The market and the economy in 2015

The oil price continued to fall. Oil investments fell. GDP growth fell. Global GDP growth fell. Forecasts were adjusted downwards. And stock market returns? From fair to outstanding.

It is fascinatingly easy to be overwhelmed by noise. The financial markets are dominated by a cacophony of signals, and selecting indicators in support of the view that you happen to hold at any given time is remarkably straightforward. Cherry-picking key figures is a popular and effective way of rationalising gut feeling.

Not infrequently, the outcome is very different from what many observers predicted it would be. For the average Norwegian investor, 2015 produced a reasonably satisfactory return on Norwegian shares, a very good return on international shares and disappointing returns on most corporate bonds – presumably a safer asset class than shares.

This is how we got there.

Much ado about... a few percentage points?



Oslo Børs Benchmark Index fluctuated dramatically throughout both 2014 and 2015, but ended up generating returns of 5.0 and 5.9 per cent, respectively. Source: Oslo Børs

The oil shock, part II

For the Norwegian economy, the oil price is a key value. The drop in the spot price (Brent Blend) during 2014 from USD 111 to USD 57 a barrel was dramatic enough. But when in the following year the price continued to spiral downwards to USD 37, many companies had to abandon all their previous assumptions about the future. And – no less importantly – at this point many of the ripple effects were still in their infancy.





Oil (Brent Blend) spot pric Source: Bloomberg

There is nothing wrong with the demand for oil, but the supply side has few limitations. Politically, the chief problem is that Saudi Arabia is continuing to churn out oil, without regard for the short-term oil price or potential OPEC discipline. Moreover, the prospect of large export volumes issuing from arch-rival Iran is not exactly bolstering Saudi Arabia's enthusiasm for production cuts.

At the same time, US shale oil is proving to be remarkably adaptable. Production volumes are being maintained at prices far below earlier break-even estimates, although this typically applies to fields with short production lifespans. Developments in technology have been rapid, and decisive. As a consequence, US oil production has more or less maintained the maximum output level achieved last year, a level that, it should be noted, is on a par with the last production peak in the early 1970s. A closer inspection may indicate that the peak has been passed, but the reduction has not been sufficient to influence the market. In nominal terms, the oil price is back at the levels recorded in the early 2000s. After adjustment for US inflation – the price is quoted in US dollars, after all – output is back at the level recorded at the outset of the 1990s.

This is not the whole story, however.



Back to the dizzying peaks of years gone by ...

US oil output in thousands of barrels per day Source: US Energy Information Administration

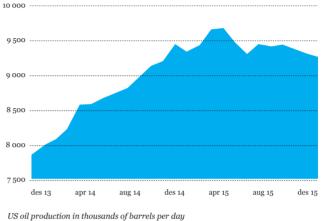
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The price of oil – just like the old days



Spot prices for oil (Brent Blend) adjusted for US inflation Sources: Bloomberg, US Bureau of Labor Statistics, Pareto

... but only for a short while?



Source: US Energy Information Administration

Price drop leads to shutdown for suppliers

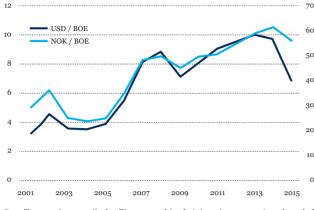
Throughout the period of falling oil prices, estimates of Norwegian oil investments have been regularly adjusted downwards. In June of 2014, when the oil price had yet to drop from USD 110, Statistics Norway forecast that oil investments in Norway would increase (albeit very modestly) in 2015. Provisional estimates now indicate that they were down by almost 15 per cent – and that further cuts of almost the same order are expected in 2016.

For many suppliers, a reduction of this order means more or less total shutdown. Statoil and other oil companies are able – without difficulty – to put their exploration activities on hold. Anything that cannot be put on hold is open to haggling. The outcome for seismic survey companies, supply vessel owners, rig owners and engineering companies, among many other operators, is missed sales opportunities, contracts that have been adjusted downwards and pressure on margins.

There was of course plenty of flesh on the bone. Measured in dollars per barrel, Statoil's operating costs almost tripled between 2004 and 2013, and measured in Norwegian kroner the increase was well over 150 per cent. Some of this was in all likelihood due to the move into deeper water and costlier fields, but the effect is fairly typical of an industry experiencing a substantial upturn in the end price, as the case was in the period leading up to the start of the price decline in mid-2014. In this situation, time is more important than price. The order books of the suppliers are full and they have no need to win that last contract at any price. The oil companies have no need to cut costs. And perhaps cost awareness is less acute when earnings are high?

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Inflation on the Norwegian Continental Shelf



Statoil's operating costs (incl. selling, general & administrative expenses) per barrel of oil equivalent (BOE). Source: Pareto Securities

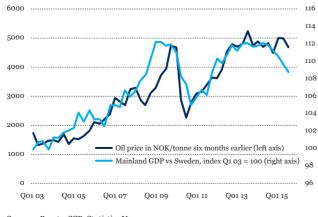
The exchange rate to the rescue

The substantial increase in costs means that the oil companies – not to mention the Government – have harvested a lower economic rent. It also means that more of each oil-generated krone has flowed to the mainland economy. We pointed out three years ago that the mainland economy was by far the biggest export market for the North Sea sector and that the oil sector probably had a greater impact on the mainland economy than was generally realised. According to our estimates, a drop in the price of oil would lead to a downturn in the mainland economy after a lag of some 18 months. If so, we have yet to feel the full impact of this cut in the oil price.

Thus the tumbling oil price has delivered the Norwegian economy a powerful negative shock. Fortunately, the market economy is so cleverly arranged that a shock will generally trigger compensatory effects. In Norway's case, help arrived in the form of the foreign exchange rate. Over the course of just two years we have had to pay 15 per cent more for a euro and a whopping 45 per cent more for a US dollar. The trade-weighted exchange rate also increased by 15 per cent.

By comparison, the average EBITDA margin of Norwegian industry, i.e. operating profit before depreciation, amortisation and impairments as a percentage of total revenues, was in the region of eight/nine per cent in the years preceding the oil price reduction, according to figures compiled by Statistics Norway. In

Oil-fired heating on the mainland



Sources: Pareto, SCB, Statistics Norway

Krone hits record low



The trade-weighted exchange rate. Higher figures mean a weaker krone. Source: Norges Bank

other words, for exporters and import-competing industries, the weakening of the Norwegian krone provided an invaluable boost to the bottom line, although long-term hedging contracts could mean that it might take some time before the effects materialise in full.

For the Norwegian stock market, this situation has pushed a sufficient number of share prices upwards to compensate for the drop in the price of oil and oil services – and then some. So, yet again, Oslo Børs managed to stay on the right side of break-even.

What's stopping the Norwegian krone from falling even deeper?

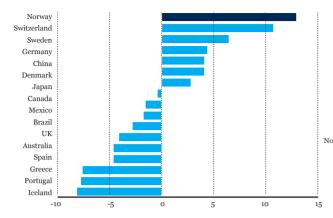
Many people have wondered whether the Norwegian krone will drop even further, given the outlook for the Norwegian economy. The question should really be why the Norwegian krone didn't rise even higher while everything appeared to be running so smoothly, well lubricated with oil. Between 2000 and 2014, Norway recorded a current account surplus that on average corresponded to almost 13 per cent of GDP. No country of relevance has come anywhere near achieving this result.

In the same period, however, we experienced a fairly modest increase in the real exchange rate, i.e. the effective rate of exchange adjusted for relative changes in inflation. Would the obvious assumption not be that the roaring external economy would trigger a powerful increase in the value of the krone?

The chief cause of this situation was almost certainly the Government Pension Fund Global, or the Petroleum Fund, as it is also known. In reality, this structure immunised much of the country's strong current account balance. A high proportion of the oil revenues went directly into the Fund, without being converted into Norwegian kroner, and the remaining injection of capital into the Fund involved purchases of currency. The Fund is invested in its entirety in foreign securities.

Now, at the outset of 2016, the picture looks different. The low oil price and a higher level of expenditure of oil revenues have meant that the Fund is receiving such small top-ups of monies that Norges Bank has had to purchase Norwegian kroner. The very mechanism that in the past few years has served to keep the rate of exchange low, is now in reality helping to buttress the krone.

The World External Economy Championships: Gold medal winners



Current account surplus as a percentage of GDP, average 2000-2014 Source: IMF/Pareto

We don't wish to overstate this effect, but it could undoubtedly be argued that the structure of the Petroleum Fund has helped to stabilise Norway's external economy – and the Norwegian economy as a whole.

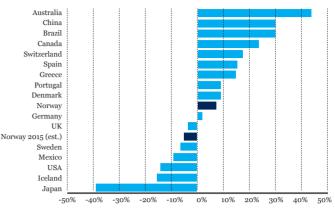
Interest rate-driven housing market

At the same time, the weaker Norwegian economy has contributed to a downward adjustment of the estimated interest rate differential between Norway and other countries. Norges Bank has not yet followed the example of Riksbanken in Sweden of setting negative interest rates, but the direction seems clear. With a key interest rate that has been reduced by half since mid-December 2014, from 1.50 to 0.75 per cent, further cuts are expected in 2016.

Rates of interest on housing loans have followed this downward path some of the way. Thus, for Norwegian homeowners, the drop in the interest rate has been beneficial, ignoring, that is, the fact that most homeowners wish to buy a more expensive house the next time around – and as such do not benefit from higher house prices. In any event, it appears to be the case that most homebuyers maximise their house purchases on the basis of what their own finances and their own cash budgets permit. When interest rates go down, house prices go up.

We have updated a graph produced by Norges Bank showing the relationship between house prices and the rental rate. The as-

The World Appreciation Championships: Runners up



Changes in the effective exchange rate 2000-2014. An increase means a stronger real effective exchange rate. Source: IMF/Pareto/Norges Bank

sumptions and adjustments that underpin a graph of this nature are such that the figures must be taken with a healthy dose of scepticism. Nevertheless, there can be no doubt about the story told by the shape of the graph. It shows quite clearly that dwellings have become increasingly more expensive when house prices are measured against the value of earnings from letting property. This is the same type of evaluation that the stock market performs using the classic P/E ratio, the relationship between share price and earnings per share. If we compare the housing and stock markets we see that the housing market has – to a greater extent than the stock market – priced in the effect of lower interest rates. Given that the interest rate is a key factor in absolutely all models of housing markets, this is by no means surprising.

What is interesting, however, is that the stock market has not priced this in to the same degree. There was for many years a close relationship between the level of long-term interest rates and the earnings yield, i.e. the inverse of the P/E fraction. When long-term interest rates fell, the earnings yield also fell. This relationship has been broken in the low interest rate regime that has prevailed since the financial crisis. Presumably, this is one of the main justifications for continuing to expect a satisfactory return on the stock market.

From a purely economic perspective, however, we would not choose housing as an investment option at the present time.

The housing P/E continues to climb



 $Sources: \ Pareto, \ Norges \ Bank, \ Statistics \ Norway$

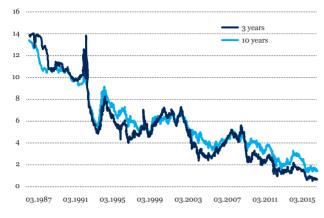
House prices up, shares stable



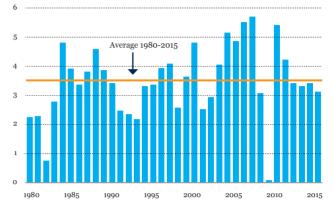
Sources: Pareto, Norges bank, Statistics Norway, FactSet

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This surely cannot continue



Global growth slightly lower than trend rate



Yield to redemption for different maturities of government bonds. Source: Norges Bank

A very bad year for bonds

For the bond market, reduced base rates of interest have not in any way been a source of joy. In 2015, risk premiums rose more or less in unison (prices fell) and the market for bond issues dried up almost completely. That the yield to redemption of highly-leveraged supply ship owners reached double digits should not have surprised anyone, at least with the benefit of hindsight. Now, at the outset of 2016, it is clear that several of these companies will probably have to submit to restructuring all or parts of their debt.

That risk premiums would also rise in most other sectors is perhaps more surprising. Even the spreads on covered bonds, backed by solid Norwegian mortgages, widened.

What's more, the increase in risk premiums was by no means an exclusively Norwegian phenomenon. The United States, for example, saw a combination of a drop in the price of high-yield bonds and unusually high redemptions in corresponding mutual funds. For corporations in a number of countries, the bond market quite simply became a more costly source of funding.

The market for corporate bonds can be less liquid than the stock market, so that it remains to be seen how much of this slump in prices is transitory. What is certain, however, is that many investors harvested a poor return on their bond investments in 2015.

Insofar as the bond market tells us anything about the future, which is a moot point, developments in this past year also augured worse times to come globally.

Misjudging China

Much of the fear is focused on the danger that the Chinese economy will come to a shuddering halt. Over the past five years, China has accounted for in excess of 35 per cent of the growth in global GDP and 40 per cent of the growth in worldwide oil consumption. Were there to be a substantial slowing in Chinese growth, it is widely believed that this would hit global growth. Percentage growth in global GDP Source: IMF

This argument is not without flaws. In fact, the Chinese economy is to a large extent closed, notwithstanding the broad perception that the opposite applies. Imports now correspond to 15 per cent of GDP, having dropped slightly in recent years as a consequence of higher GDP and lower import prices, not least in the case of commodities. This is lower than in the United States, which is traditionally regarded as a fairly closed economy, and half of the figure in the small, open Norwegian economy.

It is true that China's GDP now constitutes approximately 17 per cent – over one sixth – of world GDP. At the same time, however, the large and relatively closed economy of China means that much of the country>s contribution to growth in global GDP quite simply consists of growth in China. A small thought experiment might make this clearer: imagine that global growth is one per cent, while China is growing at a rate of six per cent. What contribution does China make?

Clearly, the contribution to the rest of the world takes the form of the flow of capital, goods and services. The figures for this are as follows: the country's imports of goods and services now make up 2.5 per cent of global GDP and, given the significant downturn in recent years, there has hardly been any overwhelming growth impulses from this. Exports are higher: 21 per cent of China's GDP and 3.5 of world GDP, but that does not do much for growth in other countries. Even when measured against China's growing GDP, the current account surplus has almost doubled in two years.

Overlooked effect of Chinese growth?

For Norway, China's influence on commodity prices has been the most important factor. Norway for some years having been blessed with good luck can be ascribed to China having rigged the wheel of fortune. For the world economy, however, oil has acted like tar. In the past, the rule of thumb was said to be that five dollars on the oil price would – all other things being equal – reduce global growth by 0.1 percentage points. Given the consistently

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high oil price in the years since the financial crisis, global growth must have been burdened with a heavy drogue.

The effects of changes in the price of oil are undoubtedly less pronounced today, both because the price is already fairly low and because a low or non-existent economic rent will have greater negative ripple effects in oil-related industries. Even so, the price reduction over the last 18 months must have given global growth a substantial boost. Seen from this perspective, China has been responsible for an impulse that has been quite the reverse of what analysts and the media normally focus on. In the past, hikes in the price of oil and other commodities put a damper on the growth impulse, while this time round falling prices are making a positive contribution.

Is anyone still puzzled by the fact that the substantial monetary stimuli put in place in the West in recent years have had such modest effects? And, in contrast, could it be that the indirect effect of the oil price is now being underestimated?

Secular stagnation

Underlying all this is a more general concern for the world economy, which has only partially recovered from the financial crisis of 2008. Are we facing secular stagnation, a longer period of structurally weak growth? Will we derive lower productivity gains from new technological advances? Will growth be reduced by demographic shifts? Does debt pose a threat to further growth?

What may perhaps be the simplest explanation is conspicuous by its absence. Let us raise our gaze slightly. The late Professor Angus Maddison, who made a valuable contribution with his work on charting historical economic data, described the period between 1950 and 1973 as a golden age of growth. And what followed? Country after country attempted to stimulate growth using expansionary fiscal policy. Deficits and borrowing.

Perhaps we could label this "Keynes-abuse"? The expansionary fiscal policy was not used to level off the pace, but rather to apply a steady foot to the accelerator. Between 1974 and 2007, the federal debt of the US – the undisputed economic engine of the world during this period – more than doubled: from less than 32 to 64 per cent of GDP, according to Professor Carmen Reinhart. In Germany, public sector debt rose from 18 to 65 per cent of GDP, and in Sweden from just below 27 per cent to just over 73 per cent in 1996, when Sweden shifted her foot from accelerator to brake. As far as this policy is concerned, they were early adopters.

Not all countries have followed the same pattern. Great Britain, for example, has succeeded in keeping debt in check. However, they have had something that we have had even more of: oil revenues.

For decades, economists have debated the question of whether fiscal stimuli have lasting effects. The point of departure in the discussion has generally been temporary stimuli, either assuming future repayment of the debt or simply assessing each fiscal impulse individually. Even so, it is difficult to see that a systematic injection into an economy over a period of 40 years would not leave lasting traces.

Logically, it is hard to maintain the same speed without the same fuel, irrespective of the burden of debt servicing – which, after all, at the current rate of interest cannot really be described as insurmountable.

This means on the one hand that we must expect a moderate trend rate of growth over the coming years. At the same time it means that moderate growth does not necessarily represent a danger sign. There has been no fundamental change in the underlying economy. The market is not working so badly after all, and people are still going to work in the morning, creating value for themselves and their employers, after a quick cup of coffee or two.

2015 in a nutshell

• OSEBX	+5.9 %
• S&P 500 return	+1.4 %
• MSCI World net (USD)	-0.9 %
• 3-month NIBOR	from 1.48 to 1.13 %
• 10 year Norwegian Treasury	from 1.61 to 1.54 %
• Share turnover Oslo Børs (value)	5.3 %
• Brent Blend	from USD 57.33 to USD 37.28
• USD/NOK	from 7.43 to 8.81
• EUR/NOK	from 9.04 to 9.62
• BNP growth, global	3.1 %
• BNP growth, Norway	1.6 %
· Divi growin, norway	1.0 /0

Sources: Oslo Børs, S&P Dow Jones Indices, MSCI, Norges Bank, FactSet, IMF, Statistics Norway, Pareto

A tale of two markets



In 2015 too, small caps continued to underperform the Oslo Børs Benchmark Index. Source: Oslo Børs / Pareto