LIVERPOOL INVESTMENT LETTER

June 2018

Cardiff Business School
Ysgol Busnes Caerdydd

Julian Hodge Institute of Applied Macroeconomics

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LIVERPOOL RESEARCH GROUP IN MACROECONOMICS

LIVERPOOL RESEARCH GROUP IN MACROECONOMICS

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The Julian Hodge Institute was launched in autumn 1999 in a new collaboration between the Cardiff Business School of Cardiff University and Hodge. The aim of the Institute is to carry out research into the behaviour of the UK economy, and to study in particular its relationship with the other economies of Europe. The research has been particularly germane in recent years and has proved to be of significant social and political relevance as Europe has navigated the difficulties of the global financial crash, the Eurozone crisis and most recently the UK referendum on EU membership. The Liverpool Investment Letter is written by Patrick Minford, with the assistance of other members of the Group; in particular the emerging markets section is written by Anupam Rastogi, and the focus on Japan is written by Francesco Perugini. The Investment Letter is published monthly.

The Liverpool Research Group in Economics is pursuing a research programme involving the estimation and use of macroeconomic models for forecasting and policy analysis. The Group is now mainly based in Cardiff Business School, Cardiff University, and is indebted to the School and to the Hodge Foundation for their support. The Group's activities contribute to the programmes being pursued by the Julian Hodge Institute of Applied Macroeconomics. This Liverpool Investment Letter is typeset by David Meenagh and published on behalf of the group by Liverpool Macroeconomic Research Limited, which holds the copyright

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CONTENTS

THE STALEMATE IN BREXIT TALKS?

In principle the Brexit talks between the UK and the EU should be steaming towards a conclusion in the next two months. David Davis has said that '80% is agreed'.

So it should be if economic interests were paramount and all parties playing according to pure economic logic. The UK is best off with No Deal, but this is very damaging to the EU as it would get no money from the UK after March 2019, it would face UK tariffs, and it would lose its 'customs union premium' on net exports to the UK two years early. The EU would like No Brexit, but that is impossible to reconcile with the UK referendum and also is economically damaging to the UK, as it would lose the gains from own-regulation and signing free trade deals around the world. With No Deal unacceptable to the EU and No Brexit unacceptable to the UK, what is left is a straightforward trade deal, 'Canada plus', in which both sides agree to free trade in goods and mutual recognition in services.

Politics seems to be obstructing progress to such a deal. M. Barnier feels, egged on by Remainers, that he has a chance of derailing Brexit, and so is playing hard ball, using the Irish Border as his main weapon. He hopes to force the UK into staying in the Customs Union. In Parliament, a few dissident Tory MPs hope to help this along. A proposal called the New Customs Partnership has been proffered as a stalking horse for this option. However, this in practice only could work if the UK remained in the EU Customs Union.

This would keep the UK under the authority of the ECJ and prevent any free trade agreements with non-EU countries, while the EU would continue to dictate our tariffs and product standards. It is widely denounced for these reasons as a betrayal of the referendum result as well as a damaging economic outcome. Politically for the Tory government to negotiate such a deal looks like electoral suicide.

This politics has also become entwined in the Irish border issue. If the UK leaves the Customs Union, the proposal put forward for border procedures is 'Maximum Facilitation' which obeys the current canons laid down by the WTO for a 'seamless (computerised) border'. Swiss practice suggests that the border costs under this 'Max Fac' would be very small, around 0.1% of trade value. As far as the Irish border is concerned, its use of sophisticated technology and risk management would imply no 'hard border'.

The odds are that the Tory government will hold its nerve and continue with its announced policy of leaving both the Single Market and the Customs Union, with the Max Fac proposal as its practical front end. To do this it needs to get its Withdrawal Bill through the Commons free of any damaging amendments, including ones passed in the Lords. This will be tight: but the survival of the Tories as a political force depends on it and so it seems to be the most likely outcome.

Table 1: Summary of Forecast

	2016	2017	2018	2019	2020	2021	2022
GDP Growth[1]	1.9	1.8	1.9	1.9	1.9	2.1	2.3
Inflation CPI	1.1	2.6	2.3	2.0	1.9	2.0	2.7
Wage Growth	2.4	2.3	2.5	2.1	1.6	2.4	2.9
Unemployment (Mill.)[2]	0.8	0.8	0.8	0.7	0.7	0.6	0.5
Exchange Rate[3]	82.1	77.4	77.0	76.2	75.8	76.1	74.9
3 Month Interest Rate	0.5	0.4	0.4	0.9	2.2	2.8	2.8
5 Year Interest Rate	0.7	0.6	1.3	2.3	3.3	2.7	2.5
Current Balance (£bn)	-90.9	-66.3	60.1	-51.6	-41.2	-29.1	-15.8
PSBR (£bn)	45.1	45.1	35.3	24.9	9.1	-7.6	-10.9

[1]Expenditure estimate at factor cost
[2]U.K. Wholly unemployed excluding school leavers (new basis)
[3]Sterling effective exchange rate, Bank of England Index (2005 = 100)

If it occurs, then we are back with economic logic. M. Barnier will accept his failure to derail Brexit and negotiations will become serious at last. He will recognise the dangers of risking No Deal by continuing to prevent accommodation on key issues. True, the UK government has not explicitly prepared for No Deal. However, No Deal can be implemented easily enough: it is not rocket science to create the necessary quangos to oversee areas hitherto supervised by EU bodies or to implement plain WTO rules that outlaw discrimination on standards. And it is very easy to withhold money from a truculent EU.

Suppose the Tory government instead goes along with a 'Brexit in name only' or BRINO. Remainer hopes are that this could turn out to reverse Brexit. However, all the evidence on public opinion points to a large majority for 'getting on with Brexit'. Public opinion respects the referendum result and considers Brexit a 'done deal'. On this basis even BRINO will bring Brexit into being in March 2019: from then the UK will be a sovereign independent country and the current Parliament cannot bind its successors. Any 'deal' that future public opinion finds inadequate will be renegotiated. This undoubtedly will be the fate of a UK deal to stay in the EU Customs Union, as it prevents the UK from striking advantageous free trade deals that would bring down consumer prices and raise productivity. It is striking that the only non-EU country that is in the EU Customs Union is Turkey; its position is unique and highly dependent on seeing this as a first stage to becoming a full member. Countries more comparable to the UK such as Switzerland firmly stay outside the Customs Union.

Prolonging uncertainty about the UK's long term relationship with the UK is plainly better done without. So we must hope that Mrs. May's government remains on track with its announced withdrawal programme. This in turn will ensure a smooth Canada-plus EU deal.

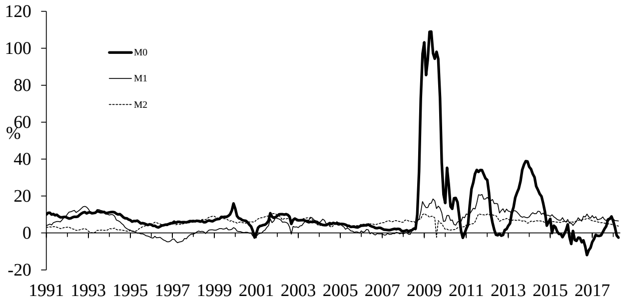
The UK economy is progressing well enough, in spite of the Brexit shenanigans

It remains a popular view among forecasters that ‘uncertainty’ about Brexit must undermine UK economic growth. Economic surveys have looked for evidence that it has reduced investment. This evidence has been weak and elusive, as illustrated by the CBI survey which has found continued robust prospects, and no sign of investment weakness. On consumption similarly Brexit has supposedly reduced consumer confidence and spending. But again the evidence we have is that consumers have reacted logically to higher consumer prices brought on by devaluation and spent less; but this is an inherent part of the ‘demand switching’ that devaluation should bring in order to correct our large balance of payment deficit.

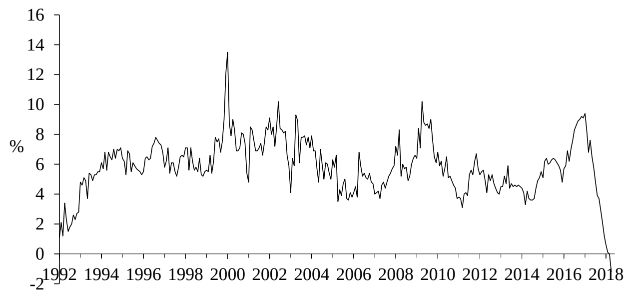
When we look at UK economic growth what we see is that employment has risen to a record high level and unemployment fallen to rates close to 4% indicating full employment. It is hard to argue that without Brexit there could have been ‘more than full’ employment.

As for the growth in UK output, that is equal to the effect of rising employment plus the effect of productivity growth. Much ink has been spilt on the productivity puzzle of slower growth but the slowdown antedates Brexit by nearly a decade. Free trade should lead to faster productivity growth due to increased world competition; but that effect cannot kick in until free trade deals have been signed. Meanwhile how could Brexit affect productivity? Some might argue for some fall in investment: but as we have seen evidence for this is weak, and at most the effect could be a couple of percent. Since investment typically runs at around one twentieth of the capital stock, this would mean a capital stock trivially smaller, with a minimal effect on output.

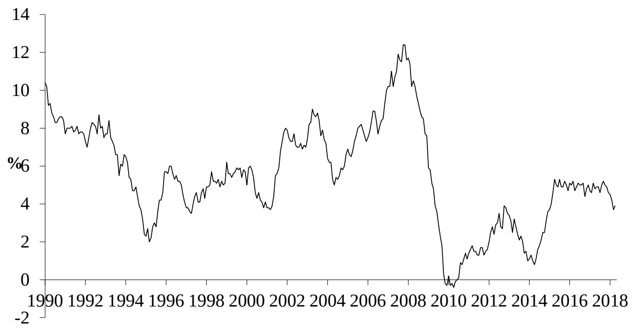
U.S.: Growth in Monetary Aggregates (Yr - on - Yr)



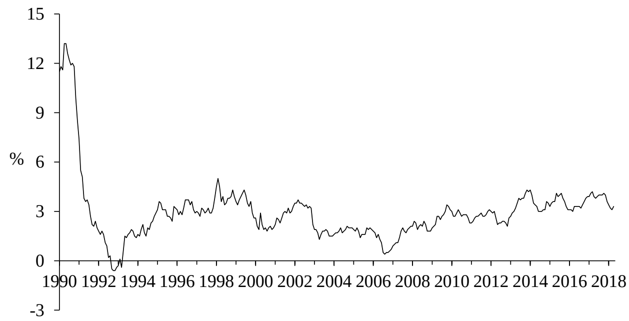
UK: Notes and Coins in Circulation Growth



Eurozone M3 Growth



Japan: Growth of M2+CD's



FOCUS ON JAPAN

Francesco Perugini

GDP Declines in the First Quarter of the Year

The preliminary report of Japanese GDP for the first quarter of the year came in below expectations. GDP contracted by 0.2% from the previous quarter (and by 0.6% year-on-year). The reading was below the market consensus of 0.2% growth quarter-over-quarter (q-o-q). The growth rate for Q4 2017 was also revised down, to 0.1% q-o-q from the previously reported 0.4%. The contraction of GDP in the first quarter of the year brought eight consecutive quarters of expansion to an end, the longest streak in 17 years.

Looking at components in more details, domestic demand shrank notably in the quarter on the back of a contraction in investment and flat consumption growth. Growth in fixed capital formation fell further, logging the largest contraction (-1.2% q-o-q) since the second quarter in 2015. Private non-residential investment declined, whereas public investment recovered slightly. Housing investment shrank sharply in the quarter, recording the steepest decline in over three years. Investment figures, however, could be revised upward when data based on the Ministry of Finance surveys are included in the second GDP estimate. Consumption growth was also lacklustre mainly due to adverse weather conditions, and private consumption came in flat in the first quarter. The deceleration in consumption was mainly driven by a sharp decline in durable goods sales, particularly automobiles — after a strong 2017, auto sales in Japan declined by 2.8% (y-o-y). However, government spending expanded a meagre 0.1% over the previous quarter, following no change in the last quarter of 2017.

Japan’s external sector was also hit in the first quarter of the year, with growth in exports of goods and services moderating to 2.6% q-o-q. Export growth softened on the back of a drop in shipments of electronic components and equipment. Imports of goods and services also slowed significantly, easing to 1.2% (q-o-q) from 12.9% (q-o-q) in the last quarter of 2017.

However, forecasters remain generally optimistic about the future short-term economic outlook. “I don’t expect that the results foreshadow a larger downturn in the economy,” said Takuji Okubo, the chief economist at Japan Macro Advisors. “The fundamentals of the economy look robust”, he recently said. Marcel Thieliant, a senior Japan economist with Capital Economics, also expected growth to remain on track, but felt that the downside risks may be larger going forward. “I think the weakness in the last two quarters of growth indicates that there may be growing risk in the economy,” said Thieliant. “But we still expect growth to remain on track in 2018.” Yoshimasa Maruyama, chief market economist at SMBC Nikko Securities, also believes that “the economy is unlikely to continue to contract further. The global economy is performing well and the yen is trading beyond 110 yen against the dollar, so once exports start to grow again, the economy will return to a moderate growth path.”

Some forecasters believe that the underlying strength of Japanese consumers will come through as income growth starts to show increasing momentum. For instance, the growth in average cash earnings for Japanese workers hit the highest level in 15 years in March (2.1% y-o-y). Wage growth combined with employment numbers that reached their highest level in Japanese history (66.9 million in March), meant that total employment compensation for employees grew 3.1% y-o-y in the first quarter of the year, the fastest rate in more than two decades. Strong income growth is likely to be sustained as the labour market remains extremely tight, so these forecasters expect to see a meaningful rebound in consumption growth in the second quarter, especially as weather factors disappear.

They also believe that investment in fixed assets is likely to grow in the coming quarters. Fuelled by “Abenomics”, the Japanese economy is running into serious capacity constraints. According to the Bank of Japan’s latest quarterly Tankan surveys, production capacity is the tightest it has ever been since 1991. Therefore, as demand keeps growing, both domestic and external, they expect the solid increase in corporate capex of last year to resume. “Japan’s corporations have record-level profits, and I would not be surprised if the revised numbers will eventually show that business investment was instead positive in the first quarter,” Takuji Okubo said.

Finally, they expect exports to become supportive of the Japanese economy as the year progresses, thanks to the synchronized global expansion that is underway. As one of the world’s major suppliers of industrial and commercial equipment, Japan’s export sector is highly correlated with the global investment cycle. After rising strongly in 2017, business orders showed some softness in the first few months of the year. However, the expected pick-up in the US capex cycle should benefit Japanese exporters.

Overall, the setback in the January–March period doesn’t seem to have spelled an end to the two-year uninterrupted economic growth, but it does shed light on the risk that the ongoing recovery might lose steam amid possible turmoil in the world economy. That is all the more reason for the nation to take steps to shore up domestic demand and speed up efforts for structural reforms such as deregulation to generate new sources of growth at home.

MARKET DEVELOPMENTS

President Trump's disruptions of international trade arrangements and Italy's threat to the euro are upsetting equity markets around the world. However, in both cases there are prizes to be had. Trade is badly distorted by both Chinese and EU protectionism and also their mercantilist determination to run huge trade surpluses. The Trump programme could get this corrected. As for the euro the Italian Job could end up making it a more realistic and smaller zone that worked better and without a systematic bias to deflation.

Table 1: Market Developments

	Market Levels		Prediction for May/Jun 2019	
	May 2	**Jun 1**	**Previous Letter**	**Current View**
Share Indices				
UK (FT 100)	7543	7702	10402	10713
US (S&P 500)	2636	2735	3068	3183
Germany (DAX 30)	12802	12724	20560	20435
Japan (Tokyo New)	1772	1749	2448	2417
Bond Yields (government				
UK	1.40	1.27	1.50	2.30
US	2.79	2.84	3.00	3.00
Germany	0.44	0.27	0.80	0.80
Japan	0.01	0.02	0.10	0.10
UK Index Linked	−1.53	−1.58	−1.00	−1.00
Exchange Rates				
UK ($ per £)	1.36	1.33	1.28	1.30
UK (trade weighted)	78.86	78.45	75.50	76.0
US (trade weighted)	99.11	99.92	102.5	102.5
Euro per $	0.84	0.86	0.86	0.86
Euro per £	1.14	1.14	1.10	1.12
Japan (Yen per $)	110.0	109.6	114.3	112.0
Short Term Interest Rates (3-month deposits)				
UK	0.69	0.60	0.80	0.60
US	2.32	2.25	2.50	2.50
Euro	−0.41	−0.41	−0.10	−0.10
Japan	0.10	0.05	0.10	0.10

Table 2: Prospective Yields [1]

Equities: Contribution to £ yield of:

	Dividend Yield	Real Growth	Inflation	Changing Dividend Yield	Currency	Total
UK	3.60	1.9	2.0	35.20		42.70
US	1.99	2.4	2.1	11.90	2.47	20.86
Germany	3.30	1.8	1.8	57.00	2.17	66.07
Japan	1.90	1.1	1.1	36.00	0.31	40.41
UK indexed[2]	–1.58		2.1	1.00		1.43
Hong Kong[3]	2.60	6.0	2.1	–12.00	2.47	1.17
Malaysia	3.30	5.4	2.1	48.00	2.47	61.27
Singapore	3.50	2.9	2.1	11.00	2.47	21.97
India	1.40	8.1	2.1	23.00	2.47	37.07
Korea	1.10	2.0	2.1	–31.00	2.47	–23.33
Indonesia	2.20	5.5	2.1	26.00	2.47	38.27
Taiwan	2.80	2.5	2.1	12.00	2.47	21.87
Thailand	3.20	3.4	2.1	22.00	2.47	33.17

Bonds: Contribution to £ yield of:

	Redemption Yield	Changing Nominal Rates	Currency	Total
UK	1.27	–10.30		–9.03
US	2.84	–1.60	2.47	3.71
Germany	0.27	–5.30	2.17	–2.86
Japan	0.02	–0.80	0.31	–0.47

Deposits: Contribution to £ yield of:

	Deposit Yield	Currency	Total
UK	0.60		0.60
US	2.25	2.47	4.72
Euro	–0.41	2.17	1.76
Japan	0.05	0.31	0.36

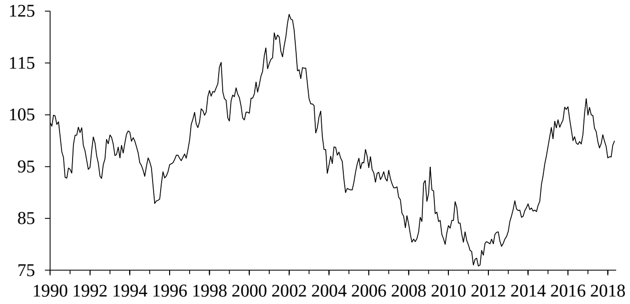
[1] Yields in terms of €s or $s can be computed by adjusting the £-based yields for the expected currency change.
[2] UK index linked bonds All Stocks
[3] Output based on China.

Table 3: Portfolio(%)

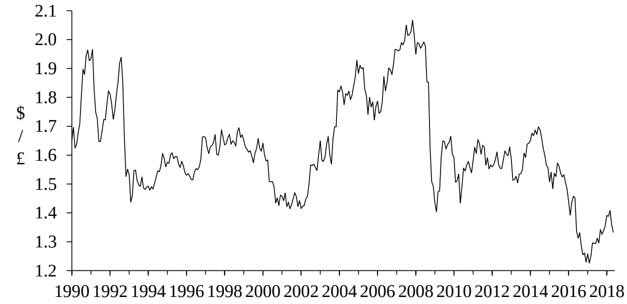
	Sterling Based Investor		Dollar Based Investor		Euro Based Investor	
	May Letter	Current View	May Letter	Current View	May Letter	Current View
UK Deposits (Cash)	5	5	5	5	1	1
US Deposits	-	-	-	-	-	-
Euro Deposits	-	-	-	-	-	-
Japanese Deposits	-	-	-	-	-	-
UK Bonds	-	-	-	-	-	-
US Bonds	-	-	-	-	-	-
German Bonds	-	-	-	-	-	-
Japanese Bonds	-	-	-	-	-	-
UK Shares	19	19	14	14	17	17
US Shares	14	14	19	19	16	16
German Shares	14	14	14	14	21	21
Japanese Shares	9	9	9	9	11	11
Hong Kong/Chinese Shares	4	4	4	4	4	4
Singaporean Shares	4	4	4	4	4	4
Indian Shares	4	4	4	4	4	4
Thai Shares	3	3	3	3	3	3
South Korean Shares	4	4	4	4	4	4
Taiwanese Shares	4	4	4	4	3	3
Brazilian Shares	4	4	4	4	3	3
Chilean Shares	4	4	4	4	3	3
Mexican Shares	4	4	4	4	3	3
Peruvian shares	4	4	4	4	3	3
Other:						
Index-linked bonds (UK)	-	-	-	-	-	-

INDICATORS AND MARKET ANALYSIS
FOREIGN EXCHANGE MARKETS

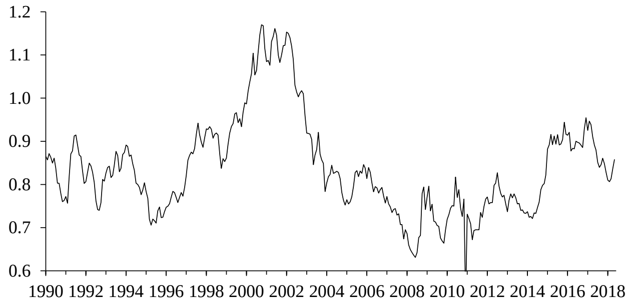
US : Trade Weighted Index
(Bank of England 1990 = 100)



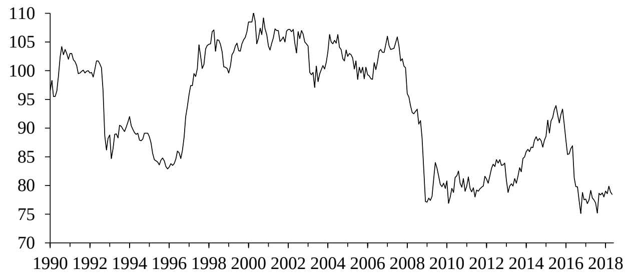
UK: Dollars Per Pound Sterling



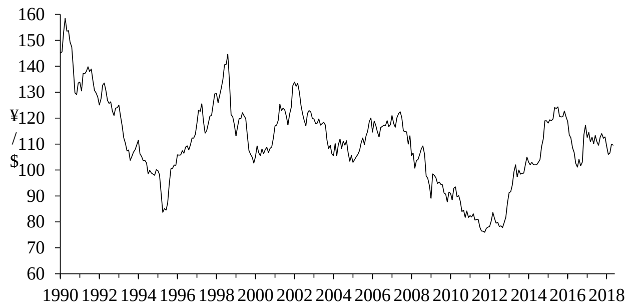
Euro per US dollar



UK: Trade-Weighted Index
(Bank of England 1990 = 100)



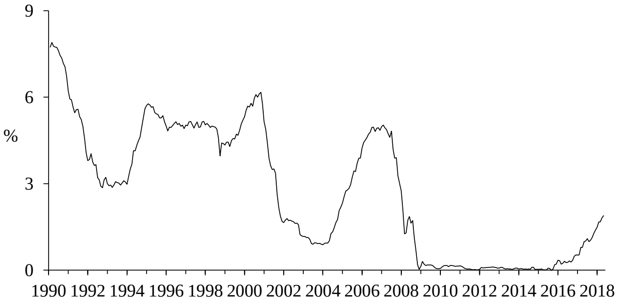
Japan : Yen Per U.S. Dollar



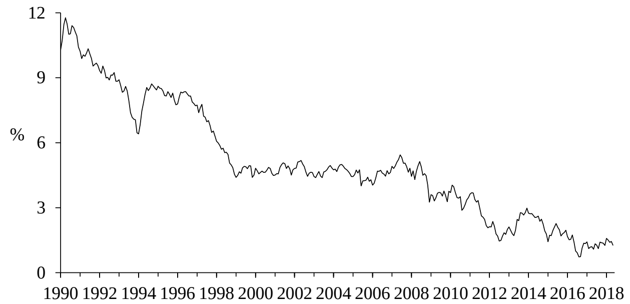
GOVERNMENT BOND MARKETS

U.S.: Yield on Long-Term Government Bonds

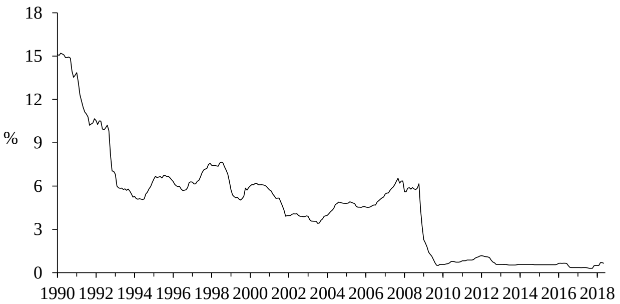
U.S. : 3-Month Treasury Bill



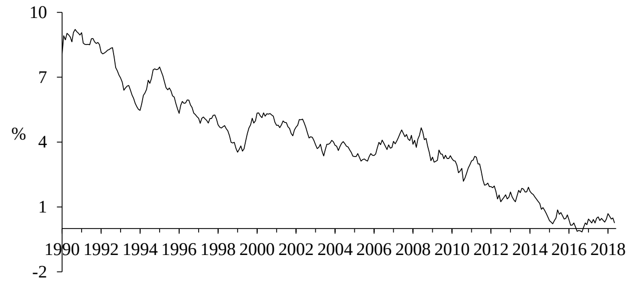
U.K.: Yield on Long-Term Government Bonds



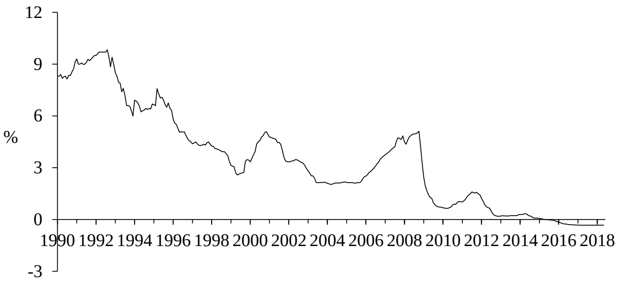
U.K. : 3-Month Certificate of Deposit Rate



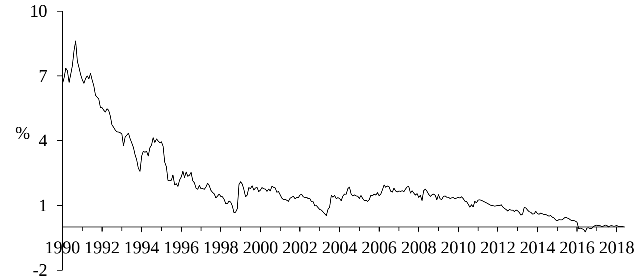
Germany: Yield on Public Authority Bonds



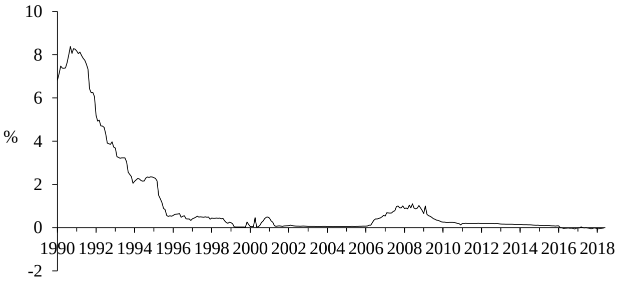
Germany : 3-Month Interbank Deposit Rate



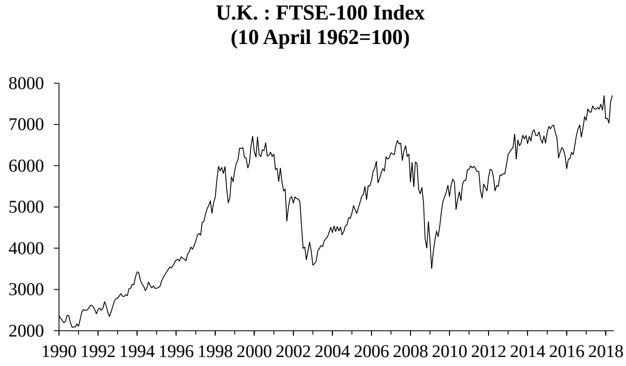
Japan: Yield on Long-Term Government Bonds

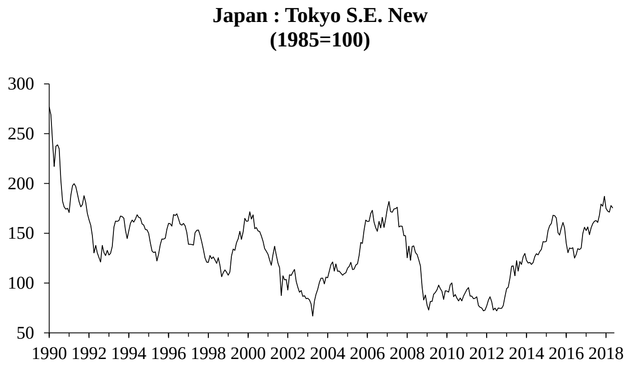


Japan : 3-Month Money Market Rate



MAJOR EQUITY MARKETS





EMERGING MARKETS

Anupam Rastogi

India

India registered GDP growth of 7.7% in January–March, up from 7.2% in the preceding quarter. India is witnessing a cyclical recovery, led by both investment and consumption. However, factors like high oil prices as well as tighter financial conditions are expected to water down growth rates slightly. Credit growth is picking up. Consumption is not doing badly.

India's annual retail and wholesale inflation accelerated in April, mainly due to higher fuel and food prices. Consumer price inflation stood at 4.58% in April, overturning a three month slide from its peak. The Monetary Policy Committee meeting is scheduled for June 6. The Reserve Bank of India is likely to adopt a hawkish commentary in June. However, a normal monsoon and moderate food inflation is likely to act as a counter. With crude oil prices coming down, the central bank is unlikely to change interest rates in the June meeting. The central bank has held benchmark interest rates at 6% since June 2017, with a neutral stance, as inflation remained moderate and the growth recovery remained tentative.

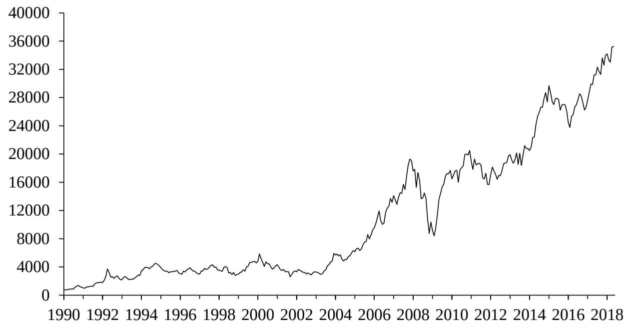
India's exports rose by 5.17% year-on-year to USD 25.9 billion in April, on the back of good show by sectors like engineering, pharmaceutical and chemicals. Imports during the month were valued at USD 39.6 billion, up 4.6% over April 2017. The trade deficit was marginally higher at USD 13.7 billion during April 2018 compared to USD 13.24 billion in April 2017. India's export promotion programmes have come under the global trade watchdog's scanner and would need to be stopped, if found prohibited as per World Trade Organisation (WTO) norms.

The Indian rupee has weakened by 6.44% so far in 2018. Given the forex reserves, the RBI will not allow the rupee to depreciate further. We will continue to see high volatility, but not a much weaker rupee.

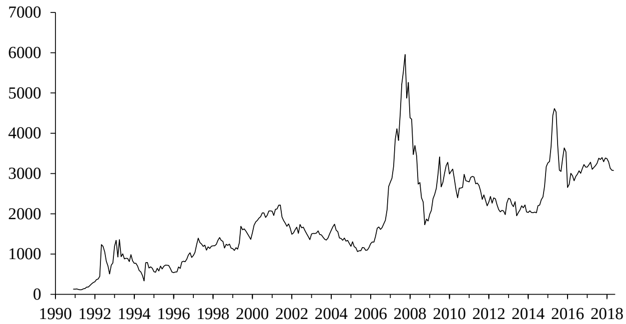
As Walmart takes on Amazon and other local rivals in e-commerce space, Indian consumers will benefit from competition that drives down prices in the relentless pursuit of efficiency. Walmart has bet big on Indian e-commerce since its $16 billion purchase of a 77% stake in Flipkart — a home grown e-commerce company. While the jury is still out on the acquisition as an investment, one thing is clear: it's good news for India.

It seems that Walmart's belief in the Indian market's potential is well-founded. Only about 15% of Indians shop online today, according to the research firm, Gartner. But rising incomes, a youthful population, and burgeoning smartphone sales are expected to power e-commerce growth.

India: BSE Sensitive



China: SSE Composite Index



The market-research firm, Euromonitor, estimates that online sales will increase by about 28% per year for the next five years.

	16–17	17–18	18–19	19–20	20-21
GDP (%p.a.)	7.1	6.5	7.6	8.1	8.2
WPI (%p.a.)	4.5	3.5	4.5	4.6	4.2
Current A/c(US$ bill.)	-24.0	-26.0	-36.0	-44.0	-46.0
Rs./$(nom.)	68.2	65.0	65.5	65.5	66.5

China

China's economic expansion for this year and 2019 is on track. We expect China's gross domestic product (GDP) to rise 6.5% year on year in 2018 and 6% in 2019. External demand remained resilient and continues to be robust. Consumption and property investment have offset slower infrastructure investment. The manufacturing purchasing managers index came at 51.9 in May compared to 51.4 in April. This suggests that factory activity grew more than April. May Retail sales in China climbed 9.4% in April from a year earlier, slowing from a 10.1% year-over-year increase in March.

China's inflation will remain subdued around 1.5% growth in the CPI and 2.4% growth in the PPI.

China posted a trade surplus of $28.78 billion in April, reversing a deficit of $4.98 billion in the previous month. Exports jumped 12.9% in April from a year earlier, after falling 2.7% the previous month. Imports surged 21.5% from a year earlier, compared with a 14.4% increase in March.

China's imports and exports are going to remain steady. However, the current account surplus will see a lesser share in GDP, dropping from 1.4% last year to 0.8% in 2018, and 0.5% in 2019. While the proportion of the trade surplus will be very little, cash inflows through the capital account are on the rise, as China has moved swiftly to open its financial sector, including bonds and equities.

China's yuan stumbled to its weakest in more than four months in the last week of May, falling past a psychologically important level after the central bank's softer fixing and broad US dollar strength. Offshore one-year non-deliverable forwards contracts (NDFs), considered the best available proxy for forward-looking market expectations of the yuan's value, traded at 6.5225

The trade tension between China and the US may provide the opportunities to India. China has an increasingly widening trade gap with India. It is easier for India to export agriculture products to China than manufacturing products. India, like China, is a non-GM producer of fruits and vegetables. India's trade deficit with China crossed $50 billion last year in a total trade of $71.5 billion. Besides this, China would be looking for long term software partners to replace the US hegemony of technology companies. India's software industry is capable of graduating to a higher level. It can take up leadership roles in joint projects that it can never do with US or European companies.

China appears to be winning its trade fight with the U.S. Though it is still early days, China has thus far escaped the bulk of threatened U.S. tariffs while giving up almost nothing of substance. President Donald Trump initially seemed to have more stomach for confrontation with China than his predecessors. China has shrewdly exploited his weak points: his hopes for a breakthrough with North Korea, a Chinese client; a low threshold for political pain, especially in Republican farm states; and a readiness to play China's game of using legal proceedings as a commercial bargaining chip.

The US plans to impose tariffs on $50 billion of Chinese imports and curb investment in sensitive technology, ratcheting up pressure on Beijing days before the next round of trade negotiations. The final list of targeted imports will be released by June 15 and the tariffs will be imposed "shortly thereafter."

The meeting between U.S. President Donald Trump and North Korean leader Kim Jong-Un is on a see-saw. The U.S. is seeking assurances that North Korea will dismantle its nuclear arms in a verifiable manner, while Pyongyang is seeking U.S. promises to keep the Kim regime intact, post-denuclearization.

Korea: Composite Index

	16	**17**	**18**	**19**	**20**
GDP (%p.a.)	6.5	6.9	6.5	6.0	5.6
Inflation (%p.a.)	2.0	2.2	1.5	2.0	2.2
Trade Balance(US$ bill.)	510	400	380	350	300
Rmb/$(nom.)	6.7	6.6	6.3	6.4	6.4

South Korea

The South Korean economy is being battered by political and trade uncertainties. GDP growth outlook for 2018 is under pressure. It is likely that the economy would be able to maintain 3% growth rate in 2018 and 2.8% in 2019. Confidence among South Korean consumers improved in May but it remains fragile.

South Korea's consumer price inflation stayed below 2% for the seventh consecutive month amid stable prices for services and oil products that offset a fast increase in farm goods prices. Consumer prices gained 1.6% in April from a year earlier, hovering below 2% since October.

Exports, which accounts for about half of the export-driven economy, shrank 1.5% from a year earlier to USD 50 billion in April. Imports gained 14.5% over the year to USD 43.4 billion in April, sending the trade surplus to USD 6.6 billion. The trade balance stayed in black for 75 months in a row.

The South Korean won is very volatile as it tracks political developments in the Korean peninsula. It plummeted as President Donald Trump cancelled the U.S.-North Korea summit scheduled to be held in Singapore on June 12.

	16	**17**	**18**	**19**	**20**
GDP (%p.a.)	2.8	3.2	3.0	2.8	2.6
Inflation (%p.a.)	1.0	1.9	1.7	2.0	1.9
Current A/c(US$ bill.)	88.0	88.0	86.0	80.0	78.0
Won/$(nom.)	1160	1100	1050	1040	1050

Taiwan

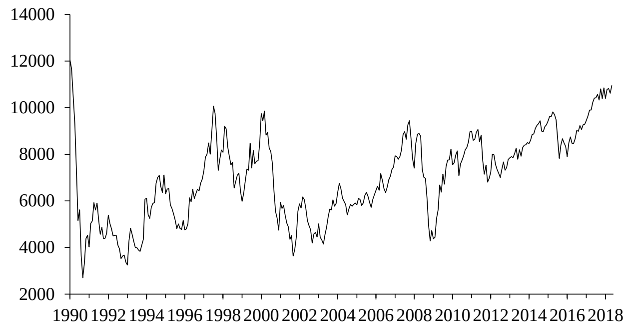
Taiwan's economy is expected to grow by 2.5% in 2018, as trade sanctions on China are getting postponed. Internal demand, including both consumer spending and investment, is helping the economy to maintain its growth.

Annual Consumer Price Index (CPI) growth will be around 1.5% after taking into account the escalating oil prices. Inflation moved up in April from the previous month partly due to higher prices in garments, fruit and fuels. The CPI rose 1.98% in April from a year earlier, up from March's 1.58% rise. Taiwan's new central bank governor Yang Chin-long, has announced that the acceptable range for the CPI is between zero and 2%.

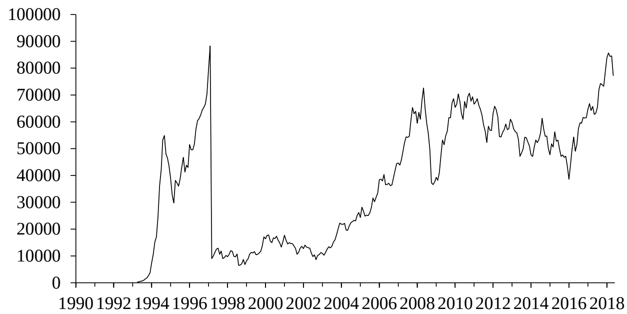
Taiwan's export slowed to 3.02% in the first quarter of 2018, compared to the fourth-quarter growth of 3.28%, which was the most robust since the start of 2015. The slow down in GDP growth reflects these concerns emanating from world trade.

	16	**17**	**18**	**19**	**20**
GDP (%p.a.)	1.4	2.6	2.5	2.5	2.3
Inflation (%p.a.)	1.0	0.6	1.5	1.3	1.2
Current A/c(US$ bill.)	64.0	68.0	68.0	70.0	71.0
NT$/$(nom.)	32.5	32.0	29.6	30.0	30.5

Taiwan: Weighted TAIEX Price Index



Brazil: Bovespa



Brazil

In 2017, the Brazilian economy grew by 1%, ending a bitter two-year recessive cycle. However, recovery is weak and political uncertainty is the main cause of it. We expect economic growth in 2018 to be just 2.3% and recovering to 2.5% in 2019. Brazil's debt-to-GDP ratio is likely to remain stable at 55% for 2018. But, 2019 will see the ratio increasing. Under pressure, the government has announced tax cuts on diesel fuel and will freeze the price for 60 days and let the fuel price change once every month afterward. The government will compensate state-controlled oil company Petróleo Brasileiro SA, or Petrobras, and its private-sector competitors. This will increase debt-to-GDP ratio by 150 basis points in 2019.

Inflation has been below the central bank's 4.5% target for more than a year. The 12-month inflation rate reached 2.76% in April, down from its most recent peak of 10.7% in January 2016. Inflation will continue to be less than the target of 4.5% in 2018 and is unlikely to rise. Brazil's central bank kept the benchmark Selic rate at 6.5% and did not oblige the market which was expecting a 25-basis-point cut. The bank feels that the current rate is consistent with inflation target.

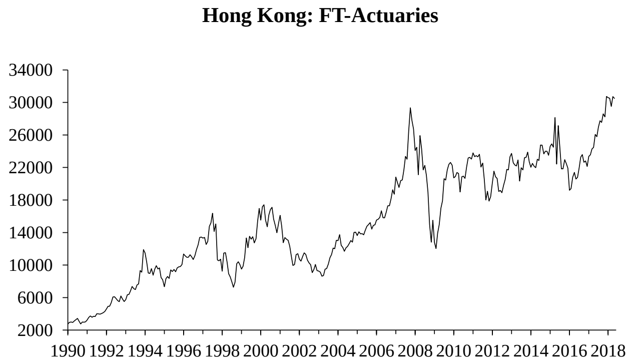
Brazil's real jumped more than 1% after central bank minutes reinforced investors' beliefs that the country's monetary easing cycle was over. Brazil's currency has been weakening together with those of other emerging markets as global investors increasingly avoid riskier bets in favour of U.S. investments, which are considered safer and whose yields are rising.

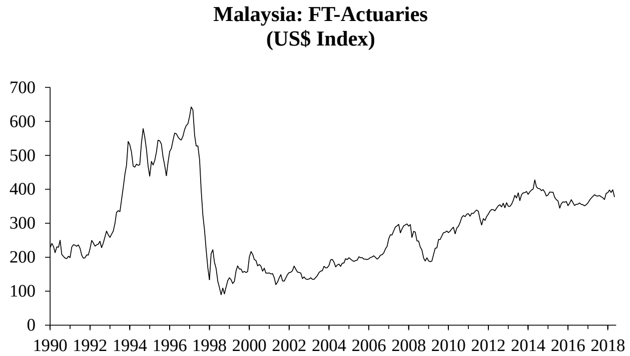
Investors are also concerned about the outcome of October's election, as early polls have raised the odds that an anti-market leader could take Brazil's helm in 2019. The political uncertainty is curbing domestic investment and weakening both, activity and employment.

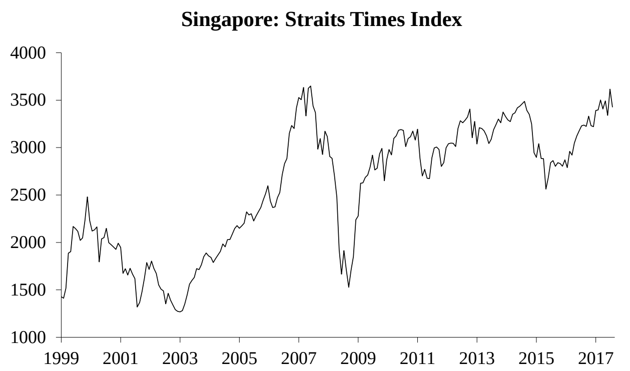
Brazil's New Finance Minister Eduardo Guardia is hoping for more market-friendly legislation, but momentum has waned and there is no hope before the presidential elections due in October.

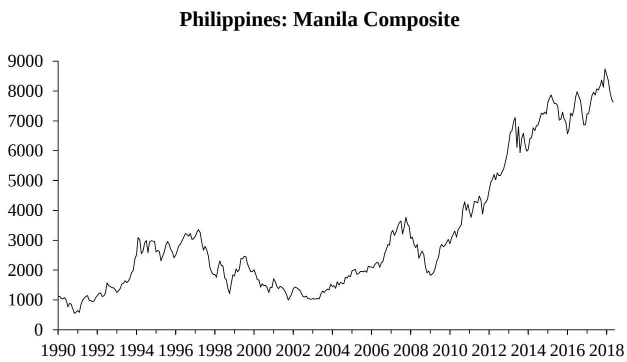
	16	**17**	**18**	**19**	**20**
GDP (%p.a.)	-3.5	1.0	2.3	2.5	3.0
Inflation (%p.a.)	6.3	3.0	3.8	4.2	4.2
Current A/c(US$ bill.)	-28.0	-4.0	-5.2	-8.0	-8.5
Real/$(nom.)	3.5	3.2	3.3	3.4	3.4

Other Emerging Markets



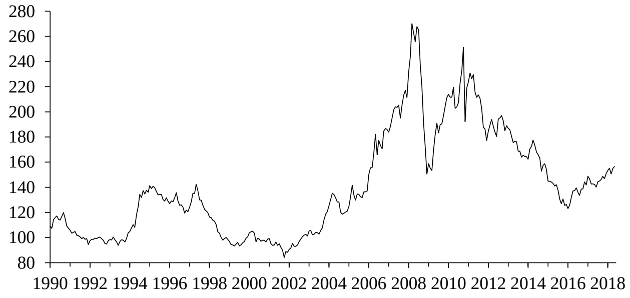




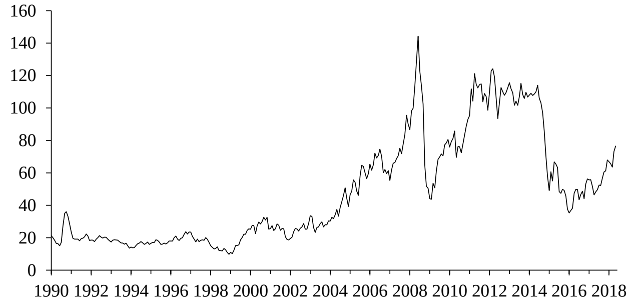


COMMODITY MARKETS

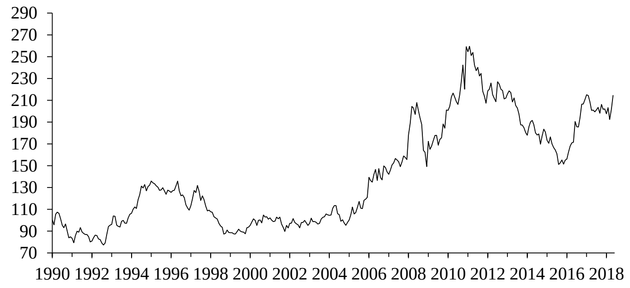
Commodity Price Index (Dollar)
(Economist, 2000=100)



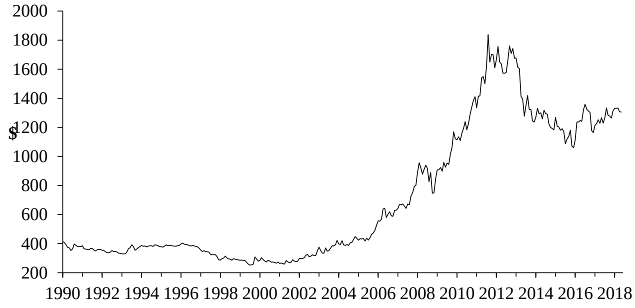
Oil Price: North Sea Brent (in Dollars)



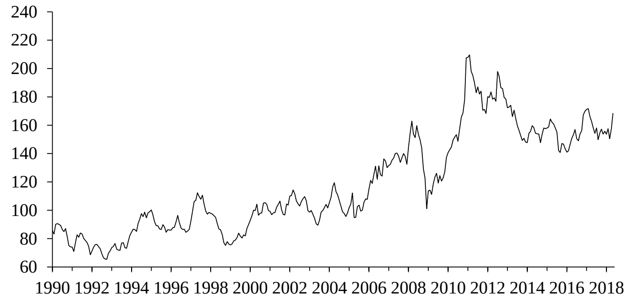
Commodity Price Index (Sterling)
(Economist, 2000=100)



Gold Price (in Dollars)



Commodity Price Index (Euro)
(Economist)



UK FORECAST DETAIL

Prices, Wages, Interest Rates and Exchange Rate Forecast (Seasonally Adjusted)

	Inflation %[1] (CPI)	Short Dated (5 Year) Interest Rates	3 Month Int. Rates	Nominal Exchange Rate (2005=100)[2]	Real Exchange Rate[3]	Real 3 Month Int. Rates %[4]	Inflation (RPIX)	Real Short Dated Rate of Interest[5]
2016	1.1	0.7	0.5	82.1	81.4	-1.2	1.9	0.7
2017	2.6	0.6	0.4	77.4	75.5	-1.7	3.8	0.6
2018	2.3	1.3	0.4	77.0	75.4	-1.6	3.0	1.3
2019	2.0	2.3	0.9	76.2	74.9	-1.0	2.5	2.3
2020	1.9	3.3	2.2	75.8	74.6	0.2	2.3	3.3
2021	2.0	2.7	2.8	76.1	75.4	0.2	2.5	2.7
2017:1	2.2	0.6	0.3	76.8	75.0	-1.7	3.3	0.6
2017:2	2.6	0.4	0.4	78.2	76.4	-1.5	3.8	0.4
2017:3	2.7	0.6	0.3	76.7	74.5	-1.5	4.0	0.6
2017:4	2.8	0.8	0.4	77.9	76.0	-2.1	4.1	0.8
2018:1	2.3	1.1	0.3	77.0	75.6	-1.7	3.0	1.1
2018:2	2.4	1.3	0.4	77.1	75.6	-1.7	3.2	1.3
2018:3	2.2	1.3	0.5	76.6	74.7	-1.5	2.9	1.3
2018:4	2.2	1.3	0.5	77.2	75.7	-1.6	2.8	1.3
2019:1	2.0	2.3	0.6	76.7	75.6	-1.4	2.5	2.3
2019:2	2.0	2.3	0.6	76.0	74.6	-1.4	2.4	2.3
2019:3	1.9	2.3	0.8	76.2	74.7	-1.0	2.4	2.3
2019:4	1.9	2.3	1.6	76.1	74.7	-0.3	2.4	2.3

1 Consumer's Expenditure Deflator
2 Sterling Effective Exchange Rate Bank of England
3 Ratio of UK to other OECD consumer prices adjusted for nominal exchange rate
4 Treasury Bill Rate less one year forecast of inflation
5 Short Dated 5 Year Interest Rate less average of predicted 5 year ahead inflation rate

Labour Market and Supply Factors (Seasonally Adjusted)

	Average Earnings (1990=100)[1]	Wage Growth[2]	Unemployment (New Basis) Percent[3]	Millions	Real Wage Rate[4] (1990=100)
2016	253.2	2.4	2.2	0.8	141.7
2017	259.1	2.3	2.2	0.8	142.2
2018	265.5	2.5	2.1	0.8	142.5
2019	271.1	2.1	1.9	0.7	142.7
2020	275.4	1.6	1.9	0.7	142.3
2021	282.1	2.4	1.5	0.6	142.9
2017:1	258.1	2.3	2.1	0.8	142.2
2017:2	257.3	2.6	2.3	0.8	141.6
2017:3	260.2	2.1	2.2	0.8	142.7
2017:4	260.9	2.1	2.3	0.8	142.2
2018:1	264.9	2.6	2.1	0.8	142.8
2018:2	264.0	2.6	2.1	0.8	141.9
2018:3	266.4	2.4	2.1	0.7	143.0
2018:4	266.7	2.2	2.0	0.7	142.3
2019:1	269.5	1.7	2.0	0.7	142.4
2019:2	271.0	2.6	1.9	0.7	142.9
2019:3	271.7	2.0	1.9	0.7	143.0
2019:4	272.2	2.1	1.9	0.7	142.5

1 Whole Economy
2 Average Earnings
3 Wholly unemployed excluding school leavers as percentage of employed and unemployed, self employed and HM Forces
4 Wage rate deflated by CPI

Estimates and Projections of the Gross Domestic Product[1] (£ Million 1990 Prices)

	Expenditure Index	£ Million '90 prices	Non-Durable Consumption[2]	Private Sector Gross Investment Expenditure[3]	Public Authority Expenditure[4]	Net Exports[5]	AFC
2016	159.5	763688.6	441080.4	294912.8	197985.9	-70902.2	99388.2
2017	162.3	777336.9	448255.6	297689.1	198857.7	-65371.5	97584.0
2018	165.4	792196.2	454105.9	302003.3	199247.8	-62093.1	101071.5
2019	168.6	807506.6	458503.7	308033.2	200602.7	-56385.7	103255.3
2020	171.8	822560.9	467283.4	308558.9	201938.2	-49863.9	105369.9
2021	175.3	839535.7	476699.4	310406.6	203070.4	-42896.0	107742.6
2017/16	1.9		2.5	1.0	0.9		-8.0
2018/17	1.8		1.6	0.9	0.4		-1.7
2019/18	1.9		1.3	1.5	0.2		3.9
2020/19	1.9		1.0	2.0	0.7		2.2
2021/20	1.9		1.9	0.2	0.7		2.0
2022/21	2.1		2.0	0.6	0.6		2.3
2017:1	161.5	193340.7	110460.5	74512.0	50838.0	-16948.9	25520.9
2017:2	161.9	193817.5	111980.7	71917.4	48893.4	-16008.3	22345.6
2017:3	162.6	194710.8	112800.0	73915.8	49324.8	-15656.7	23783.1
2017:4	163.3	195468.0	113014.4	77344.0	49801.5	-16757.6	25934.3
2018:1	164.0	196342.1	112066.3	76454.1	50362.9	-17160.6	25382.9
2018:2	165.0	197573.2	113169.1	74697.6	49463.3	-14870.8	24885.4
2018:3	165.9	198621.8	114178.4	74885.7	49577.5	-14829.7	25192.2
2018:4	166.8	199659.0	114692.1	75965.9	49844.0	-15232.1	25611.1
2019:1	167.5	200499.9	113164.2	77563.6	50526.0	-15076.8	25679.2
2019:2	168.2	201405.6	114237.9	76033.5	50009.7	-13171.8	25706.7
2019:3	169.0	202322.6	115244.5	76742.9	50056.5	-13874.5	25848.2
2019:4	169.8	203278.5	115857.2	77693.3	50010.4	-14262.6	26021.1

1 GDP at factor cost. Expenditure measure; seasonally adjusted
2 Consumers expenditure less expenditure on durables and housing
3 Private gross domestic capital formation plus household expenditure on durables and clothing plus private sector stock building
4 General government current and capital expenditure including stock building
5 Exports of goods and services less imports of goods and services

Financial Forecast

	PSBR/GDP %[1]	GDP[1] (£bn)	PSBR (£bn) Financial Year	Debt Interest (£bn)	Current Account (£ bn)
2016	2.3	1977.2	45.1	78.9	-90.9
2017	2.2	2042.9	45.1	79.7	-66.3
2018	1.6	2135.3	35.2	81.6	-60.1
2019	1.1	2219.2	24.9	86.4	-51.6
2020	0.4	2303.3	9.1	93.1	-41.2
2021	-0.3	2403.6	-7.6	96.3	-29.1
2017:1	-2.9	504.2	-14.6	20.0	-15.7
2017:2	5.1	498.9	25.3	20.0	-20.5
2017:3	1.7	505.8	8.6	19.7	-15.3
2017:4	3.2	515.7	16.5	19.9	-14.8
2018:1	-1.0	522.5	-5.4	20.0	-15.0
2018:2	1.2	525.7	6.3	20.1	-18.7
2018:3	1.1	529.7	5.7	20.3	-14.0
2018:4	2.9	536.2	15.4	20.4	-12.4
2019:1	1.5	543.6	7.9	20.7	-11.8
2019:2	1.2	547.3	6.8	20.8	-16.3
2019:3	1.1	550.6	6.3	21.1	-12.5
2019:4	0.9	556.5	5.2	22.0	-11.0

1 GDP at market prices (Financial Year)

WORLD FORECAST DETAIL

Growth Of Real GNP

	2015	2016	2017	2018	2019	2020
U.S.A.	2.9	1.5	2.3	2.7	2.4	2.5
U.K.	2.3	1.9	1.8	2.9	1.9	1.9
Japan	1.4	1.0	1.7	1.4	1.1	1.2
Germany	1.7	1.9	2.2	2.3	1.8	2.0
France	1.0	1.1	2.0	1.9	1.7	1.9
Italy	1.0	0.9	1.5	1.4	1.1	1.2

Growth Of Consumer Prices

	2015	2016	2017	2018	2019	2020
U.S.A.	0.1	1.3	2.1	2.5	2.2	2.0
U.K.	0.2	1.1	2.6	2.3	2.0	1.9
Japan	0.8	–0.1	0.5	0.9	1.1	1.2
Germany	0.3	0.5	1.8	1.7	1.8	1.9
France	0.0	0.2	1.0	1.3	1.5	1.6
Italy	0.1	–0.1	1.2	1.1	1.4	1.5

Real Short-Term Interest Rates

	2015	2016	2017	2018	2019	2020
U.S.A.	–1.1	–1.6	–0.9	–0.4	0.5	0.8
U.K.	0.0	–1.2	–1.7	–1.6	–1.0	0.2
Japan	0.1	–0.4	–0.8	–1.0	–1.1	–1.1
Germany	–0.6	–2.0	–2.0	–2.0	–2.1	–2.0
France	–0.2	–1.3	–1.6	–1.7	–2.1	–1.8
Italy	0.0	–1.5	–1.4	–1.6	–2.1	–1.5

Nominal Short-Term Interest Rates

	2015	2016	2017	2018	2019	2020
U.S.A.	0.2	0.5	1.4	1.8	2.5	2.8
U.K.	0.6	0.5	0.4	0.4	0.9	2.2
Japan	0.2	0.1	0.1	0.1	0.1	0.1
Germany	–0.1	–0.3	–0.3	–0.2	–0.2	0.0
France	–0.1	–0.3	–0.3	–0.2	–0.1	0.0
Italy	–0.1	–0.3	–0.3	–0.2	–0.1	0.0

Real Long-Term Interest Rates

	2015	2016	2017	2018	2019	2020
U.S.A.	0.3	0.5	0.8	1.0	1.5	1.8
U.K.	–0.7	–1.5	–1.6	–0.8	0.2	1.2
Japan	–0.5	–1.0	–1.1	–1.3	–1.5	–1.5
Germany	–0.9	–1.7	–1.5	–1.4	–1.1	–1.0
France	–0.7	–0.9	–0.9	–0.8	–0.6	–0.5
Italy	0.4	0.1	0.3	0.4	0.6	1.3

Nominal Long-Term Interest Rates

	2015	2016	2017	2018	2019	2020
U.S.A.	2.2	2.5	2.8	3.0	3.5	3.8
U.K.	1.3	0.7	0.6	1.3	2.3	3.3
Japan	0.3	0.0	0.1	0.1	0.1	0.1
Germany	0.6	0.1	0.4	0.6	0.9	1.0
France	1.0	0.7	0.8	1.1	1.4	1.5
Italy	1.6	1.7	1.9	2.3	2.6	2.7

Index Of Real Exchange Rate(2000=100)[1]

	2015	2016	2017	2018	2019	2020
U.S.A.	93.0	94.0	94.5	94.8	95.0	95.2
U.K.	92.2	81.4	75.5	75.4	74.9	74.6
Japan	56.0	58.4	58.3	58.1	58.4	58.3
Germany	94.7	95.0	94.3	94.9	95.1	95.0
France	96.2	96.0	95.3	95.1	95.5	95.4
Italy	102.1	102.0	101.2	101.1	101.1	101.0

[1] The real exchange rate is the domestic price level relative to the foreign price level converted into domestic currency. A rise in the index implies an appreciation in the real exchange rate.

Nominal Exchange Rate (Number of Units of Local Currency To $1)

	2015	2016	2017	2018	2019	2020
U.S.A.[1]	103.08	101.91	102.20	102.40	102.50	102.50
U.K.	1.53	1.35	1.30	1.29	1.30	1.32
Japan	121.11	108.61	112.18	114.10	112.00	112.50
Eurozone	0.90	0.90	0.88	0.85	0.86	0.85

[1] The series for the USA is a trade weighted index (1990=100); the series for the UK is $ per £

* Forecasts based on the Liverpool World Model