

October 1973! That being the case, it becomes harder to justify explaining stagflation as due to the OPEC oil embargo and price hikes six months later.³

5.3 IMPACT OF COLLAPSE OF THE US DOLLAR ON OIL PRICES

The broad macro data help explain the OPEC stagflation episodes. As inflation was rising, the fixed exchange rate Bretton Woods system began to come apart. Under the aegis of the International Monetary Fund, the exchange rates of most countries were then pegged to the US dollar from 1945 onwards, which was pegged to gold at \$ 35 an ounce. Hence it was called the gold-exchange standard.

As inflation in USA began to rise relative to Germany and other countries in Europe, the price of gold in world markets also rose. Even though around 1968, the US Congress imposed some bans on gold purchases, thereby ending the backing of dollars by gold, central banks were still free to buy it at \$35 an ounce. Hence, there was pressure to ship gold from the US to abroad, at the price that was the fulcrum of the gold exchange standard from 1945 to 1971. In response, on August 15th 1971, then US President Nixon closed the ‘gold window’ to prevent the gold outflow, a date that marked the *end of the Bretton Woods* or gold exchange standard. Wage price controls were also imposed on that date.

Due to its higher inflation rate vis-à-vis Germany at the fixed exchange rates of roughly DM 4 per dollar, prices of US goods in Deutschemark rose relative to competing products from Germany and vice versa.⁴ Hence, the US competitive position began to deteriorate relative to Germany and the US merchandise trade balance and overall balance of payments began to worsen. The merchandise trade balance (goods) went from \$9 bn. surplus in 1967 to \$837 mn. in 1968 and into deficit in the first quarter of 1969. The overall balance of USA on goods and services went from \$7 bn. to \$2 bn. in the same period.

The US had tried to impose mild foreign exchange controls from the mid-1960s to deal with its growing adverse balance of payments. But it was forced to abandon the fixed exchange rate. Indeed this process of moving to a weaker dollar had begun in 1970 with small revaluations of the German currency from 4 DM/\$ in 1968 to 3.943 in 1969, 3.66 in 1970, 3.491 in 1971 and 3.189 in 1972. By mid-1973, all attempts to keep pegged exchange rates, and for the IMF to supervise changes in the peg were abandoned. The world had moved, more by default rather than by design, to floating exchange rates.

Oil and most commodities then traded in global markets were priced and invoiced and quoted in US dollar. Even now, although the Euro and other currencies are increasingly used to perform this task, most commodities are still invoiced and priced in US dollars, which is still the numeraire for global transactions. Further, the oil producing Gulf countries

³ Even well after the 1965 origins of the word was put up on Wikipedia, the noted Keynesian economist Paul Krugman (2009) attributed the coining of the word to Samuelson (1974). Clearly, macroeconomists and Ivy League text books need to pay more attention to history, and to know when exactly a term or definition was coined.

⁴ In effect, the US real exchange rate (the nominal exchange rate adjusted for inflation) began to appreciate.

then (and largely, even now) mostly peg their currencies to the US dollar. Just as higher inflation shifted up the labour supply curve and made workers demand and get higher money wages, similarly a falling dollar made commodity producers demand higher prices to compensate for the dollar decline. Further, the weakening of the dollar, while exogenous to oil prices, was itself a delayed response to rising inflation from 1968 onwards. In short, the seeds of the 1970s stagflation were not only sown during the overheated US economy of the late 1960s but began to be reaped before 1973.

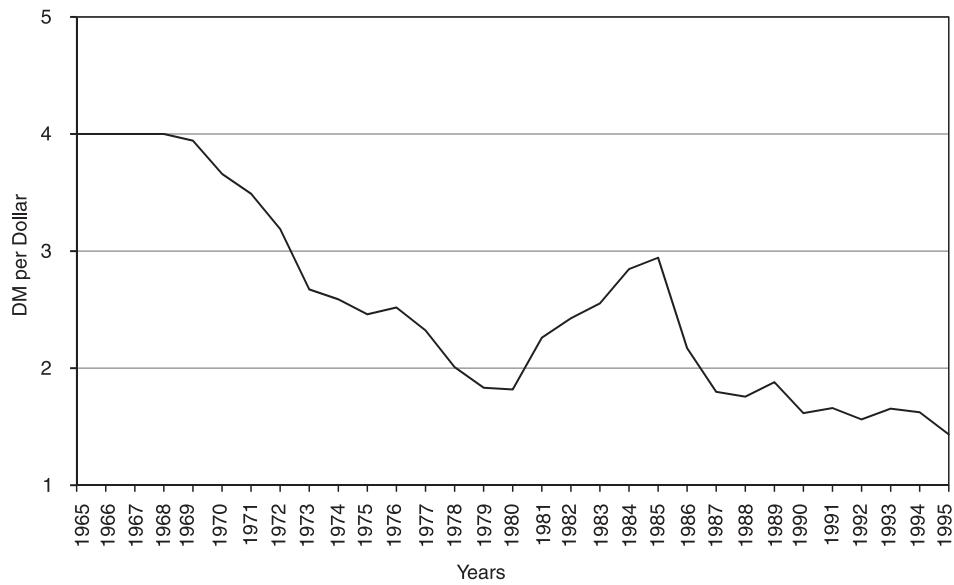


Figure 5.b German Deutsche Mark versus US Dollar: Annual Average US

Source: Economic Report of the President

This pattern of an overheated economy, leading to inflation, dollar depreciation, and then to higher oil prices and another bout of stagflation repeated itself in 1979. This was again attributed to the OPEC supply shock (See Figure 5.a). Yet none other than the suave Sheikh Ahmed Zaki Yamani (the Saudi Oil Minister in the 1970s and Harvard alumnus), who played a major role in OPECs decisions to hike oil prices remarked that oil prices are determined by the “divine forces of demand and supply” - cited at the start of this Chapter.

The impact of the dollar on oil prices is also evident during disinflation, when crude fell to briefly below \$ 10 a barrel in summer 1986. This decline came after a five year period of a *strong US dollar* which rose from DM1.818/\$ in 1980 to a peak of DM2.944/\$ in 1985. (In intra year data the dollar almost doubled). These 1980 movements in the dollar are harder to analyze than the weakening of the dollar in the 1970s, but they were linked to monetary policies started in the 1980s, and the ensuing decline in inflation. From 12.5% in 1980 the CPI fell to 1.1% in 1986, while the core CPI fell from 12.2% to 3.8% in 1986 over these years. While the politically motivated OPEC oil embargoes can, on surface, explain the oil price spikes and stagflation of the 1970s, there is no *similar* explanation for the cartel’s

decision to cut oil prices in 1986. By contrast, the EAPC analysis explains both the dollar depreciation and the oil price rise of the 1970s **and** the positive supply shock of falling oil prices in 1986, resulting from disinflation, and subsequently stronger US dollar.

This approach to explaining stagflation is supported by various facts and figures from Daniel Yergin's (1991) monumental narrative, already cited in connection with the coal supply shock in 1950s England. Detailed evidence about OPEC's decisions indicates that oil prices were rising prior to 1973.⁵ Yergin points out that the Teheran agreement of February 1971 raised the share of the oil producing governments from 50% to 55% and raised the price of a barrel by 35 cents, much more than as per the February agreement two month earlier. He quotes several OPEC officials who justified the 1973 and 1979 increases by the need to offset dollar depreciation. Specifically he states that OPEC "sought increase in the posted price to compensate for the devaluation of the dollar in the early 1970s (Yergin, 1991, Pg. 583)."

Further, Yergin's detailed documentation of events back to the 1950s indicate that OPEC and Arab political belligerence and the decisions *to attack Israel* were greatly influenced by their fiscal situation and thus indirectly by world demand conditions for oil. In particular, the weapon of the oil embargo tended to be used only during high demand periods. It is noteworthy that the conflict with Israel did not lead to higher oil prices when the economy was weak. Specifically, when Israel invaded Lebanon in June 1982, at one OPEC meeting another embargo against the US was considered, but they decided not to because of "the distressed condition of the oil market". Although that war dragged on until 1985, oil prices fell during that period when the dollar was *strong*.⁶

5.4 COMMODITY PRICES VERSUS THE CARTEL

There is a difference between most commodities (e.g., metals, wheat, etc.) and oil. The former are produced and traded by a large number of participants in mostly competitive markets, while crude oil price and production decisions are made by the cartel of the Ministers of the OPEC (Organization of Petroleum Exporting Countries).⁷ But from the perspective of economic fundamentals, this merely affects the mechanics and the timing of the price changes. Commodity prices respond *continuously and gradually* to macroeconomic demand changes, while oil prices do so with some delay. The OPEC cartel's pricing decisions are few but involve large, discrete changes.

In this connection the movement of crude oil and non-oil commodity prices against the US dollar/DM exchange rate is quite informative. Commodity and oil prices are both quite cyclical and over long periods move together, and they tend to *follow dollar depreciation*. Trehan (1986) was the first to question the OPEC view based on movements in the US dollar.

⁵ Further, in April 1971 Libya decided to raise the posted price by 90 cents, much more than as per the February agreement two months earlier.

⁶ An influential paper by Hamilton (1983) argues that all post war recession were related to oil shocks, but evidence along the lines of Yergin contradicts this view.

⁷ OPEC was formed in 1960. In 1973 the OPEC members were the following countries: Iran, Iraq, Kuwait, Saudi Arabia, Venezuela, Qatar, Indonesia, Libya, UAE, and Algeria. As of 2012, there are 12 members.