

High oil prices did not cause the recession

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Do high oil prices cause recessions? The US economist James Hamilton is famous for his 1983 finding that oil price spikes had preceded all but one post-war US recessions.¹ Hamilton recently claimed that the current recession can be fully accounted for by the high oil prices of 2007-08. But while oil prices are certainly an important macroeconomic variable, it is just not plausible that they have anything like the impact that Hamilton suggests.

Oil prices have a direct impact on output only to the extent that they lead to lower consumption of oil. In a standard competitive model of the economy, the decline in output is equal to the share of oil in GDP times the decline in consumption of oil. From a peak of 7.6bn barrels in 2005, US oil consumption declined by 6 per cent to 7.1bn in 2008. With oil consumption comprising 5 per cent of GDP in 2008, this can account for a decline of only 0.3 percent of GDP — which, alone, is not nearly enough to cause a recession. The largest decline in oil usage that has ever occurred in the US was over 1979-80, for which the same calculation implies a decline in GDP of 0.6 percentage points - again, not nearly enough, on its own, to explain the US recession of 1980.

A cottage industry has developed around the effort to find microeconomic mechanisms such as market frictions that could explain a larger role for oil than this standard model implies. Oil has a romantic place in the US imagination and some US economists cannot quite believe that it is just another commodity. But [my own view](#)² is that these mechanisms can explain only a small additional impact for the oil price.

Despite my scepticism regarding Hamilton et al., I agree that high oil prices (along with other factors) contributed significantly to the recession of 1979-80—but indirectly. I follow the view expressed by Ben Bernanke and co-authors who found that when monetary policy is fully accounted for, the oil price has never had a large, independent impact on output.³ But *if* high oil prices lead to high inflation, *then* central banks raise interest rates, and this is what slows the economy. This can explain Hamilton's finding: oil price spikes have often contributed to inflation, prompting action by central banks. (By the way, this does not mean that central banks are “to blame” for recessions: slowing down the economy when inflation gets too high is just their job.)

So how should we think about the impact of oil prices? Essentially they are a tax on oil importers, imposed by oil exporters. If oil prices double then an economy that was spending 3 per cent of GDP on oil imports, and is now spending 6 per cent, is transferring 3 per cent of GDP to oil exporters. Assuming the price rise is passed on to consumers, it is effectively a consumption tax. In the short and medium term an oil price rise is therefore like a fiscal contraction. Its immediate effect is deflationary, rather than inflationary, as it lowers effective demand in the oil importing country. (If the government offsets the price rise via subsidies or reduced taxes then the fiscal deficit rises, which may put pressure on the sustainability of public finances.)

¹ James D. Hamilton (1983): “Oil and the Macroeconomy since World War II”, *Journal of Political Economy*, Vol. 91, No. 2, pp. 228-248.

² Paul Segal (2007): “Why Do Oil Price Shocks No Longer Shock?” Oxford Institute for Energy Studies, Working Paper WPM 35, <http://www.oxfordenergy.org/pdfs/WPM35.pdf>

³ Ben S. Bernanke, Mark Gertler, and Mark Watson (1997): “Systematic Monetary Policy and the Effects of Oil Price Shocks,” *Brookings Papers on Economic Activity* 1, 91–142.

It is through second-round effects that inflation can rise. For an oil importer, a rise in the price of oil means that the country is poorer as a whole. No matter what policy action they take, their terms of trade have deteriorated. Second round inflation occurs when people in the oil-importing economy are unwilling to accept this loss in income—when businesses raise prices to maintain profits, or unions demand wage rises that fully compensate the first-round rise in prices. The bottom line is that *someone* has to be poorer. So if businesses and workers all refuse to take a cut in income then the result can be a wage-price spiral. This implies that even if the immediate effect of an oil price rise is deflationary, it can lead subsequently to inflation.

This is a fair description of much of the 1970s. But in 1979 the US Federal Reserve decided that enough was enough: interest rates rose throughout 1979 and into 1980, inducing a recession that brought inflation back under control. It was this monetary policy response, not the oil price per se, that caused the recession.

The big difference between the recent oil price rise and the shocks of the 1970s is that the second round effects have been absent: wages did not rise in response to a higher cost of living, and businesses passed on less of their cost increases into prices. Oil importers have learned to live with the deterioration in the terms of trade.

The explanation for this change is not clear. But it probably involves three factors. First, unions are weaker than in the 1970s. Second, prices have been kept down by global pressures, particularly from China. Third, monetary policy is more credible, as market participants know that a wage-price spiral would be crushed by the policy response. The threat of action can be enough: with no second round effects, inflation remained modest throughout the recent oil price rise and no hike in interest rates was required.

In the light of this analysis the oil price rise did not cause the crisis. However, it may have contributed modestly to the imbalances that did. The high oil price, amid low interest rates and rapid global growth, was akin to a fiscal tightening in the leading economies. As such it may have helped to moderate the boom. But to the extent that oil exporters channelled their extra income into investment funds, it may have added to the global savings glut (though dwarfed by Asian current account surpluses).

What are the implications of a high oil price today amid a recession? Second round inflation effects remain absent so there is still no sign of the recent oil price recovery leading to inflation, and stagflation thus looks unlikely. But the deflationary effect may now be more problematic if oil exporters save rather than spend their extra revenues, making it more difficult for central banks and treasuries to stimulate their economies. Though the oil price is more sinned against than sinning, it remains an important macroeconomic variable.