## The Long Norwegian Boom: Dutch Disease After All?

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After oil was discovered on the Norwegian continental shelf in 1969 policy makers have made major efforts to avoid the Dutch disease. The research literature, based mainly on data through the end of the 20<sup>th</sup> century, has mostly found these efforts to be successful. Contrary to the typical Dutch-disease case, Norwegian manufacturing employment has not fallen much faster than that of neighboring countries, and manufacturing productivity has risen at least as fast as theirs. The tax system is sufficiently market friendly to maintain oil-company interest while enabling the government to collect the entire resource rent. These funds have been shunted into the Government Pension Fund Global (GPFG), and a fiscal rule strictly regulates their spending to amounts corresponding to the real financial return on the fund.

However, the experience since the turn of the century has uncovered important faults in the Norwegian success story. This paper looks at data from the Norwegian petroleum-investment boom of 2000 - 19. Mainly because of the effects of depletion, which raised the amount of investment needed for each barrel of oil developed, this boom took off *after* the peak of Norwegian oil and gas production. The boom radically raised oil companies' demand for goods and services. Furthermore, oil companies on the Norwegian shelf showed a strong preference for dealing with domestic suppliers despite the absence of import restrictions.

The resulting demand pressure hitting the non-oil (mainland) economy did not raise employment, which was full in the first place, but lifted product prices and wages compared to those of neighboring Sweden, counted in the same currency. The wage increase was not driven by superior productivity improvements and significantly exceeded the increase in Norwegian consumer prices over those in Sweden.

This increase in the Norwegian cost level not compensated by adjustment in nominal exchange rates was exactly the kind of real currency appreciation that is considered the main cause of Dutch disease. In particular, the combination of high wage levels and downward wage stickiness is likely to cause major adjustment problems once the boom ends. The oil-driven increase in private-sector earnings also means that part of the resource rent was diverted to the private sector. Rather than all of it going to the government, about half was diverted. Despite the impressive accumulation of funds in the Government Pension Fund Global, this means that the government's plans for rent management have been far from successful.

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