PROBLEMS AND POLICY CHALLENGES FACED BY
COMMODITY-DEPENDENT DEVELOPING
COUNTRIES (CDDCs)*

SYNOPSIS
This note (i) presents the commodity problems and their implications for Commodity Dependent Developing Countries (CDDCs); (ii) identifies the underlying causes of these problems and (iii) examines some of the major policy approaches used in the past to deal with them, their merits and limitations. The objective of the paper is to provide an overview of the problems and implications of heavy dependence on primary commodities. In doing so, the paper contextualizes the various issues that are envisaged to be discussed in the South Centre Seminar on Commodities and Development.

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EXECUTIVE SUMMARY

1. This paper has been prepared for the South Centre Seminar on Commodities and Development (Hong Kong, 12 December 2005)\(^1\). The objective of the paper is to provide an overview of the problems and implications of heavy dependence on primary commodities. In doing so, the paper contextualizes the various issues that are envisaged to be discussed in the seminar, including: (i) short to medium-term actions to address problems in tropical beverage markets; (ii) challenges arising from technological change trends in commodity markets and how these trends could distort developing countries’ comparative advantage; and (iii) how best to join efforts to tackle the commodity problem in a comprehensive manner.

2. Commodity prices exhibit (i) secularly declining long-term trends and (ii) excessive short-term fluctuations. Commodity prices have declined *vis à vis* prices of imports and farm-gate prices *vis à vis* retail prices. In recent years, increasing prices of some commodities can be observed but it is too early to suggest that this trend is sustainable in the mid and long-term.

3. Erratic short-term price movements and long-term price declines have an impact on the capacity of countries and workers involved in commodity production and trade to attain and maintain living standards and hence, on poverty. Falling and unstable prices of commodities affect government revenues, and hence fiscal sustainability and macroeconomic stability.

4. Commodity dependence remains high in many developing countries. This dependence enhances the vulnerability of these countries to unfavourable market or climatic conditions. Weather vagaries or falls in prices of commodities can deteriorate their foreign exchange reserves, stifle their ability to pay for essential imports and plunge them into debt. This situation has implications for their prospects for social development and economic well-being and has often been referred to as a poverty trap. For Commodity Dependent Developing Countries (CDDCs), commodities and development are intertwined concepts that cannot be considered separately.

5. The magnitude of commodity price declines and volatilities vary from one commodity to another. In spite of that, changes in policy and institutional environment during the last two decades have negatively affected the level and stability of almost all commodity prices. Oversupply and increased vertical integration along value chains of commodities also has contributed to secularly declining commodity prices. In addition, the low responsiveness of demand to

\(^1\) Information about this Seminar is available at [http://www.southcentre.org/tadp_webpage/workshops_webpage.htm](http://www.southcentre.org/tadp_webpage/workshops_webpage.htm)
changes in prices of primary commodities, coupled with weather vagaries, explain most of the price volatilities in commodity markets.

6. Several policy approaches have been used in the past in order to cope with falling and volatile commodity prices. Diversification is the viable long-term solution for both problems. Compensatory finance mechanisms, market-based risk management and mechanisms for commodity market stabilization have tried to deal with unstable prices. These strategies have had varying levels of success in different developing countries for different commodities.

7. Each of these policy approaches has merits and limitations. Evidence suggests that addressing the development impact of commodity dependency require tackling the root causes of the problem. This implies taking a variety of actions at the national and international levels and calls for increased coordination of efforts among organizations that have a mandate to deal with the trade and development aspects of commodity dependency.
INTRODUCTION

1. Commodity prices exhibit (i) secularly declining long-term trends and (ii) excessive short-term fluctuations. For countries that depend on few commodities for the bulk share of their export earnings, commodity prices have a direct incidence on poverty and on their prospects for social development and economic well-being. For these countries, addressing the commodities problem is important to reduce poverty, hunger and disease and to meet the United Nations Millennium Development Goals.

2. This paper has been prepared for the South Centre Seminar on Commodities and Development (Hong Kong, 12 December 2005). The objective of the paper is to provide an overview of the problems and implications of heavy dependence on primary commodities. In doing so, the paper contextualizes the various issues that are envisaged to be discussed in the seminar, including: (i) short to medium-term actions to address problems in tropical beverage markets; (ii) challenges arising from technological change trends in commodity markets and how these trends could distort developing countries’ comparative advantage; and (iii) how best to join efforts to tackle the commodity problem in a comprehensive manner.

3. This note (i) presents the commodity problems and their implications for Commodity Dependent Developing Countries (CDDCs); (ii) identifies the underlying causes of these problems and (iii) examines some of the major policy approaches used in the past to deal with commodity problems and their merits and limitations.

I. WHAT IS THE PROBLEM WITH COMMODITIES?

4. Commodity prices exhibit (i) secularly declining long-term trends and (ii) excessive short-term fluctuations. Commodity prices have declined vis-à-vis prices of imports and farm-gate prices vis-à-vis retail prices.

5. Erratic short-term price movements and long-term price declines gravely affect the living standards of producers and workers involved in commodity production and trade. For countries where production of primary commodities is the economic and livelihood mainstay, commodity prices have direct developmental implications.

A. The secular decline of commodities prices

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2 Information about this Seminar is available at http://www.southcentre.org/tadp_webpage/workshops_webpage.htm
6. Since the late 1970s, real commodity prices have declined at an average of 3 percent a year. Data from UNCTAD indicates that real prices declined for 41 of the 46 leading commodities, for over 24 years (from 1977 to 2001). The rate of decline of prices varies among commodity groups. For instance, according to the World Bank, real agricultural commodity prices (1980-2002) declined by 47 percent and for metal and minerals, real prices decreased by 35 percent. Within agricultural commodities, tropical beverages, oilcrops, cereals, sugar and raw materials have experienced the steepest declines while for horticultural products meat and diary, the fall has been less severe.

7. In contrast, since 1940s prices manufactured goods have increased vis-à-vis commodity prices. This situation leads to a deterioration of terms of trade, which implies that the income of countries (exporters of commodities and importers of manufactures) fails to keep pace with the cost of imports. Terms of trade for developing countries have deteriorated significantly since the mid-1980’s. The World Bank estimates suggest that between 1970 and 1997 the terms of trade decline deprived non-oil exporting countries in Africa of an equivalent of 119 percent of their combined annual gross domestic product in lost revenues.

Figure 1: Commodity terms of trade and real commodity prices, excluding petroleum, 1970-2004


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8. Farm-gate prices have declined vis-à-vis retail prices in the last two decades. For example, the total retail value of coffee amounts to US$ 70 billion while coffee producing developing countries only receive US$ 5 billion. Farmers obtain a fraction of the final retail price of the finished commodity products, ranging from 4 percent for cotton to 28 percent for cocoa. Even for bananas, which normally do not go through processing stages, less than 12 percent of the final retail price goes to producing countries and only 2 percent to the farmers. Evidence suggests that the gap between farm-gate prices and prices paid by consumers has been increasing during the last 50 years. This reflects that increases in prices paid by consumers are not fully transmitted to producers.

B. Excessive price fluctuations

9. One of the distinguishing features of commodities is their highly fluctuating prices over the short and medium term. These fluctuations take place around continuously declining long-term price trends. Commodity price cycles are asymmetrical in the sense that periods of rising commodity prices tend to be shorter, compared to periods of falling commodity prices.

10. The amplitude of price fluctuations varies considerably among commodities. Over the past 40 years, the prices of vegetable oilseeds and oils have been on average more volatile than agricultural raw materials, food and beverage commodities. Since LDCs’ dependence on tropical beverages and raw materials increased between the early 1960s and 2001, price variability appears to be higher for agricultural commodities traded by them. Among non-agricultural commodities, silver, nickel and crude petroleum have the most unstable prices.

11. The amplitude of price fluctuations appears to have increased over the past decade. The commodity price instability index as calculated by UNCTAD (average monthly deviation from exponential trend) for commodities in current US$ was 2.8 percent during the period 1999 to 2002, compared with 1.8 percent ten years earlier.

12. Since 2002, there has been some recovery in commodity prices. This recovery in prices can be observed to a greater extent in mineral commodities than in agricultural commodities. Strong demand from East and South Asia, in particular China and India, has fuelled an increase in commodity prices. For instance, during 2004, China accounted for 121 percent increase in global copper

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7 Oxfam (2002). Rigged rules and double standards: trade globalization and the fight against poverty.

8 FAO (2004), op. cit.

demand; the corresponding percentages for steel, iron ore, aluminium and primary nickel were 90 percent, 66 percent, 51 percent and 44 percent respectively\(^{10}\). According to FAO, this recovery has also been reflected in the prices of coffee, cocoa\(^{11}\), rubber, sugar, cereals and soybeans\(^{12}\).

13. Several factors have to be considered when examining the recent increase in commodity prices. These include the weaker US dollar exchange rate, which is used as the price denomination currency for many commodities. The depression of the US currency might give the impression that prices recovered since the 80s while, in real terms, they have continued their declining trend for many commodities.

14. The impact on the terms of trade in view of this price increase has been different for exporters of different commodities. For instance, the terms of trade of countries with a dominant share of oil exports increased by almost 30 percent between 2002 and 2004, and those of countries with a dominant share of mineral and mining exports increased by about 15 percent\(^{13}\).

**Figure 2: Terms of trade of selected developing economies by dominant export category, 2000-2004**

Source: UNCTAD Trade and Development Report 2005

15. In spite of this recent improvement in commodity prices:

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\(^{11}\) FAO (2004), op. cit.


The real prices of some commodities did not increase in the last 2 years. This has been the case for hides and skins, phosphate rock and tobacco\(^\text{14}\); 
- 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 increases in the 1970s and during the early 1980s\(^\text{15}\); 
- In real terms, commodity prices are still more than one third below their 1960-1985 average\(^\text{16}\) and 
- Agricultural commodity prices continue their long-term decline relative to the prices of manufactured goods and they generally remain close to historically depressed levels.

16. The recovery of some commodity prices does not appear to be secure and sustainable in the long term. For agricultural commodities, cocoa\(^\text{17}\), coffee, wheat, coarse grains, bananas and jute\(^\text{18}\) supplies have continued to rise. In terms of non-agricultural commodities, China has increased investment in some particular industries (such as aluminium and steel) and is building up supply capacity in the mineral sector. Hence, there are reasons to be concerned in the medium term, about oversupply of these commodities because of China’s increased capacity. In addition, the government of China has recently announced the launching of an ambitious energy-saving plan aimed at substantially decreasing their consumption of oil and coal\(^\text{19}\).

C. The implications of commodity prices volatility and decline for developing countries

17. From the perspective of primary producers, price volatility causes income volatility and uncertainty, which in turn creates planning and investment uncertainties. Because of high price volatility, if the actual price that would prevail in market at best gets proxy to a simple random outcome, farmers’ would not have the incentive to invest for increasing productivity. Moreover, uncertain price movements mean that a farmer cannot make a rational decision as to what to produce and sell for the next period.

18. Similarly, continuous declines of long-term price trends mean that producers’ income dwindles day by day. In the short-term, producers may maintain the same level of income by increasing the volume of commodities that they trade. However, as more output is put in the market, price tends to fall even more.


\(^{15}\) Ibid.

\(^{16}\) UNCTAD 2005:b

\(^{17}\) FAO (2004), *op. cit.*

\(^{18}\) FAO (2005), *op. cit.*

19. From the perspective of Governments (from developing countries whose principal means of foreign exchange earnings come from commodities), unstable commodity prices create macroeconomic instabilities and complicate macroeconomic management. Erratic price movements create erratic movements in export revenue and instability in foreign exchange reserves.

1. Measuring commodity dependency

20. Commodity dependency has been measured by: (i) the share of export earnings of the top single commodity (or top three export commodities) in GDP; in total merchandise exports, in total agriculture exports; (ii) percentage of people engaged in commodity production and (iii) share in government revenue.

21. Table 1 below shows the nature of commodity dependence in selected developing countries using two of the above criteria.

Table 1: Countries most dependent on agricultural commodities, minerals and oil

<table>
<thead>
<tr>
<th>Share of top three export commodities in total merchandise exports</th>
<th>Share of export earnings of the top single commodity in GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dependence on agricultural commodities ('98)</td>
<td>Mineral dependence ('95)</td>
</tr>
<tr>
<td>2. Niue (75)</td>
<td>Cocoa, honey, bananas</td>
</tr>
<tr>
<td>4. Sao Tome and Principe (70)</td>
<td>Cocoa beans, coffee, copra</td>
</tr>
<tr>
<td>5. Malawi (70)</td>
<td>Tobacco leaves, tea, sugar</td>
</tr>
<tr>
<td>8. Vanuatu (66)</td>
<td>Copra, fresh vegetables, beef</td>
</tr>
<tr>
<td>10. St. Lucia (62)</td>
<td>Bananas, beer of barley, fresh fruit</td>
</tr>
<tr>
<td>15. Grenada (49)</td>
<td>Nutmeg, cocoa beans, wheat flour</td>
</tr>
<tr>
<td>17. Chad (48)</td>
<td>Cotton lint, cattle, goat</td>
</tr>
</tbody>
</table>
22. Commodity dependence remains high in many developing countries:

It is estimated that out of the roughly 2.5 billion people engaged in agriculture in developing countries, about 1 billion derive substantive part of their income from exports of commodities. Out of the 141 developing countries, 95 depend on commodities for at least 50 percent of their export earnings. Approximately half of the countries in Africa derive over 80 percent of their export earnings. In particular, economies of the Least Developed Countries (LDCs) are based on commodities, which represent about 70 percent of their total merchandise exports. (Overview of the situation of commodities in developing countries. Prepared by the Common Fund for Commodities, at the request of G-77 for the XXI Meeting of the Intergovernmental Follow up and Coordination Committee on Economic Cooperation among developing countries. Cuba, 21-23 March 2005).

23. These countries not only derive a substantial share of their export earnings from commodities. For them, commodities are also the principal sector of rural employment and consumption and taxations and tariffs on commodity exports account for significant share of government revenue.

2. Exploring the link between commodity dependency and poverty

24. Commodity dependency varies across countries and regions and is particularly marked in low-income countries, such as in Sub-Saharan Africa and Least Developed Countries (LDCs)\(^\text{20}\). Although the level of national income in a particular group of countries is an important factor, human development

\(^{20}\) Countries are designated as "least developed" by the United Nations because of their very low per capita incomes, weak human resources and high economic vulnerability to shocks. The UN official list of LDCs include 50 countries: Angola, Bangladesh, Benin, Burkina Faso, Burundi, Cambodia, Central African Republic, Chad, Congo, Democratic Republic of the, Djibouti, Gambia, Guinea, Guinea Bissau, Haiti, Lesotho, Madagascar, Malawi, Maldives, Mali, Mauritania, Mozambique, Myanmar, Nepal, Niger, Rwanda, Senegal, Sierra Leone, Solomon Islands, Tanzania, Togo, Uganda and Zambia.
indicators that consider various economic and social criteria seem more appropriate to analyze the incidence of poverty in Commodity Dependent Developing Countries (CDDCs).

25. According to UNCTAD\textsuperscript{21}, poverty should be understood as the inability to attain minimally adequate standards of living. In this sense, most of the countries that are most dependent on commodities suffer from widespread poverty and have low human development indicating shorter life expectancy, low educational attainment and malnutrition. Of the 30 countries with the lowest Human Development Index, 26 were among either the 54 agricultural or the 25 most mineral-dependent or 25 most oil-dependent countries in the world\textsuperscript{22}.

26. A recent study by Oxfam\textsuperscript{23} highlights the relationship between developing countries’ dependence on extracting industries\textsuperscript{24} and their poor performance on key poverty-related indicators\textsuperscript{25}. This document notes that overall living standards in oil and mineral dependent states are exceptionally lower than they should be, given their per capita incomes.

27. Primary producers involved in commodity production are frequently the poorer strata of the population and their livelihood depends, in most cases, solely on the income generated by this economic activity. Evidence shows that prices paid to primary producers have deteriorated over the last 25 years\textsuperscript{26}. When this phenomenon reaches a certain level and producers can no longer sustain their livelihoods, it may produce social chaos resulting in migrations and civil unrest.

28. Commodity dependency has thus a negative impact on the sustainability of development strategies, in the sense that the capacity of Governments to cater for the basic needs of the population on a sustainable basis is reduced due to export earnings instability and secular declining commodity prices. This entails that resources are not always available to spend on private capital formation, public investment in infrastructure and the running of vital public services such as health, education, administration and law and order.

29. The lack of continuous availability of resources affects the capacity of these countries to cope with climatic and external shocks, their capacity to diversify and improve their export performance and exposes them to debt vulnerability.

\textsuperscript{21} UNCTAD (2002). \textit{The Least Developed Countries Report 2002.}
\textsuperscript{22} See Lines, op. cit.
\textsuperscript{23} Ross, Michael (2001). \textit{Extractive Sectors and the Poor.} Oxfam America.
\textsuperscript{24} Oil, gas, coal and non-fuel mineral commodities.
\textsuperscript{25} Such as: high rates of child mortality, income inequality, child malnutrition, low spending levels of health care, low enrolment rates in primary and secondary schools and low rates of adult literacy.
30. When prices of primary commodities (hence terms of trade) of CDDCs’ decline, the ratio of the debt service to export increases and hence foreign exchange earnings of CDDCs’ are further drained heavily. Continued and sustained decline in commodity prices thus leads to increasing share of debt service to export earnings and could reach a point where debt servicing becomes unsustainable. According to UNCTAD\textsuperscript{27}, commodity dependent countries are highly vulnerable to debt unsustainability. This situation affects their capability to attract FDI and further constrain their meagre resources.

\begin{quote}
Thirty-seven of the countries categorised by the IMF and the World Bank as Heavily Indebted Poor Countries (HIPCs) rely on primary commodities for more than half of their merchandise export earnings. For 15 countries in this group, export earnings from commodities generated more than 90 percent of export revenue. The heavily indebted countries produce more than half of the world’s cocoa, and more than a quarter of its coffee. Oxfam (2002). “Rigged rules and double standards: trade globalization and the fight against poverty”.
\end{quote}

31. It is worth noting that since many commodity-dependent countries are also net food importers, the changes in their terms of trade have had implications for the affordability of food imports and food security.

32. For many developing countries, in particular LDCs, the situation described in this section has lead to a poverty trap that has reinforced commodity dependence.

II. WHAT ARE THE CAUSES OF THIS PROBLEM?

33. The degree of price instability and the magnitude of long-term price declines vary from one commodity to another. In spite of that, it can be said that changes in the policy and institutional environment during the last two decades has negatively affected the price trend and the stability of commodity prices. Oversupply and increased vertical integration along value chains of commodities are also among the major causes for the secular declines of commodity prices. Similarly, low responsiveness of demand to changes in prices of primary commodities, coupled with weather vagaries explain the instability of commodity prices.

A. Policy and institutional environment

34. The policy and institutional environments of commodity markets have dramatically changed during the last two decades. Active interventionary

\textsuperscript{27} UNCTAD (2002) \textit{op. cit.}
policies in commodity markets were the norms rather than the exceptions. The 1970s and 1980s were for instances the heydays of international commodity agreements. During these periods, state marketing boards were active in most developing countries. In general, the policy and institutional environment of the 1970s and the early 1980s were friendly to the stabilisation of commodity markets through active market intervention.

35. However, starting in the mid-1980s most developed countries and the Bretton Woods Institutions shunned intervention in commodity markets and championed market liberalisation and deregulation.

36. The reasons for such shift of attitude by developed countries have been well documented in the literature. Nonetheless, the main reason is that intervention in commodity markets through ICAs, which prior to the mid-1980s served the interests of both developed (consuming) and developing countries (exporters), appears to be no more appealing to the interests of developed countries in the post mid-80s era.

37. Prior to mid-1980s and starting from the end of the World War II, developed countries were concerned about the sustained availability of raw materials at a stable price in order to stimulate their war-shattered economy and to sustain industrial growth. Hence, during this period, they saw international commodity agreements as viable mechanisms that guarantee the continuous availability of raw materials at stable prices. However, the world supply of commodities immensely increased since the mid-1980s and hence, as consumers of commodities, they saw that the collapse of ICAs would be to their advantage as it causes commodity prices to fall.

38. This shun against intervention in commodity markets was not limited to ICAs but also targeted domestic interventionary institutions in developing countries. Hence, the Bretton Woods Institutions under the maxim of “get prices right” persuaded developing countries to embark on structural adjustment programmes (SAP)

39. SAP is simply an implementation of the so-called the Washington Consensus policy prescriptions in developing countries as part of the Bretton Woods loan conditionality package. As part of this loan conditionality, reduced protection of markets, increased competition, market stimulation, quality improvement and other non-interventionist strategies were encouraged in commodity markets. In addition, the structural adjustment regimes demanded

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28 For example, see Mizels (1997) “Commodity Supply Management by producing countries” and Robbins and Koning (2005) “Supply management for supporting the prices of tropical export crops”.

29 See Lines, op. cit.

30 The policy prescriptions of the Washington Consensus include deregulation and liberalisation of commodity markets and privatisation of state commodity plantations.
the liberalization of internal markets (including abolition of marketing boards).
Developing countries were advised to adopt strategies for commodity export
promotion. Overemphasis on export-led strategies in CDDCs resulted in global
surplus production of commodities. As a result, accentuated falls in world prices
of commodities have been marked.

40. The elimination of international and national stabilisation mechanisms
exposed commodity producers in developing countries to the vagaries of market
forces and to the resulting increased swings in international prices of
commodities and ensuing commodity crises.

41. The commodity market reforms in developing countries created
institutional vacuums, in the sense that centralized mechanisms such as
marketing boards, (which were once used to organize the flow of inputs, outputs,
credit research, market information and training) were no longer available and
no other institutional mechanisms were put in place to replace them. These
mechanisms helped regulate the market through guaranteed minimum prices
and credit. The loss of these services limits the ability of producers to withhold
production from the market and reduces their power to negotiate for higher
prices. In the absence of government guaranteed minimum prices, the control of
prices by corporate buyers was reinforced. Since these mechanisms disappeared,
a weaker cohesion between actors (for instance within farming organizations and
within farming enterprises) was also observed31.

42. Managing large fluctuations in commodity prices is a formidable task not
only for farmers but also for Governments and the private sectors in developing
countries32. On the other hand, developed countries have in place mechanisms
that allow them to cope with price instability and mechanisms, such as subsidies,
that are designed to insulate their domestic producers from lower world prices33.

43. In a nutshell, the change in policy and institutional environment (from one
that favour active intervention in commodity markets to one that shuns
intervention and favours unfettered operation of commodity markets) has
exacerbated commodity crises in developing countries. Particularly, the
elimination of commodity marketing boards in developing countries and
dismantling of ICAs exposed developing countries to the vagaries of market
forces and to ensuing price instabilities. Moreover, the elimination of marketing
boards resulted in institutional vacuums in developing countries that weakened
their resilience to international and national commodity shocks and greatly
reduced their influence on commodity prices.

31 Robbins, Peter (2005). Supply-Side Measures for Raising Low Farm-gate Prices of Tropical
Beverage Commodities. South Centre. Trade Research Paper No. 3.
32 UNCTAD 2005:a
33 See Morisset, op. cit.
B. Oversupply

44. When the quantity demanded of a good is less than the quantity supplied there will be an oversupply. Oversupplies contribute to depressing prices. According to economic principles, oversupply is a short-term disequilibrium that should be automatically corrected by market forces. However, in commodity markets, this adjustment is extremely low and impartial.

45. As a result, a number of commodity markets, particularly coffee and cocoa, have had sustained oversupply of commodities for over a decade. Sustained periods of oversupplies have depressed prices of these commodities. According to data from the International Coffee Organization (2001), while coffee supply grows by over 3 percent, demand lags at just over 1 percent. This sustained trend has maintained coffee prices at 30-year low levels.\[1\]

46. When commodity prices fall, farmers and producers will tend to increase output, mostly by expanding farmland for production of trade commodities, in order to maintain their income. This would then depress prices further thereby triggering producers to further expand production until they reach the limit whereby they can no longer do so.

47. Technological changes also contribute to oversupply by increasing productivity and expanding production at a rate that outstrips both population and demand growth. Technological advances have also allowed the introduction of synthetic substitutes displacing commodities as primary or intermediate inputs in the production process. For instance, in the chocolate processing sector in Europe, non-cocoa vegetable butter has substituted cocoa butter.

In short, the commodity problem is quintessentially a developing country problem, reflecting developing countries vulnerability to adverse market developments and their inability to take advantage of technological improvements. Other actors in the market – traders, processors, consumers, even industrial primary producers- remain distant from the developing countries’ distress. Irfan Ul Haque. “Commodities as a Development Issue” (2004)

48. It is also important to note that consumer preferences have driven many shifts in trade among commodities. According to FAO, when people have more money to spend, they add more variety and more expensive and high value added goods to their diets, displacing commodities as consumption items.

49. Finally slower population growth can depress demand growth; this is particularly true for most developed nations in Europe.


\[2\]FAO (2004), op. cit.
C. Increased vertical concentration along value chains of commodities

50. Most commodities are exported from developing countries in an unprocessed form. As a product moves from the farm-gate or mining field to ports for export and then to the final consumer, it goes through a process of value addition, through processing, distribution, marketing and trading.

51. For traders, processors and other intermediaries in the value chain from primary production to final consumption, commodities continue to provide comfortable earnings. Every link of the market chain operation gets a profit margin and hence, profits remain in the intermediate process (processing, distribution and marketing).

52. Increased vertical concentration along value chains of commodities is particularly pronounced in foodstuff commodities, where trade within multinationals account for about 60 percent of all global trade. These companies have a monopolistic power at different stages of the value chain, which has enabled them to develop efficient market intelligence and facilitate large-scale operations. Most large trading companies are also engaged in commodity processing, sourcing them directly from exporting countries to take advantage of economies of scale in transport, storage and processing. In view of the asymmetry in market power, although producers in developing countries may associate themselves in order to sell to manufacturing companies, they cannot influence prices36.

53. This evolution of the market has caused commodity prices in international markets to become less sensitive to forces of supply and demand and transformed the value chain into a buyer driven one. In this context, the market power of farmers has become relatively limited and the increasing concentration commodity chains has had a direct impact on the share of final price that goes to farmers and exporters of agricultural products.

54. Although the concentration pattern varies from one commodity to another, cocoa and coffee are classic examples of this trend37. Four large companies account for nearly 80 percent of the global trade in cocoa, and a different four cover 75 percent of the coffee trade38 and just three companies now control almost half the coffee roasting in the world for example39.

36 Common Fund for Commodities (2005), op. cit
39 FAO (2004), op. cit
55. High concentration is also observed in commodities derived from extractive industries. For example, three companies control 80% of the world’s iron ore production. This situation is due to the production process that involves large-scale mining that requires intensive investments on capital and large sunk-costs in exploration and exploitation of minerals.

D. Low responsiveness of demand for commodities to changes in prices

56. Erratic commodity price movements are often caused by external shocks, unpredictable changes in supplies, demands, or investor speculations in commodity exchange markets. The supply shocks are mostly attributed to weather vagaries, whereas the unpredictable changes in demand are mostly caused by business cycle (or unpredicted economic booms and busts), and other economic and social factors, such as social unrest and major stock market crashes that affect demand unpredictably.

57. Demand and supply shocks are not unique to primary commodities. However, the price volatility of primary commodity prices in response to demand and supply shocks are exceptionally high. It is striking that the magnitude of the volatility in primary commodity prices often surpasses the magnitude of the demand and supply changes.

58. The reason why primary commodity prices tend to be more volatile than other products that encounter similar demand and supply shocks is simply explainable by differences in the elasticity of demand, i.e. the responsiveness of demand to changes in price. Generally, primary commodities have low elasticity of demand implying that quantity demanded for primary commodities in percentage increase (decrease) less proportionately than the percentage decrease (increase) in price. In other words, demand for primary commodities is less responsive to changes in commodity prices.

59. Since commodities demand change less proportionately than changes in commodity price, the implication of the low elasticity of demand is that it takes a proportionately large fall of price to increase demand sufficiently enough so that additional supply of a particularly commodity would be absorbed by the market. Similarly, commodity prices increase more proportionally than the magnitude of a decrease in supply.

60. Therefore, because of the low elasticity of demand in commodity markets, minor changes in commodity supplies wind up into higher price movements. This coupled with the high frequency of supply-side shocks of commodities, i.e.

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40 South Centre (2005). *Policy Challenges for Developing Countries in Large Scale Mining*. Analytical Note No. SC/TADP/AN/COM/3.
high variability of production due to weather vagaries, leads to recurring and excessive commodity prices volatilities.

E. Market access and market entry barriers.

61. Market access barriers and market entry barriers undermine developing countries ability to enter into high-value added segments of commodity value chains. As a result, commodity dependent developing countries find themselves confined to the production of primary commodities. Hence, market access and market entry barriers perpetuate commodity dependence and limit the scope of vertical diversification.

62. For instance, *tariff escalation* reduces the opportunities of CDDCs to export higher value processed goods whose prices have been considerably more stable than those of basic commodities.

63. *Market entry barriers* refer to technical barriers to trade (TBT) and sanitary and phytosanitary measures (SPS). Evidence suggests that these standards are increasing in dynamic commodities, such as tropical fruits and vegetables. A recent study by the South Centre showed that SPS measures on fruits and vegetables imported from developing countries by Quad countries change frequently and that their stringency increases over time. These requirements imply increased costs to demonstrate the quality of products and pose challenges from the perspective of the infrastructure and institutions required to certify products that can be recognized by the importing country. They also create market entry uncertainties.

64. *Subsidies* have pushed down world prices for many agricultural commodities such as cotton, sugar and rice by inducing surplus production and, by financing dumping in international markets, have shielded non-competitive producers in developed countries. Farmers from developing countries must contend with competition from highly subsidized producers in the industrialized countries. Producer support to farmers in developed countries currently is about 230 billion per year. This is almost 30 times higher than the amount provided as aid for agricultural development programs in developing countries.

65. Market access and market entry barriers described above reduce the export earnings of developing countries that trade temperate commodities

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41 Higher tariffs applied to goods exported at more advanced levels of processing
42 Dynamic commodities or products have high annual growth in their export values and experience large increases in their share of world trade (UNCTAD)
44 Japan, United States, European Union and Canada.
(produced both by developed and developing countries) such as: sugar, rice, tobacco, beef, wheat and cotton in international markets.

III. POLICY APPROACHES TO DEAL WITH THE COMMODITY PROBLEM

66. Several policy approaches have been used in the past in order to cope with falling and volatile commodity prices. Diversification is the viable long-term solution for both problems. Compensatory finance mechanisms, market-based risk management and mechanisms for commodity market stabilization have tried to deal with unstable prices. The following section succinctly discusses the merits and limitations of these policy approaches.

A. Diversification strategies

67. Diversification can contribute, in the long term, to reduce commodity dependency. Horizontal diversification involves encouraging farmers to grow an alternative cash crop to augment their income. Vertical diversification, on the other hand refers to the transformation, through processing and marketing, of the original commodity into a higher value-added product that may have better prices once marketed.

68. Nevertheless, diversification strategies are easier said than done and, if wrongly pursued, could further exacerbate problems. For instance, horizontal diversification, if it leads to the “fallacy of composition”\textsuperscript{45}, may increase the supply of the crop to which production is diversified into and hence reduce market prices. In doing so, it causes market crisis to spread from one commodity to another. It has also been noted that assistance provided for horizontal diversification have, in some cases, led to increased productivity and output\textsuperscript{46}, thereby negatively affecting world prices of commodities. For instance, the development assistance given to Vietnam in the late 1990s led to boosting coffee supplies worldwide.

69. Vertical diversification strategies require investment in processing and marketing, including research and development and the ability to comply with SPS and TBT\textsuperscript{47} measures. Often, the resources for this investment are not readily available in most developing countries.

70. During the last 3 decades Latin America and Asia greatly succeeded in diversifying their economies than most countries in Sub-Saharan Africa, LDCs and countries in the Middle East\textsuperscript{48}. According to UNCTAD, successful

\textsuperscript{45} Also called the “summing up” problem
\textsuperscript{46} See Lines, \textit{op. cit.}
\textsuperscript{47} Technical Barriers to Trade
\textsuperscript{48} WTO (2002). \textit{World Trade Report 2002}.
diversification is very hard to achieve and requires investment in infrastructure, human resources development and institutional capacity building\textsuperscript{49}.

71. The role of the government in economic diversification should be as active for countries that export agricultural commodities as for countries dependent on commodities derived from extractive industries\textsuperscript{50}. The latter face difficulties to channel income from mineral exports into enhancing human and physical capital. The “Dutch disease” \textsuperscript{51} is a typical problem that accentuates macroeconomic management problems in these countries. This disease leads to overvaluation of currencies hence to loss of competitiveness in non-extractive export sectors and weakens links between these sectors and the rest of the economy.

72. Many factors have to be considered when designing and implementing a diversification strategy; dynamic products and markets have to be identified and appropriate policies and actions by Governments and enterprises in order to enter these markets need to be established. These actions and policies should envisage incentives to production and opening of new markets. The removal of market access and market entry barriers is a critical issue to enhance opportunities for vertical diversification.

B. Supply management programmes

73. A supply management programme can be defined as a policy tool that controls the production and supply of a commodity in order to achieve a desirable price objective in a relevant market. The relevant market could be domestic or international. The price objective of a supply management can include both the level and stability of prices\textsuperscript{52}.

74. The International Commodity Agreements (ICAs) that were used during the 1970s and the 1980s\textsuperscript{53} were supply management programmes. Their objective was to improve welfare through the stabilization of revenue at remunerative price levels. These agreements had economic clauses that allowed authorities to intervene in the market as required.

\textsuperscript{49} UNCTAD (2002). Diversification of production and exports in Commodity Dependent Countries. No. TD/B/COM.1/EM.18/2.

\textsuperscript{50} Ibid.

\textsuperscript{51} This term refers 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.

\textsuperscript{52} South Centre (2005). A conceptual framework to understand supply management programmes. Analytical Note No. SC/TADP/AN/COM/4.

\textsuperscript{53} For example: the Tin Agreement, the International Coffee Agreement and the International Cocoa Agreement.
75. The policy instruments used in the design of these programmes were production quotas and buffer stocks. Buffer stock intervention takes place when a central authority maintains commodity prices at a particular level by buying up excess supply and releasing stocks when market tightens and prices rise.

76. According to Gilson et al (2004)\textsuperscript{54}, supply management schemes helped prevent large temporary shocks from affecting producers. Similarly, Oxfam views the International Coffee Agreement, which lasted from 1975 to 1989, as “a golden era of good and stable prices” and believes that it succeeded in stabilizing prices and raising them above what they would otherwise have been\textsuperscript{55}.

77. Nonetheless, the following limitations are often attributed to supply management programmes:

- Difficulties in quota allocation and quota right limit enforcement;
- Important producers that remain out of the scheme (“free riders”), taking into account that high prices encourages new producers to enter the market;
- High costs involved in stabilisation;
- Complexity of the institutional mechanisms required to manage these schemes effectively;
- Rent-seeking activities intended to obtain the quota permission (in these cases no or little benefit accrues to producers and farmers) and
- Difficulties associated with the estimation of price ranges that are equitable to producers or the long-term price trend, in order to determine price targets and price bands.

C. Compensatory finance mechanisms

78. Compensatory finance mechanisms, as the name implies, are measures adopted by bilateral or multilateral donors that are intended to compensate eligible developing countries for the export revenue losses that they incur because of unforeseen external factors. Often the donors set the eligibility criteria and the threshold for triggering compensation. They are designed to provide compensation on an \textit{ex-post} basis for unforeseen export earnings shortfalls.

79. The most known compensatory finance instruments were the EU STABEX and the IMF’s Compensatory Financing Mechanism. The EU STABEX was introduced during Lomé I as part of the EU-ACP agreement and was substituted by FLEX in 2000 when the Cotonou Agreement was signed. The IMF Compensatory Financing Mechanism provided short-term balance of payment supports to countries facing adverse terms of trade shocks.

\textsuperscript{54} Gillson, Ian; Green, Duncan and Wiggins, Steve (2004). \textit{Rethinking tropical Commodities}. Working Paper for the Renewable Natural Resources and Agriculture Team. DFID Policy Division.

\textsuperscript{55} Oxfam International (2002). \textit{Mugged: Poverty in your coffee cup}.
80. Compensatory financing mechanisms, despite the potential benefit that they could give to developing countries, have been less beneficial in practice. This is mainly because of the inherent weaknesses in the operation of the schemes, more particularly, the higher trigger thresholds and the cumbersome process to verify export losses. In addition, the low disbursement of funds under these schemes make compensatory financing mechanisms a pro-cyclical rather than a countercyclical instrument i.e. funds do not come when they are most needed (when export revenue falls) and would come when they are less needed (when no, or less, revenue loss).

81. The improvement of the designs and operation of compensatory finance mechanisms (particularly simplifying the schemes procedure of fund disbursements, reducing the trigger levels of revenue falls, and fast disbursements) are seen as instrumental to mitigate some aspects of the problems of commodity dependent developing countries.

D. Market-based risk management mechanisms

82. Market-based risk management mechanisms refer to stabilization of commodity prices through hedging risks using financial instruments such as futures and forwards. The mechanism often consists of a contract that guarantees that the price to be paid for a particular commodity, when delivered on agreed date, is an agreed (fixed) price.

83. In general commodity derivative instruments can be classified into two:

84. Contracts where the principal or interest payments, or both, are indexed on a commodity price. Instruments such as futures, forwards, swaps, long-term contracts, and commodity indexed bonds fall under such contracts.

85. Contracts that give the holder the right-but not the obligation-to buy or sell a commodity at a particular price. Instruments such as call options, put options, warrants, and swaptions fall under this contracts.

86. Commodity risk hedging instruments are intended to manage risks associated with the volatility of commodity prices without disrupting the free operation of market forces. According to a report by the World Bank (1994) commodity derivative instruments “… despite their limitations, offer a promising alternative to traditional stabilization schemes.” This is considered the case because of a belief that allowing markets to operate in unfettered fashion

encourages greater efficiency and growth\textsuperscript{57}. However, the South Centre argues\textsuperscript{58} that despite their potential benefits, market-based commodity risk-hedging instruments cannot be substitutes to active interventionary policies in commodity markets.

87. Market-based risk hedging instruments have the following limitations\textsuperscript{59}:

88. Commodity derivatives have short-term maturities implying that the instruments are suitable only for hedging short-term risks\textsuperscript{60}. The risks that producers of developing countries face are not limited only to short-term price volatilities but also to long-term price declines that are caused by structural oversupplies of commodities. Moreover, the derivatives are not able to address the commodities challenges that are concomitant to colossal market power imbalances among different players in the value chains of commodity markets.

89. Commodity derivatives are not capable of mitigating the causes of commodity price volatility but only intend to manage risks linked to the volatility. Thus, in practice, the derivatives shift attention to managing short-term risks rather than controlling the core sources of the commodity problems.

90. Futures prices themselves are only slightly less volatile than spot prices\textsuperscript{61}. This is to say that the maturity of futures is usually one production period, i.e. the period for one production cycle, and futures prices in intra production periods are almost as volatile as spot prices. This is because, in every successive futures agreement agents adjust their speculations based on spot price movements.

91. Risk-hedging instruments could not bridge the institutional vacuum created by the dismantling of national institutions such as marketing boards as the activities of such institutions comprised the provision of information, extension services, fertilizers and credits.

92. Producers in developing countries are designated as more risky\textsuperscript{62}. Hence, in order to get access to commodity instruments in international markets, they need to pay a higher risk premium or are asked for higher-value collaterals that simply are beyond their ability. Moreover, lack of access to credit markets limits


\textsuperscript{58} South Centre (2004). Commodity Market Stabilization and Commodity Risk Management: could the demise of the former justify the latter? Analytical Note SC/TADP/AN/COM/1.

\textsuperscript{59} Ibid.

\textsuperscript{60} Usually three months for agricultural commodity and up to three years for minerals such as copper and aluminium (WT/COMTD/W/124).


\textsuperscript{62} This is mainly because of the general high country-risk-ratings of developing countries.
the accessibility of internationally traded commodity derivatives for producers in developing countries.\textsuperscript{63}

93. Commodity derivatives are generally absent in most LDCs; and where they are available, their operational efficiency is highly undermined due to the lack of regulatory, supervisory and contract reinforcement capacities (Haque, 2004:b). Moreover, the operations of the financial derivatives are technically too complicated for producers in developing countries to comprehend. In short, as Haque (2004:a) put it:

\begin{quote}
“… Adequate regulation and supervision of options trading as well as high personal integrity of professionals engaged in trading would be crucial if the farmers are to be protected against mismanagement or fraud. These are governance requirements that seem to go beyond the skills required to successfully manage a state marketing authority.”
\end{quote}

94. Commodity derivatives in international markets are catered to fit the conditions of producers and traders in developed countries and do not generally fit to the circumstances that producers in developing countries face. For example, the availability of risk-hedging instruments in commodity exchange markets is limited to internationally traded commodities whereas commodities that are mostly traded in the domestic markets of developing countries fall out of the scope of the commodity derivatives.

CONCLUSIONS

95. Commodity prices are characterized by (i) a secular decline and (ii) excessive fluctuations. These characteristics have implications for a large number of developing countries for whom trade in a few commodities represents the bulk of their export earnings. For these countries, commodity prices have a direct incidence on poverty and on their prospects for social development and economic well-being.

96. The magnitude of commodity price declines and volatilities vary from one commodity to another. In spite of that, changes in policy and institutional environment during the last two decades have negatively affected the level and stability of almost all commodity prices. Oversupply and increased vertical integration along value chains of commodities also has contributed to secularly declining commodity prices. In addition, the low responsiveness of demand to changes in prices of primary commodities, coupled with weather vagaries, explain most of the price volatilities in commodity markets.

97. Several policy approaches have been used in the past in order to cope with falling and volatile commodity prices. Diversification is the viable long-term solution for both problems. Compensatory finance mechanisms, market-based risk management and mechanisms for commodity market stabilization have tried to deal with unstable prices. These strategies have had varying levels of success in different developing countries for different commodities.

98. Each of these policy approaches has merits and limitations. Evidence suggests that addressing the development impact of commodity dependency require tackling the root causes of the problem. This implies taking a variety of actions at the national and international levels and calls for increased coordination of efforts among organizations that have a mandate to deal with the trade and development aspects of commodity dependency.
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