Laura Kodres and Frank Warnock, two academics, tackle the question of how recycled oil-export revenues - petrodollars - affect global financial markets in the April 2006 edition of the International Monetary Fund’s World Economic Outlook.

If the increased cost of crude leads to a gush of saved petrodollars, which are used to buy securities, the outcome would be an increase in the price of those securities, the academics say. They add that such a change could in turn affect the price of other assets.

They analyse the issue by focusing on the link between oil prices and interest rates on American and emerging market bonds.

The analysis points out that direct evidence of a link between petrodollars, capital inflows and interest rates is unavailable, mainly because oil exporters tend to buy American securities through third-country intermediaries - for example, in Britain. Their work therefore has to proceed more indirectly. "As a first step...there is evidence that capital flows to the United States do put downward pressure on US interest rates," Kodres and Warnock note.

This amounted to an 86 basis points fall in the yield on 10-year US Treasury notes based on foreign flows into US government securities over the 12 months to May 2005.

"On this basis, if one assumes that fuel exporters used one half of their current account surplus to finance investments in the United States, the increase in oil prices over the past two years would have reduced US yields by about one third of a percentage point," the authors say.

However, more detailed statistical analysis focusing squarely on oil prices' power to explain yield reductions leads to a more nuanced conclusion.

"Summing up, while one might expect higher oil prices and the consequent recycling of petrodollars to exert downward pressure on US interest rates, such an effect is hard to detect statistically among all the competing influences on US yields," the academics write.

Kodres and Warnock next ask if petrodollars' impact on the market for emerging market debt, which is smaller than the American bond market, is more detectable. But, they say, "even after controlling for fundamentals, estimates suggest that any link between higher oil prices and lower emerging market spreads becomes statistically insignificant when industrial production is also included" in a detailed statistical analysis.

"Oil prices and industrial production both move in sync with the global economic cycle, making their independent influence on spreads difficult to disentangle," they conclude.

It might still be right to conclude that petrodollars have had an important impact on bond yields, in which case Kodres' and Warnock's work could be taken to show the difficulty of establishing that statistically.