Cardiff Business School
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Julian Hodge Bank

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Julian Hodge Institute of Applied Macroeconomics

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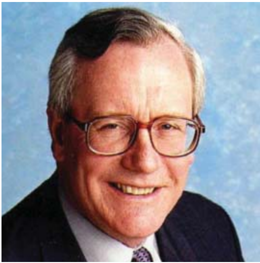
Patrick Minford, Economic Adviser to Julian Hodge Bank

"In the medium term Brexit could be a beneficial shock also to the EU... There is a chance that the EU elite will reconsider and move to a looser cooperative structure;... any loosening... could improve the EU long term growth outlook. But the political reality in the EU is that the elite are committed to ongoing socialist interventionism. If this persists the economic growth outlook in the EU will continue to be dire. As the UK leaves, it will bid goodbye to a failed political experiment and can only benefit from this."

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Commercial Lending

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Commercial Deposits

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In spite of the ‘uncertainty’ supposedly created by Brexit the UK economy is growing well enough and there is little sign of disturbance. What uncertainty there will be on Brexit really depends on how rapidly a new policy direction is established after this massive supply-side reform- see next chapter; it should be done fast so that uncertainty is closed down. Looking out at the world economy, it is weathering the China slowdown well enough; low commodity prices are boosting incomes and investment prospects in the world’s main economies and world growth is in the sustainable 3-4% range. Many emerging countries are doing well, notably India; the euro-zone is at last coming out of recession.

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Patrick Minford

We go through the prospects in the event of Brexit, based on the policy of moving out of the EU into global free trade. These are good, both long term and as a result in the short term too, as people’s expectations reflect that long term prospect. It is noteworthy that the modellers of the consensus have universally assumed that post-Brexit the UK rejects free trade and maintains the EU’s external trade barriers against the whole of the world including the EU. It is this astonishing and misleading assumption that generates the dreadful results for the economy under the consensus Brexit scenario.

COPING WITH THE UNCERTAINTIES OF THE BREXIT REFERENDUM VOTE

It has become a forecasting commonplace to say that the Brexit referendum is causing uncertainty and delaying spending plans. However the spending evidence contradicts this. The recent CBI survey showed investment spending continuing to grow robustly. Consumer spending continues to rise reflecting rising personal disposable incomes. As so often happens when such ideas about the general economy get about, what actually dominates firms' and people's spending is their more narrow industrial or personal situation.

In fact the uncertainties about Brexit are really brought on only by the government's relentlessly negative campaign against Brexit; it 'will be a disaster' etc . The Treasury has now brought out both its long term Brexit disaster scenario and also its short term shock-horror Brexit scenario. But of course since its long term projection is the opposite of the truth, as we have patiently explained time and again, so is its short-term projection because of course 'long term garbage in, short term garbage out'. Under rational expectations, the assumption that best fits the facts, what people think will happen in the long term also dominates their short term behaviour. So it is that the Treasury's short term forecast, just brought out before it has to go into 'purdah' at the end of May, is a deliberately deceitful cocktail of misery, based on its quite misleading long-term assumptions.

We publish our Brexit forecast in Chapter 3 and it is benign and not particularly dramatic. Growth goes up a bit; employment rises a bit; and competitiveness rises with a falling exchange rate as the extra output needs to be sold on world markets. Our best guess is that if Brexit happens, as it may well do, the Treasury will rapidly change its tune, the government will do a u-turn, with some top ministers leaving, including the Chancellor, and a plan will take shape along the lines we have sketched- of moving to free trade in a WTO-based world. The latter does not need EU cooperation which will not at first be forthcoming anyway. Gradually the EU will wake up to their own need to have good relations with an important neighbour; but it will take time, so sore will they be and so anxious to discourage more exits.

In the medium term Brexit could be a beneficial shock also to the EU. It will make finally clear that the federal aim is simply not supported democratically by EU peoples. There is a chance that the EU elite will reconsider and move to a looser cooperative structure. But don't hold your breath: federalism is in the saddle among that elite. Dislodging it will still be difficult and may not happen. If so the future for the rest of the EU looks bleak, with more popular dissatisfaction and the threat of more departures.

Table 1: Summary of Forecast

	2014	2015	2016	2017	2018	2019	2020
GDP Growth[1]	2.9	2.2	2.3	2.4	2.5	2.5	2.5
Inflation CPI	1.7	0.1	1.1	1.6	2.0	2.0	2.0
Wage Growth	1.2	2.7	3.2	2.9	3.0	2.5	2.9
Unemployment (Mill.)[2]	1.1	0.9	0.8	0.8	0.7	0.7	0.7
Exchange Rate[3]	87.1	91.6	90.4	90.5	90.1	91.8	91.3
3 Month Interest Rate	0.6	0.5	0.7	1.1	1.7	2.1	2.5
5 Year Interest Rate	1.8	1.4	2.0	2.2	2.5	2.5	2.5
Current Balance (£bn)	−99.9	−91.0	−70.4	−66.0	−66.2	−64.7	−64.5
PSBR (£bn)	83.3	78.1	65.5	56.6	36.1	31.4	23.8

[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)

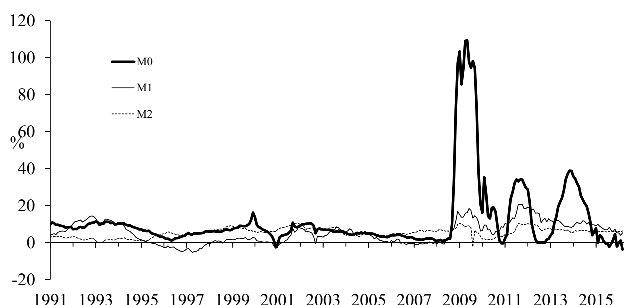
So bad and onerously bureaucratic are the EU's structures that any loosening of the EU bonds could improve the EU long term growth outlook. But the political reality in the EU is that the elite are committed to ongoing socialist interventionism. If this persists the economic growth outlook in the EU will continue to be dire. As the UK leaves, it will bid goodbye to a failed political experiment and can only benefit from this. The problem is that if it remains, it will continue to part of it. It will be a recipe for ongoing conflict; also Parliament is committed to another referendum if there is significant Treaty change. When will it ever end? Unfortunately the scenario that will create the most uncertainty for the UK will be a vote to Remain. Nearly half of voters will be most unhappy and rooting for another go at leaving; if the EU turns out to be the same animal as before our recent 'renegotiation', there will be huge bitterness and resentment.

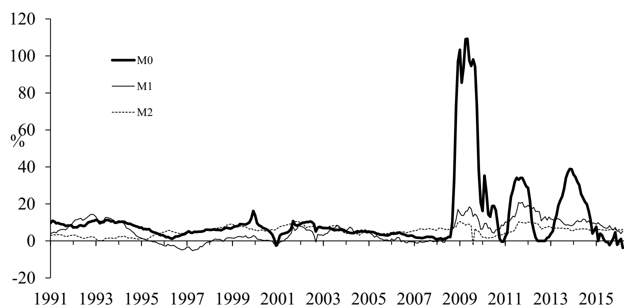
Are monetary and regulatory policy tripping over each other?

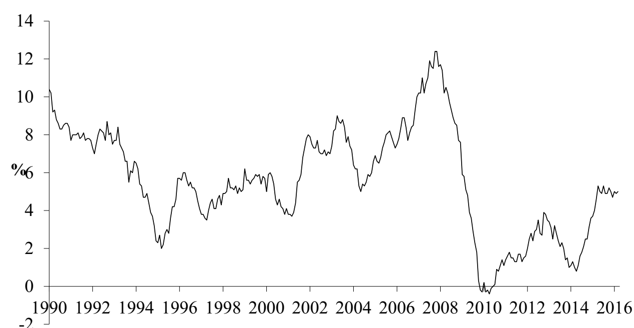
Before the crisis the accepted wisdom was that regulation should be 'light touch' and that provided the central bank was ready to stop any run on the banks, these last could be allowed to choose their own capital and liquidity ratios.

At the same time monetary policy was delivered by rules for setting interest rates linked to inflation.

It is easy to see that all this led to a huge lending boom in the 2000s up to the banking crisis.







Since the crisis this wisdom has been turned on its head. Regulation has been tightened up massively, with central banks telling commercial banks the minimum capital ratios they must have and also creating various balance sheet ratios dependent on 'risk-weighted assets'. At the same time monetary policy has switched to flooding the markets with government cash- Quantitative Easing- instead of setting interest rates (which are too close to zero to move much at all).

The result of this post-crisis U-turn has been that world recovery is really pretty sluggish. As we said last time world growth continues and almost certainly will survive this current weakness because of the commodity price bust has put a lot of profit back into western commodity-consuming economies; and these economies will respond with higher investment and higher consumption.

But the surprise is how weakly the world has responded to the huge flood of cash poured into it by governments. Credit and money growth remain weak; the commercial banks are just sitting on this mountain of cash that has found its way to them and promptly been deposited back with their central banks.

Could it be that the U-turn in regulation has roughly offset the U-turn in money creation? Yes, it looks very like it. What has happened is that the banks have been terrified of lending in case they had to raise more and more expensive capital (from middle eastern sheikhs et al). So they have held 'safe' assets- viz lots of government bonds and especially government cash. The huge mound of cash poured into the economy by governments has simply been stored and not lent out as theory assumes it will be.

To use an old metaphor, the stable doors have been slammed shut after the credit horses have bolted. This has stopped the credit horses from returning to the stable at all; let alone behaving as needed. The regulative overkill has stopped credit in its tracks; not only will there be no chance of a credit boom, but also there will be not even the necessary growth of credit to sustain the recovery.

Matters have been somewhat eased by the growth of credit substitutes- P2P lending, crowdfunding and so on. Also quite a bit of cash has gone into stock markets, driving up prices, on its way to being finally redeposited in the banks. But the rise in equity prices has been sandbagged by the lack of continuing credit and money growth. Equity prices have fallen back more recently. Bond prices have gone on rising, and yields becoming ever smaller, as recession uncertainty has gripped the markets.

What is to be done? Unfortunately bureaucracies find it hard to swallow their words, unless absolutely forced by brute circumstances. As there is enough growth to claim things are not too bad, the new regulations are being nailed into place; and regulators are crowing about how 'safe' the banks have become, with 'stress tests' being generally passed quite easily by now. Yet a safe bank that is not taking any risks is not much use to society. The same regulators blame weak growth on other things –such as China's problems or commodity producers' woes- and not on their own actions in destroying banks' business models via their regulative overkill.

Work we have done in Cardiff strongly suggests that before the crisis central banks were at fault in allowing money to become too loose. Interest rates were kept too low for too long, and the effects on money and credit ignored because inflation did not respond much if at all. When finally commodity prices exploded, setting off a surge in inflation in 2007-8, they raised interest rates too late and just when the banking system was faced with deposit runs, as the sub-prime crisis made wholesale depositors nervous that a bank would fail. At the very point, when central banks should have been strongly supporting the banks, they turned severe and, with know-nothing politicians egging them on,

lectured them instead of getting behind them and injecting the massive liquidity needed to stave off these runs; then they brought in the new regulations, worsening the banks' plight.

Some countries- Switzerland, Sweden and the EU among them- have now moved interest rates paid on bank balances into negative territory. At first this was hailed as bold and smart, 'forcing the banks' to lend. It has not done so. Furthermore it is damaging banks' profitability both directly on their deposit return and indirectly because it lowers the rates they can get on lending, as ever lower rates in the bond markets cut into what private firms will pay for credit. Essentially negative interest rates are a tax on banks; one might want to know whether this makes any sense when we need healthy banks to support the economy.

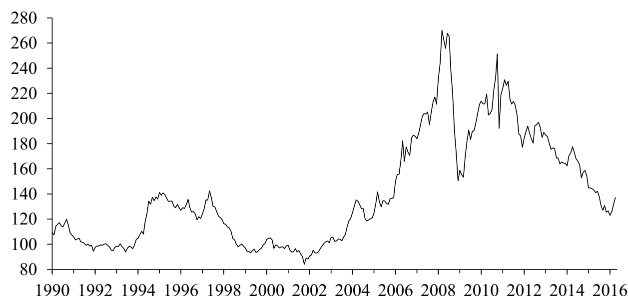
It is nowadays commonplace to hear people criticising bankers as the cause of all our problems. Yet, if central banks had done a good job of controlling money, the banking system would not have behaved the same way. Nor then would they have resorted to the regulative backlash we have seen since, which as we have argued has wrecked monetary policy for the recovery.

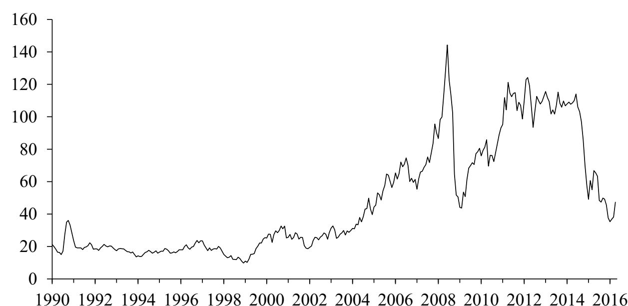
It is time for governments to recalibrate their actions. We now need regulation to be scaled back pragmatically to encourage normal lending growth again. As that happens the cash mountain sitting with the banks needs to be chopped down by reversing QE. As credit growth gathers some momentum interest rates also need to be raised. This is sadly going to take some time. Meanwhile the recovery will limp on, sustained by the long commodity cycle we have talked about. It is not the end of the world but it has been a poor episode instructive on how foolish governments can be.

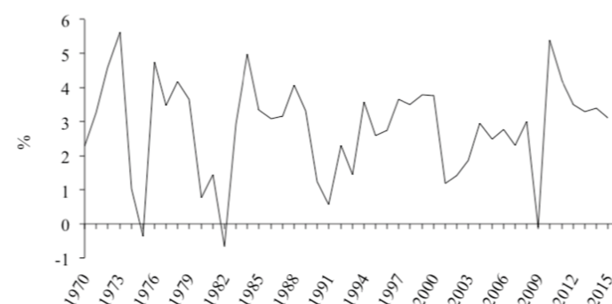
Is a recession threatening?

Growth slowed in the last quarter of 2015. It happened here and it happened in the US. China has also slowed down but noone really trusts the official growth rate of 6.9%. Emerging market countries dependent on raw material exports have been badly hit- including Russia and Brazil. Those raw material prices, led by oil and gas, continue to fall. Many are saying that world growth is moving towards recession.

In many ways we are seeing a repeat of the early 1980s. Then too there was a bad world recession in 1980-82 and then too raw material prices fell sharply in the following two decades. Yet growth revived from 1982 and persisted with little interruption until 2007- by which time those commodity prices were once again assaulting their earlier peaks. Soon after began the Great Recession.







The essential point seems to be that low raw material prices are good for world growth. They signal abundance of raw resources and raise the profit rate in 'final' activities where productivity growth can be rapid. Hence investment in these final production sectors is strong. True, investment stops in raw material sectors. But this investment is relatively small in the world investment total. Furthermore it cannot go more negative than the rate of depreciation, which is fairly low (oilfields and large mines do not wear out quickly).

Consumption in material-consuming countries also rises, fuelled by higher real incomes. Again this is quite a lot larger than consumption in material-producing countries.

What is noticeable today is that consumers in the major economies are enjoying improving real incomes as real wages and employment rise. Even the euro-zone is now recovering if weakly, as a result of these pressures.

An element that is currently important is monetary policy. As we have just seen above, this is highly conflicted: a draconian response to the crisis by central bank regulation has offset the huge money-printing operation of QE. The decision of the US Fed to raise interest rates at the end of last year and to signal further slow rises in 2016 has caused share and bond market volatility. Both the ECB and the Bank of Japan have moved in the opposite direction, pushing interest rates on bank balances negative, while the Bank of England has held rates constant at close to zero. Very large amounts of monetary base – money 'printed' by the QE programmes of all these central banks- are being held by commercial banks around the world. The Fed is clearly nervous, now that total money growth is back up to respectable rates, about the possibility of some sort of credit boom taking hold again. This nervousness is also encouraged by worries about 'shadow banking' growth whereby alternative sources of credit such as crowd-funding and peer-to-peer lending add to this boom. We are seeing in practice some loosening of the draconian controls on banks put in place after the crisis; these were a mistake in the sense that they persuaded banks to contract their balance sheets just when the world needed them to expand. That loosening too could encourage more use of the currently idle money balances they hold.

It seems that the behaviour of inflation, which is barely positive in most major economies, contradicts any such prospect. Yet these inflation figures are dominated by falling material prices. True, nominal wage growth is still not strong; but it is picking up. Nominal GDP growth –i.e. growth in output plus the price of home value-added- is probably around 4% in the US. This is still weak by past standards. But it is moving towards 5% during 2016.

Central banks are supposed to worry about future inflation and credit booms. Therefore it would be surprising if monetary policy did not become a bit less loose in the US during 2016. UK policy will almost certainly follow the US. The ECB and Japan are exceptional; Japan is determined to eradicate deflation and the ECB is struggling against weak demand post-crisis.

It seems to us highly unlikely that such modest tightening will derail a world economy that is being so stimulated by the low prices of raw materials. Looking further ahead, we would expect bank regulation to go on being pruned back in the interest of better functioning credit markets. Inflation could then take off again if central banks do not get a grip on the mass of liquidity that has been released by QE into the banking system. Experience shows that excess liquidity can suddenly show up in an uncontrollable way. For now it is being held down by unsustainable and damaging regulation. But two wrongs do not make a right. As the wrong of excess regulation is corrected, the wrong of excess liquidity will come into the light and in turn will need to be corrected.

THE UK ECONOMY

Vo Phuong Mai Le

Economic activity continued to expand but at a slower pace. Real GDP increased by 0.4% in Q1 after 0.6% in Q4 2015. Expansion was registered only in the services sector, while all other subsectors' output decreased. Services increased by 0.6% following an increase of 0.8% in Q4 2015. Production and construction outputs decreased by 0.4% and 0.9% after -0.4% and +0.3% in Q4 2015, respectively.

The Q2 economic outlook shows a further economic slowdown. Services continued to expand but its growth is at its weakest in over three years. The services sector Purchasing Managers Index (PMI) stood at 52.3 in April, down from 53.7 in March. The construction PMI fell from 54.2 in March to 52.0 in April, but it is the slowest expansion since the middle 2013. In April, the manufacturing activity declined with its PMI falling from 50.7 in March to 49.2 in April, below the critical threshold of 50 for the first time since March 2013. However the CBI report for May showed some improvement and blaming Brexit uncertainty for general slowdown seems premature.

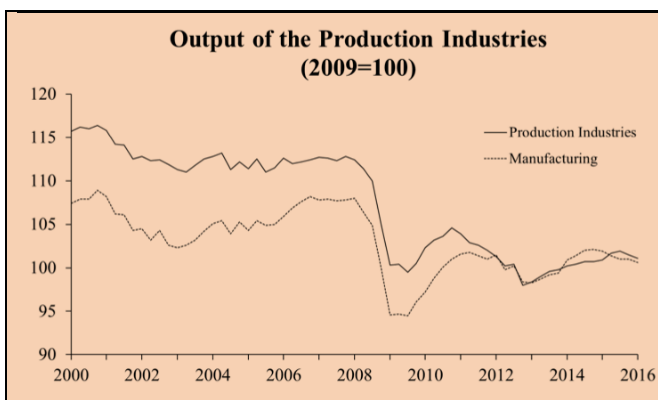
Labour market, Costs and Prices

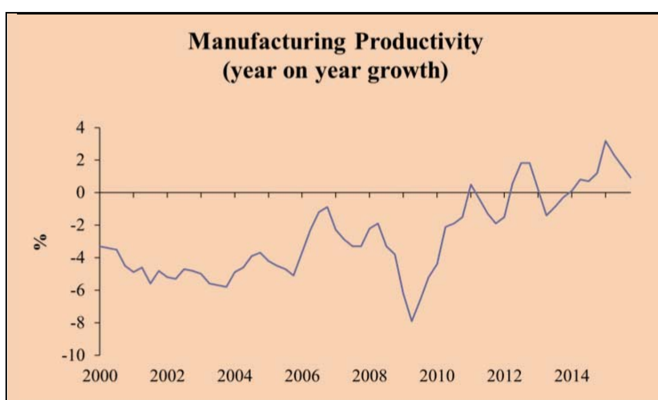
Labour market conditions stabilised. For the period of January to March, the employment rate increased to 74.2% up from 74.1% in previous quarter. The unemployment rate was 5.1%, unchanged from the previous 3-month period. The stable conditions pushed up wages. Average weekly earnings rose by 2% year-on-year in the period between January and March, compared to 1.9% for the three months to February.

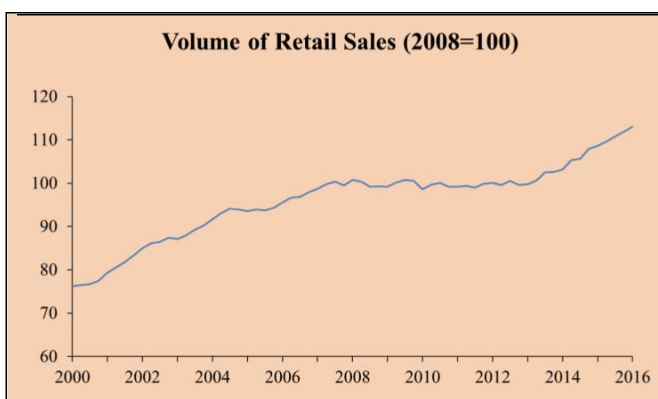
The annual CPI inflation rate remained low. It was 0.3% in April, down from 0.5% in March. This fall mainly reflected the effects of past falls in energy and food prices, as well as the effects of the appreciation of sterling on imports. There is no upward pressure on inflation from domestic cost growth. Output price inflation for all manufactured products continued to fall. It fell 0.7% year-on-year in April, after falling -0.9% in March. Input price inflation fell 6.5% year-on-year in April following 6.1% in March. Inflation is expected to remain low.

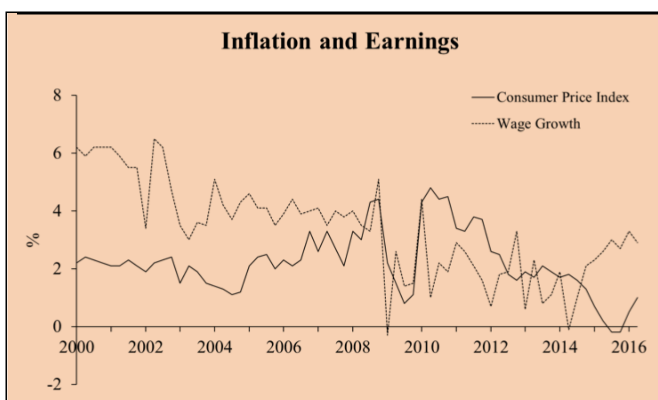
Short-term inflation expectations remained below their historical averages, while the average of longer-term expectations are much closer to their past averages. Overall, the Bank of England considers that expectations are well anchored and consistent with the target of 2%. They will continue to monitor expectations closely.

Fiscal and Monetary developments





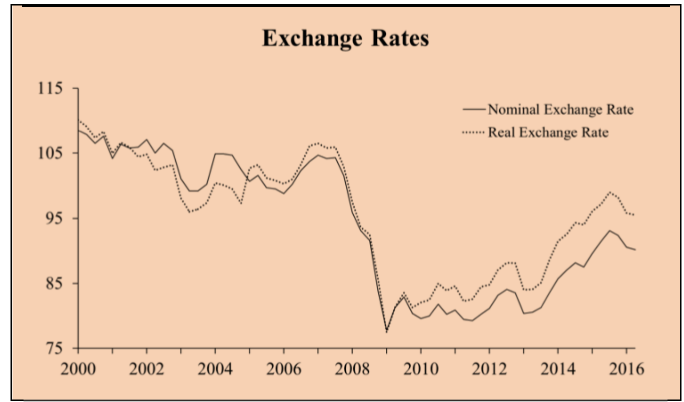


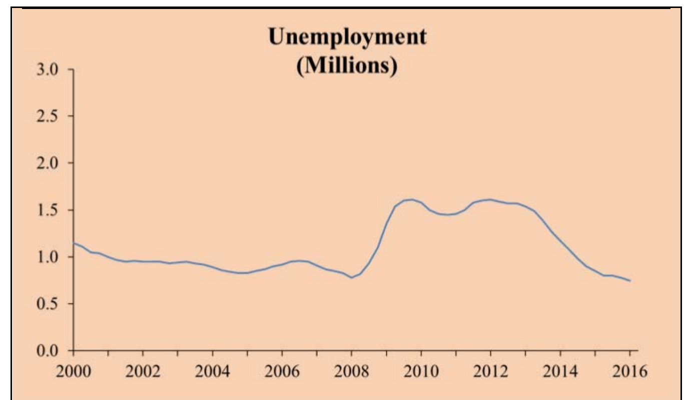


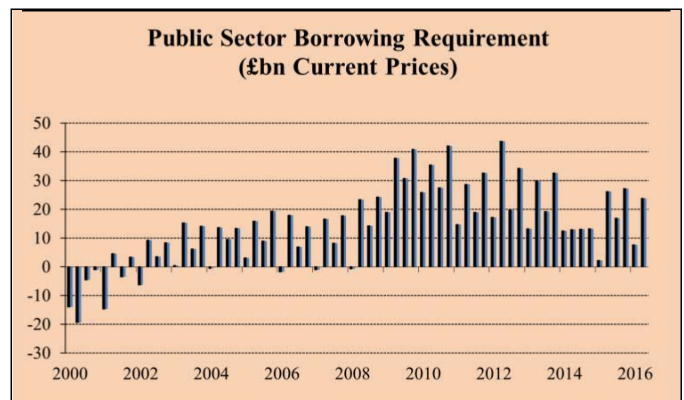
In the fiscal year of April 2015 to March 2016 the current budget was in deficit of £38.6 billion compared to a deficit of £57.1 billion in the previous financial year. Government borrowing is on a downward trend. Public net borrowing excluding financial intervention decreased to £74.0 billion in the fiscal year to March 2016 from £91.7 billion in the previous financial year. At the end of March 2016 public sector debt was £1594.1 billion (83.5% of GDP). This compared to 83.3% of GDP at the end of March 2015. So the debt/GDP ratio is still rising but a bit more slowly.

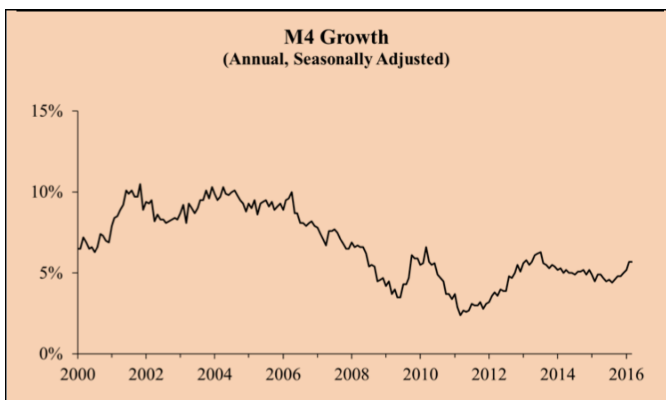
Given low inflation, an absence of upward pressure on inflation and a still under capacity economy, the Bank of England decided to maintain its official lending rate at 0.5%. It also decided to keep the stock of purchased assets financed by the issuance of central reserves at £375 billion. Monetary policy has become frozen in immobility, with financial yields highly distorted in favour of big borrowers like government, and against small savers and SME borrowers. Banks meanwhile are still lendingng weakly as they continue to rein in their balance sheets in response to draconian new regulation.

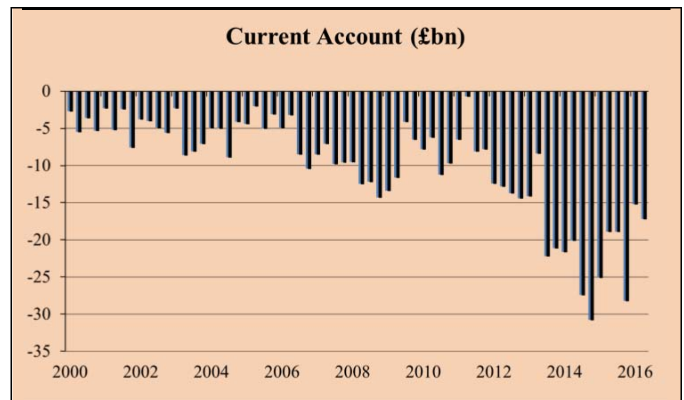
Notes and coins in circulation grew 7.4% in April 2016 on a year earlier, up from 5.7% in March. The year-on-year growth of broad money (M4 excluding intermediate OFCs) was 4.8% in March, up from 4.7% in February and 4.2% in January.











UK FORECAST DETAIL NO-BREXIT

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]
2015	0.1	1.4	0.5	91.6	97.6	-0.2	1.0	-0.3
2016	1.1	2.0	0.7	90.4	95.8	-0.9	2.0	0.1
2017	1.6	2.2	1.1	90.5	95.8	-0.9	2.4	0.2
2018	2.0	2.5	1.7	90.1	95.8	-0.2	2.7	0.5
2019	2.0	2.5	2.1	91.8	95.8	0.1	2.7	0.5
2020	2.0	2.5	2.5	91.3	95.7	0.0	2.7	0.5
2015:1	0.7	1.1	0.5	89.6	96.1	0.3	1.0	-0.6
2015:2	0.2	1.3	0.5	91.5	97.2	0.8	1.0	-0.4
2015:3	-0.2	1.4	0.5	93.1	99.0	-0.7	1.0	-0.3
2015:4	-0.2	1.8	0.5	92.4	98.2	-1.0	1.0	0.1
2016:1	0.5	2.0	0.5	90.6	95.8	-1.0	1.5	0.1
2016:2	1.0	2.0	0.5	90.2	95.5	-1.0	1.9	0.1
2016:3	1.2	2.1	1.0	90.5	95.8	-0.6	2.1	0.2
2016:4	1.5	2.1	1.0	90.4	95.9	-0.8	2.3	0.2
2017:1	1.5	2.1	1.0	90.8	95.9	-1.0	2.3	0.1
2017:2	1.5	2.1	1.0	90.4	95.7	-1.0	2.3	0.1
2017:3	1.6	2.2	1.0	90.4	95.7	-1.0	2.4	0.2
2017:4	1.8	2.5	1.5	90.4	96.0	-0.5	2.5	0.5

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)
2015	247.6	2.7	2.4	0.9	133.3
2016	255.4	3.2	2.1	0.8	136.1
2017	262.7	2.9	2.0	0.8	137.8
2018	270.6	3.0	1.9	0.7	139.2
2019	277.3	2.5	1.8	0.7	139.8
2020	285.4	2.9	1.8	0.7	141.1
2015:1	246.4	2.3	2.5	0.9	132.9
2015:2	246.1	2.6	2.5	0.9	132.7
2015:3	248.3	3.0	2.4	0.9	133.6
2015:4	249.7	2.7	2.1	0.9	134.0
2016:1	254.6	3.3	2.1	0.8	136.6
2016:2	253.2	2.9	2.1	0.8	135.1
2016:3	254.7	2.6	2.1	0.8	135.5
2016:4	259.2	3.8	2.1	0.8	137.0
2017:1	260.6	2.4	2.1	0.8	137.8
2017:2	261.1	3.1	2.0	0.8	137.3
2017:3	262.2	2.9	2.0	0.8	137.3
2017:4	266.8	2.9	1.9	0.8	138.6

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
2015	157.4	753730.5	436512.0	298617.2	197430.6	-54076.9	124749.3
2016	161.0	771083.7	445700.6	297926.9	197878.0	-42875.6	127540.2
2017	164.9	789900.1	455410.4	303956.2	201835.6	-40412.1	130882.3
2018	169.1	809642.0	466208.9	312287.4	205872.3	-40317.6	134398.2
2019	173.3	829875.0	477782.5	319506.5	209989.8	-39376.3	138026.9
2020	177.6	850628.3	490729.8	326536.5	214189.6	-39055.7	141760.5
2015/14	2.2		1.9	1.9	1.5		-2.3
2016/15	2.3		2.1	0.0	0.2		2.6
2017/16	2.4		2.2	2.1	2.0		2.6
2018/17	2.5		2.4	2.8	2.0		2.7
2019/18	2.5		2.5	2.3	2.0		2.7
2020/19	2.5		2.7	2.2	2.0		2.7
2015:1	156.2	186964.7	107966.1	77826.4	50385.0	-15573.3	33639.5
2015:2	157.0	187977.5	108889.7	70313.2	48635.4	-11413.2	28447.6
2015:3	157.7	188823.0	109697.1	74552.3	49279.4	-14082.0	30623.8
2015:4	158.7	189965.3	109959.1	75925.2	49130.9	-13008.5	32038.4
2016:1	157.6	188690.6	110498.7	69165.2	51059.5	-10512.9	31517.3
2016:2	160.8	192550.4	111077.7	75256.6	48262.0	-10476.7	31566.8
2016:3	161.9	193832.6	111720.2	75772.2	49051.9	-10775.8	31934.9
2016:4	163.7	196010.0	112403.9	77733.0	49504.7	-11110.3	32521.2
2017:1	161.8	193656.9	112869.0	71040.2	52080.7	-10216.7	32114.9
2017:2	164.9	197438.1	113483.4	77708.6	49227.3	-10305.9	32674.6
2017:3	166.0	198764.8	114165.1	77247.9	50032.9	-9761.5	32918.1
2017:4	167.1	200040.3	114892.8	77959.4	50494.7	-10128.0	33174.6

[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

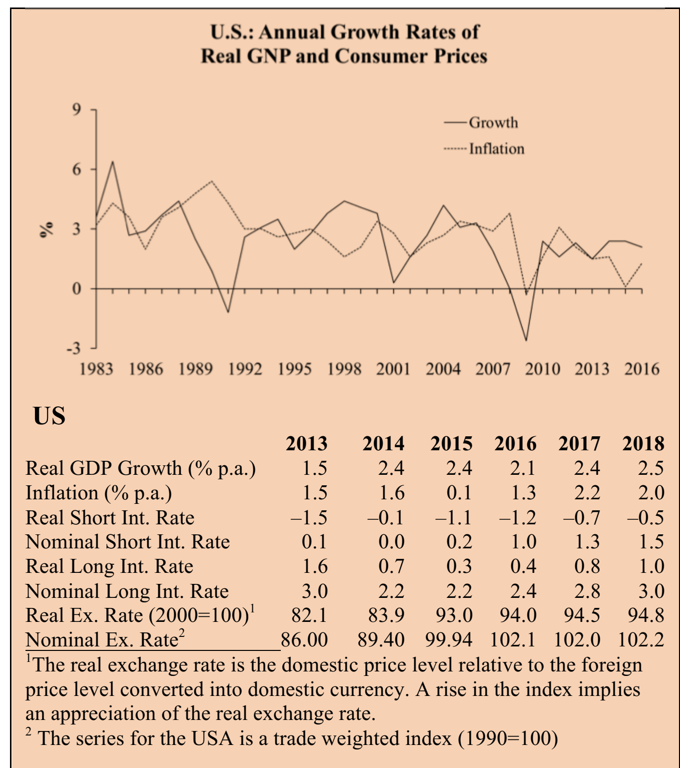
Financial Forecast

	PSBR/GDP %[1]	GDP[1] (£bn)	PSBR (£bn) Financial Year	Debt Interest (£bn)	Current Account (£ bn)
2015	4.8	1637.5	78.1	55.8	-91.0
2016	3.8	1715.1	65.5	58.7	-70.4
2017	3.2	1789.8	56.6	61.6	-66.0
2018	1.9	1870.4	36.1	65.9	-66.2
2019	1.6	1952.2	31.4	68.6	-64.7
2020	1.2	1529.0	23.8	52.7	-64.5
2015:1	0.6	409.1	2.3	13.3	-25.1
2015:2	6.5	401.7	26.2	13.6	-18.9
2015:3	4.1	407.8	16.9	13.8	-18.9
2015:4	6.6	415.4	27.3	14.3	-28.2
2016:1	1.9	412.6	7.7	14.1	-15.2
2016:2	5.7	422.5	23.9	14.2	-17.2
2016:3	3.7	427.0	16.0	14.7	-12.9
2016:4	4.4	435.2	19.2	15.0	-25.1
2017:1	1.5	430.5	6.4	14.9	-14.7
2017:2	4.0	441.2	17.7	15.0	-16.9
2017:3	1.8	445.9	8.1	15.1	-11.0
2017:4	5.7	452.0	25.9	15.8	-23.5

[1] GDP at market prices (Financial Year)

US

The recovery momentum temporarily slowed down. Quarter-on-quarter GDP growth was 0.12% in Q1, after rising 0.35% in Q4 2015. The economic slowdown was caused by both weak domestic and external demand. Private consumption rose almost 0.5%, marginally down from 0.6% in the previous quarter. Fixed investment collapsed, -0.4% in Q1 after rising 0.1% in Q4 2015. A negative contribution came from net trade as exports collapsed (-0.65% in Q1, compared to 0.5% in Q4 2015) and imports expanded (0.05% in Q1, compared to -0.2% in Q4 2015.



US

	2013	2014	2015	2016	2017	2018
Real GDP Growth (% p.a.)	1.5	2.4	2.4	2.1	2.4	2.5
Inflation (% p.a.)	1.5	1.6	0.1	1.3	2.2	2.0
Real Short Int. Rate	–1.5	–0.1	–1.1	–1.2	–0.7	–0.5
Nominal Short Int. Rate	0.1	0.0	0.2	1.0	1.3	1.5
Real Long Int. Rate	1.6	0.7	0.3	0.4	0.8	1.0
Nominal Long Int. Rate	3.0	2.2	2.2	2.4	2.8	3.0
Real Ex. Rate (2000=100)[1]	82.1	83.9	93.0	94.0	94.5	94.8
Nominal Ex. Rate[2]	86.00	89.40	99.94	102.1	102.0	102.2

[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 of the real exchange rate.
[2] The series for the USA is a trade weighted index (1990=100)

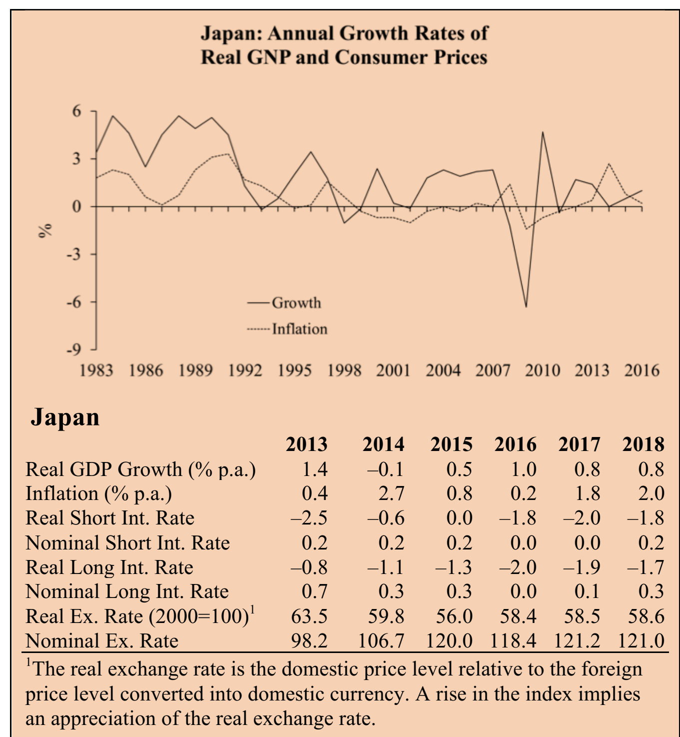
In line with the economic recovery, the labour market stopped improving. The unemployment rate has risen slightly from its February low of 4.9% to 5% in March and April. Total nonfarm payroll employment increased by 160,000 in April, which was slower than in the previous six months.

The recent data and surveys also indicated a further expansion in Q2. The manufacturing PMI registered 50.8 in April, down from 51.5 in March. This is only slightly above the expansionary threshold of 50, and indicates a very small expansion. The service sector PMI index was 52.4 in April, up from 51.3 in March. It grew at the fastest pace since January. These readings however indicate weak growth.

Annual Headline CPI inflation was 1.1% in April, up from 0.9 % in the previous month. This increase reflected higher energy prices. Excluding food and energy, it was 2.1% year-on-year in April, compared to 2.2% in March.

Japan

Economic growth returned. Real GDP rose by 0.4% in Q1 after declining 0.3% in Q4 2015. This reflected a recovery in both domestic and foreign demand. Private consumption contributed 0.25 percentage points to the quarterly growth, following a -0.5% contribution in the previous quarter. Government consumption added 0.15 percentage points in Q1 growth, following 0.025% in Q4 2015. Trade contributed 0.2 percentage points of growth, after 0.025% in Q4 2015. The positive contribution was partially offset by lower investment, subtracting 0.225 percentage points from GDP growth. In January, the Bank of Japan moved to negative interest rate of -0.1%, a move aimed at reviving domestic investment demand.



Japan

	2013	2014	2015	2016	2017	2018
Real GDP Growth (% p.a.)	1.4	–0.1	0.5	1.0	0.8	0.8
Inflation (% p.a.)	0.4	2.7	0.8	0.2	1.8	2.0
Real Short Int. Rate	–2.5	–0.6	0.0	–1.8	–2.0	–1.8
Nominal Short Int. Rate	0.2	0.2	0.2	0.0	0.0	0.2
Real Long Int. Rate	–0.8	–1.1	–1.3	–2.0	–1.9	–1.7
Nominal Long Int. Rate	0.7	0.3	0.3	0.0	0.1	0.3
Real Ex. Rate (2000=100)[1]	63.5	59.8	56.0	58.4	58.5	58.6
Nominal Ex. Rate	98.2	106.7	120.0	118.4	121.2	121.0

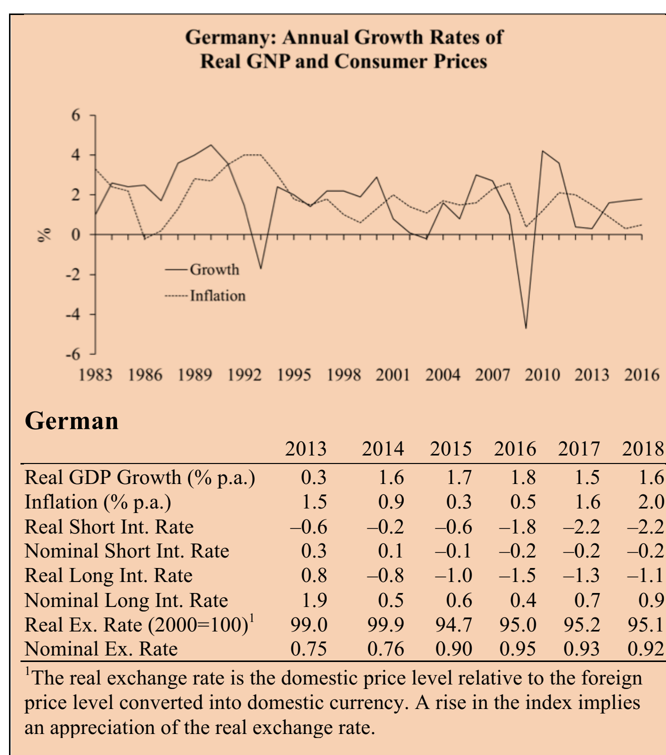
[1]The real exchange rate is the domestic price level relative to the foreign price level converted into domestic currency. A rise in the index implies an appreciation of the real exchange rate.

Prices remained stagnant. The CPI inflation rate year-on-year was 0.3% in February. Excluding food and energy prices, the annual core inflation rate was 0.8% in February. In an attempt to return to a path towards the target inflation of 2%, the Bank of Japan adopted a negative interest rate of

-0.1% in January. In the February meeting, the Bank governor said that there was no limit to monetary easing and a cut to -0.5% was possible in theory.

Germany

The economy continued its recovery. Real GDP rose 0.7% in Q1, up from 0.3% in Q4 2015. The expansion was supported by faster growth in domestic demand. However, the recent data signal a slower economic growth in Q2. In April, the composite PMI was 53.6, down from 54.0 in March. The Ifo business confidence index for German Industry and trade was 106.6 in April, marginally down from 106.7 in the previous month. Consumer sentiment remained strong. It rose to 9.7 in May, from April's 9.4. It is the highest reading in the last 8 months.



German

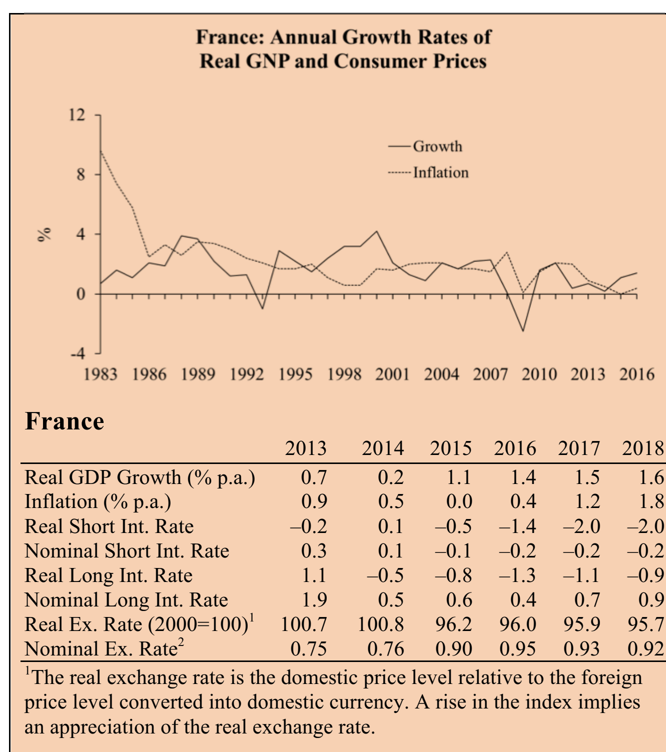
	2013	2014	2015	2016	2017	2018
Real GDP Growth (% p.a.)	0.3	1.6	1.7	1.8	1.5	1.6
Inflation (% p.a.)	1.5	0.9	0.3	0.5	1.6	2.0
Real Short Int. Rate	–0.6	–0.2	–0.6	–1.8	–2.2	–2.2
Nominal Short Int. Rate	0.3	0.1	–0.1	–0.2	–0.2	–0.2
Real Long Int. Rate	0.8	–0.8	–1.0	–1.5	–1.3	–1.1
Nominal Long Int. Rate	1.9	0.5	0.6	0.4	0.7	0.9
Real Ex. Rate (2000=100)[1]	99.0	99.9	94.7	95.0	95.2	95.1
Nominal Ex. Rate	0.75	0.76	0.90	0.95	0.93	0.92

[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 of the real exchange rate.

France

The recovery process continued. Real GDP increased 0.5% in Q1, up from 0.3% in Q4 2015. The growth was driven by a strong recovery in private consumption (1.2% in Q1 compared to -0.1% in the previous quarter) and investment (0.9% in Q1 after 0.7% in Q4 2015). Positive contributions were partially offset by a negative contribution from net trade (-0.2 percentage points after -0.4 percentage points in the previous quarter) as an exports collapse (-0.2% after 1.0% in Q4 2015) coincided with an imports expansion (0.5% after 2.1% in Q4 2015).

The recent data and surveys give some mixed signals about the economic prospect. The Insee composite business indicator was unchanged at 101 in April, slightly above the long-term average of 100. On the other hand, industrial output continued to decline in March, -0.3% after a sharp fall of -1.3% in February. The consumer confidence index stood at 94 in April, unchanged from the previous month, but below its long-term average of 100.



France

	2013	2014	2015	2016	2017	2018
Real GDP Growth (% p.a.)	0.7	0.2	1.1	1.4	1.5	1.6
Inflation (% p.a.)	0.9	0.5	0.0	0.4	1.2	1.8
Real Short Int. Rate	–0.2	0.1	–0.5	–1.4	–2.0	–2.0
Nominal Short Int. Rate	0.3	0.1	–0.1	–0.2	–0.2	–0.2
Real Long Int. Rate	1.1	–0.5	–0.8	–1.3	–1.1	–0.9
Nominal Long Int. Rate	1.9	0.5	0.6	0.4	0.7	0.9
Real Ex. Rate (2000=100)[1]	100.7	100.8	96.2	96.0	95.9	95.7
Nominal Ex. Rate[2]	0.75	0.76	0.90	0.95	0.93	0.92

[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 of the real exchange rate.

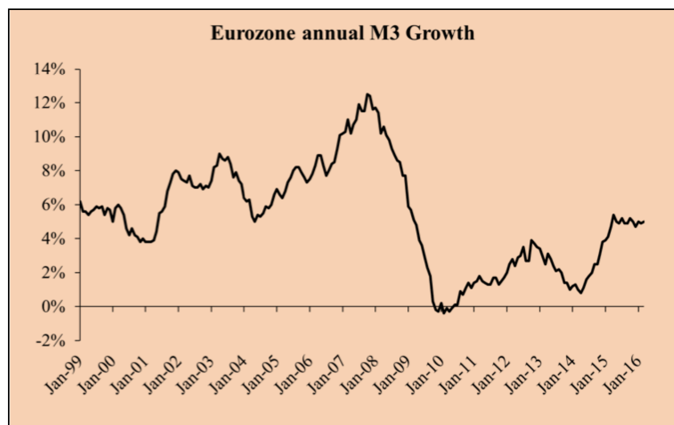
Italy

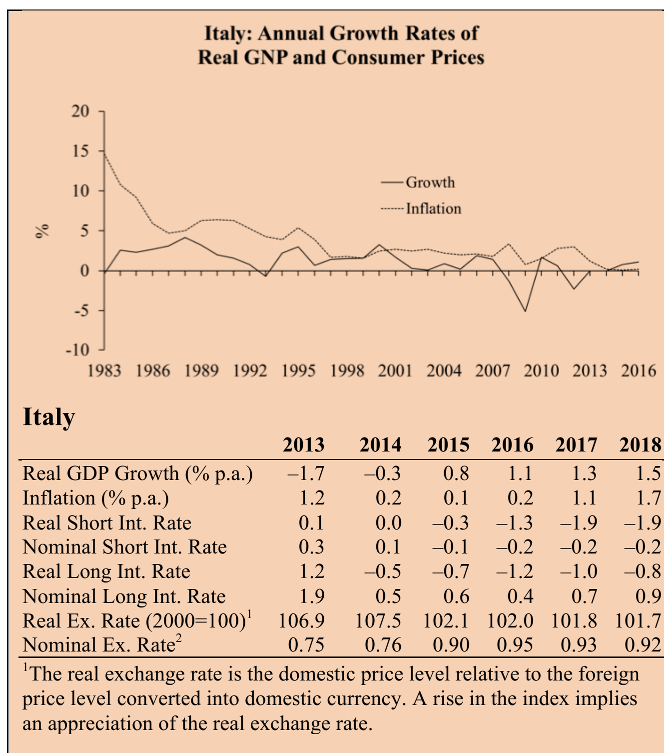
Economic activity continued to expand if very weakly. Real GDP increased by 0.3% in Q1 compared to 0.1% in Q4 2015. Overall, the economy expanded by 1.0% compared to the same period in 2015. There are also some slightly positive signs in the labour market. The unemployment rate fell to the lowest level since December 2012. It dropped to 11.4% in March from 11.6% in February.

Euro-zone monetary policy

The annual Harmonised Index of Consumer Prices (HICP) inflation was -0.2% in April, down from 0.0% in March. Core HICP inflation that excludes energy and food was 0.7%, down from 0.9% in the previous month. As inflation is very far from its official target of 2%, the ECB continued to ease monetary policy. At the April meeting it kept the key interest rate unchanged and expected it to stay low for a long period. It started conducting more unconventional

monetary measures. It expanded the monthly purchases under the asset purchase programme to €80 billion, up from the previous amount of €60 billion. In June, it will start purchasing corporate bonds under the corporate sector purchase programme to try to reduce the corporate risk premium.





Italy

	2013	2014	2015	2016	2017	2018
Real GDP Growth (% p.a.)	–1.7	–0.3	0.8	1.1	1.3	1.5
Inflation (% p.a.)	1.2	0.2	0.1	0.2	1.1	1.7
Real Short Int. Rate	0.1	0.0	–0.3	–1.3	–1.9	–1.9
Nominal Short Int. Rate	0.3	0.1	–0.1	–0.2	–0.2	–0.2
Real Long Int. Rate	1.2	–0.5	–0.7	–1.2	–1.0	–0.8
Nominal Long Int. Rate	1.9	0.5	0.6	0.4	0.7	0.9
Real Ex. Rate (2000=100)[1]	106.9	107.5	102.1	102.0	101.8	101.7
Nominal Ex. Rate[2]	0.75	0.76	0.90	0.95	0.93	0.92

[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 of the real exchange rate.

WORLD FORECAST DETAIL

Growth Of Real GNP

	2013	2014	2015	2016	2017	2018
U.S.A.	1.5	2.4	2.4	2.1	2.4	2.5
U.K.	2.2	2.9	2.2	2.3	2.4	2.5
Japan	1.4	–0.1	0.5	1.0	0.8	0.8
Germany	0.3	1.6	1.7	1.8	1.5	1.6
France	0.7	0.2	1.1	1.4	1.5	1.6
Italy	–1.7	–0.3	0.8	1.1	1.3	1.5

Growth Of Consumer Prices

	2013	2014	2015	2016	2017	2018
U.S.A.	1.5	1.6	0.1	1.3	2.2	2.0
U.K.	2.3	1.7	0.1	1.1	1.6	2.0
Japan	0.4	2.7	0.8	0.2	1.8	2.0
Germany	1.5	0.9	0.3	0.5	1.6	2.0
France	0.9	0.5	0.0	0.4	1.2	1.8
Italy	1.2	0.2	0.1	0.2	1.1	1.7

Real Short-Term Interest Rates

	2013	2014	2015	2016	2017	2018
U.S.A.	–1.5	–0.1	–1.1	–1.2	–0.7	–0.5
U.K.	–1.5	–0.9	–0.2	–0.9	–0.9	–0.2
Japan	–2.5	–0.6	0.0	–1.8	–2.0	–1.8
Germany	–0.6	–0.2	–0.6	–1.8	–2.2	–2.2
France	–0.2	0.1	–0.5	–1.4	–2.0	–2.0
Italy	0.1	0.0	–0.3	–1.3	–1.9	–1.9

Nominal Short-Term Interest Rates

	2013	2014	2015	2016	2017	2018
U.S.A.	0.1	0.0	0.2	1.0	1.3	1.5
U.K.	0.6	0.6	0.5	0.7	1.1	1.7
Japan	0.2	0.2	0.2	0.0	0.0	0.2
Germany	0.3	0.1	–0.1	–0.2	–0.2	–0.2
France	0.3	0.1	–0.1	–0.2	–0.2	–0.2
Italy	0.3	0.1	–0.1	–0.2	–0.2	–0.2

Real Long-Term Interest Rates

	2013	2014	2015	2016	2017	2018
U.S.A.	1.6	0.7	0.3	0.4	0.8	1.0
U.K.	0.0	0.4	–0.3	0.1	0.2	0.5
Japan	–0.8	–1.1	–1.3	–2.0	–1.9	–1.7
Germany	0.8	–0.8	–1.0	–1.5	–1.3	–1.1
France	1.1	–0.5	–0.8	–1.3	–1.1	–0.9
Italy	1.2	–0.5	–0.7	–1.2	–1.0	–0.8

Nominal Long-Term Interest Rates

	2013	2014	2015	2016	2017	2018
U.S.A.	3.0	2.2	2.2	2.4	2.8	3.0
U.K.	1.3	1.8	1.4	2.0	2.2	2.5
Japan	0.7	0.3	0.3	0.0	0.1	0.3
Germany	1.9	0.5	0.6	0.4	0.7	0.9
France	1.9	0.5	0.6	0.4	0.7	0.9
Italy	1.9	0.5	0.6	0.4	0.7	0.9

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

	2013	2014	2015	2016	2017	2018
U.S.A.	82.1	83.9	93.0	94.0	94.5	94.8
U.K.	81.6	87.1	91.6	90.4	90.5	90.1
Japan	63.5	59.8	56.0	58.4	58.5	58.6
Germany	99.0	99.9	94.7	95.0	95.2	95.1
France	100.7	100.8	96.2	96.0	95.9	95.7
Italy	106.9	107.5	102.1	102.0	101.8	101.7

[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)

	2013	2014	2015	2016	2017	2018
U.S.A.[1]	86.00	89.40	99.94	102.10	102.00	102.20
U.K.	1.55	1.65	1.53	1.50	1.50	1.50
Japan	98.20	106.70	120.00	118.40	121.20	121.00
Eurozone	0.75	0.76	0.90	0.95	0.93	0.92

[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

Anupam Rastogi

India

India's pace of economic expansion will exceed the government's initial projection of 7.5% to about 8% in the fiscal year 2016–17, if the country receives above normal levels of seasonal rainfall. India's economy grew 7.6% in the last fiscal year, and the finance ministry has projected growth will be between 7% and 7.75% the current fiscal year which ends in March 2017.

Inflation remains well under control and within the RBI's set limit. But, RBI's Governor, Mr. Rajan is unlikely to lower interest rates as long as the currency remains weak and inflation may raise its ugly head once again as the energy prices appear to be moving up once again.

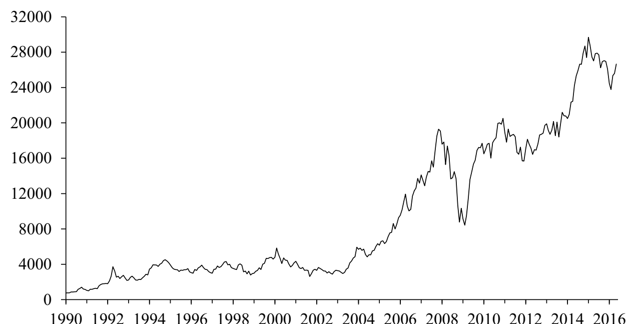
India has struggled for years to deal with the problems of bad debt in the absence of any genuine national bankruptcy law and a legal system that was once heavily tilted towards company owners and the mission of saving businesses for the sake of their workers. India has passed the Insolvency and Bankruptcy Bill 2015 and it will be easier for lenders to recover their dues. It will take another 12 months or so for rules to be written and implemented.

It is two years now for the most business friendly government to be in power under the leadership of Mr. Modi. On its second anniversary, Prime Minister Modi, in pomp and show tried to convince its growing sceptics that his government record is very good. In the last two years, he has set a path for accelerated growth that India's states now need to help navigate. He said he had opened up more of the economy to foreign investment and made changes to curb corruption, fill gaps in rural infrastructure and make it easier to do business.

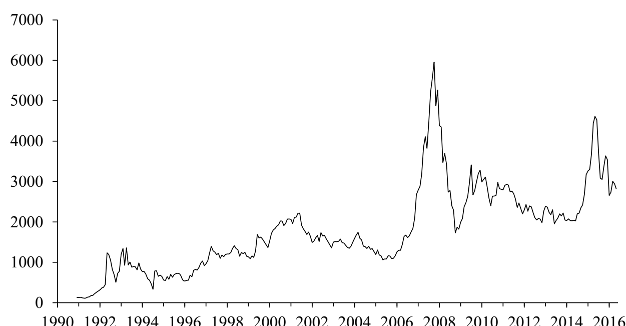
To be fair to him, there is no doubt that except disinvestment and exports growth, his government is doing better in terms of GDP growth, inflation, depreciation of rupee, industrial production, forex reserves etc. compared with what his government inherited. Corruption at a high level is non-existent now. Mr. Modi's projection of India is par-excellence. Many hurdles have been put in his policy making by the opposition party but his government is tackling them by brute force rather than a bipartisan manner. His party's good show in recent state election shows that his strategy is working.

He is making full use of the U.S.'s inclination to see India becoming economically and militarily strong enough to serve as a credible counterweight to a rising China, which is remaking the balance of power in Asia.

India: BSE Sensitive



China: SSE Composite Index



Overall, we would say that policy changes have been gradual and incremental, and they are moving in the right direction.

India signed an agreement with Tehran for a transport corridor designed to open up a new route to Afghanistan via the Iranian port of Chabahar, circumventing Pakistan. Chabahar port, which India will partially develop just across the border from Pakistan's Chinese-run Gwadar port, is the centerpiece of the corridor. With the development of Chabahar port, Pakistan will lose out on trade with Afghanistan and possibly even central Asia.

Indian shares jumped more than five percent in the last week of May as companies have declared good results and weather forecasters have predicted more monsoon rains than initially estimated. Moreover, Morgan Stanley upgraded India to 'overweight' from 'equal weight'.

	14–15	15–16	16–17	17–18	18–19
GDP (%p.a.)	7.3	7.6	7.0	7.5	8.0
WPI (%p.a.)	6.0	5.2	4.5	4.0	4.0
Current A/c(US$ bill.)	-34.0	-24.0	-28.0	-32.0	-30.0
Rs./$(nom.)	62.0	66.5	67.5	69.0	70.0

China

Chinese growth again looks increasingly uncertain. Industrial production and retail sales turned out to be below expectations and the People's Bank of China (PBoC) is guiding renminbi to its lower limit. We do not expect big moves in yuan as China craves for stability. The see-sawing changes in China with respect to renminbi is described by HSBC as the PBoC strategy of "ease and squeeze" — greater FX flexibility if underlying pressures are reduced, less flexibility if market conditions start to look uncomfortable and disorderly. In the words of Eswar Prasad, a China scholar at Cornell University and the IMF's former top official in China, the "uneven and haphazard approach to making the exchange rate more flexible highlights the tensions between the government's desire to free up markets and its tendency to override markets when they do not produce the results it wants."

Industrial output rose 6.0% year-over-year in April, compared with 6.8% growth in March, and below an expectation of 6.6% growth. Fixed-asset investment in urban areas grew 10.5% year-over-year in the January-to-April period, compared with an annual increase of 10.7% for the first three months of 2016. Retail sales grew by a less-than-expected 10.1% in April compared with a year earlier. In March, retail sales had posted a growth of 10.5% year-over-year.

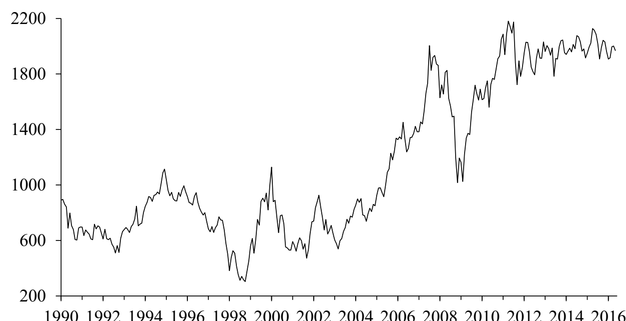
The Chinese government is to pump almost Rmb 5tn — almost 7% of China's 2015 GDP — into transport infrastructure over the next three years. China is ready to use fiscal stimulus to keep the economy humming.

China's consumer-price index rose 2.3% from a year earlier in April, marginally lower than expected growth of 2.4%. China's producer-price index decelerated by 3.4% in April compared with a 4.3% deceleration in March. PPI, a measure of prices at the factory gate, has remained in deflationary territory for more than four years.

China's exports and imports also performed worse than expected in April. Exports fell 1.8% from a year ago, compared with a surprising increase of 11.5% in March, while imports fell 10.9% from a year earlier. China's trade surplus widened to $45.56 billion from $29.86 billion in March.

China's capital outflow has slowed down a bit. In April, only $21.5 billion got drawn out of the economy. It seems that domestic investors are less willing to purchase foreign currencies and most of them moved to convert their foreign currencies into the yuan.

China's central bank set its daily currency "fix" at the lowest level in five years, tracking a weaker market price as the dollar rally took its toll on the renminbi. The People's Bank of China set the midpoint of its currency trading band for its loose peg against the dollar at Rmb6.5693 in the last week of May, a level not touched since March 2011. After trading flat since February, the renminbi has fallen 1.3% against the dollar — a sizeable move for China's currency. The market's initial reaction has been to look the other way. A rising dollar hits China's exporters and puts pressure on the PBoC to weaken its currency. The renminbi may to fall to 6.80 in the coming months if the Fed hikes rates two or three times in 2016.



The powerful State-Owned Assets Supervision and Administration Commission was instrumental in convincing Chinese leaders to stop the sliding of the renminbi. The more the renminbi is allowed to weaken, the more expensive it will be for the already struggling state firms to service their loans. A one percent depreciation of the yuan could add $8.5 billion to Chinese companies' annual interest payments on dollar debts.

	14	15	16	17	18
GDP (%p.a.)	7.4	6.9	6.0	6.0	5.8
Inflation (%p.a.)	2.0	1.4	1.5	2.0	2.0
Trade Balance(US$ bill.)	382	550	420	400	380
Rmb/$(nom.)	6.2	6.4	6.6	6.7	6.8

South Korea

South Korea's economy is losing steam. South Korea's economic growth continued to slow in the first quarter on sagging exports and sluggish consumption. The central bank in April trimmed its annual growth estimate to 2.8% from 3% this year, the underlying inflation rising by 1.8% year-on-year last month. The consumer price index rose 0.1% month-on-month in April, up from a 0.3% fall in March. But, South Korea's central bank resisted market pressure and kept its base rate unchanged for the 11th consecutive month, as widely expected. The cautious approach by the Bank of Korea came as four new policy makers made their debut at a monthly rate-setting meeting in May after taking office on the seven-member board. The base rate remains 1.5% for the time being.

We expect a rate cut to come as early as June or July — along with fiscal steps to support the industrywide restructuring and spur anemic growth. The central bank and

the government are currently in talks to recapitalize state-run policy lenders and provide a better buffer for the overhaul by the end of June. Uncertainty over the financial-market impact of Brexit and the U.S. Federal Reserve's own rate-setting meeting in June, has kept the Bank of Korea in a wait-and-see mode for now.

South Korea's exports increased by 2.1% in the first 20 days of May from a year earlier, raising hopes of an end to negative growth that lasted for more than a year.

South Korea’s won rose the most in a month, as a rebound in oil spurred a rally in global stocks. The MSCI’s Korea index has put in a decent performance relative to the broader emerging market index over the past five years, outpacing it by about 6%. But, Korean shares could face a headwind soon. The make-up of the EM index could change in the year ahead. MSCI, still the key benchmark, has debated whether to add China A shares (from Shanghai and Shenzhen) to its EM index. The change will be decided on 14 June. If the China A shares are included, China’s weighting would rise over time and weights for South Korea and Taiwan would fall.

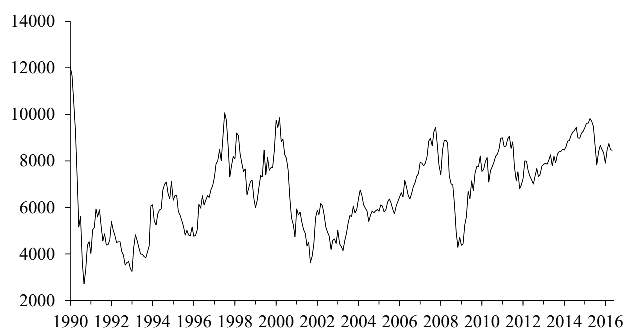
South Korea and Taiwan are stepping up their efforts to be promoted from the MSCI EM index to its developed world equivalent. The fear of an exodus of foreign capital in the wake of China’s admittance appears to be a driving factor. Seoul has been slow in addressing the MSCI’s concerns related to its markets.

	14	15	16	17	18
GDP (%p.a.)	3.3	2.6	2.5	2.5	2.3
Inflation (%p.a.)	2.0	0.7	1.4	1.4	1.2
Current A/c(US$ bill.)	80.0	90.0	88.0	88.0	86.0
Won/$(nom.)	1080	1180	1220	1240	1240

Taiwan

Taiwan’s industrial output contracted in April after showing a sign of improvement in March. The Taiwanese economy has been shrinking since the middle of last year and exports are falling as trade with China slows. This is a challenge that lies ahead for the new president Tsai Ing-wen. Industrial production shrank for the eleventh consecutive month at a rate of 4.06% year-on-year in April. The building and construction volume contracted 23.01% year-on-year in April. This year's GDP growth will grow around 1%, well below the target range of 2.1–2.7% set by the National Development Council in December 2015. The economy shrank 0.84% in the first quarter-on quarter.

Taiwan’s export orders fell at more than double the expected rate in April, underscoring the difficulties faced by the country as it seeks to diversify away from dependence on shipments to China. Export orders dropped 11.1% year-on-year in April. This is the 13th month of



contraction for orders. The main reason for the contraction is that demand for Taiwan’s goods has declined.

Besides the short-term contraction, the economy faces a deeper malaise with graduate starting salaries having stagnated for years despite sharp rises in housing and other living costs.

President Tsai Ing-wen has pledged to boost the island’s prospects through trade deals, upgrading industry and fostering innovation. According to the island’s new economic affairs minister, Taiwan must seek more diverse trade partners apart from China, increase its presence in Southeast Asia and India, and seek to join regional agreements such as the Trans-Pacific Partnership.

Diversifying Taiwan's economy away from its reliance on trade and investment with the mainland has been a key plank in the platform of Ms. Tsai's party, reflecting fears that Beijing's influence over the island is already too great.

President Tsai Ing-wen has called for Taipei and Beijing to “set aside the baggage of history” and “engage in positive dialogue.” But, Beijing is having none of it. Behind Beijing’s rhetoric is the demand that Ms. Tsai embrace the “1992 consensus.” The tacit acceptance is that Taiwan and the mainland both belong to “one China,” even if they disagree on its definition. The consensus was the basis of cross-Strait talks in the early 1990s and to a large extent economic development of Taiwan along with China. The consensus is another way of saying that Taiwan must sooner or later unify with China. But Taiwanese people increasingly reject that prospect given Beijing’s enduring authoritarianism.

The Nationalist Party (KMT) government of Ma Ying-jeou revived the 1992 consensus over the past eight years and used it as the rubric for more than 20 cross-Strait economic agreements. But fear of Chinese influence over Taiwan led to a backlash that fueled the popularity of Ms. Tsai and her opposition Democratic Progressive Party (DPP), which now holds a parliamentary majority for the first time. Ms. Tsai has consistently promised to maintain the cross-Strait

status quo and not pursue formal independence. But for Beijing it isn't enough.

In the four months since the elections, China has shown its displeasure with the DPP's unprecedented double victory by resuming a battle with Taiwan for diplomatic allies and curbing the number of tourists travelling to the island.

	14	15	16	17	18
GDP (%p.a.)	3.7	0.8	1.3	2.0	2.0
Inflation (%p.a.)	1.5	0.7	1.0	1.0	1.0
Current A/c(US$ bill.)	57.4	60.0	64.0	68.0	68.0
NT$/$(nom.)	31.0	32.8	32.5	32.0	32.0

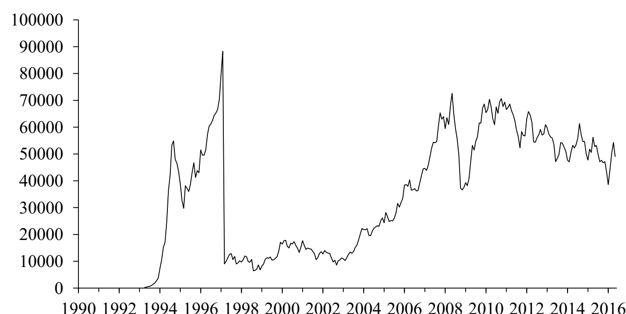
Brazil

At present, Brazil is enduring the worst economic crisis since the Great Depression. Brazil's gross domestic product is expected to shrink 3.9% this year after contracting 3.80% in 2015. Following that, in 2017 we expect an expansion of just 0.2%. We maintain our forecast of inflation rate, as measured by the consumer-price index, at 7% in the current year and 5.8% in 2017. There are some voices to shift the site of the Olympics because of the Zica virus, but it is too late to do so.

However, the consumer confidence index improved slightly. It clocked 67.9 points, up from 64.4 points in April. The index has a one-to-200-point range, with 100 considered an indicator of neutral sentiment.

Brazil's congress approved a revised budget plan for the rest of this year, which projected a worse-than-expected fiscal picture. The congress allowed a government deficit worth 170.5 billion reais ($48 billion), marking a political victory for acting President Michel Temer. The projected deficit is the result of falling tax revenues caused by the economic contraction and by increased spending.

Brazil's acting President Michel Temer is facing many challenges setting the nation's finances on the right path. One of the most controversial and divisive reforms he intends to take is fixing the nation's pension system. He has set a 30-day deadline for his administration to unveil a pension overhaul plan. To shore up Brazil's precarious finances Brazil's interim president has proposed an unusual, and potentially far-reaching, constitutional change to cap the government's surging expenditures: limiting federal spending growth to the previous year's inflation rate.



To do this job, Mr. Temer nominated banker Henrique Meirelles as the country's finance minister. And he picked the chief economist of a Brazilian bank Itau Unibanco Holding SA, Ilan Goldfajn, to replace current central bank President Alexandre Tombini. Mr. Goldfajn was a director of the central bank from 2000 to 2003 during the presidency of Fernando Henrique Cardoso, the architect of Brazil's famed Real Plan that tamed hyperinflation. Finance Minister Henrique Meirelles is seen as an inflation hawk and earlier he was the head of the central bank.

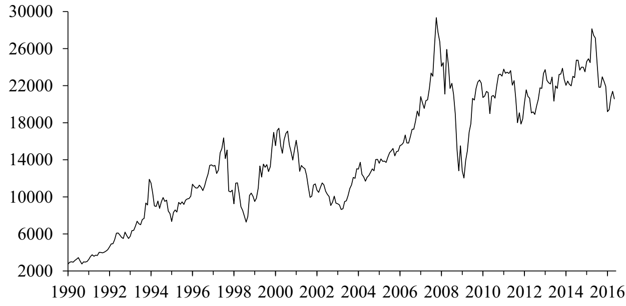
Mr. Meirelles and Mr. Goldfajn are both adherents of Brazil's so-called tripod — restrained public spending, tough inflation targeting and floating exchange rates — that put Brazil's economy back on track in the early 1990s and ushered in a long period of stability.

Brazil's real defied the downbeat mood in emerging market currencies, strengthening against the dollar as the market clung on to hope that the appointment of interim president Michel Temer would herald a change in the country's economic fortunes.

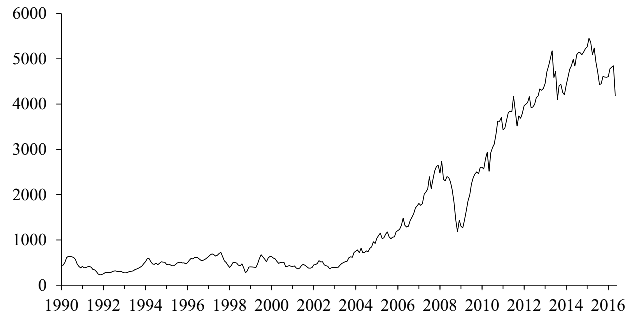
	14	15	16	17	18
GDP (%p.a.)	0.1	-3.8	-3.9	0.2	1.5
Inflation (%p.a.)	6.5	10.3	7.0	5.8	6.0
Current A/c(US$ bill.)	-104.0	-70.0	-50.0	-40.0	-44.0
Real/$(nom.)	2.4	3.9	3.8	3.5	3.6

Other Emerging Markets

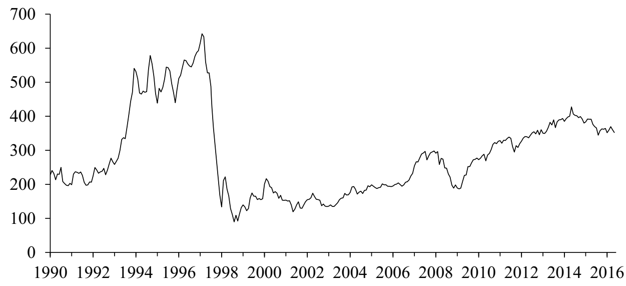
Hong Kong: FT-Actuaries



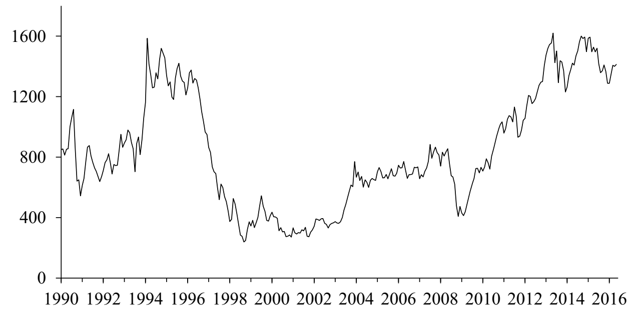
Indonesia: Jakarta Composite



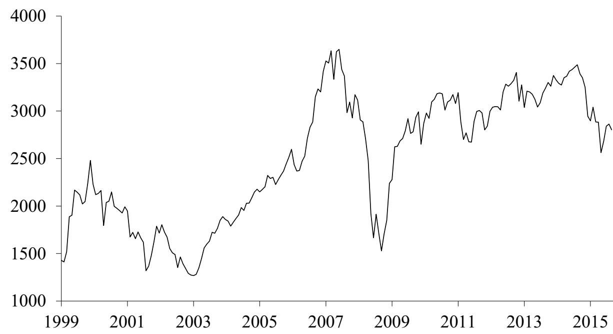
Malaysia: FT-Actuaries (US$ Index)



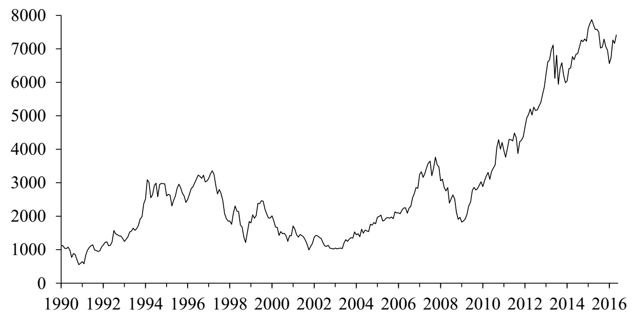
Thailand: Composite Index



Singapore: Straits Times Index



Philippines: Manila Composite



POST-BREXIT FORECAST BASED ON CARDIFF RESEARCH

Patrick Minford

The issue of the UK leaving the EU has started to affect the forecast outlook as the outcome of the referendum has moved towards being extremely close run. It is now important to make a forecast on the assumption that the UK leaves- Brexit- besides one where it does not, as has been assumed hitherto. The standard cliché forecast outlook emerging from such other forecasters as the CBI and Oxford Economics has been that there will be a 'nasty shock' to the UK outlook if it leaves. Yet the assumptions on which this is based are highly misleading. Essentially the whole establishment consensus has followed the Treasury and made the same assumption: that Brexit will be followed by UK protectionism on the same scale that the EU now has and that it would continue with EU-style regulation. Yet this is a distorting deceit: it is not the optimal policy, indeed it is absolutely the worst possible policy as it implies that the UK would move to less free trade than now! The optimal policy is what we assume: to leave EU protectionism for general free trade with all nations at world prices and move to UK-based regulation based on full competition. The arguments for leaving are based on supply-side changes such as reduced regulation, the trade effects of leaving the EU protectionist Customs Union, the return of budgetary contributions, and the guarantee of non-membership of the euro with associated bail-out concerns. If the supply-side should be improved in the longer term, then of course the economy will improve in the short term too- the mirror-image of the Treasury's short term gloom inspired by long-term doom.

In this post-Brexit forecast we take our previous forecast without Brexit and allow for Brexit. The assumptions we make are based on the figures in Minford et al (2015) for trade and regulation effects. We assume that the gain in consumer living standards from leaving the EU customs union is 3.2% due to the fall in tariff-equivalent (which we treat as a fall in the UK expenditure tax) and 0.8% due to an improvement in the terms of trade (whereby the prices of UK imports from the EU fall, partially offset by a fall in the prices of UK exports to the EU; but the exports are some 8% of GDP smaller than the imports). The net EU budget contribution, 0.8% of GDP, is also returned to UK consumers in the form of an income tax cut. The reduction of the regulative burden is modelled as a fall in the employer rate of national insurance by 2%. The PSBR is left unchanged since none of these changes therefore affect the net public revenues. The 0.8% terms of trade gain plus the 0.8% return of the net EU budget contribution are received as direct improvements of the current account.

All these changes are phased in gradually over five years.

The main effects of these changes are to boost the economy's supply-side in the longer term. Growth improves as UK costs fall. Unemployment falls slightly. Real wages rise as firms demand more labour given higher profits. The higher output drives down the exchange rate as new markets are looked for by exporters.

In the shorter term there is a rise in inflation as the exchange rate falls and demand increases. Interest rates rise in reaction during 2017.

It is interesting to see that after Brexit the UK becomes a more 'normal' economy, with growth reviving, monetary policy 'normalising' and inflation back on track. The fall in the exchange rate and the direct improvement in the current account largely correct the recently persistent current account deficit. The PSBR as a share of GDP continues to fall towards balance at the end of the decade, with faster growth of nominal GDP.

What about the short term uncertainties? Essentially the Brexit effect in the short term divides into two parts:

1. There is a rise in long term performance that translates into higher profitability and more investment; and rising productivity. Capital stock also raises output in a gradually increasing way
2. There is a gradual fall in the exchange rate, which triggers a rise in interest rates (in order to maintain the incentive to keep portfolio investment in the UK). This has a negative effect on demand.

In the forecast below, these two forces are seen as balancing out. A more backward-looking model (in which expectations are based on past outcomes-i.e. 'believe it when you see it') makes (2) dominate. A completely forward-looking model – i.e. "act on what you think will happen in future" - makes (1) dominate.

This Liverpool Model is based on rational expectations. Therefore, people understand the long-term changes in the environment. The fall in the exchange rate we see in the Liverpool Model after Brexit is coming from the expansion of the economy and the requirement to find larger markets to absorb the higher output. In recent work on the UK economy in which investment is forward-looking, as in Meenagh et al (2007), we find, in the short run, output does not move much so a rise of interest rates is needed to stop

demand from surging upwards, because of better investment returns and higher longer term income prospects. This mechanism has been built into this forecast.

The essential point about rational expectations is it assumes people understand the supply-side changes brought in by Brexit and build these changes into their plans at once. Rational expectations have been found in recent tests of models to fit the facts impressively (Liu and Minford, 2014), unlike rival assumptions such as 'behavioural expectations' which are mainly or entirely backward looking. Hence the long term changes start immediately to have beneficial effects on demand through the role of expectations.

Brexit is a 'shock'- basically a good shock.

Table 1: UK forecast summary — no-Brexit

	2014	2015	2016	2017	2018	2019	2020
GDP Growth[1]	2.9	2.2	2.3	2.4	2.5	2.5	2.5
Inflation CPI	1.7	0.1	1.1	1.6	2.0	2.0	2.0
Wage Growth	1.2	2.7	3.2	2.9	3.0	2.5	2.9
Unemployment (Mill.)[2]	1.1	0.9	0.8	0.8	0.7	0.7	0.7
Exchange Rate[3]	87.1	91.6	90.4	90.5	90.1	91.8	91.3
3 Month Interest Rate	0.6	0.5	0.7	1.1	1.7	2.1	2.5
5 Year Interest Rate	1.8	1.4	2.0	2.2	2.5	2.5	2.5
Current Balance (£bn)	−99.9	−91.0	−70.4	−66.0	−66.2	−64.7	−64.5
PSBR (£bn)	83.3	78.1	65.5	56.6	36.1	31.4	23.8

[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)

Table 2: UK forecast summary — post-Brexit

	2014	2015	2016	2017	2018	2019	2020
GDP Growth[1]	2.9	2.2	2.3	2.7	2.7	2.8	3.4
Inflation CPI	1.7	0.1	1.1	1.6	2.8	2.6	2.1
Wage Growth	1.2	2.7	3.2	3.5	4.5	3.1	3.4
Unemployment (Mill.)[2]	1.1	0.9	0.8	0.8	0.7	0.7	0.7
Exchange Rate[3]	87.1	91.6	89.8	88.2	86.8	87.4	86.1
3 Month Interest Rate	0.6	0.5	0.7	2.2	2.9	3.0	3.2
5 Year Interest Rate	1.8	1.4	2.2	3.1	3.2	2.9	2.7
Current Balance (£bn)	−99.9	−91.0	−69.7	−66.8	−57.8	−39.9	−27.1
PSBR (£bn)	83.3	78.1	64.1	62.9	26.7	19.8	17.6

[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)

For more detailed tables see forecast appendices.

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UK POST-BREXIT 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]
2014	1.7	1.8	0.6	87.1	93.1	-0.9	2.4	0.4
2015	0.1	1.4	0.5	91.6	97.6	-0.2	1.0	-0.3
2016	1.1	2.2	0.7	89.8	95.1	-0.9	2.0	0.1
2017	1.6	3.1	2.2	88.2	93.3	-0.6	2.4	0.2
2018	2.8	3.2	2.9	86.8	92.9	0.3	3.3	0.5
2019	2.6	2.9	3.0	87.4	92.3	1.0	3.2	0.5
2020	2.1	2.7	3.2	86.1	91.3	0.7	2.7	0.5
2015:1	0.7	1.1	0.5	89.6	96.1	0.3	1.0	-0.6
2015:2	0.2	1.3	0.5	91.5	97.2	0.8	1.0	-0.4
2015:3	-0.2	1.4	0.5	93.1	99.0	-0.7	1.0	-0.3
2015:4	-0.2	1.8	0.5	92.4	98.2	-1.0	1.0	0.1
2016:1	0.5	2.0	0.5	90.6	95.8	-1.0	1.5	0.1
2016:2	1.0	2.0	0.5	90.2	95.5	-1.0	1.9	0.1
2016:3	1.2	2.1	1.0	90.5	95.8	-0.6	2.1	0.2
2016:4	1.5	2.9	1.0	87.7	92.9	-0.7	2.3	0.2
2017:1	1.5	3.1	2.1	89.1	93.9	-0.4	2.3	0.1
2017:2	1.5	3.1	2.2	88.3	93.3	-0.4	2.3	0.1
2017:3	1.6	3.0	2.0	87.9	92.8	-0.9	2.4	0.2
2017:4	1.8	3.3	2.5	87.8	93.0	-0.7	2.5	0.5
2018:1	2.5	3.3	2.7	87.4	92.9	-0.3	3.1	0.5
2018:2	2.7	3.2	2.7	86.9	92.9	-0.3	3.3	0.5
2018:3	2.9	3.1	3.3	86.5	92.6	0.8	3.4	0.5
2018:4	3.3	3.0	2.9	86.5	93.3	0.9	3.7	0.5
2019:1	3.1	3.0	3.0	86.2	93.0	1.0	3.6	0.5
2019:2	3.1	3.0	3.1	85.4	92.5	1.1	3.6	0.5
2019:3	2.5	2.8	2.6	84.7	91.3	0.6	3.1	0.5
2019:4	2.0	2.8	2.7	85.5	92.5	0.7	2.7	0.5
2020:1	2.0	2.8	2.7	84.9	91.9	0.1	2.7	0.5
2020:2	2.1	2.7	2.6	83.7	90.9	0.1	2.7	0.5
2020:3	2.1	2.7	2.8	84.2	91.3	0.3	2.8	0.5
2020:4	2.1	2.7	3.1	83.7	90.9	0.6	2.8	0.5

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)
2014	241.2	1.2	2.3	1.1	130.0
2015	247.6	2.7	2.4	0.9	133.3
2016	255.4	3.2	2.1	0.8	136.1
2017	262.9	3.5	2.0	0.8	137.9
2018	273.2	4.5	1.8	0.7	139.4
2019	282.0	3.1	1.7	0.7	140.1
2020	291.3	3.4	1.6	0.7	141.9
2015:1	246.4	2.3	2.5	0.9	132.9
2015:2	246.1	2.6	2.5	0.9	132.7
2015:3	248.3	3.0	2.4	0.9	133.6
2015:4	249.7	2.7	2.1	0.9	134.0
2016:1	254.6	3.3	2.1	0.8	136.6
2016:2	253.2	2.9	2.1	0.8	135.1
2016:3	254.7	2.6	2.1	0.8	135.5
2016:4	259.2	3.8	2.1	0.8	137.0
2017:1	260.7	2.5	2.1	0.8	137.9
2017:2	261.5	3.5	1.9	0.8	137.4
2017:3	262.5	3.7	2.0	0.8	137.5
2017:4	267.0	4.3	1.9	0.8	138.7
2018:1	270.1	4.9	1.8	0.8	139.5
2018:2	270.9	4.8	1.8	0.8	138.8
2018:3	273.3	4.6	1.8	0.7	139.2
2018:4	278.4	4.3	1.8	0.7	140.1
2019:1	281.5	3.8	1.8	0.7	141.1
2019:2	281.1	3.2	1.8	0.7	139.8
2019:3	279.1	2.1	1.6	0.7	138.6
2019:4	286.3	3.1	1.7	0.7	141.3
2020:1	289.3	3.1	1.5	0.7	142.2
2020:2	289.3	3.1	1.5	0.7	141.1
2020:3	291.3	4.4	1.6	0.7	141.9
2020:4	295.1	3.0	1.5	0.7	142.7

[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
2014	154.0	737470.2	428418.9	293309.7	194498.6	-51038.0	127719.1
2015	157.4	753770.6	436595.2	298648.7	197430.6	-54148.4	124757.4
2016	160.8	770055.7	445695.9	297068.1	197125.4	-42461.3	127367.1
2017	165.1	790816.9	455364.6	308041.5	199245.4	-40776.5	131044.4
2018	169.7	812428.2	466130.4	320355.6	198882.9	-38062.1	134876.0
2019	174.1	833565.5	477699.4	326332.4	202570.1	-34364.1	138667.4
2020	180.1	862130.2	490658.3	338625.4	213457.6	-36882.7	143710.4
2014/13	2.9		1.0	7.3	2.7		3.0
2015/14	2.2		1.9	1.9	1.5		-2.3
2016/15	2.3		2.1	0.0	0.2		2.6
2017/16	2.7		2.2	3.7	1.1		2.9
2018/17	2.7		2.4	4.0	-0.2		3.0
2019/18	2.8		2.5	1.9	1.9		2.9
2020/19	3.4		2.7	3.8	5.5		3.6
2015:1	156.2	186964.7	107966.1	77826.4	50385.0	-15573.3	33639.5
2015:2	157.0	187977.5	108889.7	70313.2	48635.4	-11413.2	28447.6
2015:3	157.7	188823.0	109697.1	74552.3	49279.4	-14082.0	30623.8
2015:4	158.7	190005.4	110042.3	75956.7	49130.9	-13080.0	32046.5
2016:1	160.6	192288.6	110866.2	74555.9	51059.5	-12075.9	32120.6
2016:2	162.6	194619.7	111552.7	78788.9	48262.0	-12079.2	31908.8
2016:3	162.9	195077.1	112243.5	78004.2	49051.9	-12079.8	32142.0
2016:4	162.9	194982.0	112399.2	76874.2	48752.1	-10695.9	32348.1
2017:1	165.3	197774.0	112863.5	78105.7	51270.0	-11661.6	32803.2
2017:2	165.2	197838.0	113468.8	79596.3	48527.4	-11020.5	32742.5
2017:3	164.9	197442.5	114154.3	75797.5	49559.6	-9359.0	32701.2
2017:4	165.2	197762.3	114878.0	74542.0	49888.4	-8735.4	32797.4
2018:1	170.0	203531.3	115447.0	80615.5	52017.3	-10766.6	33769.1
2018:2	169.1	202501.7	116127.6	81636.6	48633.1	-10291.5	33604.9
2018:3	169.7	203082.4	116880.7	79589.7	49188.9	-8853.0	33719.2
2018:4	169.9	203312.6	117675.1	78514.0	49043.7	-8151.0	33782.9
2019:1	173.3	207471.6	118273.8	81367.1	51965.9	-9646.8	34489.8
2019:2	172.6	206696.1	119004.4	81536.0	48932.1	-8398.4	34375.6
2019:3	174.8	209273.1	119798.6	82105.1	50408.6	-8218.1	34820.7
2019:4	175.4	210124.7	120622.7	81324.2	51263.3	-8100.8	34981.2
2020:1	178.4	213652.0	121441.7	82568.1	54499.1	-9272.5	35585.2
2020:2	178.9	214190.0	122259.2	85038.2	51931.8	-9335.4	35694.8
2020:3	181.1	216769.7	123073.5	85807.6	53256.0	-9219.2	36143.0
2020:4	181.7	217518.7	123884.0	85211.4	53770.7	-9055.7	36287.6

[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)
2014	5.2	1619.9	83.3	52.6	-99.9
2015	4.6	1641.6	74.6	55.2	-91.0
2016	3.4	1727.5	58.1	62.1	-79.1
2017	3.2	1798.6	57.5	74.6	-77.0
2018	1.1	1896.7	21.9	73.5	-67.3
2019	0.7	1996.5	15.5	73.4	-48.3
2020	0.7	1590.2	15.8	57.1	-34.4
2015:1	0.6	409.1	2.3	13.3	-25.1
2015:2	6.5	401.7	26.2	13.6	-18.9
2015:3	4.1	407.8	16.9	13.8	-18.9
2015:4	6.5	414.0	26.8	13.9	-28.1
2016:1	1.1	418.2	4.8	13.9	-17.9
2016:2	5.3	424.6	22.4	14.0	-20.0
2016:3	3.5	427.3	15.0	14.6	-15.2
2016:4	4.4	432.1	19.1	16.2	-26.0
2017:1	0.3	443.5	1.5	17.4	-20.7
2017:2	4.0	443.2	17.6	17.9	-21.2
2017:3	2.4	442.6	10.4	18.3	-12.6
2017:4	6.7	445.9	29.5	19.5	-22.5
2018:1	-0.1	467.0	-0.1	18.9	-18.0
2018:2	3.0	465.5	14.3	19.1	-18.6
2018:3	-0.4	468.2	-1.8	18.7	-10.3
2018:4	3.0	473.0	14.1	17.9	-20.4
2019:1	-1.1	489.9	-4.8	17.9	-13.2
2019:2	2.2	489.3	10.8	17.9	-12.1
2019:3	-1.1	494.4	-5.4	18.3	-5.9
2019:4	2.9	498.6	14.4	18.7	-17.2
2020:1	-0.9	514.3	-4.5	18.6	-7.9
2020:2	2.3	516.7	12.1	18.7	-9.2
2020:3	-1.1	522.1	-5.7	18.7	-2.8
2020:4	2.7	526.5	14.2	18.8	-14.4

[1] GDP at market prices (Financial Year)

The Julian Hodge Institute of Applied Macroeconomics

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The Julian Hodge Institute of Applied Macroeconomics was launched in autumn 1999 in a new collaboration between the Cardiff Business School of Cardiff University and Julian Hodge Bank. 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. This research has been given added urgency by the ongoing discussions about the UK's adoption of the Euro in place of the Pound. The new Institute has aimed to develop research relevant to this important debate.

The Institute embraces the original Liverpool Research Group in Macroeconomics, which is now based at Cardiff Business School and is pursuing a research programme involving the estimation and use of macroeconomic models for forecasting and policy analysis. It is grateful for financial support to the Jane Hodge Foundation, the Economic and Social Research Council, Esmee Fairbairn Charitable Trust, the Wincott Foundation and Cardiff Business School.

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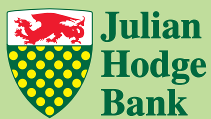

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