

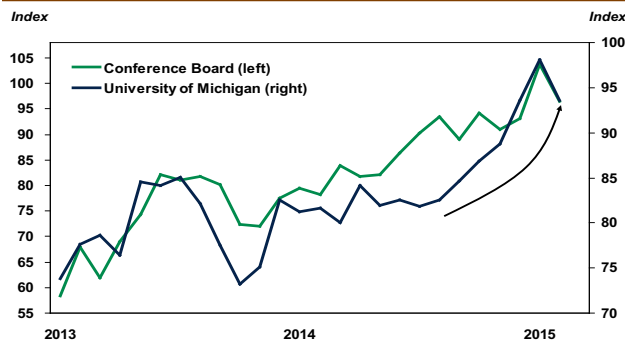
Is the oil price plunge damaging the U.S. economy?

The plunge in oil prices has generally positive consequences for the global economy while, as feared by the Bank of Canada, these appear to be quite negative for the Canadian economy. In the United States, the economic effects are widely considered to be positive, especially for consumers. But have any negative impacts been observed? And might they offset the benefits of lower oil prices for the economy as a whole? Where are the risks concentrated? What perception does the Federal Reserve (Fed) have of the situation?

THE MAIN POSITIVE FACTORS OF LOWER OIL PRICES

The more than 60% drop in oil prices between June 2014 and the beginning of 2015 is having direct, positive consequences on the wallets of U.S. consumers. Oil prices have pulled down gasoline prices in their wake; these have tumbled from US\$3.60 per gallon in the middle of 2014 to less than US\$2.00 at the beginning of this year. Since mid-January, prices have inched back up to around US\$2.25 per gallon, which is still just two thirds of what they were at this time last year. Households have already reacted to this new state of affairs, and the consumer confidence indexes are on the rise (graph 1).

Graph 1 – The confidence of U.S. households has improved a great deal

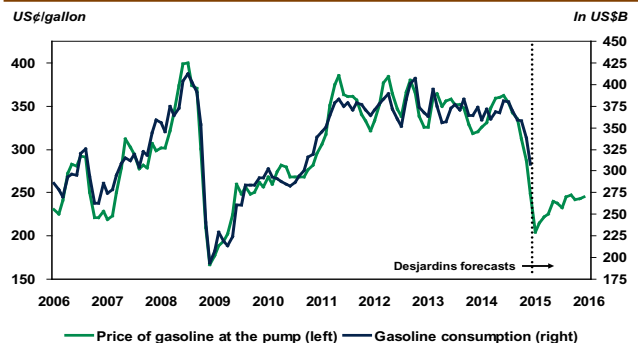


Sources: Conference Board, University of Michigan and Desjardins, Economic Studies

More specifically, the effect of lower gasoline prices is making itself felt on household income as if it were a tax cut enjoyed with every fill-up. In 2014, Americans consumed a total of US\$360B worth of gasoline. We can predict that

the lower prices will bring that amount down to US\$260B in 2015 (graph 2). For the 116 million households in the United States, this is equivalent to an average saving of a little over US\$850 in the course of a year. Such an amount can only be positive for economic growth. Already, consumption is giving very encouraging signs. In the last quarter of 2014, real consumption showed its strongest growth since 1996. Obviously, a portion of this windfall will be allocated to savings, but overall, we can assert that the effects will clearly be beneficial for real GDP growth.

Graph 2 – Lower gasoline prices are beneficial to U.S. consumers



Sources: Energy Information Administration, Bureau of Economic Analysis and Desjardins, Economic Studies

Businesses also benefit to a large extent from lower oil and gasoline prices, as these are major inputs in many industries. Even if we exclude a portion of the transportation sector (in order to avoid double counting of gasoline sales to households), U.S. businesses use the equivalent of around 10 million barrels of oil per day. The effect of a price drop, from an average of US\$93.10 per barrel in 2014 to US\$58.00

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per barrel (based on West Texas Intermediate [WTI]) in 2015 according to our most recent forecasts, generates a saving of US\$125B. If we add that to the US\$100B that households will no longer have to spend, the total effect of US\$225B is equivalent to 1.2% of annual GDP.

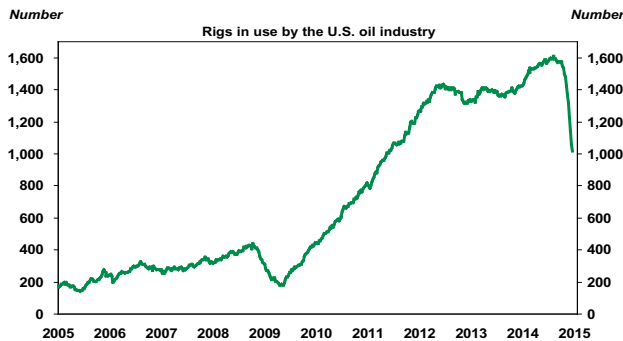
THE EFFECT OF LOWER PRICES ON PRODUCTION AND INVESTMENT

On the downside, the direct effects that lower oil prices will have on the U.S. oil industry immediately spring to mind; in fact, the great vitality that has characterized that industry in recent years has been one of the causes of the current price slump. What concerns should we have regarding production, investment and employment in that sector?

The majority of analyses evaluate the cost of producing a barrel of oil at around US\$60 for conventional extraction methods, and at around US\$75 for shale oil. Therefore the lower international prices are hurting the U.S. oil industry, especially unconventional oil extraction, such as shale oil.

We can already observe that investment in this sector is down. The number of rigs in operation has plummeted by 36.7% since the peak of October (graph 3). But we need to be careful here, since that statistic is not seasonally adjusted, and the weather during this period has been quite inclement.

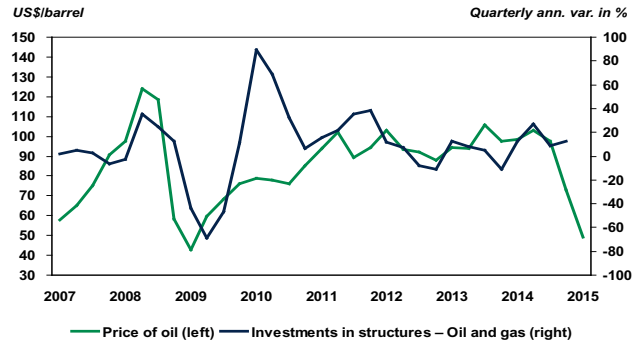
Graph 3 – The oil industry is starting to scale back its operations



Sources: Baker Hugues and Desjardins, Economic Studies

The initial version of the national accounts for the fourth quarter of 2014 shows rather mixed investment trends relating to oil. Real investments in mining and oil exploration and in oil and gas well installations recorded an annualized increase of 12.4% in the fall. However, we can expect a decline starting in the first quarter of 2015 (graph 4). Meanwhile, a drop in machinery investments associated with the oil sector is already showing up, with an annualized contraction of 35.3% in the fourth quarter of 2014.

Graph 4 – Oil industry investments in structures according to the national accounts should soon decline



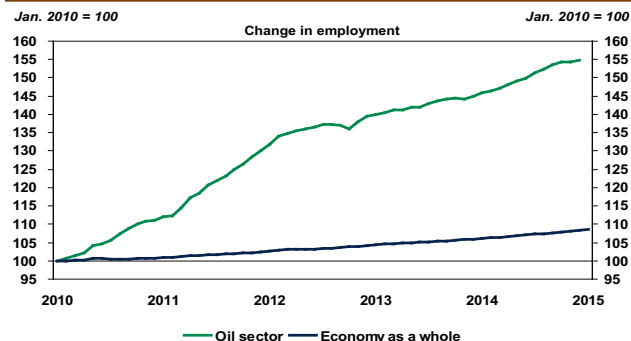
Sources: Datastream, Bureau of Economic Analysis and Desjardins, Economic Studies

The Fed's data on U.S. industrial output paint a slightly more dramatic picture: well drillings were down by 12.8% in January, compared with last September. But we note that oil extraction is continuing to rise, by 1.5% over the same period. If we extend the comparison to January 2014, the change is -5.0% for drilling, but +12.1% for extraction. We can anticipate that production will decelerate significantly.

HOW IMPORTANT IS THE U.S. OIL INDUSTRY?

Within GDP, the oil sector shows up mainly in two categories: drilling and extraction and related equipment. In 2013, these GDP components had a total value of US\$152.6B. That is an increase of 60.1% in real terms, compared with 2009, when the oil boom began in the United States. But as a proportion of GDP, this represents just 0.9%. Moreover, we note that this sector contributed only 2.9% of total GDP growth since 2009, which is fairly modest. It is therefore false to suggest, as some commentators have done, that the economic recovery in the United States was mainly due to the energy sector. A slowdown and contraction in that industry will certainly have negative consequences on real GDP growth, but the U.S. economy is quite able to withstand that shock, especially with the support of the beneficial effects of lower gasoline prices.

It is mainly if we look at job market trends since the recession that we could be inclined to exaggerate the importance of the oil sector in the U.S. economy. The shale oil boom accelerated starting in 2009 (just when the rest of the economy was suffering its worst contraction since the Great Depression) but it really took off when oil prices picked up, in 2010. Since then, the number of jobs in the oil sector (extraction, support activities and related equipment) has increased by 50% (graph 5 on page 3). In fact, between January 2010 and December 2014, 225,500 jobs were gained in this sector. During the same period, the overall U.S. economy created 10,875,000 jobs. Thus the proportion

Graph 5 – Job creation has been strong in the oil sector

Sources: Bureau of Labor Statistics and Desjardins, Economic Studies

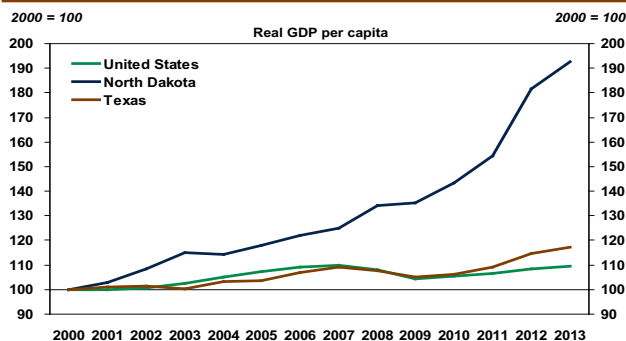
of new jobs that were directly created in the oil sector is just 2.1%, which is still considerable if we consider the fact that this sector represents a mere 0.5% of the total number of workers in the United States. However, if we arbitrarily change the start and end dates of this calculation, we can easily over-represent job creation in the oil sector. If we take the cyclical peak of January 2008 as our base date, and July 2014 as the end date, the job growth in the oil sector comes to 187,400 jobs, versus 791,000 for the economy as a whole... nearly one job out of four!

Notwithstanding these calculations, there is reason to believe that the importance of the oil sector extends beyond the number of jobs created directly in that industry. A study¹ by the International Monetary Fund (IMF) concludes that each additional rig generates the creation of 37 jobs right away, and 224 jobs over a longer time frame. Between mid-2009 and the peak of September 2014, 1,426 oil rigs were added. According to the IMF's calculations, this expanded activity has directly generated the creation of 53,000 jobs, followed by a potential 319,000 jobs in the longer term. These additions must not be overlooked. And the reverse effect could be painful: since October the number of rigs in operation has dropped by 590, or nearly 37%. If this contraction proves to be permanent, it will eliminate 22,000 direct jobs and 132,000 jobs in the longer term. However, we must keep in mind that the U.S. economy created 3,116,000 jobs in 2014, and that recent monthly gains have exceeded 250,000. Therefore, the anticipated contraction in the oil sector will not be a disaster for the job market as a whole; the U.S. economy can bear that burden.

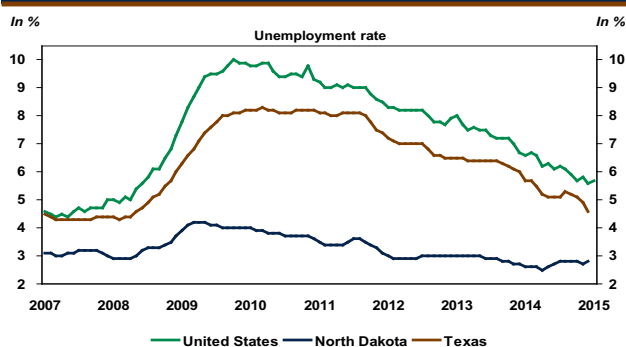
¹ Mark Agerton et al., "Employment Impacts of Upstream Oil and Gas Investment in the United States", *Working Paper No. 15/28*, IMF Working Paper, International Monetary Fund, February 2015, 36 p., www.imf.org/external/pubs/ft/wp/2015/wp1528.pdf.

THE IMPACT WILL BE MORE ACUTE IN CERTAIN REGIONS

Obviously, the regional effects are likely to be more severe. The oil deposits that have been made available thanks to the technologies disseminated at the end of the 2000s are mainly concentrated in North Dakota and Texas. The deposits in those two states account for a little over half of the growth in the number of active rigs. These two states have also experienced strong economic growth and suffered much less from the economic crisis and the slow recovery (graph 6). Their unemployment rates are also very low: 4.6% in Texas (this has kept falling in recent months) and 2.8% in North Dakota (the lowest in the United States, but up slightly since last summer) (graph 7). Keep in mind that while Texas has the second-largest population of all the states, North Dakota stands in 47th place out of 50.

Graph 6 – Economic growth has been stronger in North Dakota and, to a lesser extent, in Texas

Sources: Bureau of Economic Analysis and Desjardins, Economic Studies

Graph 7 – The unemployment rate is much lower in North Dakota

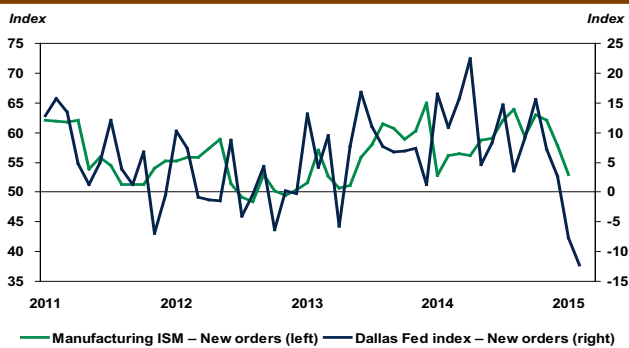
Sources: Bureau of Labor Statistics and Desjardins, Economic Studies

The decline in oil investments can only hurt these regions, and the time when those economies were the envy of the other states is probably over. The negative collateral effects will no doubt be just as painful. The enthusiasm for the oil sector supported consumption and home prices. The effect is particularly intense, since wages in the oil extraction sector are high. We note that the Texan manufacturing



sector is struggling more than that of the United States as a whole (graph 8). But as yet there are few indications of a real slump in these economies, and even the leading indicators of both these states are holding steady. The risks are more worrisome in North Dakota, whose economy is less diversified than that of Texas. In fact, Texas might even benefit from the fact that the petrochemical industry as a whole will probably not suffer too much from the lower oil prices. Processing operations, which are often integrated within these same large corporations, will enjoy greater profit margins and, if the prices remain low long enough, demand for refined products could increase.

Graph 8 – The manufacturing sector in Texas appears to be feeling the weakness of the oil sector



Sources: Institute for Supply Management, Federal Reserve of Dallas and Desjardins, Economic Studies

NOT A THREAT TO THE NATION

The lower oil prices will have negative consequences on growth, but these will remain concentrated in certain sectors and regions. And these harmful effects will be far less than the benefits that the vast majority of Americans will derive from lower gasoline prices. This is also the conclusion that the Fed has reached, according to the recent testimony by Chair Janet Yellen, before Congress on February 24, 2015:

“While the drop in oil prices will have negative effects on energy producers and will probably result in job losses in this sector, causing hardship for affected workers and their families, it will likely be a significant overall plus, on net, for our economy.”

Thus, even the Fed, which has been showing extreme caution since the financial crisis, is not overly troubled by the negative effects of lower oil prices. It is mainly the positive effects on growth that are attracting its attention. What the Fed is more worried about is the negative effect of this price slump on inflation, and in particular, a potential carryover into core inflation. We may therefore conclude that while lower oil prices are clearly favourable for economic growth, their effects on U.S. monetary policy are less clear, without worrying overmuch about the end of the oil boom in the United States.

Our own scenarios are calling for lower oil and gasoline prices to give net support to U.S. real GDP growth, which should come in at 3.2% in 2015 and 3.0% in 2016, after three years of growth below the threshold of 2.5%. Total inflation will likely languish in negative territory in the first half of 2015, but core inflation (excluding food and energy) should remain relatively stable.

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