2.2
Eurozone	19.0	0.0	0.7	↓ (1.3)	0.3	1.6	(1.6)	1.4
Germany	5.5	0.1	0.9	↓ (1.5)	0.5	1.8	↑ (1.6)	1.6
UK	4.2	0.1	0.8	↓ (1.3)	0.7	2.0	↓ (2.2)	1.7
Japan	6.5	0.8	0.4	↓ (1.0)	0.0	1.8	(1.8)	1.6
Total Emerging**	37.6	7.6	8.7	↑ (7.4)	10.9	6.7	↓ (7.3)	6.6
BRICs	23.6	4.5	3.8	1 (3.6)	3.6	3.5	↑ (3.4)	3.3
China	14.7	1.5	1.9	(1.9)	1.9	2.1	(2.1)	1.9

Interest rates

% (Month of Dec)	Current	2015	2016	Prev.	Market	2017 <i>Prev.</i>	Market
US	0.50	0.50	1.00	↓ (1.25)	0.86	1.50 🗸 (2.00	1.13
UK	0.50	0.50	0.75	↓ (1.00)	0.67	1.00 🗸 (1.25	0.91
Eurozone (Refi)	0.00	0.05	0.05	(0.05)	-0.28	0.05 🗸 (0.25	0.91
Eurozone (Depo)	-0.40	-0.30	-0.50	-	-0.20	-0.50	0.91
Japan	-0.10	0.10	-0.25	↓ (0.10)	0.01	-0.50 🗸 (0.10	0.01
China	4.35	4.35	3.50	(3.50)	-	3.00 (3.00	-

Other monetary policy

(Over year or by Dec)	Current	2015	2016	Prev.	2017	Prev.
US QE (\$Bn)	4487	4487	4505	↓ (4507)	4523	↓ (4525)
EZ QE (€Bn)	159	652	1372	↑ (1369)	1732	1 (1369)
UK QE (£Bn)	375	375	375	(375)	375	(375)
JP QE (¥Tn)	383	383	400	↓ (404)	400	↓ (404)
China RRR (%)	17.50	17.50	15.00	15.00	13.00	13.00

Key variables

FX (Month of Dec)	Current	2015	2016	Prev.	Y/Y(%)	2017	Prev.	Y/Y(%)	
(-	. ,		-		
USD/GBP	1.46	1.47	1.43	↓ (1.50)	-3.0	ị 1.40 <mark>√</mark>	(1.50)	-2.1	
USD/EUR	1.13	1.09	1.08	↑ (1.02)	-0.6	1.04 👍	(1.02)	-3.7	
JPY/USD	108.6	120.3	115	↓ (120)	-4.4	120 👍	(115)	4.3	
GBP/EUR	0.78	0.74	0.76	↑ (0.68)	2.5	0.74 👍	(0.68)	-1.6	
RMB/USD	6.48	6.49	6.80	↑ (6.60)	4.7	7.00 👍	(6.80)	2.9	
Commodities (over year)									
Brent Crude	47.6	52.7	35.7	↓ (48)	-32.3	41.9 🗸	(43)	17.6	
October described Theorem Detector on Community Francisco April 2040									

Source: Schroders, Thomson Datastream, Consensus Economics, April 2016

Consensus inflation numbers for Emerging Markets is for end of period, and is not directly comparable.

Market data as at 29/04/2016

Previous forecast refers to November 2015

^{*} Advanced markets: Australia, Canada, Denmark, Euro area, Israel, Japan, New Zealand, Singapore, Sweden, Switzerland, United Kingdom, United States.

^{**} Emerging markets: Argentina, Brazil, Chile, Colombia, Mexico, Peru, Venezuela, China, India, Indonesia, Malaysia, Philippines, South Korea, Taiwan, Thailand, South Africa, Russia, Czech Rep., Hungary, Poland, Romania, Turkey, Ukraine, Bulgaria, Croatia, Latvia, Lithuania.

Updated forecast charts - Consensus Economics

For the EM, EM Asia and Pacific ex Japan, growth and inflation forecasts are GDP weighted and calculated using Consensus Economics forecasts of individual countries.

Chart A: GDP consensus forecasts

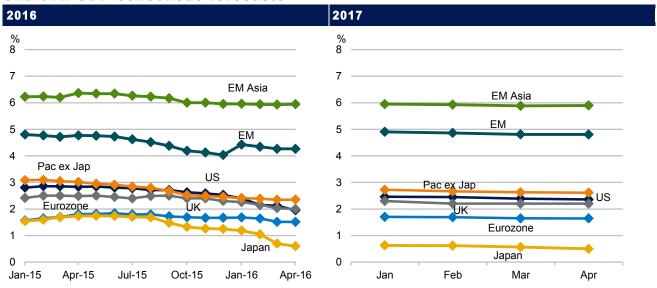
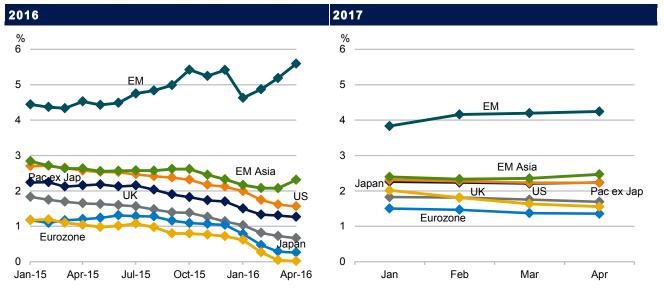


Chart B: Inflation consensus forecasts



Source: Consensus Economics (April 2016), Schroders.

Pacific ex. Japan: Australia, Hong Kong, New Zealand, Singapore.

Emerging Asia: China, India, Indonesia, Malaysia, Philippines, South Korea, Taiwan, Thailand.

Emerging markets: China, India, Indonesia, Malaysia, Philippines, South Korea, Taiwan, Thailand, Argentina, Brazil, Colombia, Chile, Mexico, Peru, Venezuela, South Africa, Czech Republic, Hungary, Poland, Romania, Russia, Turkey, Ukraine, Bulgaria, Croatia, Estonia, Latvia, Lithuania.

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