

## DEPENDENCY OF DEVELOPING COUNTRIES ON NON-AGRICULTURAL COMMODITIES: CHARACTERISTICS AND CHALLENGES<sup>1</sup>

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## **DEPENDENCY OF DEVELOPING COUNTRIES ON NON-AGRICULTURAL COMMODITIES: CHARACTERISTICS AND CHALLENGES**

### **I. INTRODUCTION**

1. Information on non-agricultural commodities is not as widely available as for agricultural commodities. The purpose of this paper is to identify, in contrast to agricultural commodities, what is the extent of dependency of developing countries on non-agricultural commodities, what are the main characteristics of this dependency, which developing countries are most dependent on this type of commodities and what are the challenges they face in the trade arena and from a wider developmental view.
2. Many developing countries are highly dependent on non-agricultural commodities. Although declining prices, price fluctuations, commodity export dependence and lack of diversification are similar to agricultural commodities, there are other issues with pose specific challenges to their sustainable development.
3. This paper is structured in the following manner: we will first define what non-agricultural commodities are, then we will identify which commodities developing countries are most dependent on, we will examine their trade patterns and price tendencies and then we will identify the challenges faced by developing countries dependent on non-agricultural commodities.

### **II. WHAT ARE “NON-AGRICULTURAL COMMODITIES”?**

4. Non-agricultural commodities can be defined as raw materials which are not covered by the World Trade Organization’s (WTO) Agreement on Agriculture.

**Table 1: What are agricultural products according to the Agreement on Agriculture?**

Those listed in Annex 1 of the Agreement:

HS Chapters 1 to 24 less fish and fish products, plus:

HS Code	2905.43	(mannitol)
HS Code	2905.44	(sorbitol)
HS Heading	33.01	(essential oils)
HS Headings	35.01 to 35.05	(albuminoidal substances, modified starches, glues)
HS Code	3809.10	(finishing agents)
HS Code	3823.60	(sorbitol n.e.p.)
HS Headings	41.01 to 41.03	(hides and skins)
HS Heading	43.01	(raw furskins)
HS Headings	50.01 to 50.03	(raw silk and silk waste)
HS Headings	51.01 to 51.03	(wool and animal hair)
HS Headings	52.01 to 52.03	(raw cotton, waste and cotton carded or combed)
HS Heading	53.01	(raw flax)
HS Heading	53.02	(raw hemp)

5. Non-agricultural commodities can be divided in the following categories:
- Base metals and metal minerals, such as: iron, steel, aluminium, copper, lead, nickel, tin, zinc, iron ore and bauxite;
  - Precious metals and stones, such as: diamonds, gold, silver and platinum-group metals
  - Energy commodities, for example: oil, natural gas and coal.
  - Non metal minerals, for example: marble, granite, gypsum, gravel, graphite, dolomite, magnesite, kaolinic clays, asbestos, mica, fluorspar, barytes and borates
  - Fish and shellfish
  - Rubber
  - Timber, which is sometimes divided, for analytical purposes, in non-tropical timber and tropical timber

### III. ON WHICH COMMODITIES ARE DEVELOPING COUNTRIES MOST DEPENDENT UPON?

6. Dependency can be measured in different ways; for instance as: The contribution of total exports (of non-agricultural commodities) to the Gross Domestic Product (GDP). According to this definition, the following countries are most dependent on mineral and oil exports:

Table 2: Ranking of countries that are most dependent on mineral and oil exports

Mineral Dependent States <sup>2</sup> and HDI Rankings 1995			Oil Dependent States <sup>3</sup> and HDI Rankings 1995		
State	Mineral dependence	HDI Rank <sup>4</sup>	State	Oil dependence	HDI Rank
1. Botswana	35,1	122	1. Angola	68,5	160
2. Sierra Leone*	28,9	174	2. Kuwait	49,1	36
3. Zambia*	26,1	153	3. United Arab Emirates	46,3	45
4. United Arab Emirates	18,2	45	4. Yemen*	46,2	148
5. Mauritania*	18,4	147	5. Bahrain	45,7	41
6. Bahrain	16,4	41	6. Congo (Brazzaville)*	40,9	139
7. Papua New Guinea	14,1	133	7. Nigeria	39,9	151
8. Liberia*	12,5	127	8. Oman	39,5	86
9. Niger*	12,2	173	9. Gabon	36,1	123
10. Chile	11,9	38	10. Saudi Arabia	34,3	75
11. Guinea	11,8	162	11. Qatar	33,9	42
12. Congo, Dem. Rep.	7,0	152	12. Algeria	23,5	107
13. Jordan	6,3	92	13. Papua New Guinea	21,9	133
14. Bolivia*	5,8	114	14. Libya	19,8	72
15. Togo*	5,1	145	15. Iraq	19,4	126
16. Central African Republic	4,8	166	16. Venezuela	18,3	65
17. Peru	4,7	80	17. Norway	13,5	2
18. Ghana*	4,6	129	18. Syrian Arab Republic	13,5	111
19. Bulgaria	4,0	60	19. Ecuador	8,6	91
20. Angola*	3,6	160	20. Bhutan	6,8	142
21. Zimbabwe	3,4	130	21. Cameroon*	6,0	134
22. Iceland	3,1	5	22. Malaysia	5,8	61
23. Kazakhstan	2,6	73	23. Indonesia	5,7	109
24. Norway	2,5	2	24. Vietnam*	4,9	108
25. Australia	2,4	4	25. Côte d'Ivoire*	3,5	154
* Highly Indebted Poor Country					
Non-italicized countries are considered as developing countries					

Source: Oxfam America (2001). *Extractive sectors and the Poor*.

<sup>2</sup> Mineral Dependence is the ratio of non-fuel mineral exports to GDP.

<sup>3</sup> Oil Dependence is the ratio of oil, gas and coal exports to GDP.

<sup>4</sup> HDI rank is a state's rating in the UNDP's Human Development Index, which ranks states according to a combined measure of income, health and education; rankings range from 1 (highest level of human development) to 174 (lowest).

7. Dependency can also be measured through the share of the three leading commodities, in a given country in the total exports. According to this definition the following developing countries are most dependent on fisheries, timber and rubber exports<sup>5</sup>:
8. *Fisheries*: Maldives (more than 75% of merchandise exports), Seychelles (more than 75% of merchandise exports), Kiribati, Madagascar, Mozambique, Panama, Peru, Samoa and Senegal. The following countries are dependent on fisheries exports to a lesser extent: Belize, Cambodia, Cape Verde, Chile, Cuba, Democratic Republic of the Congo, Ecuador, Fiji, Guinea, Guinea-Bissau, Honduras, Libyan Arab Jamahiriya, Mauritania, Myanmar, Namibia, Nicaragua, Oman, Sao Tome and Principe, Solomon Islands, Somalia, Tonga, Uganda, Tanzania, Vietnam and Yemen
9. *Timber*: Solomon islands, Cambodia and Myanmar. The following countries are dependent on timber exports to a lesser extent: Cameroon, Central African Republic, Congo, Equatorial Guinea, Gabon, Indonesia, Maldives, Mozambique, Papua New Guinea, Paraguay, Vanuatu and Yemen.
10. *Rubber*: Liberia. The following countries are dependent on rubber exports to a lesser extent: Cambodia and Nigeria.
11. It is worth noting that, in some of the literature utilized for the preparation of this report, references were made to other factors that can contribute to the configuration a dependency situation, for instance:
12. *The percentage of the labour force employed in a particular sector* (although this sector may not contribute to export earnings in a direct manner), for example small coastal communities that rely on artisanal fisheries and certain rural communities for which forestry and rubber are main sources of livelihood. In these cases the smallness of the industry can be seen an impediment to development since it is more difficult to absorb price shocks or other unpredictable market changes than would large scale producers.
13. *The importance of a sector for internal consumption*, for example certain island economies heavily rely on fish as their main source of dietary protein. Hence this sector is an important component of their food security strategy.
14. *A very limited number of export markets for few commodities*.

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<sup>5</sup> UNCTAD (2003). *Commodity Yearbook 2003*, volume II. P. 462-464: "share of three leading commodities in total exports by developing countries (in percentages, ranked by 1997-1999 values)".

15. The protection of food security and livelihood have motivated certain developing countries<sup>6</sup>, in the context of undergoing agriculture negotiations in the WTO, to propose a modification of the product coverage of the Agreement of Agriculture in order to include certain primary commodities (rubber and primary forest produce). The purpose of such a proposal would be to increase flexibility to take domestic policy measures for ensuring food security and for poverty alleviation, rural development and rural employment.

A. On which commodities are they most dependent upon?

16. *Least Developed Countries (LDC)*<sup>7</sup>. On the basis of a classification in the late 1990s, primary commodities are the major source of export earnings in 31 out of 49 LDCs: four countries are oil exporters<sup>8</sup> and seven countries are predominantly mineral exporters<sup>9</sup>.
17. In the period 1999-2001, oil exports constituted 35% of total merchandise exports of LDCs. Main exports of non-agricultural commodities included: wood, rubber, phosphate rock, raw ores (including iron, manganese and tungsten), aluminium, copper, lead, nickel, tin, zinc, gold and silver.
18. *Africa*. Mining products (in particular fuels) are Africa's principal export sector. Mineral exports contribute between 25% and 90% of annual export earnings of 13 countries: Botswana, Ghana, Guinea, Liberia, Senegal, Mauritania, Namibia, Niger, Central African Republic, Sierra Leone, Zaire, Zambia and Zimbabwe. South Africa is also heavily dependent on exports of ores and metals.
19. *Latin America* and *Asia* are less dependent on commodities than Africa and LDC countries because they have a more diversified export structure. During the last 30 years they have progressively reduced their reliance on primary products for their overall export earnings.
20. Developing Asia has a very low dependence on primary products although it is worth noting that petroleum and liquefied natural gas represented 89% of merchandise exports of Brunei Darussalam in 1998 and that the contribution of the oil and gas sectors to Indonesia's GDP in 2003 remains significant, at 9.7%<sup>10</sup>.

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<sup>6</sup> India (G/AG/NG/W/114 / 15-02-01-, G/AG/NG/W/102 / 15-01-01) and Sri Lanka (G/AG/NG/W/124 / 01/03/2001)

<sup>7</sup> UNCTAD (2004). *The Least Developed Countries Report 2004*

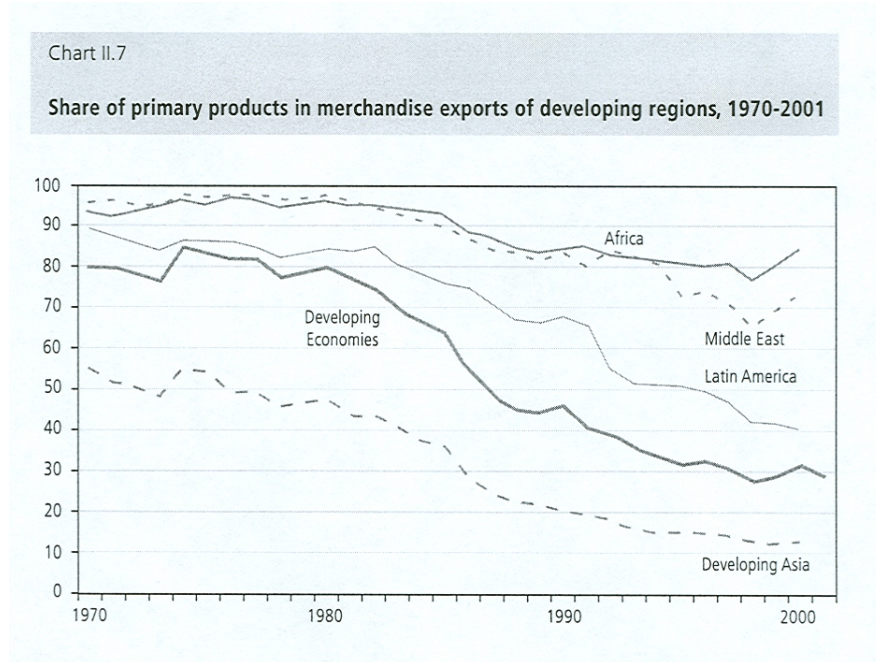
<sup>8</sup> Angola, Equatorial Guinea, Sudan and Yemen

<sup>9</sup> Central African Republic, Dem. Rep. of the Congo, Guinea, Liberia, Niger, Sierra Leone and Zambia

<sup>10</sup> WTO's Secretariat Reports for the Trade Policy Reviews of Brunei Darussalam (April 2001) and Indonesia (May 2003)

On the other hand, the Middle East still depends for more than 2 thirds of their exports on primary products, in particular on fuels.

**Figure 1: Share of primary products in merchandise exports of developing countries (1970-2001)**



Source: WTO World Trade Report 2002

21. During the last 3 decades, Latin America and the Caribbean sharply reduced their reliance on primary commodities. However it still remains substantial at 40% in 2000. The following cases are worth noting<sup>11</sup>:

- In 2002, Venezuela's hydrocarbons exports accounted for over 80 per cent of all merchandise exports, and nearly 60 per cent of total exports went to the United States;
- The bauxite sector represents approximately 65% of the total value of exports from Suriname, and, authorities have estimated that the bauxite sector presently contributes about 12% to total fiscal revenue.
- The mining sector generated more than 40% of Chile's merchandise export revenues between 1996-2002
- Exports of mining products (in particular bauxite and alumina) represented about two thirds of Jamaica's merchandise exports in 2002.

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<sup>11</sup> WTO Secretariat's Reports for the Trade Policy Reviews of: Jamaica (January 2005), Suriname (July 2004), Belize (July 2004), Chile (December 2003), Guyana (October 2003) and Venezuela (November 2002).



- Although its contribution to GDP has decreased since 1997, mining (in particular gold, bauxite, and diamonds) accounted for some 16% of Guyana's GDP in 2001.
- The fisheries sector has been a significant contributor to the Belizean economy in the last 30 years. It generates approximately 7.2% of GDP and employs around 1,800 fishermen. Farmed shrimp was the sector's largest foreign exchange contributor in 2003.

B. Trade patterns of non-agricultural commodities.

22. The most traded non-agricultural commodities are the following: aluminium, copper, crude oil, fishery products, gold, iron, lead, natural gas, natural rubber, tropical timber and zinc<sup>12</sup>. Oil is the single most important good traded worldwide: in 2000/2001, sales totalled almost 5.7% of world trade.
23. With regards to developing countries' participation in world trade of non-agricultural commodities, the following developments can be noted during the period 1995-2001.
24. *LDCs*. In recent decades (1966-2002) LDC have lost market share for all commodity groups except fuel. In 2001, they registered major losses in export revenue due to loss in market share, in particular in ore and copper exports (together they account for 68% of the loss). Their overall export performance is hampered because their export structure is still focused on products for which growth of world imports is either declining or growing more slowly than average.
25. *Africa*. South Africa is among the thirty principal exporters of (selected) mineral and metal commodities. Also it is worth noting that several African countries are among the 10 principal exporters of commodities such as: natural rubber (Cote d'Ivoire, Liberia), bauxite (Guinea, Ghana) and manganese ore (Gabon, South Africa, Ghana)<sup>13</sup>.
26. In recent decades (1966-2002) Africa has increased its market share for fuels but experienced severe losses for agricultural and non-fuel mineral commodities. For minerals and metals, the drop in Africa's share resulted from lack of investor confidence and a subsequent fall on production. The moderately improved growth of Africa during 2003 appears to have been mainly due to higher prices of fuels and most non-fuel commodities and non-ferrous metals.

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<sup>12</sup> Common Fund for Commodities and United Nations (2004). *Commodity Atlas 2004*.

<sup>13</sup> UNCTAD (2003). *Commodity Yearbook 2003*, Volume I

27. *Latin America.* Chile, Brazil, Peru and Mexico are among the thirty principal exporters of mineral and metal (selected) commodities. It is worth noting that several Latin America and Caribbean countries are among the 10 principal exporters of commodities such as: fish (Chile), wood (Brazil), bauxite (Brazil, Jamaica), copper (Chile, Peru), iron and manganese ore (Brazil), nickel (Cuba), tin (Peru, Bolivia, Brazil) and zinc (Peru and Mexico)<sup>14</sup>.
28. In recent decades (1966-2002) Latin America has lost market share for all commodity groups. During the period 2003-2004, Chile, Ecuador and Peru increased their exports of oil, gas, copper and gold due to increased supply capacity thanks to investment.
29. *Asia.* China, Indonesia, Singapore, and India are among the thirty principal exporters of mineral and metal (selected) commodities. It is worth noting that several Asian countries are among the 10 principal exporters of commodities such as: fisheries (Thailand, Indonesia), natural rubber (Thailand, Indonesia, Malaysia, Vietnam, Cambodia), wood (Indonesia, Malaysia, China), bauxite (Indonesia) and iron ore (India)<sup>15</sup>.
30. Asia consistently increased its share of the world market for all commodity groups building on rapidly growing demand. Also, a recent trend for increased imports from Asian countries can be observed for certain commodities, for instance: fisheries (China), rubber (China, Malaysia), wood (China), iron ore and concentrates (China), phosphate rock (India) and tin (Malaysia, Thailand). Asian developing countries have increased their share of world production and world exports of processed metal products. An important reason for this success is that domestic demand for metal products has grown rapidly in these countries, providing producers with a nearby customer base from which to launch export efforts.
31. Although the share of commodities in world trade has declined over time, a disaggregation of the commodity sectors would indicate that there are a number of commodities that have shown (in varying degrees) market dynamism<sup>16</sup> such as: fresh crustaceans, fuel wood, charcoal, gas and rubber (in the form of latex, resins and gums). Among developing countries, only some East Asian economies have succeeded in supplying the world markets with a significant quantity of dynamic products. Countries in the Latin American and Caribbean region appear to have limited participation in the most dynamic world exports, while LDCs and most African countries remain marginalized. For many of these countries, structural

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<sup>14</sup> *Ibid*

<sup>15</sup> *Ibid*

<sup>16</sup> Measured in terms of world trade growth rate during the last two decades

and supply-side problems, cost of capital, external market conditions and so forth continue to affect their ability to diversify into higher-value added exports<sup>17</sup>.

#### IV. PRICING TENDENCIES OF NON-AGRICULTURAL COMMODITIES

32. For developing countries that depend heavily on commodity exports for foreign exchange, the cash price is analytically less revealing than is the purchasing power it provides. That purchasing power is reflected by the “barter” terms of trade - the ratio of prices of exported goods to the prices of imports. As this ratio diminishes, the quantity of imports that can be purchased from a given quantity of exports also shrinks. From the mid-1980s to the present, terms of trade for both the LDCs and for other developing countries have deteriorated significantly.

##### A. Long term price decline

33. Prices for non-agricultural commodities<sup>18</sup> have been declining during recent decades. Between 1980 and 2003, the price of minerals, ores and metals declined by 59,5% to 40,5% of its 1980 value. Mineral prices fell especially sharply after 1990, accompanied by a decline in actual exports of the poorest countries.
34. Although the cause for this downward trend in prices may vary from one (non-agricultural) commodity to another, the following reasons are often at the root of the problem:
35. *Offer surplus*, as was the case during the period 1998-2001 for tin stocks and for steel, since the 2001 crisis.
36. *Changing patterns of economic growth in industrialized countries*. Primary-commodities exporters, especially in the minerals sector, have been affected by two important changes in developed countries:
- New technologies have made it possible to develop substitutes for metals. For example fibre optics has replaced copper wire in telephone systems and industrial plastics are replacing aluminium.
  - Main growth centres in industrialized countries are knowledge-based industries such as telecommunications, information processing, computers and analytical instruments. Growth in these industries generates lower levels of

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<sup>17</sup> UNCTAD (2004). *Strengthening participation of developing countries in dynamic and new sectors of world trade: trends, issues and policies*. (TD/396).

<sup>18</sup> See Annex II: Instability indices and trends in free market-prices for selected non-agricultural commodities

demand for minerals than growth in traditional manufacturing industries, which in turn used minerals less intensively than formerly

37. *Health and hazard regulations.* For instance, the failure to completely overcome problems posed by lead in terms of health and environmental safety have caused a phasing out of certain end uses (in petrol and paint) and this has negatively affected lead prices.

#### B. Price instability

38. Prices of non-agricultural commodities fluctuate in the short term<sup>19</sup>. Most stable markets include phosphate and iron ore. The last two operate with long term price agreements between buyers and sellers which do not exist on most international markets. The most unstable markets include: silver, nickel and crude petroleum<sup>20</sup>.
39. Crude oil prices react to the balance of demand and supply in the short term and the rate of investment in the long term. If investment is not made far enough in advance, oil supplies could be limited in the longer term, thus raising prices. Other factors influencing the price of crude oil include: sentiment, bad weather, labour disputes and other disruptions to production including war or natural disasters.
40. The Organization of the Petroleum Exporting Countries (OPEC) plays an important role in limiting price fluctuations, hence in stabilising the oil market and helping oil producers achieve a reasonable rate of return on their investments. This objective is achieved through voluntary restraint, by OPEC's Member Countries, on their crude oil production. One of the most common misconceptions about OPEC is that the Organization is responsible for setting crude oil prices. Although OPEC did in fact set crude oil prices from the early 1970s to the mid-1980s, this is no longer the case<sup>21</sup>.
41. Although developments differ between commodity groups, the following trends can be observed in most recent years:
42. *Since 2002, some recovery in prices can be observed to a greater extent, in mineral commodities than agricultural commodities.* UNCTAD price index for mineral rose by more than 28% during 2003 and by almost 15% during the first half of 2004 while the index for agricultural raw materials rose by 27% in 2003,

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<sup>19</sup> *Ibid*

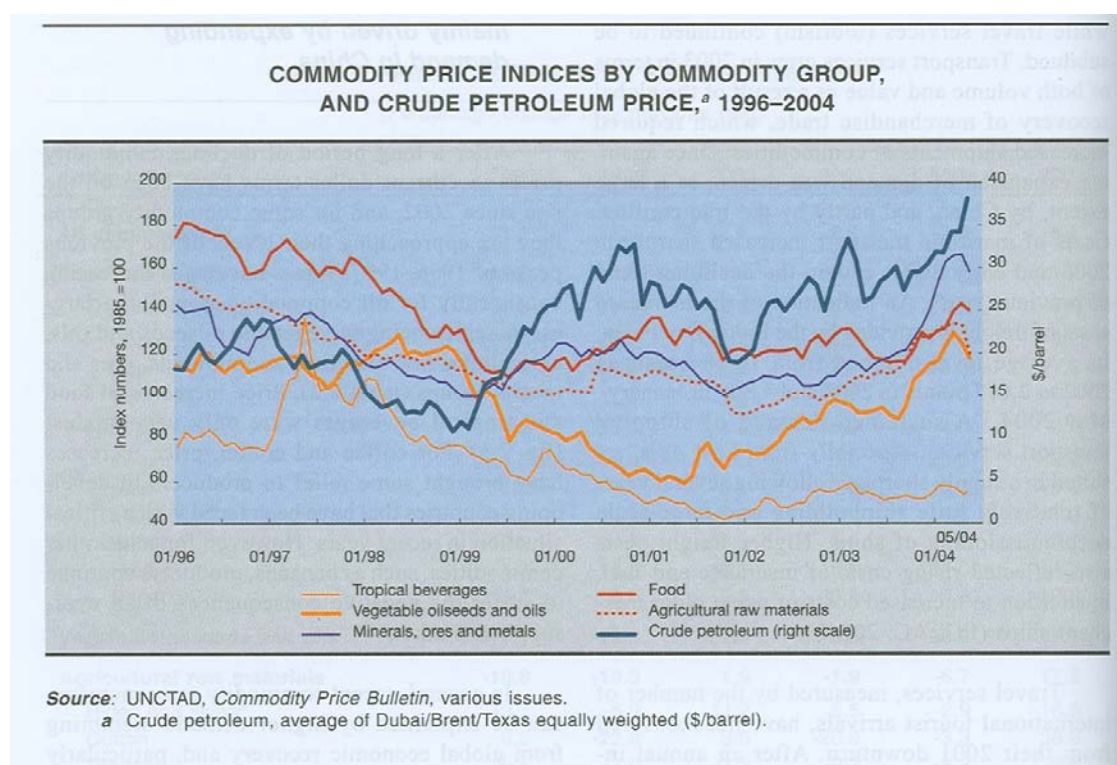
<sup>20</sup> See Annex III (Export prices for nickel, 1993-2003) and Annex IV (Crude oil prices, 1984-2001)

<sup>21</sup> Frequently asked questions about the oil industry and OPEC. [www.opec.org](http://www.opec.org)

but fell almost 6% during the first six months of 2004. Around October 2003, prices of almost all metals started rising rapidly. However, as the dollar prices of manufactures exported by developed countries also raised, overall commodity terms of trade did not improve, and for some commodity groups they even worsened.

43. *Developing countries emerged as major importers and consumers* of non-agricultural commodities produced by other developing countries. Demand for non-agricultural commodities increased in many countries in the south due to economic population growth and to major investments in infrastructure in some fast growing economies, in particular in Asia. This expansion of demand affected positively prices of: oil, gas, iron ore, steel, copper and rubber. From 1995 to 2002, mineral imports from Asian countries (including fuels) have tripled. It is also important to note that Asian developing economies have also emerged as major producers (in terms of value) with respect to many non-agricultural commodities, in particular metals. China, as the largest producer and major exporter of several commodities has become a key player in international commodity markets.
44. *Extraordinary development of oil prices.* In 1998 oil prices went from below 10 US\$/barrel to over 30 US\$/barrel and since then, a sustained trend for high prices can be observed. This trend is mainly due to increasing demand from Asia and the US (since 2002), but also to concerns about the adequacy of oil production capacity (in the medium term) and about reserves (in the long term) and speculative positions on potential supply disruptions in countries such as Iraq, Saudi Arabia, Venezuela and the Russian Federation.

Figure 2: Commodity price indices by commodity group and crude petroleum price, 1996-2004



45. Despite the recent commodity price increases, viewed over a longer perspective, in real terms, they still remain at very low levels, and considerably below their levels of the 1970s and early 80s. For example, in real terms, the oil price for consumers in developing countries is still relatively low compared to the levels recorded at the time of previous sharp oil price hikes in the 1970s<sup>22</sup>.
46. In view of low stock levels for most metals and the likelihood that industrial production will increase, prices of these are likely to remain at high levels until, at least during 2005. Prospects indicate continued growth in East and South Asia and continued growth at a fairly rapid pace by the two largest countries, namely China and India, thanks to dynamic domestic and foreign demand.
47. It is worth mentioning, however, that there could be reasons to be concerned about oversupply in some non-agricultural commodities in the short term because of China's increased offer. In recent years China has attracted a lot investment in some particular industries (such as aluminium and steel) and is building up supply capacity in the mineral sector. China will be able to produce 330 million of tons

<sup>22</sup> See, in Annex V, figures 6 (Price of indices of product groups in constant dollars, 1960-2003) and 7 (Crude petroleum prices nominal and real, 1970-2003)

of steel annually in 2005, but according to many observers, domestic demand will only reach that level until 2010<sup>23</sup>. To fully utilize these capacities, China would have to switch from being a net importer of steel (of about 60 millions tons per year in 2002) to exporting some 30 million tons in 2005. The electrolytic aluminium industries face a similar problem: aluminium factories have a production capacity of 3.1 million tons in 2005, but domestic demand may absorb only half that quantity<sup>24</sup>.

48. There is uncertainty about future development of oil prices and concerns about the negative repercussions that a sustained increase in oil prices may have on the global economy. Although higher oil prices have not had an immediate impact on inflation in the industrialized countries, such an effect cannot be ruled out should prices remain at the current levels in the medium term. This in turn might lead to increases in interest rates. It is important to note that substantially higher oil prices carry the risk of compromising growth in those developing countries that are highly dependent on oil imports and normally more energy-intensive than developed countries and are facing serious balance-of payments and external financing constraints.

## **V. CHALLENGES FACED BY DEVELOPING COUNTRIES THAT EXPORT THESE COMMODITIES AND ARE HIGHLY DEPENDENT ON THEM:**

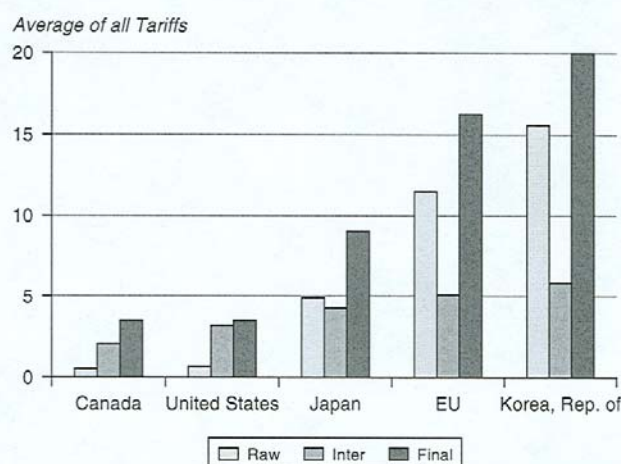
### **A. Trade related issues**

49. In contrast with agricultural commodities, tariffs on minerals and metals with little processing are low or nonexistent and tariffs on more processed metal products are higher than for less processed forms, but they are not prohibitive. Also, there is little tariff escalation. According to UNCTAD, this would explain the fact that market share of developed countries for metals has fallen much more than for agricultural commodities.
50. The fisheries sector is affected by tariffs peaks and tariff escalation. Tariffs in OECD member countries are important, but also some developing countries maintain tariffs, which could be considered to be high, for the purpose of protecting livelihoods.

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<sup>23</sup> UNCTAD (2004). *Trade and Development Report, 2004*.

<sup>24</sup> *Ibid*

**Figure 3: Tariff escalation in selected OECD countries for fisheries****Table 3: Trade weighted averages for Developing Countries' Fish Product Exports to OECD Countries, by Processing State****FIGURE 15.6 Tariff Structure by Level of Processing, (1998–2001)**

Source: WTO IDB database.

**TABLE 15.1 Trade-Weighted Tariff Averages for Developing Countries' Fish Product Exports to OECD Countries, by Processing State (percent)**

Level of Processing	Least-Developed	Developing	All Other
All	2.5	2.9	3.2
Unprocessed	2.5	2.5	2.5
Fillets	2.8	2.5	2.0
Semi-processed	0.5	1.9	1.4
Processed	1.7	4.3	8.0
Total value (US\$ millions)	437	10,689	21,992

Source: OECD 2003a.

Source: Roheim, Cathy A. "Seafood: trade liberalization and impacts on sustainability" in *Global Agricultural Trade and Developing Countries*, World Bank, 2005.

51. The most important challenges faced by developing countries with regards to their exports of non-agricultural commodities relate to non tariff barriers. Developing countries' exports of non-agricultural commodities face increasing quality and market requirements emanating from international agreements and other market exigencies that act as non tariff barriers, for example:



52. *Certification schemes.* These schemes may be put in place to pursue legitimate policy objectives<sup>25</sup>, but can also be used for protectionist measures. Many developing countries feel they are discretionary, difficult to comply with and may differ considerably from one market to another, increasing the cost of compliance and becoming obstacles to trade. For example, concerns about the environmental sustainability of tropical timber production has spurred the introduction of certification schemes, whereby consumers are assured that the products they buy come from timber produced under environmental acceptable conditions. The proliferation of national schemes has lead to numerous calls for a framework for mutual recognition between schemes. Another example is the Kimberley process for certification of rough diamonds, whose purpose is to bar the way to “blood” or “conflict” diamonds sourced from areas of armed conflict.

53. *Contingency measures* have increasingly been used to restrict imports of non-agricultural commodities and related products. For instance, during the period 1995-June 2004, 30,4% of antidumping initiations took place in the sector “base metals and articles thereof”, 12,4% in “rubber, plastics and articles thereof”, 4,6% in “pulp of wood, paper, paperboard”. During the same period wood and articles and precious stones were subject to antidumping initiations to small extent. The sector “base metals” have also been the most affected with regards to countervailing measures, (with 71 initiations between 1995-June 2004) and safeguards.<sup>26</sup>

54. In recent years, exports coming from fisheries sector, from developing countries, have also been affected by an increasing number of policies and measures that could be considered as *Non Tariff Barriers*, such as Sanitary and Phytosanitary requirements, technical barriers to trade<sup>27</sup>, antidumping and subsidies.

## B. Issues that are not trade-related.

### *1. Macroeconomic issues*

55. *“The conditions for reducing poverty in mineral economies are not directly affected by higher export incomes. The solutions have to be looked for in the area of national development strategies, supported by assistance from the international community”.*

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<sup>25</sup> such as: national security requirements, the prevention of deceptive practices, protection of human health or safety, animal or plant life or health, or the environment (according to the WTO’s agreement on technical barriers to trade)

<sup>26</sup> WTO (2004). *Overview of developments in the International Trading Environment: Report 2004 by the Director General.*

<sup>27</sup> In particular labelling programs such as: ecolabelling, country of origin labelling and other labelling related to the production process such as “organic”

(United Nations (2004). World Commodity trends and prospects: Report of the Secretary General. A/59/304)

56. Developing countries that depend on exports of oil, gas, coal and non-fuel mineral exports (often referred to as “extractive industries”) have economies that suffer from Dutch-disease. This economic term was originally created to refer to a phenomenon observed in the Netherlands, following the discovery of natural gas, whereby natural resource discovery leads to deindustrialization and reinforces the dependency on a single commodity. The main characteristics of this “disease” are the following:
57. *Difficulties to manage revenues and to plan for the long term.* Revenues coming from extractive industries’ produce present a “boom and crash” pattern. Indeed, booming oil revenues are reflected in an increase of Government spending (generally directed towards infrastructural investments or expansion of the administration), which is difficult to cut back when world market conditions are weak. This pattern has a negative impact in macroeconomic stability and overall economic growth.
58. *Loss of competitiveness of non-mining export sectors.* Foreign exchange revenues from extractive industries’ produce can lead to real currency appreciation and this could lead to loss of competitiveness of non-mining export sectors vis à vis imports and may also cause inflation.
59. *Weak links between the extractive sectors and the rest of the economy.* Extractive sectors tend to be capital-intensive and they use little unskilled or semi-skilled labour. This fact sometimes leads to development of enclave-type methods of production, where exploitation of resources is geographically concentrated and create small pockets of wealth that fail to spread to the rest of the economy.
60. A recent study by Oxfam<sup>28</sup> highlights the relationship between developing countries’ dependence on extracting industries and their poor performance on key poverty-related indicators. This study This study question if mineral and oil sectors can really contribute to sustainable poverty reduction taking into account the boom and bust nature of extractive industries. This document notes that in countries dependent on extractive industries’ produce, the responsiveness of Governments is diminished and that investments are generally not used to improve health care, nutrition or education, hence producing only limited opportunities for the poor, increasing economy inequality and making a country more vulnerable to economic shocks.

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<sup>28</sup> Oxfam America (2001). Ross, Michael. *Extractive Sectors and the Poor*.

61. Despite this, it is worth noting the fact that this study cites the example of Botswana/Diamonds to demonstrate that, with careful management, the development of minerals can be used to sponsor a broad advance in national development and to become less dependent on their exploitation.

## *2. Capacity to attract investment and indebtedness*

62. Limited availability of domestic resources constrains economic growth, threatens development and reinforces commodity dependence. Many developing countries cannot achieve the desired levels of public and private investment by relying on domestic savings and private capital inflows to provide for capital stock, education, health and other social and physical infrastructure to keep pace with population growth. This economic situation is further aggravated in the case of low income developing countries suffering from heavy external debt burden, whose debt service constitutes a constant drain on their limited resources.
63. The decline in real commodity prices aggravates this situation since it has a direct impact on the capacity of developing countries to generate surpluses through export earnings. Investment is important to developing countries that are dependent on non-agricultural commodities for the following reasons:
64. *To build supply capacity*, since production processes (for extractive industries) tend to have higher costs than the ones for agriculture commodities. Metals and mining industries require expensive investments that may take years to develop and they decrease when demand falls off.
65. For instance, before natural gas can be stored or transported, it has to be liquefied, then cooled (-160C) at atmospheric pressure and stored in insulated containers. Transport costs are also a large proportion of the price of iron ore, this is why dedicated railways for iron ore transport are common in the leading producer countries.
66. Oil and mining companies have a great deal more choice to invest in (mines or oilfields) than agriculture. In recent years their judgment of costs and risks has made them noticeably less willing to operate in the poorest countries. It is partly for this reason that the mining sector is less important part of poor countries economies than it used to be. That in itself has been an important creator of poverty in countries that used to depend on such industries.
67. *To diversify and/or add value into more dynamic products*, through measures destined to raise productivity through more intensive and appropriate use of capital. These measures would allow faster integration into the world economy and a reduction of persistent vulnerability to external shocks

68. *To ensure sustainable management of resources*, through acquisition of cleaner technologies and approaches to production<sup>29</sup>.
69. Some developing countries were successful in attracting investment in non-agricultural commodities. For instance, in 2003 the Chinese Government had to take restrictive measures to avoid overinvestment in the steel and aluminium sectors<sup>30</sup>. Also, during 2003 Bolivia, Ecuador, Chile and Peru received long term investments in hydrocarbons and mining sectors (in particular oil, gas, copper and gold), undertaken mainly by transnational corporations as part of their long term strategies.
70. With regards to the characteristics of investments in extractive industries, it is worth noting that, in some of the literature utilized for the preparation of this report (UNCTAD, Oxfam), references were made to the fact they remain disconnected from local economic conditions. Also in recent years, speculative investments in metals have increased, attracted by expectations of higher return in commodities, adding to the existing volatility of most of these markets.
71. African countries have, historically, attracted less investment in their extractive industries than Asian and Latin American countries. Sub-Saharan Africa is the most affected region in this sense, facing severe financial constraints and the lowest investment rates. The consulted sources indicated the following reasons to justify the low attraction of investment in the African region:
- Physical and social infrastructure,
  - Lack of technical and institutional capacity,
  - Continued political instability in a few countries,
  - The location of mineral occurrences<sup>31</sup>. Although they are present throughout the continent in all countries, most of these occurrences are isolated areas that contain small amounts of a mineral resource and do not contain enough volume of the mineral to make mining economic. In addition the ability to conduct mineral exploration operations and mining operations is affected by the landscape and vegetative cover. Areas which are predominantly semi-arid and savannah are easier to operate in when compared to the areas of desert and tropical rainforest.

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<sup>29</sup> See point 5.2.3 (Environmental challenges) in page 17

<sup>30</sup> UNCTAD (2004). *Trade and Development Report, 2004*.

<sup>31</sup> AFRITROPIC (2003). "*Mineral Resources of Africa*". <http://www.afritopic.com/afritopic-natural-resources.htm>

### 3. *Environmental challenges*

72. Non-renewable resource exploitation can lead both directly and indirectly to environmental degradation. For instance:
- Sulphide minerals in the copper ore can damage the surface and ground water if they escape from operation or if closed mines are infiltrated by ground water. Smelting of copper concentrate can cause sulphides to be released into the air.
  - In gold mining, disposal of waste rock and security of retained residues from mineral processing to mercury pollution are concerns related to large scale metal mining and deforestation is a concern related to small scale informal mining
  - 70% of world commercially important marine fish are fully fished, over exploited or depleted<sup>32</sup>. Extra fish supply to cope with demand is coming from aquaculture and is expected to double in size in the next 15 years. Aquaculture is a major contributor to water pollution, wetlands loss and mangrove swamp destruction.
73. The production of many non-agricultural commodities presents environmental challenges to developing countries such as: being able to obtain environmental friendly technology and the capacity to establish a balance between the need for export earnings and the need for a sustainable exploitation of resources.

### 4. *Market structure*

74. Market structures and practices are important since they can determine the retention of higher value addition (during the production process) in one country and is also linked with the capacity to benefit from transfer of technology. Control of commodity value chains by a small number of powerful corporations can drive down commodity prices and erode the share of the final product price that goes to producers.
75. In the area of non-agricultural commodities, many sectors can be characterized by concentration, for example:
- In the iron ore industry companies are vertically integrated and hence they use their own iron ore to produce steel. Three companies control 80% of the world's iron ore production.

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<sup>32</sup> Common Fund for Commodities and United Nations (2004). *Commodity Atlas 2004*.

- The international aluminium industry is fairly concentrated. Recent mergers involving some of the largest producers have resulted in a still higher degree of concentration. This industry is also vertically integrated, with the largest companies playing an important role at all stages of the value chain.
- In the forest sector, continued efforts at achieving economies of scale, lower transport costs has lead to increased concentration of the industry, with many acquisitions and mergers taking place in recent years.
- Diamonds and gold extracting industries are also highly concentrated.

#### **IV. CONCLUSIONS**

76. Non-agricultural commodities are defined in the present report as all raw materials that are not included in Annex I of the WTO Agreement on Agriculture. Hence, non-agriculture commodities cover a wide range of sectors such as: metals, minerals, fish and shellfish, rubber, timber and energy commodities.
77. Many developing countries are highly dependent on non-agricultural commodities. Varying characteristics and development implications of each dependency can be observed among regions for rubber, timber, fisheries, oil and minerals in particular.
78. Many developing countries are among 10 principal producers of non-agricultural commodities. Despite this Latin America, African and LDC countries have lost market share in recent decades. In the case of Africa this is mainly due to lack of supply capacity. Asia and Latin America show more diversified export profiles and a higher capacity to add value to their exports. Asian countries have been particularly successful in entering more dynamic sectors and ad value to their exports.
79. Declining prices and price fluctuations are similar between agricultural and non-agricultural commodities, although in the last three years an increasing trend can be noted for many non-agricultural commodities due to an increase in demand from Asia. Despite this, real terms of trade have continued their decline and uncertainty exists if this upward trend in prices can be maintained in the medium term.
80. Exports of non-agriculture commodities face some challenges in the trade arena. For instance fisheries exports face tariff peaks and tariff escalation. An increase in

the use of non-tariff barriers related to certification schemes can be noted in the fisheries and wood sectors raising the need for mutual recognition agreements but also questions about their discretionary nature. It is also worth noting that, in recent years, the sector of base metals has seen an increase in the use of contingency measures.

81. Developing countries that export agricultural commodities and non-agricultural commodities face commodity export dependence and lack of diversification. But, in contrast with agricultural commodities, some issues related to production of non-agricultural commodities pose specific challenges to the sustainable development of developing countries. These issues relate to macroeconomic management, the capacity to attract investment and indebtedness, environmental protection and market structure.

## ANNEX I

Table 4: Summary table of most dependent countries on non-agricultural commodities

Category of non-agricultural commodities	Countries	Specifics commodities on which there are most dependent on
Mineral Dependence	Botswana	<u><b>Diamonds</b></u> , copper and nickel
	Sierra Leone	<u><b>Diamonds</b></u> , rutile (titanium dioxide), gold, bauxite, and platinum
	Zambia	<u><b>Copper</b></u> , cobalt, coal and emeralds
	United Arab Emirates	<u><b>Chrome, copper</b></u> , iron and uranium
	Mauritania	Iron ore
	Bahrain	<u><b>Aluminium</b></u> , iron ore
	Papua New Guinea	Gold and copper
	Liberia	Diamonds, iron ore
Oil Dependence	Angola	Crude petroleum
	Kuwait	Crude petroleum
	United Arab Emirates	Crude petroleum and gas
	Yemen	Crude petroleum
	Bahrain	Crude petroleum
	Congo (Brazzaville)	Crude petroleum
	Nigeria	Crude petroleum
	Oman	Crude petroleum and gas
Fisheries	Maldives, Seychelles, Kiribati, Madagascar, Mozambique, Panama, Peru, Samoa and Senegal	N/A
Timber	Solomon Islands, Cambodia Myanmar	N/A
Rubber	Liberia	Natural rubber



## ANNEX II:

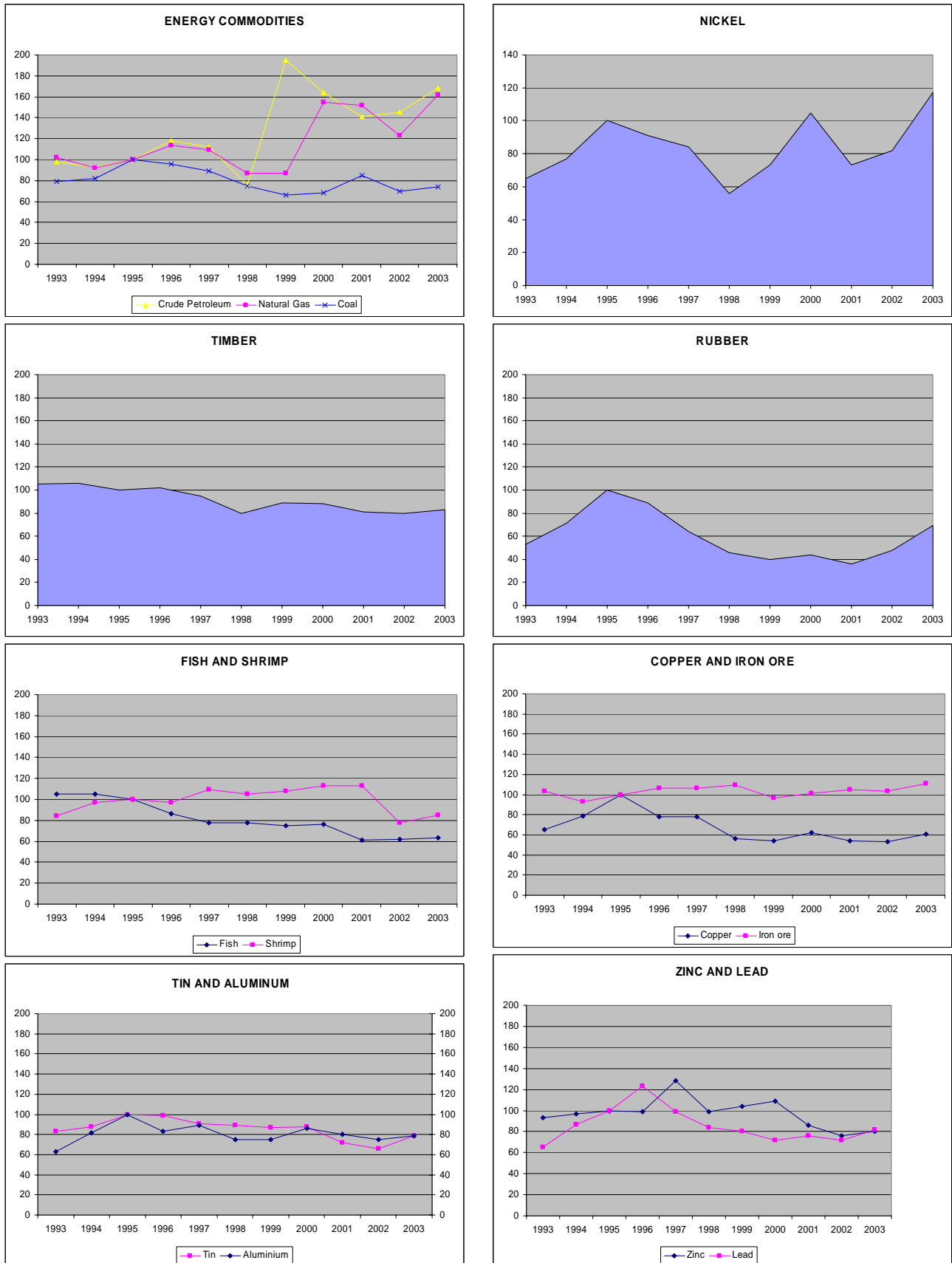
**Table 5: Instability indices and trends in free market prices for selected non-agricultural commodities**

	Price instability indices			Price trends							
				In current dollars				In constant dollars			
	1970-79	1980-89	1990-99	1970-79	1980-89	1990-99	2000-03	1970-79	1980-89	1990-99	2000-03
				Annual average rate of change, per cent							
Non coniferous woods	12	9,7	5,0	12,1	1,4	2,0	3,7	1,1	-1,9	2,6	1,2
Tropical logs	16,1	15,8	6,6	14,1	3,2	-3,9	3,5	3,1	-0,1	-3,4	1,0
Tropical sawnwood	13,7	11,2	17,9	11,6	0,1	0,7	0,6	0,6	-3,2	1,2	-1,8
Plywood	19,7	14,3	20,0	9,8	4,8	1,5	-0,7	-1,1	1,5	2,1	-3,2
Rubber	17,2	17,0	26,9	13,8	-2,1	-0,9	16,9	2,8	-5,4	-0,3	14,4
Phosphate rock	45,0	11,5	9,1	17,1	-2,5	0,6	-4,5	6,1	-5,8	1,1	-7,0
Manganese ore	15,1	18,8	12,1	12,4	2,1	-9,1	1,9	1,5	-1,2	-8,5	-0,6
Iron ore	15,1	5,1	5,2	12,1	-2,1	-1,4	3,1	1,1	-5,4	-0,9	0,7
Aluminium	13,6	23,2	13,1	9,1	4,3	0,6	-3,2	-1,9	1,0	1,1	-5,6
Copper	21,3	22,7	14,8	2,7	3,3	-3,9	-0,7	-8,2	0,0	-3,3	-3,1
Nickel	4,3	35,8	16,8	9,4	6,7	-3,8	4,1	-1,5	3,4	-3,3	1,6
Lead	20,2	26,0	16,8	13,5	-1,9	-1,1	3,3	2,5	-5,2	-0,6	0,9
Zinc	35,9	19,3	11,8	8,7	5,9	-1,9	-10,3	-2,3	2,6	-1,4	-12,7
Tin	11,5	14,8	6,9	17,2	-10,1	-0,7	-3,8	6,2	-13,5	-0,1	-6,2
Tungsten	26,8	14,0	15,7	13,6	-12,5	-1,4	-5,0	2,6	-15,7	-0,8	-7,4
Gold	22,9	14,3	8,0	21,6	-2,6	-2,6	9,1	10,5	-5,8	-2,1	6,7
Silver	20,9	21,7	9,1	19,1	-10,7	2,7	-0,1	8,0	-13,9	3,3	-2,5
Crude petroleum	25,8	12,8	15,2	28,2	-10,7	-1,6	1,0	17,0	-14,0	-1,1	-1,4

Source: UNCTAD *Handbook of statistics* 2003.

### ANNEX III:

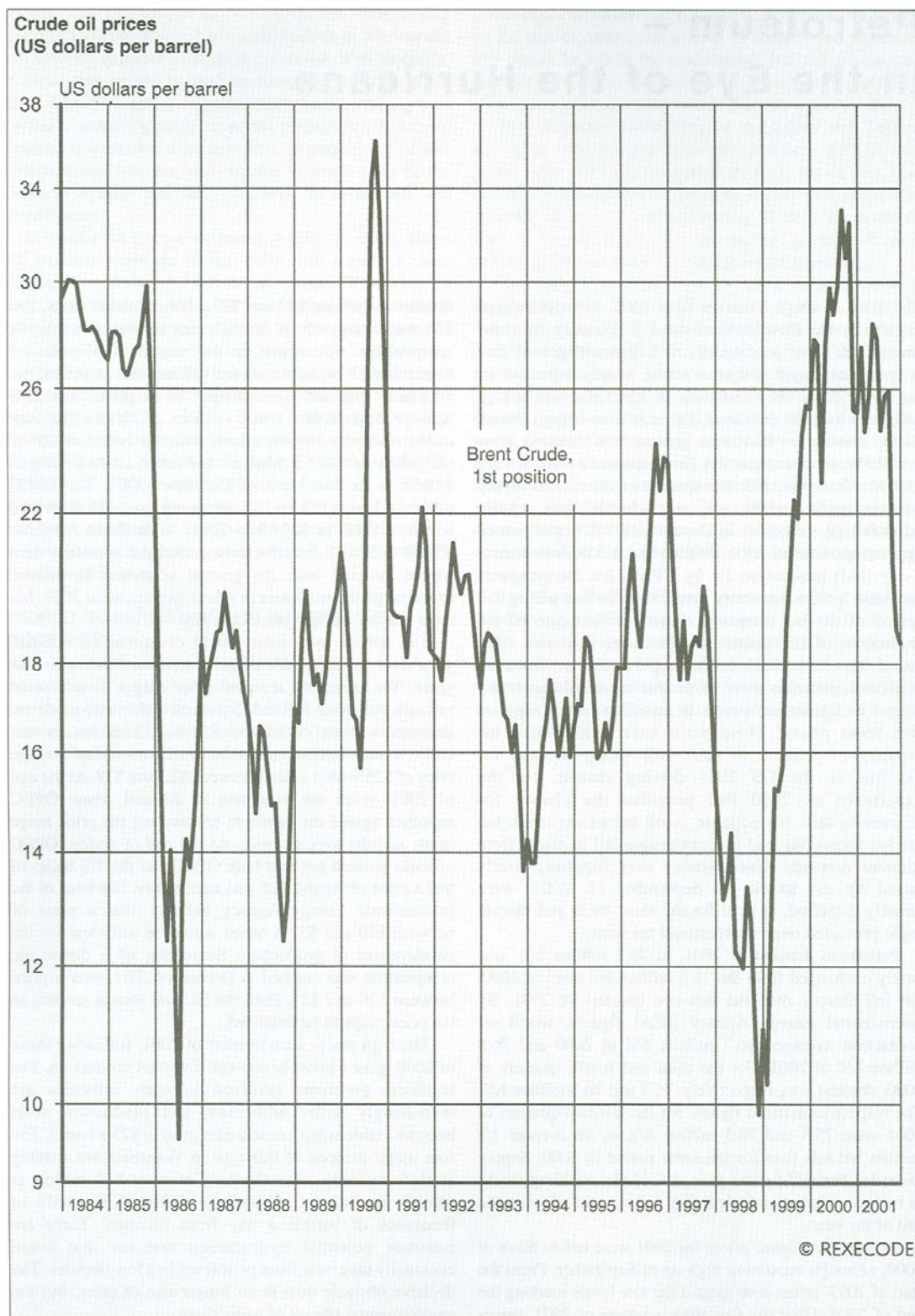
Figure 4: Export prices of some non-agricultural commodities



Source: WTO International Trade Statistics 2004

#### ANNEX IV:

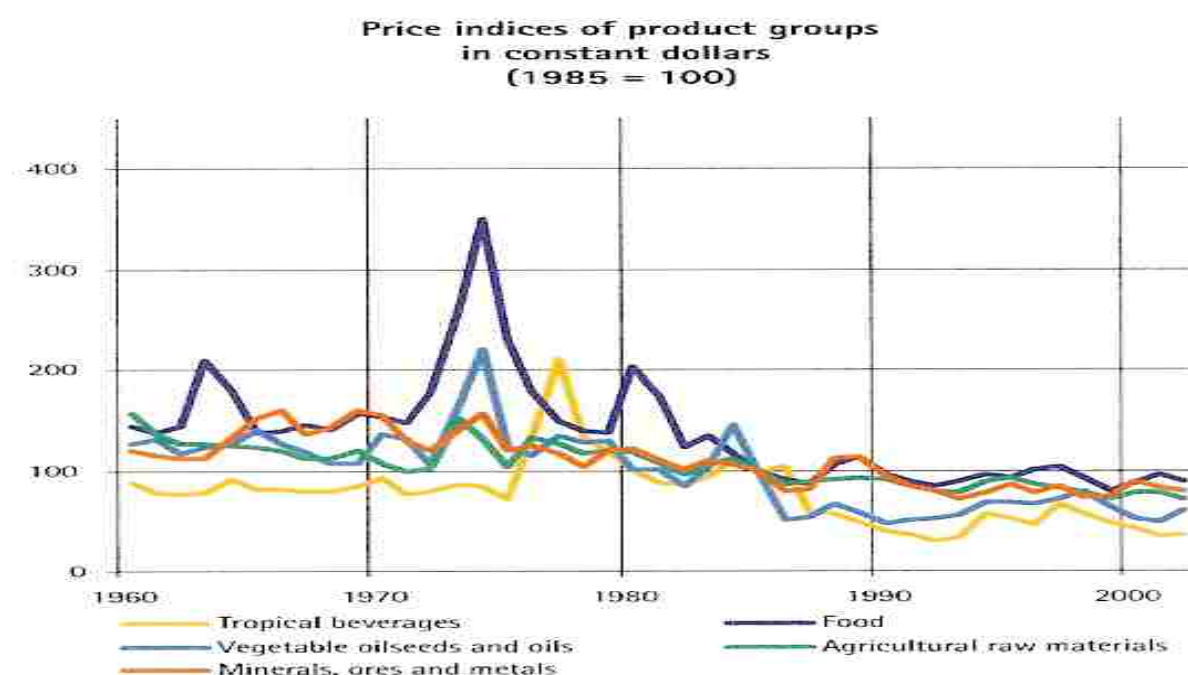
Figure 5: Crude oil prices (US dollars per barrel), 1988-2001



Source: UNCTAD/CyclOpe. *World Commodity Survey 2003-2004*

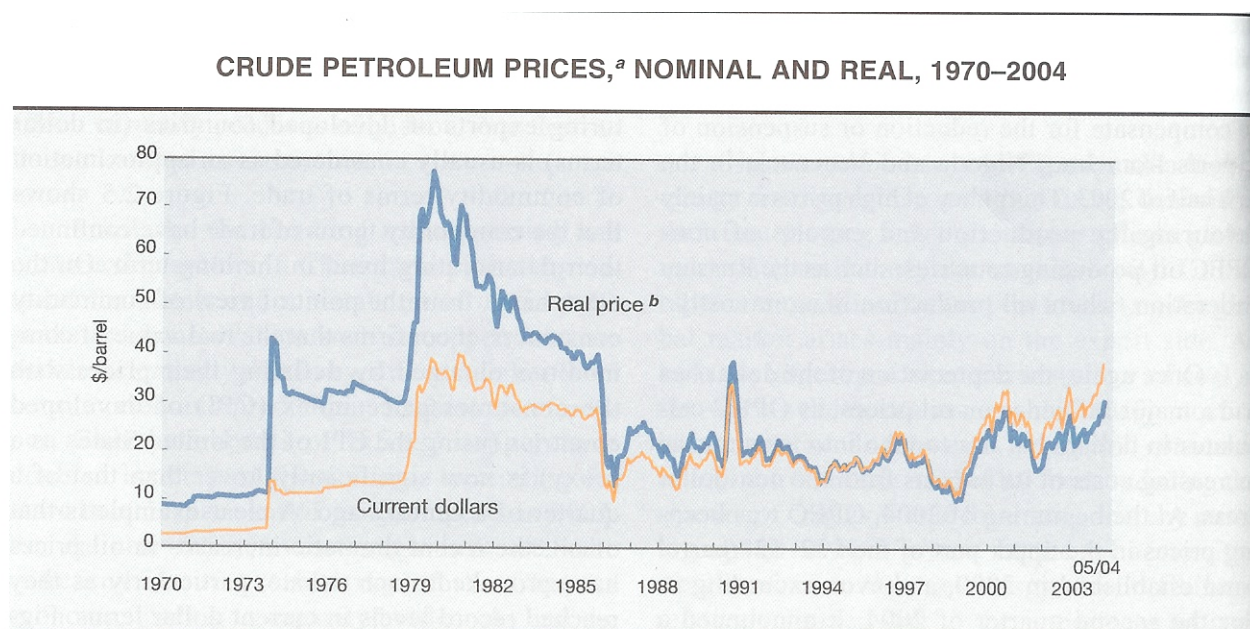
## ANNEX V

**Figure 6: Price indices of product groups in constant dollars, 1960-2003**



Source: UNCTAD (2001). *Production and international trade of commodities*.

**Figure 7: Crude petroleum prices nominal and real, 1970-2003**



**Source:** UNCTAD secretariat calculations, based on UNCTAD, *Commodity Price Bulletin*, various issues; and IMF, *International Financial Statistics* database.

<sup>a</sup> Crude petroleum, average of Dubai/Brent/Texas equally weighted (\$/barrel).

<sup>b</sup> Deflated by United States CPI (1995 = 100).

Source: UNCTAD (2004). *Trade and Development Report, 2004*

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