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1985

Online at https://mpra.ub.uni-muenchen.de/8091/
MPRA Paper No. 8091, posted 04 Apr 2008 06:34 UTC
DEVELOPING COUNTRIES

Oil Prices and the Developing Countries
The Evidence of the Last Decade

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Many of the present difficulties of the world economy have been blamed on the two oil-price explosions of the 1970s. Professor Chichilnisky shows that, at least in the case of the oil-importing developing countries, the negative effects have been overestimated. In fact, in some respects the oil exporters among the developing countries fared worse than the oil importers.

The evidence of the last ten years on issues which cover the main areas of concern of developing countries, namely growth, investment, consumption, trade and debt includes some interesting and unexpected differences between "conventional wisdom" and the facts. In particular, it shows that:

□ on the whole, oil-importing developing countries did not suffer a significant loss of growth or welfare due to higher oil prices;
□ growth rates of middle-income oil-exporting countries were actually lower than those of middle-income oil-importers;
□ in this period the patterns of North-South trade and of South-South trade improved from the point of view of developing countries;
□ other commodity prices moved initially in sympathy with oil prices and then dropped significantly while oil prices remained relatively stable;
□ agricultural output failed to match demand in oil-exporting countries; their food imports became an increasing burden;
□ the oil-exporting developing countries have fared no better than the oil importers with respect to international debt.

A common line of inquiry links these issues: what is the impact of OPEC on the rest of the developing countries? Is their relationship one of cooperation, or of competition? Is a coalition with OPEC in practice desirable for the non-oil developing countries? Or is OPEC's welfare opposed to that of the non-oil South?

Growth of the Oil-importing Countries

Table 1 shows that during the period 1973-82 the growth rates of the middle-income oil-importing developing countries exceeded the growth rates of the oil-exporting middle-income countries: the first grew at an average rate of 4.37 % p.a. between 1973 and 1982, and the second at the lower average rate of 3.43 %. In the case of the low-income developing countries, rates of growth averaged 4.9 % p.a. over the same period.

It appears from this that the middle-income developing countries have not been seriously affected in their growth by the higher oil prices in the period 73-82. Their rates of growth actually exceeded those of the oil-exporting middle-income countries over this period.

Therefore, the only possible adverse effects of oil prices would have been on low-income developing countries, and we focus on these next. It is often argued that the cost of oil imports of low-income countries

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increased significantly in the period of high oil prices from 1973 to 1979, and that this produced hardship in these economies. This argument sounds plausible, but what does the evidence disclose? Table 2 examines the increases in the costs of oil imports of the main low-income developing countries as a percentage of their GDP. Oil imports rose as a percentage of GDP during this period, confirming the view that higher oil prices were indeed a burden for low-income developing countries. But this burden and its rate of increase appear to be of a comparable magnitude to the burden that high oil prices inflicted on the North. Table 2 also shows oil imports as a percentage of GDP for the OECD countries, and for Japan. These percentages increased over a comparable range in the last ten years. The explanation is simple: oil imports are a small percentage of GDP in the North, because their GDP is so large, but they are also a small proportion of the GDP in the South because their oil use is several times smaller than the OECD’s. Energy use per capita in most low-income countries was about 90 kilograms of coal equivalent in 1979, while in the OECD it was 7283 kg of coal equivalent.

Another significant element enters into this picture. This is the international solidarity of OPEC and other oil-exporting countries with the less developed countries during the last ten years. Table 3 presents the empirical basis for this assertion. This table shows that foreign aid transfers (ODA) from oil-exporting countries to low-income developing countries in Africa exceeded the increase in the cost of oil imports for part of the last ten-year period. These transfers were in addition to a number of bilateral trade arrangements at preferential prices between oil exporters and less industrialized developing countries (LIDCs).

It is of interest to point out that oil-exporting countries' transfers over this period accounted for 1.4% of their GDP (see Table 4), while during the same period OECD countries transferred only 0.8% of their GDP to low-income developing countries.

For the Gulf States and the USA, the figures are dramatically different: they transferred 6.5% and 0.25% of their GDP respectively. Indeed, in 1981 and 1982 Saudi Arabia was the world’s largest aid donor, giving $5 billion per year, more than the USA and only slightly less than the entire European Economic Community.

In summary, the low-income developing countries were not particularly hit by higher oil prices. Their oil import bills, as proportions of GNP, are comparable with those of the rest of the world, and they received very substantial aid flows from the oil producers. In several cases the incremental OPEC aid flows exceeded the increased cost of oil imports. We have also seen that the growth of middle-income oil-importing developing countries was apparently not harmed by higher oil prices, as their growth rates were higher than those of oil exporters or of industrial countries. Overall, there is therefore no evidence of higher oil prices having had a serious adverse impact on the growth of oil-importing developing countries.

### Growth of Oil-exporting Developing Countries

The oil-exporting developing countries fared in different ways according to their economic structures. We have seen that from 1973-82 the middle-income oil exporters grew less than the middle-income oil importers. However, the high-income oil exporters fared rather differently: they recorded the highest growth rates over the earlier part of the period (7.5% p.a. from 1973-80), and the lowest over the last part (-6.5% p.a., 1991-82). Their mean growth rate over the period was 4.33% p.a., almost identical to the middle-income oil importers (4.37% p.a.) and better than that of the middle-income oil importers (3.43% p.a.). So the high-income exporters had higher mean growth rates, but also much more variation in growth rates, than other oil exporters.

What explains this difference in GDP growth between high-income and middle-income oil exporters? One hypothesis is that high-income oil exporters such as Saudi Arabia, United Arab Emirates, Kuwait and Qatar, have a relatively simple and well-integrated economy where over 60% of GDP is due to oil production. As this sector grew, the economies grew as well. The economy

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1. Up to US$ 350 GNP per capita
2. Oman, Libya, Saudi Arabia, Kuwait, United Arab Emirates.

as a whole therefore followed the fate of the oil sector. The oil sector, in turn, followed the fate of oil prices. Thus, when oil prices were rising, the high-income oil exporters grew at very high rates; when oil prices stabilized or declined they grew much less, or contracted. The growth rates of high-income oil exporters were therefore very sensitive to the growth of oil prices.

Middle-income oil exporters, such as Nigeria, Venezuela or Mexico, behaved differently. These countries have more complex economies, in which oil is a less important part of the total. Their growth is therefore less sensitive to oil price fluctuations. Besides, the expansion of the oil sectors of these countries was accompanied by a decline in other domestic sectors, in particular in agriculture. Indeed, all oil-producing countries appear to have experienced a drop in their growth rates from the 1960s to the 1970s—just as oil prices started to rise.

The evolution of international trade by developing countries took a quantum leap in the last ten years. The developing countries became a much more important trading partner for the North, and indeed they represent at present 40% of the OECD export market. In 1970 the equivalent figure was only 27%. The statistics show also that for the USA, EC and Japan, the developing countries are more important export markets than the two other developed partners together. This change in the role of developing countries in the world economy is clearly associated with the emergence of OPEC as a major purchaser in international markets. One third of the share of developing countries in OECD exports is explained by OPEC purchases.

**New Trade Patterns**

The relative power of the partners in North-South trade therefore changed rather dramatically during the last ten years. Since the main complaint about the organization of North-South trade has always been that the North was disproportionately more powerful, this change indeed means that the distribution of power has moved in a more balanced direction. It also gives a more solid basis to the idea of North-South interdependence.
Within the rapid growth of South-South trade, manufactures were the most dynamic component. Taking 1970 as 100, their index amounted to 275 in 1978, while oil amounted only to 128. In 1981 manufacturing represented 30% of trade among developing countries. Developing countries' exports of manufactures are less dependent now on industrial countries than are the other exports of these countries, a significant structural change. All this took place simultaneously with the rise in oil prices during the last decade, a phenomenon which many authors associate with the structural changes in mutual trade among developing countries.

What is the link between higher oil prices and South-South trade? Oil countries became importers on a grand scale over the last ten years, and many of their imports were purchased from other developing countries. OPEC imports from non-oil developing countries grew at an average rate of 18% from 1973-1980. In addition, oil-exporters' imports from other developing countries were different in nature from the imports of industrial countries. Oil-exporting countries, many of which are not very developed, imported technologically advanced manufactures and capital goods from other developing countries, sometimes as part of bilateral trade agreements.

By contrast, industrial countries have traditionally imported labor-intensive manufactures and raw materials from developing countries, since the relative advantage of the industrial countries lies in their efficient production of technologically advanced and capital intensive goods.

As a matter of fact, two major commodity groups made up most of the increase in mutual trade among developing countries: fuels and manufactured goods. Fuels rose from 37.3 to 47.1% of mutual trade and manufactures from 15.8 to 26.9% in the same period.

Certain major commodities decreased dramatically their share of South-South trade over the period: food (from 27.6% to 12.7%) and agricultural materials (from 16.2% to 5.2%). Developing countries are therefore trading amongst themselves much more in fuels and manufactures, and much less in food and in agricultural raw materials. The other side of this coin is that developing countries have become increasingly dependent on food from industrial countries, and this is specially true for oil-exporting countries.

Another significant change in trade among developing countries is the strengthening of inter-regional trade which now accounts for more than half of trade among developing countries. This is mainly a
result of higher oil prices — oil being traded mostly inter-regionally. This has led to increases in inter-regional trade in all product categories. Disregarding oil, inter-regional trade grew at 29% per annum in the last decade. Including oil, it grew by 36% per annum, an impressive growth rate by any standards.

Price Movements
During the beginning of the decade, and following a period of expansion in demand, most commodity prices rose in sympathy with oil prices. This was true of such internationally-traded commodities as copper, bauxite, coffee, etc. However, as the recession in the industrial countries set in, demand dropped and the prices of most commodities, except for oil, dropped as well.

These movements of oil and commodity prices have been a source of great concern for oil-exporters and non-oil developing countries. The issue at stake is whether the drop in the prices of other commodities was or was not "caused" by the high prices of oil. A standard explanation which is usually offered is that high oil prices led to the recession in industrial countries and that this produced, with a lag, a drop in the other commodities exported by developing countries. This presumably led to a drop in the prices of commodities other than oil, which are at a historical low. Do the facts support this explanation?

Other investigations show that higher oil prices cannot be seen as the main "cause", econometrically or otherwise, of the recession in the industrial countries. Therefore high oil prices appear not to have "caused" the drop in commodity prices. Oil prices may be connected with other commodity prices, but this explanation seems flawed. Better explanations for current low commodity prices are required. These would include the level of interest rates, which are usually associated with changes in the prices of exhaustible resources, and other explanations of the cyclical behavior of commodity prices.

The facts undeniably indicate a profound difference between the behavior of oil prices and the prices of other commodities. Oil prices have been sustained at relatively high levels over the last few months or years, even in the face of relatively abundant supply and of slack demand. This is an indication of the relative market power of oil exporters, which derives, in economic terms, from the relative inelasticity of the demand for oil.

Other commodities mentioned here face a more price-elastic (and income-elastic) demand, and are sold...
in markets with a very different organization. This suggests that other commodities cannot follow the oil-pricing policies of the last decade, unless there is a drastic change in market organization and in the elasticity of demand. This does not mean that the behavior of oil-exporting countries lowered the welfare of other commodities' exporters. It means, rather, that excessive specialization in such commodity exports may not be a good idea. Rather than attempting to improve commodity prices, to reach price agreements or global negotiations, developing countries would be better advised to stop depending heavily on such unreliable export revenues.

**Investment and Productivity**

During the last decade a dramatic shift took place in the allocation of resources within developing countries. The rate of investment as a percentage of GDP rose from 21% to 29.6%, a historical high point. Compared with the 17% rate of the industrial countries, this figure is indeed impressive. These high rates of investment were generally allocated to industrial sectors; however, they did not raise significantly the level of productivity in these economies. Why did the high investment levels of developing countries not lead to proportionate increases in productivity?

Several explanations have been advanced for this fact. One is that the investment activity was largely controlled by governments, and thus the efficiency seeking private entrepreneurial motive was missing. However, much of the investment needed in developing countries is in basic infrastructure such as waterways, roads and transportation and energy sources. Such infrastructure is as essential to a producer as is the entrepreneurial spirit and, by its own nature, it requires governmental participation. A road, a waterway, an energy plant are public goods and economic theory explains that only a public group, such as the government, can attain an efficient allocation of resources in such areas.

A second explanation is that investment in basic infrastructure leads to increases in productivity, but with a lag. This explanation relies on the existence of a “gestation period” for investment to realize its gains, and seems reasonable given the stage of development of the countries concerned. But it is still not a fully satisfactory explanation, for much of developing country investment went to activities other than infrastructure.

A case in point is Mexico in the last few years of the decade. Mexico invested very heavily in the development of its oil sector. Much of its investment went to infrastructure (roads, energy sources) but a large part was very sector specific in plants and machinery relating to oil. These activities did not have a significant spillover effect on the rest of the economy, in part because oil is not a labor-intensive product and therefore does not enhance employment levels. In part because oil revenues are spent largely on internationally purchased goods rather than on national output, and in part because oil is not the most immediate necessity of the Mexican economy as far as average production is concerned. The facts substantiate this point: oil-related employment during the oil expansion period 1978 to 1982 amounted to about 16% of total employment. Oil export revenues were also very largely associated with increases in imports.

Finally, about 10% of the Mexican GDP in the mid-1970s was related to the agricultural sector, and about 40% of its population is rural. This rural sector is the one which benefited less from the specialization in oil exports in the late 1970s. Oil revenues led to relatively more demand for industrial goods so that the prices of agricultural products and the demand for agricultural labor dropped. The agricultural terms of trade vis-à-vis industry decreased significantly. The incomes of agricultural workers dropped. Incentives to invest in increasing agricultural productivity also dropped, as there were more profitable ventures in the oil-export related sectors. Agricultural output per head fell slightly over the period in Mexico, and rose but slightly in Venezuela. In both cases, the terms of trade between agriculture and industry moved against agriculture, and agricultural imports rose very sharply.

The stagnation of agricultural productivity is most certainly an economic and political weakness for developing countries. It is also a fact associated with poverty and malnutrition. In the midst of rapid evolution and change, in the face of drastic changes in the power relations between the industrial and developing countries, poverty and underconsumption have encroached on many developing economies in an increasing extent. These issues rarely appear in discussions of international trade patterns, although they should, because they must be resolved to prevent lopsided and eventually self-destructive development patterns.

Agriculture and industry must feed and produce positive externalities for each other. Inadequate agricultural productivity drags the whole economy down, by requiring expensive imports, by keeping a large segment of the population under consuming and underproducing, and by offering a limited domestic
market, as well as an insufficient source of food, to the industrial sector of the economy. A balance between the agricultural and the industrial sector seems to be a precondition for sustainable growth.

**Indebtedness**

Table 6 gives details of the twenty developing countries with the worst debt service positions in recent years. As already noted, oil-exporting countries feature prominently, with Mexico, Venezuela and Algeria occupying three of the top five positions, and Iran and Saudi Arabia in the next five. Indeed, Argentina, which occupies the ninth position, is essentially self-sufficient in oil, so that only four of the ten most heavily indebted countries are oil importers.

Why are oil-exporting and oil-importing countries in such similar debt situations? An argument that has already been proposed is that oil-exporting did not yield the benefits that were widely expected, at least for middle-income countries. This point has been discussed at length, and does not require further elaboration. It is striking, however, that not only has the domestic growth of oil-exporting middle-income countries been relatively low, but also their balance of payments positions worsened during the oil-export expansion. The oil-exporting activity was not very productive for the domestic economy. In addition, oil-exporting did not help these countries in an item that comes first to mind when recommending higher exports: the balance of payments.

Another important connection exists between oil prices and the current debt problem. OPEC's export revenues of the two oil price rises (1973 and 1979) were largely reinvested through OECD banks and in particular the Eurodollar market (see Table 7), and increased the supply of loanable funds. This led to more borrowing.

Oil-export revenues therefore provided liquidity to the international banking system during a period in which the OECD countries were in a recession, and during which they enforced contractionary monetary policies.

At the end of the 1970s, however, things started to change. Interest rates in the USA increased threefold (from 6% to 18% in the period 1976 to 1981) and the other OECD rates increased in sympathy, to avoid flight of internationally mobile capital. This sharply increased the burden of servicing the debt, much of which was in floating interest rates. Furthermore, during the early 1980s, oil export revenues fell sharply, leading to a drop in deposits with OECD banks from the oil-exporters -- the last column of Table 7 shows this clearly. There was therefore a double 'pinch' on the international financial system: a decrease in loanable funds and, simultaneously, much higher interest rates.

Interest rates in the USA have remained at a historical high, so that dollar denomination loans are a serious and threatening burden to the whole international banking system, for lenders as well as borrowers. Furthermore, some of the most exposed borrowers are oil-exporting countries such as Mexico, Nigeria, Venezuela and Ecuador. Some of these countries contracted their debts in order to develop their oil sectors, and indeed ended up exporting more oil, at lower prices. Their position is then specially vulnerable.

The financial crisis also affected OECD countries indirectly since oil-exporting countries purchase an important part of OECD exports. Many oil-exporting countries borrowed to produce more and cheaper oil, and they mostly used the extra revenues to purchase goods from the OECD. When oil prices dropped, oil exporters decreased their imports from the OECD. This affected OECD countries because their imports have been an important addition to the lagging demand in OECD countries during the recession. At present, 40 %

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**Table 6**

The 20 Developing Countries with the Largest Debt-service Payments During Recent Years

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<td>3.7</td>
<td>5.0</td>
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<td>4.8</td>
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<td>2.0</td>
<td>6.1</td>
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<td>Argentina</td>
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<tr>
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<td>1.3</td>
<td>1.1</td>
<td>1.6</td>
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<td><strong>Total 20 Countries</strong></td>
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<td>64.8</td>
<td>86.9</td>
<td>96.9</td>
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<td>% of Grand Total LDCs</td>
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<td>80</td>
<td>74</td>
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* Source: OECD, External Debt of Developing Countries, A68899, E64, 1982.

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of all OECD exports are purchased by developing countries, and about 10% by oil exporters.

The willingness of oil exporters to export more oil and to import more industrial goods contributed to increasing the price of OECD industrial goods and to lowering the price of oil. These are positive macromacroeconomic impacts from the oil countries' borrowing. The oil-exporting countries have benefitted the OECD countries, over and above the interest payments on the debt. Such gains must be taken into consideration both for understanding the origin of the debt problem and also for reaching constructive solutions to this problem. There is a new and powerful interdependence between developing and industrial countries to be taken into account.

Conclusions

High oil prices have apparently not harmed the oil-importing developing countries. Indeed, in the middle-income range, oil importers appear to have fared better than oil exporters. In the low income range, aid and concessionary sales from OPEC have substantially offset the anyway limited impact of rising oil prices.

Overall, the developing countries have enjoyed a period of relative prosperity in the last decade: levels of investment, growth rates and exports have been high. In fact some of these positive effects are attributable in part to high oil prices, as investment was often financed by OPEC surpluses deposited in and lent on by OECD banks, and as the booming OPEC markets boosted the exports of many other developing countries. Unlike a number of industrial countries, OPEC members have not raised discriminatory trade barriers against developing countries.

Some developing countries have experienced serious problems, particularly with respect to their international trading and financial involvements, and particularly in the last few years. They are widely attributable to factors other than oil: one is the sharp rise in interest rates on their overseas borrowings, which, as already mentioned, tripled in only four years. A second factor is the rise in the value of the US dollar in the early 1980s: as most overseas borrowings are denominated in US dollars, this has effectively raised the real value of debts outstanding. These two factors are related: the high value of the dollar is generally attributed to the high levels of interest rates in the USA. A third factor is the decline in the prices of the traditional exports of developing countries, i.e. primary products other than oil. These prices are now at an all-time low in real terms, of course producing serious balance of payments problems for those countries dependent on their export. Finally, the prices of exports of industrial goods from the OECD countries to developing countries have risen sharply in the last decade, cutting even further into the terms of trade of these countries. So there are clouds on the horizon — or perhaps nearer — for some developing countries. However, some clouds also cover the skies of the industrial countries, since sustained growth, adequate employment and financial stability seem in question. Such problems arise and persist in an era of relatively stable or even dropping oil prices, which adds further weight to the conclusion that oil prices alone cannot explain the persistent difficulties in the world economy: better explanations are needed.