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Intereconomics

Suggested Citation: Matthies, Klaus (1999) : Commodity markets: supply cuts drive up the price of oil, Intereconomics, ISSN 0020-5346, Springer, Heidelberg, Vol. 34, Iss. 5, pp. 260-264

This Version is available at:

<http://hdl.handle.net/10419/40732>

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Klaus Matthies\*

# Commodity Markets: Supply Cuts Drive Up the Price of Oil

*World commodity prices are again showing a marked upward trend. Most pronounced has been the rise in oil prices which have doubled as a result of a new round of production cuts. Is this the beginning of a general turnaround on the commodity markets?*

There has been a marked increase in world commodity prices in the past few months. In August, calculated using the HWWA index on a US dollar basis, they were a good third higher than at the end of 1998 and have thus almost returned to the level prior to the beginning of the Asian crisis two years ago (see Figure HWWA Index of World Market Prices of Raw Materials, p. 264). Price movements among the individual commodity groups varied greatly, however. While prices for foods and tropical beverages continued their downward trend up to July thanks to expectations of plentiful harvests, quotations for industrial raw materials have on the whole picked up slightly since the spring. The main reason for the strong increase in the raw materials index was the marked rise in oil prices; were it not for oil, the index would have fallen still further compared to the end of last year. The price of crude oil has since more than doubled, with North Sea Brent crude fetching 23 dollars a barrel in mid-September (see Figure 1).

## Higher Export Revenues for Oil Producers

The fall in commodity prices led to a considerable loss of income in the producing countries last year. In the case of agricultural commodities, developing countries' export earnings dropped by almost a quarter in US dollar terms compared to the previous year.<sup>1</sup> The oil exporting countries were even harder hit, with oil alone accounting for more than half of export earnings in many cases.<sup>2</sup> Total oil earnings among the OPEC countries fell by around a third in 1998. With already strained budgetary positions worsening as a result, some members felt compelled to raise their oil exports in defiance of existing agreements.

Venezuela, which had disregarded OPEC production limits in the period leading up to this spring's price increases and which, together with Iran, was largely responsible for the production surplus, had earned more than three quarters of its export income with oil up to 1997. From October 1997, when the price slump began, to the end of 1998, Venezuela's monthly oil revenues fell by more than half in spite of a slight increase in export volumes (see Figure 2).

This year has seen a marked increase in oil producers' revenues. Assuming that oil prices remain at the level reached in September, the OPEC countries' oil revenues will this year be at least a quarter higher than in 1998. Thanks to improved earnings for the national oil company as a result of the recent price rises, the Venezuelan government expects a reduction in the 1999 budget deficit from a forecast of almost 9% of gross domestic product to around 5% to 6% of GDP.<sup>3</sup>

With the renewed increase in oil prices, the overall situation for commodity exporting countries which are also oil importers, has worsened; this is true of most developing countries outside OPEC. The deterioration is due to the fact that the positive effects of last year's oil price slump on the domestic economy had in many cases offset or even outweighed the negative effects caused by falling prices for other commodities exported by these countries. A gradual increase in commodity prices and export

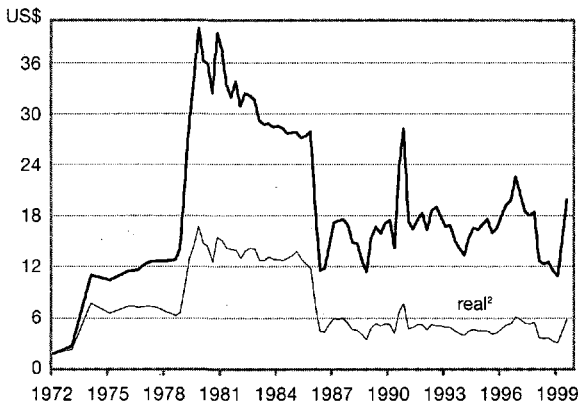
<sup>1</sup> According to FAO calculations. Cf. P. Solman: Low prices wipe \$4.6bn off agricultural exports, in: Financial Times, 13.8.99, p. 22.

<sup>2</sup> Cf. on export earnings of the OPEC countries K. Matthies: Raw Materials Prices Remain Low, in: INTERECONOMICS, Vol. 34 (1999), No. 2, p. 103.

<sup>3</sup> Cf. T.T. Vogel: For the first time, even oil's rise in price doesn't help Venezuela, in: Wall Street Journal, 1.9.1999.

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**Figure 1**  
**Development of World Market Prices for Oil<sup>1</sup>**



<sup>1</sup> Spot prices fob in US\$ per barrel for Arabian Light, quarterly figures (1972-75 annual figures); 3<sup>rd</sup> quarter 1999 estimated.

<sup>2</sup> Deflated with export prices for manufactured goods from industrialised countries. Base year 1972.

Sources: IEA; OPEC; author's own calculations.

earnings cannot be expected until progress is made in reducing – in some cases substantial – production surpluses.

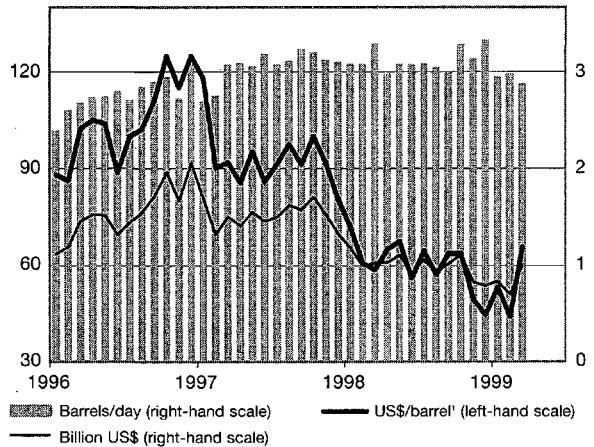
### OPEC Production Discipline Decisive

This year's marked recovery in oil prices is due above all to the producers' compliance with output limits. Production discipline on the part of the oil countries has been high compared to previous resolutions, with the OPEC countries fulfilling their obligations to around 90% in July (Table 1). This has fuelled market expectations of supply shortages, especially as economic recovery in Asia and stronger growth in Europe will result in even greater demand for oil.

For the time being, the volume of world oil supply will be largely determined by the joint production resolutions agreed on by the OPEC countries – excluding Iraq – and Mexico. Iraq is the only member country not included in the cuts and has so far produced as much as technically possible. Although the doubling of oil prices has meant that the country's oil exports are now exceeding the quota established within the framework of the United Nations embargo,<sup>4</sup> an upward adjustment of the limit can be expected in the near future. There has so far been no indication from the other OPEC countries that an early correction of their production resolutions can be expected. However, if oil prices rise to well over 20 dollars for a

<sup>4</sup> The quota is established as the value of exports in US dollars and is valid for a period of six months.

**Figure 2**  
**Venezuelan Oil Exports 1996-99**



<sup>1</sup> Index, October 1997 = 100

Sources: Datastream; author's own calculations.

sustained period, a relaxation of the resolutions curbing production can be expected by next spring, both to avoid stunting the nascent recovery in oil demand as well as to keep an expansion of non-OPEC oil output in check.

### Price Band for Crude Oil?

In view of the success of the current oil production agreements, the oil producing countries are already considering how to adjust output in such a way as to keep the world market price for crude oil within a price band on a long-term basis. Were this aim to be achieved it would put an end to the high price volatility so characteristic of the oil market and so improve budgetary planning security. However, a joint plan announced by Venezuela involving the OPEC members Saudi Arabia and Venezuela and the non-OPEC member Mexico for an oil price band has not been unveiled at the OPEC conference in September following Saudi Arabia's decision to re-categorise such a mechanism as an 'option'. Suggestions on how to stabilise strongly fluctuating oil prices have been made both from within OPEC and from other quarters<sup>5</sup> ever since the oil crises of the 1970s. However, these suggestions were never seriously pursued either due to the divergent interests of the

<sup>5</sup> Such as the so-called Gutowski/Roth plan of 1980 which envisaged a contractual agreement between oil producing and oil consuming countries on volumes and prices as well as gearing oil prices to the development of export prices for finished goods. Cf. A. Gutowski, W. Roth: Reducing the Oil Hazards – A Proposal for a Contractual Solution, in: INTERECONOMICS, 15 (1980), pp. 213 f.

**Table 1**  
**OPEC: Crude Oil Production Quotas and Production Adjustment 1998/99**  
 (in million barrels per day)

	Production February 1998 <sup>1</sup>	April 1 1998	Oil quotas from: July 1 1998	April 1 1999	Total agreed cuts (%)	Production August 1999	Compliance rate (%) <sup>2</sup>
Algeria	0.9	0.8	0.8	0.7	-15.8	0.8	79
Indonesia	1.4	1.3	1.3	1.2	-14.0	1.3	62
Iran	3.6	3.5	3.3	3.4	-7.3	3.5	66
Kuwait	2.2	2.1	2.0	1.8	-16.7	1.8	106
Libya	1.5	1.4	1.3	1.2	-15.6	1.3	59
Nigeria	2.3	2.1	2.0	1.9	-16.5	1.8	115
Qatar	0.7	0.7	0.6	0.6	-15.3	0.6	75
Saudi Arabia	8.7	8.4	8.0	7.4	-15.0	7.5	93
UAE	2.4	2.3	2.2	2.0	-16.0	2.0	100
Venezuela	3.4	3.2	2.8	2.7	-19.3	2.7	98
<i>OPEC (without Iraq)</i>	<i>27.0</i>	<i>25.7</i>	<i>24.4</i>	<i>23.0</i>	<i>-14.9</i>	<i>23.3</i>	<i>91</i>
Iraq	1.7	<sup>a</sup>	<sup>a</sup>	<sup>a</sup>		2.7	

<sup>1</sup> Base for quota definition. - <sup>2</sup> August 99. - <sup>3</sup> Iraq is not a party to the production agreements.

Sources: EIA-DOE; IEA; author's own calculations.

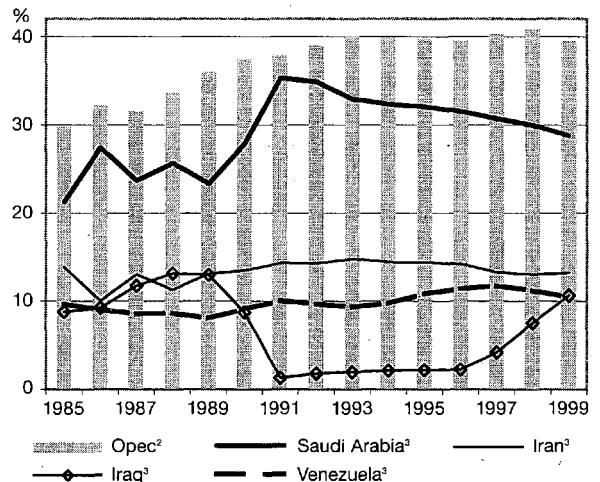
countries involved or simply because they were impracticable.

It is doubtful whether the conditions for a concerted, longer-term approach are any better this time. For although this year's unity has led to higher export earnings for all the oil exporting countries, it would be wrong to conclude that the long-standing differences between the OPEC members regarding the distribution of output quotas no longer exist. They have merely been pushed into the background and could re-emerge with a vengeance in a matter of months when it comes to sharing out additional production volumes. For example, the proposal to introduce a uniform percentage increase on the basis of current agreements would incur the resistance of countries such as Venezuela which have implemented above-average reductions (Table 1). Quite apart from such problems of coordinating an agreement, considerable practical difficulties remain regarding the fine tuning of oil production which would be required to stabilise price movements, difficulties which arise not least from the inavailability of up-to-date supply and demand statistics for the world oil market.

The stability of the oil cartel is certainly debatable in view of the incongruous interests of its members. For those countries with large oil reserves - which, due to a lack of alternatives, will be dependent on oil income for a long time to come - a sustained period of high oil prices raises the problem of greater efforts on the part of consumers to save and to substitute oil as well as that of stronger competition from oil producing

countries with higher production costs. In 1986, an increasing loss of market share led Saudi Arabia to abandon its production restraints, a move which led crude oil prices to fall by two-thirds within a period of six months. Since then, the OPEC countries have managed to increase their share of world oil output - which declined from over 50% to 30% between 1973 and 1985 - to over 40% once more. At present it is slightly below the 40% mark (Figure 3).

**Figure 3**  
**Oil Production in the OPEC Countries 1985-99**  
 (annual averages)<sup>1</sup>



<sup>1</sup> 1999: July.

<sup>2</sup> OPEC share of world production.

<sup>3</sup> Share of OPEC oil production.

Sources: IEA; author's own calculations.

In view of the fact that no substantial additional capacity is available in the short-term, the scope for countries outside OPEC – which tend to have markedly higher production costs – to increase oil production depends largely on their exploration and development activities. As a result of the low oil prices up to the start of this year, any renewed intensification of these efforts – which were taken back markedly last year – will be very gradual.

As the world economic recovery continues to gather strength, the increase in oil demand, which in 1998 and in the first half of 1999 amounted to 0.7% in a year-on-year comparison, will accelerate during the rest of this year and into next year. Demand growth will be fuelled by Southeast Asia in particular, where requirements will increase again despite markedly higher price levels. Under these circumstances, oil price developments will depend primarily on the adjustment of oil supply volumes which are currently determined to a great extent by the output restrictions – which have so far been agreed until March next year – implemented by the oil producing countries. A harsh winter and continuing supply cutbacks could again lead to a significant short-term increase in oil prices.

Assuming that OPEC output increases again in the months ahead – either as a result of new resolutions or because individual producers exceed their production limits – the price for North Sea Brent crude is likely to be in the region of 20 dollars a barrel next year. If this were the case, prices would have reached a level described by the Saudi Arabian foreign minister as a 'return to moderation'.<sup>6</sup> Nominally, crude oil would then be one or two dollars more expensive than

the ten-year average prior to the last oil price slump (1987-1996). In real terms, based on export prices for processed goods, oil prices have undergone little change since the mid-1980s (Figure 1).

Experience with commodity agreements has shown that concerted production resolutions along the lines of those taken by the oil exporting countries are difficult to achieve for most other commodities. The latest example is the de facto failure of the International Rubber Organisation, INRO, which was founded in 1980; INRO was unable to prevent the continuous price decline seen in recent years, and following the announcement that half of its productive members – Thailand, Malaysia and Sri Lanka – are to leave the organisation it will almost certainly be incapable of exerting any effective influence on the markets. Even in the field of metals – where some markets are dominated by just a small number of large companies – there has yet to be any implementation of the limitations so far announced. In the metals industry, however, as in the oil industry, weak prices have, in recent months at least, further accelerated the consolidation process.

#### Industrial Commodity Prices Recovering

The decline in prices for industrial commodities came to an end in the spring. Since then, however, indications have on the whole pointed to a very restrained upward trend, borne primarily by certain

<sup>6</sup> Cf. Saudi foreign min hopes oil producers will abide to cuts, in: Wall Street Journal, 24.8.1999.

Norbert Pelzer (Hrsg.)

## Die Zweckbestimmungen des Atomrechts The Objectives of Atomic Energy Law

Tagungsbericht der AIDN/INLA-Regionaltagung am 24. und 25. September 1998 in Baden-Baden. Im Auftrag der Deutschen Landesgruppe in der Association Internationale du Droit Nucléaire (AIDN) / International Nuclear Law Association (INLA) e.V.

The Conference Proceedings describe and discuss the various objectives of atomic energy law. Since these are guiding principles for the application and interpretation of the provisions of atomic energy law, they are of great legal and political importance.

1999, 326 pp., paperback, 118,- DM, 86J,- öS, 105,- sFr, ISBN 3-7890-5777-0

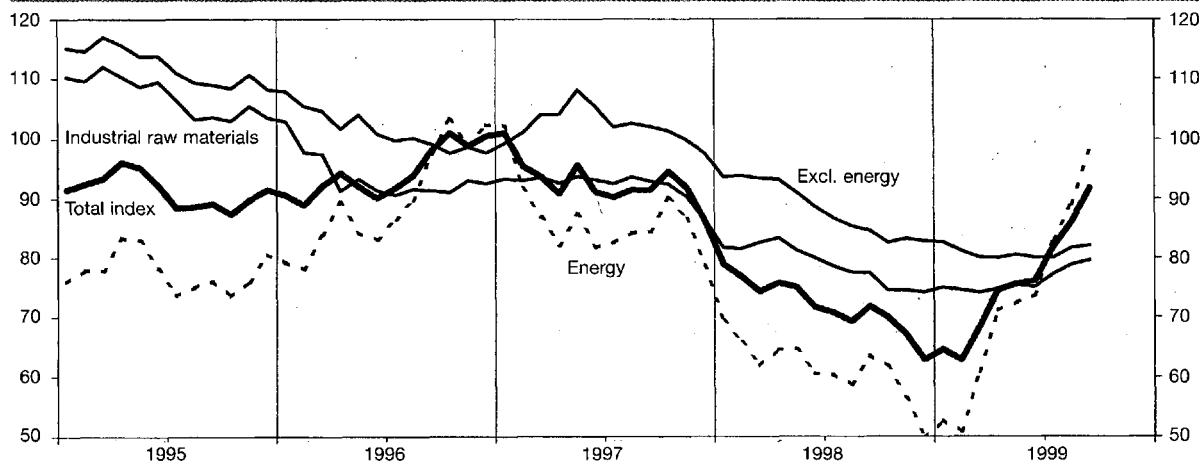
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metals – aluminium, copper and nickel – and pulp. Demand for base metals increased markedly in the first half of the year, particularly in the countries of Southeast Asia. One major reason for the persisting downward pressure on industrial commodity prices is the general availability of abundant supplies. Substantial price increases had led to a marked expansion of production capacities prior to the Asian crisis, and increased production was slow to adjust to new consumption levels which have fallen considerably since then, especially in the countries of Southeast Asia; commodity suppliers, particularly where metals are concerned, have only partially implemented the production limits announced in recent months.

There will be a renewed increase in demand for industrial commodities as the world economic recovery continues. In Asia, in particular, consumption should continue to recover. However, prices for

industrial commodities will be slow to strengthen given the current abundant level of supplies. Further price increases appear most likely in the field of metals, where declarations of intent announced in June and July regarding the temporary closure of production units – including those of leading copper producers – led to a strong rise in quotations. However, higher metals prices in turn reduce the pressure to throttle production, so that here too there is unlikely to be any marked increase in prices for the time being. Given the negative overhang among industrial commodities as a whole, another decline in prices – with a slight recovery during the course of the year – can be expected for the 1999 annual average, albeit of far smaller dimensions than that of 1998. In contrast, even the annual average will increase in the year 2000. Price developments among industrial commodities continue to be determined to a large extent by market forces.

**HWWA Index of World Market Prices of Raw Materials<sup>1</sup>**  
(1990 = 100)



Raw Materials and Groups of Materials <sup>1</sup>	1998	Mar. 99	Apr. 99	May 99	June 99	July 99	Aug. 99	Sep. 99 <sup>2</sup>
Total Index	72.0 (-22.4)	68.4 (-8.1)	74.6 (-1.6)	75.6 (0.7)	76.2 (6.3)	81.8 (15.7)	86.1 (24.4)	91.7 (27.8)
Total, excl. energy	88.2 (-13.7)	80.0 (-14.3)	79.9 (-14.2)	80.5 (-11.6)	80.0 (-9.7)	79.9 (-7.8)	81.7 (-4.3)	82.0 (-3.0)
Food, tropical beverages	115.8 (-12.2)	97.4 (-22.3)	95.2 (-22.2)	95.2 (-20.8)	94.6 (-17.3)	87.9 (-20.6)	89.9 (-17.1)	89.2 (-15.6)
Industrial raw materials	78.9 (-14.5)	74.1 (-10.2)	74.8 (-10.2)	75.5 (-7.0)	75.1 (-6.1)	77.3 (-1.7)	78.9 (1.7)	79.6 (2.8)
Agricultural raw materials	79.3 (-14.4)	77.7 (-6.3)	71.1 (-8.1)	77.5 (-5.2)	77.8 (-4.3)	78.3 (-1.0)	80.0 (2.4)	79.2 (1.7)
Non-ferrous metals	71.1 (-20.8)	63.4 (-15.8)	67.2 (-11.6)	69.0 (-5.6)	67.4 (-3.4)	73.5 (5.5)	75.4 (9.2)	79.3 (13.6)
Energy	61.4 (-29.0)	60.8 (-1.9)	71.1 (10.2)	72.4 (12.1)	73.7 (21.7)	82.9 (37.6)	89.0 (51.6)	98.0 (54.6)

<sup>1</sup> On a US dollar basis, averages for the period; figures in brackets: percentage year-on-year change.

<sup>2</sup> Up to and incl. 24th September.