LIVERPOOL INVESTMENT LETTER

February 2019

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.

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CONTENTS

Page

Waiting for the Brexit End Game 3
The odds on a no deal WTO based Brexit have risen as the EU remains intransigent However, anxiety is building on the continent as recession looms. This could just be the solvent for a deal. The UK economy, like UK public opinion cruises on unruffled, and keen on Brexit as laid down by the referendum.

Focus on Japan 5

Market Developments 6
Summary and Portfolio Recommendations

Indicators and Market Analysis
Foreign Exchange 8
Government Bond Markets 9
Major Equity Markets 10
Emerging Equity Markets 11
Commodity Markets 16

UK Forecast Detail 17
World Forecast Detail 19

WAITING FOR THE BREXIT END GAME

The EU Commission now finds itself in discussions not just with the British Parliament and public opinion, increasingly exasperated by its intransigence and delay; but also with business across the continent, worried about the effect of a No Deal Brexit on economies increasingly tipping into recession, now that the ECB is withdrawing its exceptional monetary stimulus.

As we have explained repeatedly, a No Deal Brexit on WTO terms gives the UK a £650 billion bonus in present value, but costs the EU economy £500 billion on the same basis. This is because the UK can rapidly sign free trade agreements, especially with the US. Which will bring forward our gains from Brexit, but also the EU's losses of the inflated prices they sell to us at. In addition they lose our budget contribution, and pay some stinging tariffs to our Treasury. Their own tariffs on our exports will be paid for by EU consumers.

For continental businesses that sell into the UK this is a disturbing prospect, far from the cushy environment of the current customs union, which is quite unacceptable to the Conservative party current consensus.

Unfortunately, the EU Commission is hellbent on playing politics, 'punishing Brexit' to discourage others tempted to leave. But even Mrs. Merkel, fervent European that she is, is beginning to sense the economic perils this could bring her economy, and thus her Christian Democrats. She has encouraged the search for an alternative Irish border solution, which is well-known to exist.

The odds of a WTO-based 'no deal' managed with mini-agreements has increased in this stalemate. MPs, are under pressure from public opinion to deliver Brexit on time, one way or another, to 'get on with it' and certainly 'to respect the referendum'. So MPs dare not vote for delay, even though against 'no deal'.

Table 1: Summary of Forecast

	2016	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**
GDP Growth[1]	1.9	1.8	1.5	1.9	2.0	2.1	2.3
Inflation CPI	1.1	2.6	2.4	2.2	2.1	2.0	2.0
Wage Growth	2.4	2.9	2.7	2.8	2.9	2.8	2.8
Unemployment (Mill.)[2]	0.8	0.8	0.8	0.8	0.7	0.7	0.6
Exchange Rate[3]	82.1	77.4	78.5	76.6	76.1	76.3	75.6
3 Month Interest Rate	0.5	0.4	0.8	1.3	2.4	3.1	3.1
5 Year Interest Rate	0.7	0.6	1.2	2.5	3.3	3.8	3.8
Current Balance (£bn)	-90.9	-66.3	-62.9	-48.8	-41.2	-30.6	-18.4
PSBR (£bn)	45.1	39.4	30.9	22.3	6.9	-6.9	-18.5

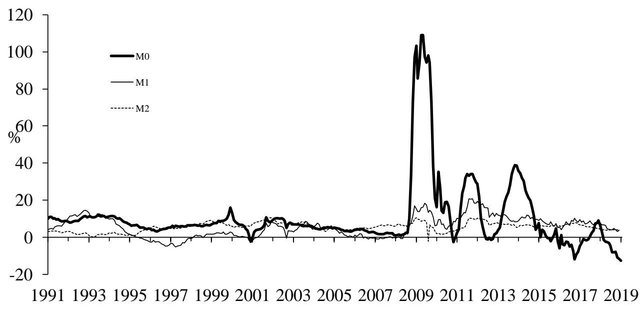
[1]Expenditure estimate at factor cost
[2]U.K. Wholly unemployed excluding school leavers (new basis)
[3]Sterling effective exchange rate, Bank of England Index (2005 = 100)

This no deal outcome is in fact the best Brexit outcome for us, as it creates exit with maximum freedom for post-Brexit policy. Clearly it also opens up the prospect of a quicker Free trade agreement with the EU, with none of the problems of the Irish backstop: the Irish border will remain much the same as now, managed via sensible administration off-border and available technology. The EU will want an FTA sharpish, for reasons above.

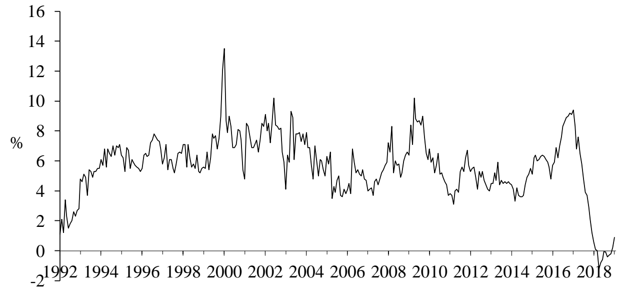
In the end, compromise with the EU could emerge, for those same reasons could persuade the EU better to avoid the perils of no deal. At least Theresa May seems now to have understood that the threat of no deal is her only hope of getting a deal agreed.

As we argued in the last Letter, the UK economy has sailed on rather unruffled by the Brexit shenanigans. The reason lies in full employment and rising real wages, not to say continued growth and an improving balance of payments. Households and business decisions are dominated by such here and now facts. Uncertainty is always with us and can be insured in various ways. Politically, the British have confidence in their ability to get politicians to deliver what they want- the best insurance policy of all.

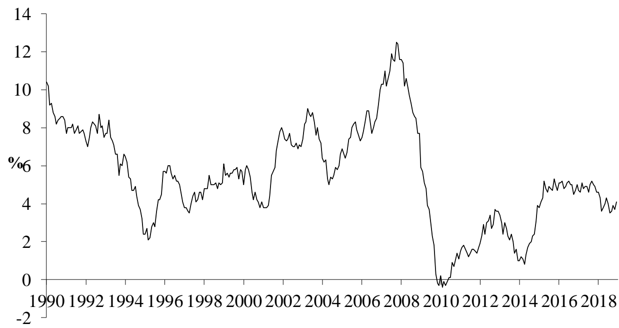
U.S.: Growth in Monetary Aggregates (Yr - on - Yr)



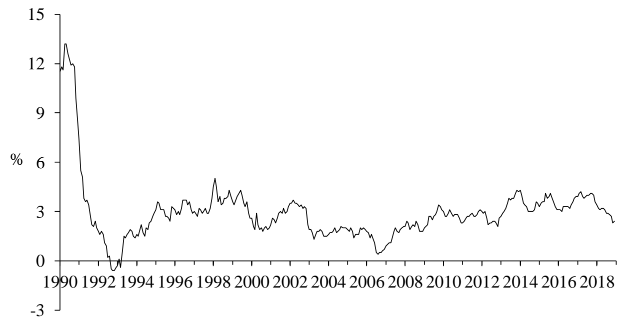
UK: Notes and Coins in Circulation Growth



Eurozone M3 Growth



Japan: Growth of M2+CD's



FOCUS ON JAPAN

Francesco Perugini

Opportunities Open Up as Trade Pact Enters Into Force

The Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP), which had been signed last March in Chile, was finally entered into force on December 30 for the first six of the 11 countries that have subsequently ratified the agreement: Australia, Canada, Japan, Mexico, New Zealand, and Singapore. These 6 countries will immediately carry out the first round of tariff cuts, while for the other five TPP-11 countries (Brunei, Chile, Malaysia, Peru, and Vietnam) it will come into force 60 days after it is ratified.

The CPTPP is the successor to the Trans-Pacific Partnership (TPP), a similar deal that included the US. Donald Trump withdrew the US from the TPP soon after he was elected. During his presidential campaign, Trump referred to the TPP as the "greatest danger yet" to the US economy, and has declared a preference for bilateral trade agreements since coming into office. That was seen as a major blow to free-trader Japanese Prime Minister Shinzo Abe. Nevertheless, Japanese-led diplomacy kept a slimmed-down version of the pact alive among the remaining members — in the hope that Washington will have a change of heart or government and will eventually join. So, the CPTPP makes Japan the largest political and diplomatic winner. "Japan's role in the global free trade system has changed from that of a participant to a leader in building 21st century common trade rules, as well as a coordinator and standard flag-bearer of the entire system", said Japanese economic revitalisation minister Toshimitsu Motegi in a recent interview.

The CPTPP differs from the TPP in two ways. First, it suspends 20 provisions from various chapters of the TPP. These rules — which were inserted at Washington's insistence — have been put on hold for now but could be reinstated at a future date. Notably, the chapter on intellectual property has undergone the most significant change. For example, the duration of copyright protection has been reduced from 70 to 50 years after the demise of the creator. Second, as opposed to the neoliberal thinking on free trade that was embedded in the TPP, the CPTPP notes that in policymaking, member states should first and foremost consider their own changing 'country-specific' circumstances. Enhanced policy space and regulatory flexibility will be incorporated in the new articles on 'withdrawal', 'accession' and 'review' that are to be drafted.

Even without the participation of the US, the deal has been described as a game changer. The new pact will be among the largest multilateral trade deals ever enacted — it represents nearly 13.5% of global GDP and provides access to an economic bloc of 500 million people. The Peterson International Institute for Economics, a non-profit think-tank based in Washington US, estimates that the total GDP of participating countries will increase by about 1%, with the largest gains for Vietnam and Peru.

The Japanese government is even more optimistic: it estimates that the Japanese economy will get an ¥8 trillion boost, equivalent to 1.5% of GDP in fiscal 2019. Some industries are expected to receive a positive boost. Japan's service industry, electronics, information technology, manufacturing, finance, logistics, and intellectual property are one of the strongest among the 11 countries. Apart from Canada and Australia, no other country in the bloc can compete with Japan in the above fields. In this context, Japan can export its technologies to the other 10 countries in a comprehensive way and gradually take an initiative in these areas.

However, Japan is in a relatively disadvantageous status in terms of agriculture, animal husbandry, and fishery. Japan has limited land resources and thus its agricultural costs are higher than that of other countries. Japan's agricultural products are hard to compete with those of Vietnam. Meanwhile, Australia, Canada, New Zealand are stronger than Japan in animal husbandry. Worse still, Japan's aging problem makes its gap with New Zealand, Mexico, and Malaysia even wider in the fishery.

The participating nations agree to scrap tariffs on most products within these sectors. Japan, for its part, will eliminate import duties on 95% of items, with some key sectors such as rice and beef continuing to receive a certain level of protection. For instance, the current 38.5% tariff will be reduced to 9% in stages over 16 years, giving Australia a more competitive edge. Therefore, farmers in Japan are concerned about an influx of cheaper agricultural produce. But at the same time, the deal could also give a fresh impetus to reform of the agriculture sector that officials and experts see as inevitable as the domestic market is shrinking. "You have to see that other markets (than Japan) are opening up as well," said Martin Schulz, a senior research fellow at the Fujitsu Research Institute. "This is important because if they open up for a variety of products, moving away from US products, then it opens the possibility for Japanese producers to go into those markets," Schulz said. "The United States is becoming the biggest loser on this front."

Overall, Japan, and Abe, deserve credit for their effort to see CPTPP to life. The trade deal is a superior agreement that institutionalizes rules and norms that help not only Japan and its economy, but all nations of the region. Most importantly, it is a bold statement in favour a multilateral, rules-based approach to international governance.

MARKET DEVELOPMENTS

In spite of possible slowdown in the EU, world growth remains steady, led by a strong US. Equities continue to dominate possible returns.

Table 1: Market Developments

	Market Levels		Prediction for Dec/Jan 2019/20	
	Jan 3	Feb 8	Previous Letter	Current View
Share Indices				
UK (FT 100)	6693	7071	9169	9348
US (S&P 500)	2448	2708	2874	3030
Germany (DAX 30)	10417	10907	16969	17920
Japan (Tokyo New)	1494	1539	2083	1966
Bond Yields (government)				
UK	1.19	1.15	2.50	3.00
US	2.68	2.66	2.50	3.80
Germany	0.11	0.00	1.00	1.00
Japan	0.02	–0.01	0.10	0.10
UK Index Linked	–1.67	–1.69	–1.20	1.00
Exchange Rates				
UK ($ per £)	1.26	1.29	1.32	1.32
UK (trade weighted)	76.43	78.53	76.0	76.1
US (trade weighted)	102.02	100.46	102.5	102.5
Euro per $	0.88	0.88	0.88	0.88
Euro per £	1.10	1.14	1.16	1.16
Japan (Yen per $)	107.57	109.73	112.5	112.5
Short Term Interest Rates (3-month deposits)				
UK	0.93	0.90	1.60	2.10
US	2.74	2.68	2.80	3.00
Euro	–0.32	–0.34	0.00	0.00
Japan	–0.10	0.00	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	2.0	2.2	28.00		35.80
US	1.99	1.9	2.1	7.90	–1.98	11.91
Germany	3.30	1.6	1.7	61.00	–1.40	66.20
Japan	1.90	0.5	1.2	26.00	–4.55	25.05
UK indexed[2]	–1.69		2.2	5.00		5.51
Hong Kong[3]	2.60	5.6	2.1	–15.00	–1.98	–6.68
Malaysia	3.30	4.8	2.1	43.00	–1.98	51.22
Singapore	3.50	2.7	2.1	10.00	–1.98	16.32
India	1.40	8.0	2.1	23.00	–1.98	32.52
Korea	1.10	2.9	2.1	–21.00	–1.98	–16.88
Indonesia	2.20	5.4	2.1	26.00	–1.98	33.72
Taiwan	2.80	2.1	2.1	9.00	–1.98	14.02
Thailand	3.20	3.8	2.1	27.00	–1.98	34.12

Bonds: Contribution to £ yield of: –

	Redemption Yield	Changing Nominal Rates	Currency	Total
UK	1.15	–18.50		–17.35
US	2.66	–11.40	–1.98	–10.72
Germany	0.00	–10.00	–1.40	–11.40
Japan	–0.01	–1.10	–4.55	–5.66

Deposits: Contribution to £ yield of:

	Deposit Yield	Currency	Total
UK	0.90		0.90
US	2.68	–1.98	0.70
Euro	–0.34	–1.40	–1.74
Japan	0.00	–4.55	–4.55

[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

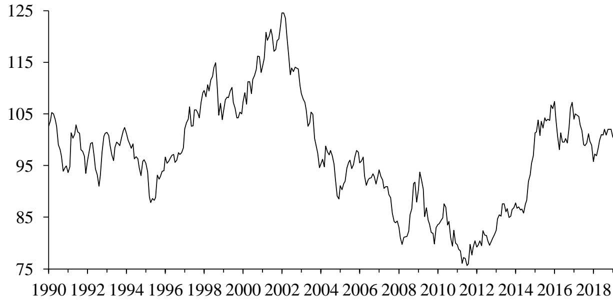
[3] Output based on China.

Table 3: Portfolio(%)

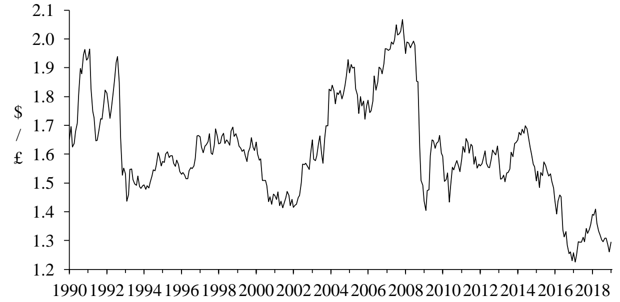
	Sterling Based Investor		Dollar Based Investor		Euro Based Investor	
	January Letter	Current View	January Letter	Current View	January Letter	Current View
UK Deposits (Cash)	5	5	5	5	1	1
US Deposits	-	-	-	-	-	-
Euro Deposits	-	-	-	-	-	-
Japanese Deposits	-	-	-	-	-	-
UK Bonds	-	-	-	-	-	-
US Bonds	-	-	-	-	-	-
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

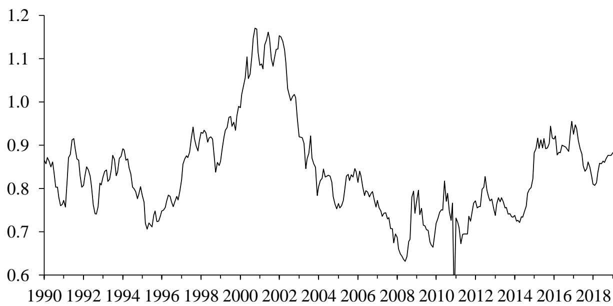
US : Trade Weighted Index
(Bank of England 1990 = 100)



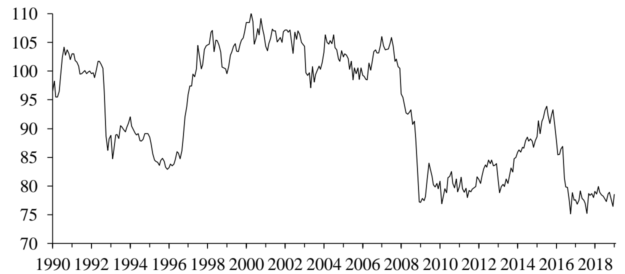
UK: Dollars Per Pound Sterling



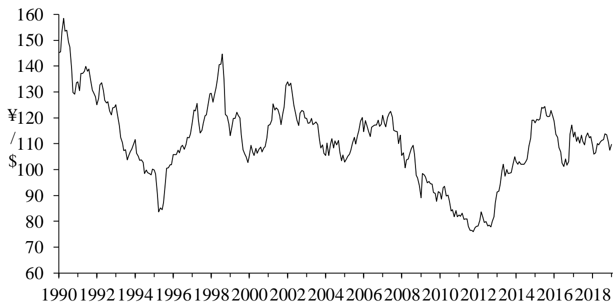
Euro per US dollar



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



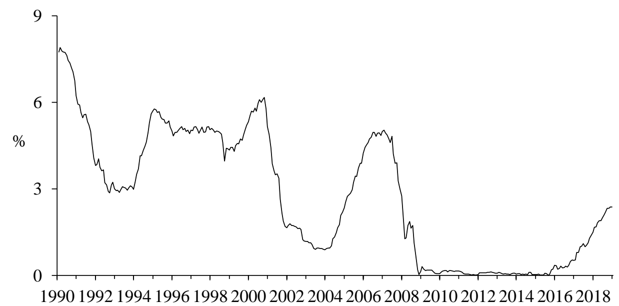
Japan : Yen Per U.S. Dollar



GOVERNMENT BOND MARKETS

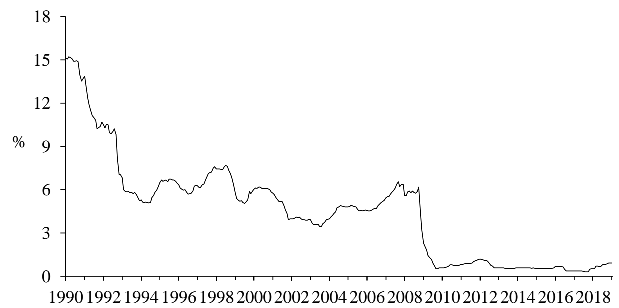
U.S.: Yield on Long-Term Government Bonds

U.S. : 3-Month Treasury Bill



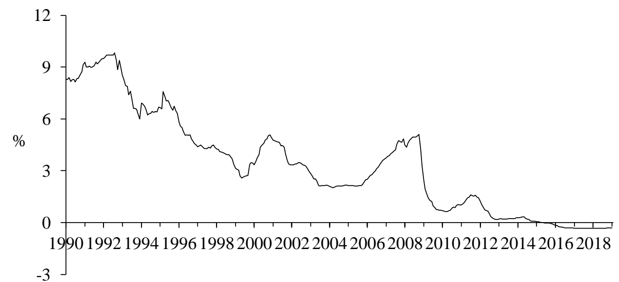
U.K.: Yield on Long-Term Government Bonds

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

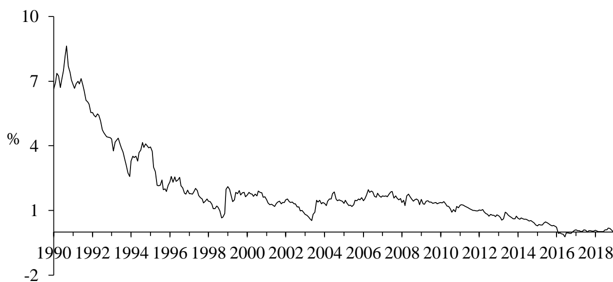


Germany: Yield on Public Authority Bonds

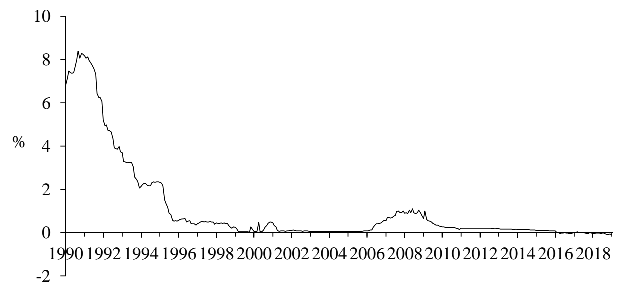
Germany : 3-Month Interbank Deposit Rate



Japan: Yield on Long-Term Government Bonds

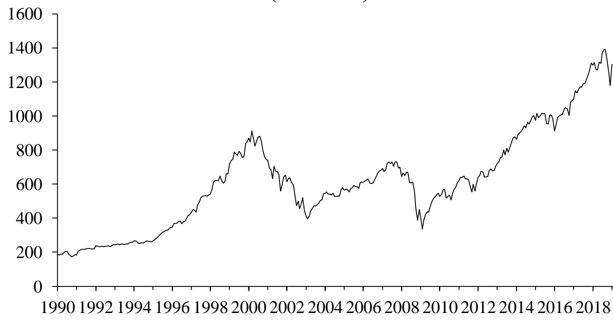


Japan : 3-Month Money Market Rate

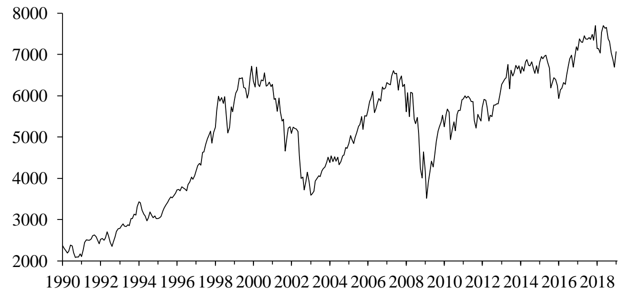


MAJOR EQUITY MARKETS

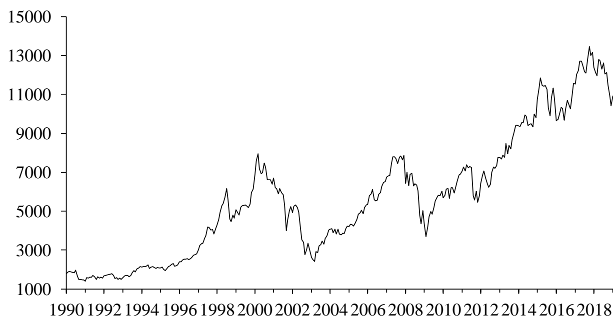
U.S. : S & P 400 Industrial
(1985=100)



U.K. : FTSE-100 Index
(10 April 1962=100)



Germany : DAX 30



Japan : Tokyo S.E. New
(1985=100)

EMERGING MARKETS

Anupam Rastogi

India

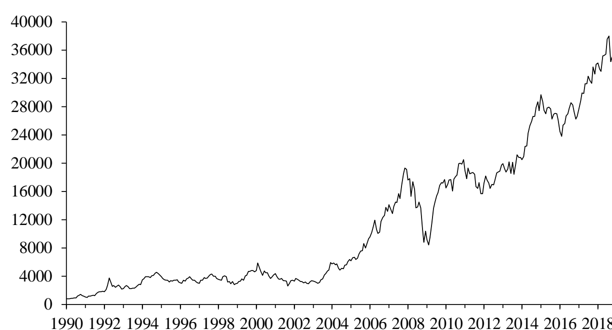
The economy is officially projected to register a gradual recovery from 6.7% growth rate in 2017–18, the lowest under the Modi government, to 7.2% in the current financial year. The country is poised for the 7.4–7.5% GDP growth rate in the coming fiscal year. The IMF has slightly raised the growth prospects of India in the coming fiscal year. However, due to general elections scheduled in May 2019, there is a lot of noise around development figures and unemployment.

After Modi's party was trounced in three states in December, an uncertainty is injected on whether Mr. Modi would return to power or not. He has responded by dole outs in the next year's budget presented to the parliament on February 1, 2019. The budget has turned out to be better than what was expected. The government has offered direct income support to farming communities of Rs 7,500 billion p.a. This is the beginning of a Universal Basic Income which is a regular government payment to everyone that provides enough income to cover basic need. This has been experimented by Canada and Finland and some states in India.

The idea is to hand cash to everyone, or a specific subset of citizens, instead of relying on traditional welfare programs. India's current efforts to help the poor depend largely on subsidies for food, fuel, fertilizer and other essentials. Monitoring the massive programs is expensive and much of the money spent on them doesn't reach those most in need. Universal Basic Income programs are supposed to circumvent the difficult task of figuring out which people are most deserving of government handouts. Paying directly into citizens' bank accounts is supposed to stop corrupt middlemen and bureaucrats from pocketing the perk. Besides this, there are a series of income tax reliefs to the tax paying middle class that would boost consumption demand. The Prime Minister has said that there is much more to offer in the coming years.

There are some concerns towards the high fiscal deficit target for FY2020 set at 3.4%. While S&P Global Ratings found Budget 2019 in line with the expectations, Moody's said the new expenditures announced ahead of elections, with no new policy to increase revenue, will put pressure on the fiscal deficit. S&P Global Ratings feels that the central government deficit will stabilize.

India: BSE Sensitive



The widely-tracked consumer price index-based inflation rate continued to decline since July of the current financial year to reach 2.19% in December, 2018. Much of the reduction in CPI came from food inflation which had been in the negative zone for the past three months. With CPI falling to 2.19% in December 2018, there are some hopes that the Reserve Bank of India's (RBI) monetary policy committee may cut interest rates at its meeting on 7th February.

Lack of jobs is going to be a key issue in the upcoming general elections in India like never before. The biggest criticism of the government has been a poor pace of job creation in the country — despite flagship programmes like Make in India (aimed at boosting domestic manufacturing) and Mudra scheme (which provides financing to small entrepreneurs).

The Indian rupee is hovering around Rupees 71 against the US dollar on increased selling of the dollars by exporters amid easing crude oil prices and uptrend in other emerging market currencies. Fresh foreign fund inflows propped up the rupee. However, heavy selling in domestic equity market capped the gains of the rupee to some extent.

	17–18	**18–19**	**19–20**	**20–21**	**21–22**
GDP (%p.a.)	6.7	7.2	7.5	8.0	8.0
WPI (%p.a.)	3.5	4.5	4.7	4.2	4.0
Current A/c(US$ bill.)	-26.0	-70.0	-64.0	-64.0	-60.0
Rs./$(nom.)	65.0	70.2	71.5	72.5	73.5

China

In the last quarter of 2018, the Chinese economy grew 6.4% year-on-year. This was the lowest in the last 28 years. Scrutiny of the December data and China's available policy responses reveal that the economy may not be able to maintain its mandated growth of 6.5% in 2019. We forecast, China's growth to be around 6% in 2019 — which is at the bottom of the government GDP growth estimates. The reason for this is not the trade dispute between China and the US but the non-banking finance companies.

Beijing's crackdown on nonbank "shadow finance" without opening alternative channels for private-sector borrowers, has left small and medium firms struggling to obtain bank credit. As a result, Chinese credit growth has continued to decelerate, despite nine months of significant central bank easing. If it doesn't turn back up soon, producer-price inflation could turn negative — causing big problems in the heavily indebted industrial sector.

The government is starting to pull out all the stops to stabilize the economy. China's slowing inflation leaves 'plenty of room' for central bank to cut rates. The Producer Price Index in December rose 0.9% only from a year ago. The Consumer Price Index — a gauge of prices for goods and services — rose 1.9% on year in December. Both, CPI and WPI, were lower than economists' expectations.

As expected, Chinese exports tumbled in December, declining 4.4% from a year ago. Exporters had front loaded the exports to beat the January 1 deadline of imposition of tariffs. More than half of Chinese products sold to the U.S. are under punitive tariffs, and the months of wrangling with the U.S. have weighed on investor sentiment and private companies' investments.

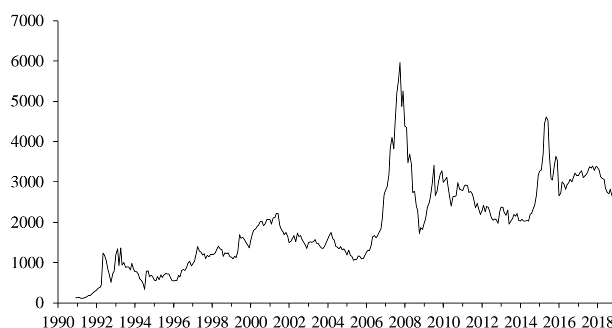
China's imports fell 7.6% in December. As the global demand is flagging more than expected, it will exert more downward pressure this year on the slowing Chinese economy. Despite December's fall, China's exports rose 9.9% for the full year of 2018, beating a 7.9% increase in 2017, while imports surged 15.8% on year, on par with 2017's growth.

In recent months the yuan has been stable around 6.8 yuan per dollar. The yuan's strength gives the PBOC room to cut interest rates and pump cash into markets, a change from last year when capital outflow risks were a key concern as yields fell and the yuan was weakening.

China's holdings of U.S. Treasuries fell to the lowest level in a year and a half. China's piles of notes, bills and bonds dropped to $1.12 trillion in November, from $1.14 trillion in October. It was the sixth straight decline and left the nations stockpile the smallest since May 2017. China remains the U.S.'s biggest foreign creditor.

The U.S. indictments of Huawei Technologies Co. do not explicitly mention anything about 5G networks or China's

China: SSE Composite Index



spy agency. But they sent a clear message to world leaders whether to use Huawei equipment for next-generation wireless networks connecting everything from phones to cars to supertankers: China's largest technology company is a threat to the national security. If Deutsche Telekom AG is to be believed, a ban on equipment from Huawei Technologies Co. would slow down its rollout of 5G networks by two years. Even though such an embargo would be a huge burden for the German phone giant, there are factors that might lessen the pain. A delay to its 5G plans might even be welcome. The company was accused of wrongdoing long before Trump took office.

In order to lessen the argument of the Chinese economy being closed to foreign investors, China is giving more approvals in the next six months to global banks seeking majority ownership in their local securities ventures, as China vowed to allow foreign firms greater access to its $40 trillion financial sector.

China's central bank gave approval for S&P Global Inc. to begin offering credit-rating services there. That follows central-bank clearance, in November, of American Express Co. to become the first foreign firm to set up card-clearing services in China.

Notwithstanding China's new initiatives, we are in the midst of a new Cold War, with the United States and China carving out separate economic and political orders. President Trump now faces a dilemma. Getting the trade deal he craves from Xi Jinping may be easier than convincing his voter base. U.S. businesses are tired of hearing pledges from Beijing about market opening that never materialized. Hardliners in the military and security agencies certainly don't want to let China off the hook. From their perspective, tariffs have successfully weakened an adversary. And on Capitol Hill, where anti-China sentiment unites both parties, any agreement will face intense scrutiny.

	17	**18**	**19**	**20**	**21**
GDP (%p.a.)	6.8	6.5	6.0	5.6	5.4
Inflation (%p.a.)	1.6	2.2	2.3	2.3	2.0
Trade Balance(US$ bill.)	400	300	300	300	260
Rmb/$(nom.)	6.6	6.8	7.0	7.1	7.1

South Korea

GDP grew 2.7% in 2018 from a year earlier according to the Bank of Korea (BOK), marginally better than our forecast. Thanks to President Moon Jae's income-driven growth as its major economic policy, to raise household income among the low-income bracket and boost consumer spending. Fiscal expenditure expanded 5.6% in 2018, the highest increase in 11 years. To meet the rising domestic demand, production among manufacturers rose 3.6% in 2018 after growing 4.4% in the prior year. We expect GDP to grow 2.6% as fiscal stimulus continues to boost domestic demand and trade friction between China and the US has minimal impact on the economy.

South Korea's headline inflation in January slipped below 1.0% for the first time in a year due to the sharp decline in oil prices against subdued demand. Core inflation, which excludes volatile oil and agricultural goods, gained 1.2% from a year earlier, on par with previous months. We expect, going ahead, inflation to remain subdued and undershoot the BOK's target of 1.7%.

South Korea's January exports fell for the 2nd month. Exports declined 5.8% year on year for a second straight month in January as faltering demand in China hit prices of memory chips and petrochemical products, adding further stress on the economy from slowing global growth and the U.S.-Sino trade dispute. For the whole year in 2018, exports gained 5.5% — much slower than a 15.8% increase in 2017. South Korean exports surpassed the annual $600-billion mark for the first time this year, allowing the economy to become the world's seventh to breach this number. Imports fell 1.7% which resulted in the smallest trade surplus in nearly five years, of $1.34 billion.

Investors worry a slowdown in the Chinese economy and the Sino-U.S. trade war could severely dent global growth and demand for key South Korean exports items including memory chips and petrochemical products. South Korea, however, is in a good position to offset fall in exports with new orders in goods which were earlier outsourced from China.

The local currency was traded at an average of 1,030.57 won per 100 yen in January, down 31 won from the previous month. The won is likely to remain stable around this level.

	17	18	19	20	21
GDP (%p.a.)	3.1	2.7	2.6	2.6	2.7
Inflation (%p.a.)	1.9	1.5	1.6	1.6	1.7
Current A/c(US$ bill.)	88.0	86.0	80.0	78.0	70.0
Won/$(nom.)	1100	1130	1120	1120	1160

Taiwan

Less-than-expected consumption, investment and exports led to the slowing of overall economic growth in 2018. The official announcement of the growth rate is in line with our forecast of 2.6% and lower than the government's prediction made last November. Taiwan's central bank expects the economy to expand 2.33% in 2019. We are maintaining our growth forecast of 2.2% for 2019 due to slowing international trade.

Korea: Composite Index

Taiwan: Weighted TAIEX Price Index

Taiwan's export orders suffered their steepest fall in more than two-and-a-half years in December. Two of the island's heavyweight companies, Taiwan Semiconductor Manufacturing Co and manufacturer Foxconn, would be adversely affected by tech giant Apple Inc. slow down and shifting of manufacturing base.

Inflation in Taiwan would continue to undershoot the central bank target and we expect monetary policy to remain accommodative.

Amid uncertainties arising from the ongoing trade disputes between the United States and China, investment and consumption in Taiwan would be negatively impacted in the coming year as well. The trade surplus decreased by US$8.6 billion on year in 2018 due mainly to the impact from the US-China trade war. It may shrink further if companies decide to shift their production base from China as Taiwanese companies are major supplier of components to the Chinese companies.

	17	18	19	20	21
GDP (%p.a.)	2.6	2.6	2.2	2.1	2.1
Inflation (%p.a.)	0.6	1.2	1.2	1.2	1.0
Current A/c(US$ bill.)	68.0	68.0	70.0	71.0	70.0
NT$/$(nom.)	31.0	29.8	31.0	31.0	31.5

Brazil

GDP growth has been adjusted downwards to 2.50% in 2019 as well as for 2021 and 2022. It is widely believed that the China factor and trade disruptions due to the US-China spat would harm the Brazilian economy.

Brazil's consumer prices slowed in December, leaving annual headline inflation at 3.75% in 2018, according to the country's statistics agency, IBGE. In 2019, inflation should stabilize at 4% and continue for 2021 and 2022. Brazil's central bank's target for consumer inflation is 4.5% plus or minus 1.5 percentage points. The basic interest rate is now 6.5% and the SELIC rate is expected to rise to 7% in 2019 and remain at this plateau until 2022. The new central bank governor, Roberto Campos Neto, would try to leave the policy rate unchanged for now as the inflation environment remains very comfortable.

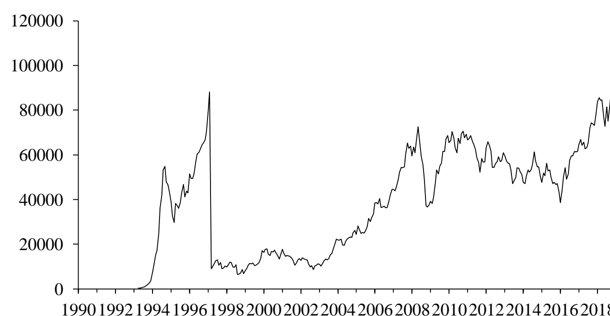
Brazil's current account deficit doubled last year as economic growth fuelled demand for foreign goods and services, while foreign investment reached its highest share of GDP since 2001. Imports rose 21% on the year while exports rose 10% in 2018, which narrowed the trade surplus to $53.59 billion from $64 billion the year before. However, the current account deficit remains "comfortable" at less than 1% of GDP.

Much of the Real's movement in 2019 will be dependent on Bolsonaro's economic policies. These policies will take time to implement. The Brazilian real will hover around its current value against the U.S. dollar this year. There may be many domestic and international headwinds that could impact the Brazilian economy. The pace of foreign inflows into Brazilian financial assets is expected to pick up this year as investors are attracted by Bolsonaro's market-friendly policies and by relatively high interest rates. Brazil is emerging as one of the most attractive destinations for long-term investment in local currency debt instruments.

President Jair Bolsonaro tried to appeal to big businesses to bring in more investments into Brazil at the World Economic Forum in Davos, but disappointed investors by failing to detail highly anticipated pension reforms plans. The pension reform plan is the most important thing for Brazil and for Brazil markets, and any lack of clarity is going to weigh on the currency in particular and economy in general.

Brazilian stocks are off to a hot start this year, with the country's benchmark index rising more than 8% in 2019.

Brazil: Bovespa



The jump in Brazilian shares comes as investors cheer the possibility of key reforms being passed by new President Jair Bolsonaro, including changes to the country's pension system. The Ibovespa — Brazil's benchmark equity index — climbed to its highest point in its existence on January 24, closing at 97677.20.

President Jair Bolsonaro toned down his fiery rhetoric at the World Economic Forum while pledging to make his country safer and more business-friendly. Delivering the keynote address at the summit in Davos, he promised to simplify Brazil's byzantine tax system, cut public debt and take other steps to boost foreign investment and trade, but provided few details. He also vowed to combat organized crime and corruption, promising to pull the country out of its "deep ethical, moral and economic crisis". His mission, he said, was to boost economic development while also protecting the environment and biodiversity. But, Mr. Bolsonaro's failure to detail his economic policy has left many investors frustrated.

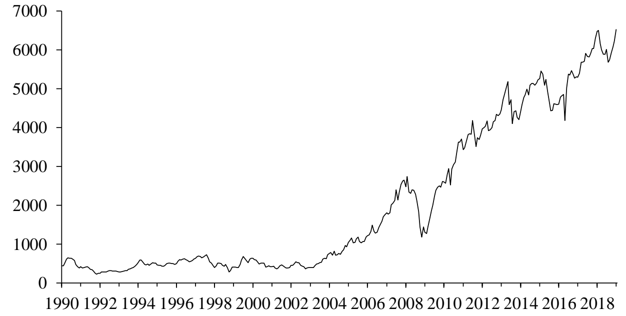
His son Flavio Bolsonaro, a senator in the incoming congress, has reportedly come under scrutiny by a government financial watchdog because of deposits made to his bank account in 2017 as well as unusually large transactions made by one of the family's close associates. The son has denied any wrongdoing. It is still too early to say what, if anything, will come of the allegations, but any appearance of corruption on the part of Mr. Bolsonaro's sons could cause political problems for the president and it would go against all the assurances Bolsonaro has given to voters.

	17	**18**	**19**	**20**	**21**
GDP (%p.a.)	1.0	1.0	2.5	2.5	2.5
Inflation (%p.a.)	3.0	3.8	4.0	4.0	4.0
Current A/c(US$ bill.)	-7.3	-14.6	-16.0	-16.0	-16.0
Real/$(nom.)	3.2	3.8	3.7	3.7	3.8

Other Emerging Markets

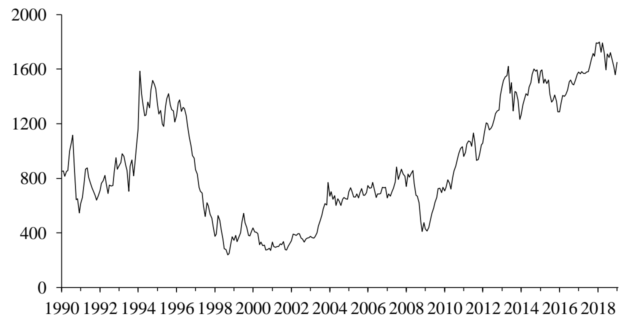
Hong Kong: FT-Actuaries

Indonesia: Jakarta Composite

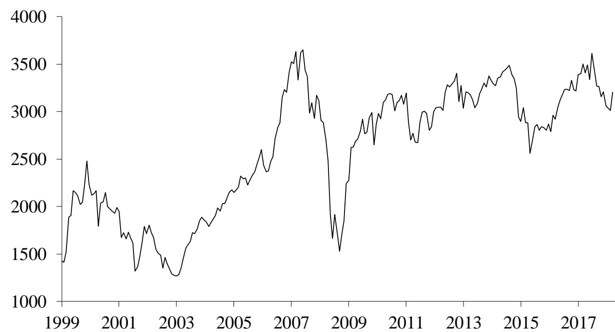


Malaysia: FT-Actuaries (US$ Index)

Thailand: Composite Index



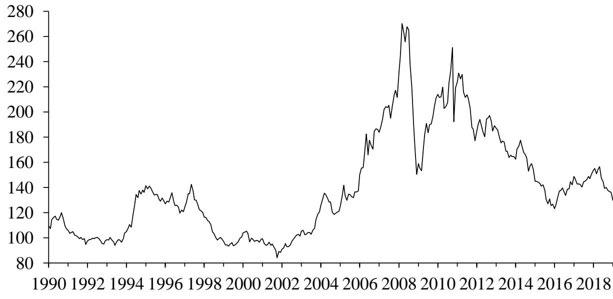
Singapore: Straits Times Index



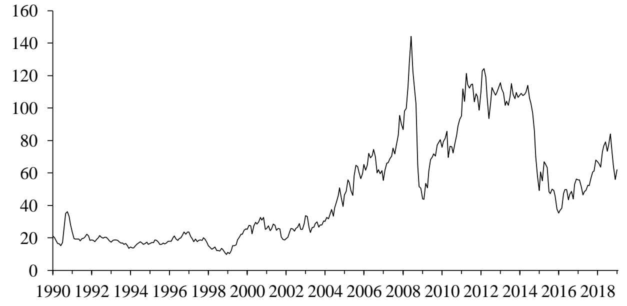
Philippines: Manila Composite

COMMODITY MARKETS

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

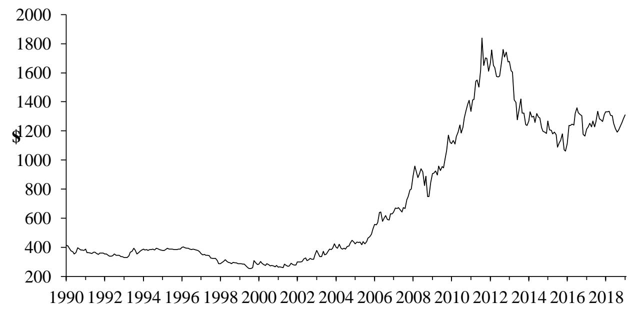


Oil Price: North Sea Brent (in Dollars)

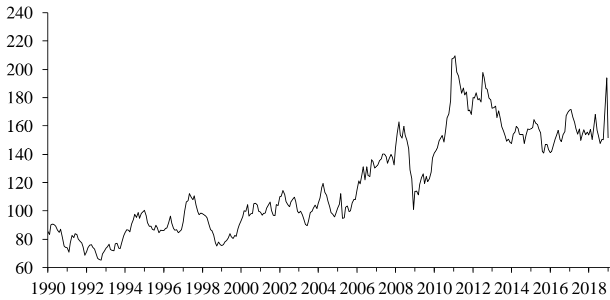


Commodity Price Index (Sterling)
(Economist, 2000=100)

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]
2017	2.6	0.6	0.4	77.4	75.5	-1.6	3.8	-1.5
2018	2.4	1.2	0.8	78.5	76.7	-1.5	3.4	-0.5
2019	2.2	2.5	1.3	76.6	74.6	-0.7	2.9	0.5
2020	2.1	3.3	2.4	76.1	74.3	0.4	2.7	1.4
2021	2.0	3.8	3.1	76.3	75.1	1.1	2.6	0.9
2022	2.0	3.8	3.1	75.6	74.6	1.1	2.5	0.6
2018:1	2.5	1.0	0.5	79.2	77.9	-1.7	3.7	-1.1
2018:2	2.4	1.0	0.7	79.3	77.7	-1.7	3.4	-1.1
2018:3	2.5	1.0	0.9	78.0	75.9	-1.3	3.3	-1.1
2018:4	2.3	1.8	1.0	77.6	75.4	-1.2	3.1	-0.3
2019:1	2.2	2.5	1.1	77.2	75.4	-1.0	2.9	0.5
2019:2	2.2	2.5	1.3	76.6	74.4	-0.8	2.9	0.5
2019:3	2.2	2.5	1.4	76.4	74.4	-0.6	2.9	0.5
2019:4	2.2	2.5	1.5	76.3	74.3	-0.5	3.0	0.5
2020:1	2.1	3.0	2.1	76.1	74.3	0.1	2.8	1.0
2020:2	2.1	3.0	2.1	76.2	74.3	0.1	2.8	1.0
2020:3	2.0	3.5	2.1	76.1	74.3	0.1	2.6	1.5
2020:4	2.0	3.8	3.3	76.0	74.3	1.3	2.5	1.8

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)
2017	259.1	2.9	2.2	0.8	142.2
2018	265.9	2.7	2.2	0.8	142.6
2019	273.2	2.8	2.1	0.8	143.4
2020	281.0	2.9	1.9	0.7	144.6
2021	288.9	2.8	1.6	0.7	145.7
2022	297.0	2.8	1.3	0.6	146.9
2018:1	264.6	3.0	2.3	0.8	142.9
2018:2	263.4	2.6	2.2	0.8	141.8
2018:3	268.4	3.1	2.1	0.8	143.5
2018:4	267.0	2.3	2.1	0.7	142.3
2019:1	272.0	2.8	2.0	0.7	143.7
2019:2	270.7	2.8	2.0	0.7	142.6
2019:3	275.8	2.8	2.0	0.7	144.3
2019:4	274.5	2.8	2.0	0.7	143.0
2020:1	279.9	2.9	2.0	0.7	144.8
2020:2	278.6	2.9	2.0	0.7	143.8
2020:3	283.5	2.8	2.0	0.7	145.5
2020:4	282.1	2.8	1.9	0.7	144.2

1 Whole Economy
2 Average Earnings
3 Wholly unemployed excluding school leavers as a 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
2017	162.3	777336.9	443745.6	302292.1	198857.7	-65371.5	102187.0
2018	164.6	788057.2	447703.5	309777.2	199983.9	-71893.1	97213.6
2019	167.6	802696.2	454303.6	310600.3	200602.7	-62943.8	99862.6
2020	171.0	818972.8	460685.5	316674.7	201938.2	-58117.3	102210.3
2021	174.6	836108.1	467804.4	321816.8	203070.4	-52020.5	104566.0
2022	178.6	855103.2	475356.9	327523.1	204308.6	-44936.8	107148.0
2017/16	1.8		0.6	0.8	0.4		0.6
2018/17	1.4		0.9	3.2	0.6		-2.8
2019/18	1.9		1.5	0.3	0.3		2.8
2020/19	2.0		1.4	2.0	0.7		2.4
2021/20	2.1		1.5	1.6	0.6		2.3
2022/21	2.3		1.6	1.8	0.6		2.5
2018:1	163.4	195600.5	111071.3	74328.3	51436.3	-17532.1	23703.2
2018:2	164.1	196413.8	111520.6	78149.0	49061.0	-18806.3	23510.5
2018:3	165.1	197609.1	112343.6	79434.8	49642.5	-18437.4	25074.5
2018:4	165.7	198433.9	112768.1	77865.2	49844.0	-17117.3	24925.4
2019:1	166.4	199235.8	112806.5	76347.5	50526.0	-15756.7	24688.2
2019:2	167.1	200032.9	113132.9	77285.3	50009.7	-15591.0	24802.8
2019:3	168.1	201273.4	113952.7	78293.8	50056.5	-15900.9	25126.9
2019:4	168.9	202154.1	114411.5	78673.8	50010.4	-15695.2	25244.6
2020:1	169.9	203369.8	114363.4	78191.7	50860.0	-14689.5	25354.4
2020:2	170.5	204186.2	114717.5	79020.4	50335.5	-14421.8	25465.2
2020:3	171.4	205199.1	115569.5	79774.3	50315.1	-14836.7	25624.4
2020:4	172.2	206217.7	116035.1	79688.3	50427.6	-14169.3	25766.2

[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)
2017	2.0	2047.3	39.4	79.9	-66.3
2018	1.5	2117.0	30.9	80.0	-62.9
2019	1.0	2206.6	22.3	84.7	-48.8
2020	0.3	2297.2	6.9	91.0	-41.2
2021	-0.3	2394.8	-6.9	94.2	-30.6
2022	-0.7	2500.2	-18.5	95.4	-18.4
2018:1	-2.8	515.6	-14.3	20.2	-16.7
2018:2	3.3	518.6	16.9	19.7	-18.7
2018:3	0.7	527.9	3.8	19.8	-13.5
2018:4	1.9	532.3	10.2	20.1	-14.0
2019:1	0.0	538.2	0.1	20.4	-13.7
2019:2	2.2	541.9	11.9	20.7	-13.8
2019:3	1.7	548.8	9.2	20.9	-9.4
2019:4	1.5	554.3	8.3	21.2	-11.9
2020:1	-1.3	561.6	-7.1	21.9	-12.2
2020:2	1.3	565.4	7.5	22.0	-12.0
2020:3	0.9	570.9	5.1	22.1	-7.6
2020:4	1.0	576.9	5.5	23.5	-9.4

[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	1.6	2.2	2.9	2.6	1.9
U.K.	2.3	1.9	1.8	1.4	1.9	2.0
Japan	1.3	0.6	1.9	0.8	1.1	0.5
Germany	1.7	2.2	2.2	1.5	1.4	1.6
France	1.1	1.1	2.3	1.5	1.5	1.4
Italy	0.9	1.1	1.6	0.9	0.5	0.7

Growth Of Consumer Prices

	2015	2016	2017	2018	2019	2020
U.S.A.	0.1	1.3	2.1	2.4	2.1	2.2
U.K.	0.2	1.1	2.6	2.4	2.0	2.1
Japan	0.8	–0.1	0.5	1.0	1.1	1.2
Germany	0.3	0.5	1.8	1.8	1.8	1.7
France	0.0	0.2	1.0	1.3	1.3	1.5
Italy	0.1	–0.1	1.2	1.2	1.2	1.4

Real Short-Term Interest Rates

	2015	2016	2017	2018	2019	2020
U.S.A.	–1.1	–1.6	–1.0	0.3	0.4	0.8
U.K.	–0.5	–2.1	–2.0	–1.2	–0.8	0.3
Japan	0.3	–0.4	–0.9	–1.0	–1.1	–1.1
Germany	–0.6	–2.1	–2.2	–2.1	–2.0	–1.7
France	–0.3	–1.3	–2.2	–1.6	–1.8	–1.5
Italy	0.0	–1.5	–1.5	–1.5	–1.7	–1.4

Nominal Short-Term Interest Rates

	2015	2016	2017	2018	2019	2020
U.S.A.	0.2	0.5	1.4	2.4	2.6	3.0
U.K.	0.6	0.5	0.4	0.8	1.3	2.4
Japan	0.2	0.1	0.1	0.1	0.1	0.1
Germany	–0.1	–0.3	–0.3	–0.3	–0.3	0.0
France	–0.1	–0.3	–0.3	–0.3	–0.3	0.0
Italy	–0.1	–0.3	–0.3	–0.3	–0.3	0.0

Real Long-Term Interest Rates

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

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	1.2	2.5	3.3
Japan	0.3	0.0	0.1	0.0	0.1	0.1
Germany	0.6	0.1	0.4	0.2	0.6	1.0
France	1.0	0.7	0.8	0.7	1.0	1.2
Italy	1.6	1.7	1.9	2.8	3.3	3.5

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	75.8	74.9	74.3
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