

Trade Policy Responses to Food Price Volatility in Poor Net Food-Importing Countries

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ICTSD
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LIST OF ABBREVIATIONS AND ACRONYMS

AMS	Aggregate Measurement of Support
AoA	Agreement on Agriculture
CFF	Compensatory Financing Facility
CoA	Committee on Agriculture
CSSD	Sub-Committee on Surplus Disposal
ECF	Extended Credit Facility
FAC	Food Aid Convention
FAO	Food and Agriculture Organization
FIFF	Food Import Financing Facility
GIEWS	Global Information and Early Warning System
ICTSD	International Centre for Trade and Sustainable Development
IMF	International Monetary Fund
LDCs	Least Developed Countries
LIFDCs	Low Income Food Deficit Countries
MTS	Multilateral Trading System
NFIDCs	Net Food Importing Developing Countries
ODA	Official Development Assistance
OECD	Organization for Economic Cooperation and Development
OPA	Observatoire des Pratiques Anomales
PCDR	Post-Catastrophe Debt Relief Trust
PRGF	Poverty Reduction and Growth Facility
PRGT	Poverty Reduction and Growth Trust
RCF	Rapid Credit Facility
SCF	Standby Credit Facility
SDT	Special and Differential Treatment
SSR	Self-sufficiency ratio
UR	Uruguay Round
WFP	World Food Programme
WTO	World Trade Organization

FOREWORD

Since the Marrakesh Decision was adopted in 1993, the challenges facing poor least-developed countries and net-food-importing developing countries have evolved considerably. Most recently, these countries have had to contend with high and volatile prices for agricultural commodities, including for basic foodstuffs, limited progress in advancing the reform agenda that was agreed to in the Uruguay Round, and a new trade policy environment including more widespread application of measures such as agricultural export restrictions and biofuel subsidies.

In October 2011, net food-importing developing countries circulated a draft proposal for a work programme "to mitigate the impact of the food market prices and volatility on LDCs and NFIDCs" at the WTO, with three main components. The proposed work programme was to contribute to ensuring access of LDCs and NFIDCs to adequate supplies of basic foodstuffs; to develop rules to exempt LDCs and NFIDCs from export restrictions on basic foodstuffs enacted by other WTO members; and to address short-term difficulties that LDCs and NFIDCs face in financing imports of basic foodstuffs.

With WTO members unable to agree on how food security and other issues should be addressed in the absence of progress on the stalled Doha trade talks, the proposal was not adopted by the WTO's eighth ministerial conference in December 2011. The chair's summary issued at the end of the meeting simply mentioned that "some Ministers signalled their support for a proposal to establish a work programme on trade-related responses to mitigate the impact of food market prices and volatility, especially on LDCs and NFIDCs, for action by the Ninth Ministerial Conference."

The need for global collaboration to promote food security is clear. The past several years have seen many examples of supply shocks that have left many LDCs and NFIDCs with an acute lack of basic foodstuffs. Unfortunately, the multilateral trading system is currently far from establishing the necessary consensus base for action. The following paper, by Panos Konandreas, seeks to inform the debate in this area by providing an impartial, evidence-based assessment of the trade-related challenges that poor net-food-importing countries have faced since Marrakesh, the extent to which existing mechanisms have proved adequate to tackle these challenges, and, if not, what usefully could be done instead.

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EXECUTIVE SUMMARY

Background

Since the late 1990s the world has entered a period of tight food supplies, **higher prices and increased price volatility.** These trends adversely affect the capacity of food import-dependent countries to access supplies. Poor households in these countries which already spend much of their income on food and have limited coping mechanisms at their disposal, suffer in the process.

These developments are related, in part, to the **implementation of reforms agreed under the Uruguay Round** that came into effect in 1995, which resulted in a reduction of structural surpluses and a strengthening of world agricultural and food prices. Also as anticipated, other forms of food assistance made available in the past, such as subsidized exports and food aid, declined drastically in recent years. Although this was a positive development for long-term food security, it created short-term adjustment problems for those countries that depended heavily on such food assistance in the past. At the same time the world food market has been dramatically affected by factors external to agriculture, including energy prices and speculative activity from the financial sector, as well as unilateral export restrictions put in place by some countries.

The architects of the Uruguay Round had anticipated some of these developments and Ministers had also agreed then to the ***Marrakesh Decision*** to assist the Least Developed Countries (LDCs) and Net Food Importing Developing Countries (NFIDCs) facing short-term difficulties in financing normal levels of commercial imports of basic foodstuffs. Despite these intentions, implementation of the Decision has been a challenge and many LDCs and NFIDCs view it as inadequate to provide the short-term assistance they need, in view also of the many corroborating factors that aggravated the world food market in recent years.

In response to an initiative by concerned countries, during the WTO Eighth Ministerial Conference in December 2011, some Ministers signalled their support for a proposal to establish a work programme on trade-related responses to mitigate the impact of food market prices and volatility, especially on LDCs and NFIDCs, for action by the Ninth Ministerial Conference anticipated towards the end of 2013. This paper aims at providing some background to this process.

Characteristics of food insecurity in net food-importing countries

The average **supply of calories and protein** in LDCs and NFIDCs is well below and much more variable than the aggregate for developing countries. Gains in the past half century have been modest. Considering also the often very unequal distribution of available supplies between and within countries, these trends are indicative of their food security vulnerability. A manifestation of the precariousness of the food security situation in these countries is the frequency of being in need of external assistance in response to food emergencies, with some of them permanently in that state.

Their growing demand for basic foodstuffs continues to be met by domestic supplies and growing import volumes. In the case of cereals, **self-sufficiency ratios** are hovering around 90% and 70%, for LDCs and NFIDCs respectively. While NFIDCs have generally kept the pace of other developing countries in increasing productivity, LDCs achieved only modest gains. Cereal yields in LDCs are only half of those attained by developing countries and one-third of those achieved by developed countries. Much of the increase in output has come from area expansion.

Cereals comprise the largest item in the food import basket accounting for some 42% and 40% of the value of food imports of LDCs and NFIDCs, respectively, followed by oils and fats and sugar. Together these three commodity groups account for over three-quarters of the value of food items imported by LDCs and over two-thirds for the NFIDCs. The share of food aid in their total cereal imports has declined sharply, from close to 30 percent in the beginning of the 1990s for the LDCs (8% for the NFIDCs), to about 8 percent in the last 3 years (less than 0.5 percent for the NFIDCs).

The increase in the **cost of cereal imports** has been much more affected by price increases rather than volumes imported in recent years. Thus, for LDCs while the aggregate volume of commercial cereal imports increased by less than three times during 1990-2010, their cereal import bill increased by over six times during the same period. Similar sharp increases in the cereal import bill have been experienced by the NFIDCs, with a volume increase by about 70 percent and a cereal import bill nearly quadrupling. For both LDCs and NFIDCs, there is considerable variation between countries. For some countries all the increase in their cereal import bill was due to price.

The **escalating burden of food imports**, necessary to meet immediate consumption, represents a serious threat for the economies of most LDCs and NFIDCs. The share of food imports to total merchandize exports is very high even under normal years, especially for the LDCs, and skyrockets for some countries during price spikes. The imperative of importing food often comes at the expense of other imports including capital goods necessary for long-term development.

What can LDCs and NFIDCs do for themselves?

Limited help from reducing applied tariffs. Lowering or eliminating import tariffs is the most common measure that governments take to cushion the impact on domestic prices of imported goods when world market prices rise. However, this option is severely limited when applied tariffs are already low as is generally the case in many poor countries and even their elimination is a small relief when import prices shoot up by several multiples of prevailing tariff levels.

Avoiding export prohibitions and restrictions. While such policies are seemingly politically attractive in the short term, they are a blunt instrument. By aggravating further world market prices they shift the burden of an even greater adjustment to other countries. There are always much more attractive approaches to address the needs of vulnerable domestic consumers in countries imposing export prohibitions, which are also less costly in the longer term. Also, to the extent that the country is a regular exporter of food commodities, it risks losing export markets if it turns on and off exports unilaterally. Net food-importing countries should be enthusiastic proponents of approaches in strengthening WTO rules on export prohibitions and restrictions.

Stockholding and domestic food assistance. Building modest stocks has been a very common response to market instability and although often an expensive undertaking, their appeal is clear from the point of view of vulnerable countries to offer some degree of protection against domestic and external shocks. In general, there are no effective limitations from the AoA for public stockholding for food security purposes as long as these form an integral part of a food security programme identified in national legislation. The same applies to domestic food aid under clearly-defined eligibility criteria related to nutritional objectives. The limitations arise from cost considerations and clear rules for accumulation and release of such stocks are essential.

Reducing the high transaction costs for intra-regional trade. Weak market integration in regions where the majority of net food-importing countries are located adds to their vulnerability. Quick improvements can be made by reducing transaction costs which is an important mitigating factor in containing price volatility. These include physical infrastructure (e.g. roads) but also facilitation

of regional transport and transit formalities, cross-border regulations and cracking down on petty corruption which is highly detrimental to food security.

Using AoA flexibility to invest in food production and resilience. In general the AoA disciplines are not constraining poor countries in investing in agriculture, even with production and trade distorting policies. The policy mix that individual countries may use would depend on their specific circumstances but one policy that has proven very effective in achieving rapid increases in output are targeted investment assistance to farmers and 'smart' input subsidies to resource poor farmers.

How can the international community help?

Among the measures to assist net food-importing countries to deal with escalating food import bills are those specifically mentioned in the Marrakesh Decision. These include: food aid; export credits; compensatory financing; and assistance to increase agricultural productivity and infrastructure.

Limiting the role of food aid to emergency responses. While food aid has been an important resource in the past to help countries with structural deficits, available supplies now barely meet the requirements of growing emergency situations. Also the provision of food aid for budgetary support has been increasingly under scrutiny. Considering also the nutritional needs of poor households especially in periods of scarcity, it would be prudent to limit the use of food aid to emergencies and nutritional support and perhaps broaden its scope by including essential agricultural inputs as part of the donors' contributions under the FAC.

Targeting export credits. The record of officially supported export credits in providing assistance to liquidity-constrained countries to import food has not been very good. Only a very small share was given to poor net food-importing countries and the concessionality element was minimal. Creating rules for export credits under the Doha Round offers an opportunity to target these countries which also avoids the risks of export credits being used to circumvent export competition commitments. This is the case to the extent that the credit provided responds to recognized liquidity constraints in these countries and therefore generates additional food imports.

Strengthening food financing facilities. The need for assistance in financing imports of basic foodstuffs is evident from the already heavy burden net food-importing countries endure even when import prices are normal. IMF and the World Bank facilities had been identified as most relevant in the context of the Marrakesh Decision, although their utility has been questioned by beneficiary countries for a number of reasons. A battery of new instruments has now been created by these institutions with improved conditions of access and necessary resources, reflecting the need to address increased vulnerabilities in poor countries in recent years.

Increasing technical and financial assistance to boost productivity. Targeting agricultural productivity reflects a genuine recognition of the fundamental causes of vulnerability. The types of technical and financial assistance would have to be holistic by addressing constraints along the supply chain, including appropriate technologies, processing, storage and marketing of agricultural commodities. Effective use of Aid for Trade and could also be useful in this area. Reversing past ODA trends in investment to agriculture can be instrumental in reducing vulnerability in poor net food-importing countries

Rationalizing biofuel policies. Recent reductions in distorting policies pursued by some major grain-based biofuel producers is a welcome development. This would need to be supplemented by more flexibility in mandates, making them conditional on the price of food, as well as other innovative approaches which would capitalize on available feedstocks being diverted to food consumption in times of need.

Strengthening WTO disciplines on export prohibitions and restrictions. Existing disciplines have proven inadequate and are in urgent need of overhaul. A proposal that deserves immediate attention is the banning of restrictive measures on food purchases for non-commercial humanitarian purposes, such as those by the WFP. Beyond the damaging food security impacts of export prohibitions, weak WTO rules in this area undermine the multilateral trading system itself.

Beyond these general approaches, it is important to recognize the great heterogeneity among net food-importing countries as regards the level of economic development and the difficulties they face in importing basic foodstuffs. This has implications on the prioritization of assistance as well as on the types of instruments that may be more effective for individual countries.

1. INTRODUCTION

One of the anticipated consequences of the Uruguay Round Agreement on Agriculture (AoA) was the strengthening of world agricultural prices as a result of an expected reduction in structural surpluses in a number of developed countries by limiting subsidies and other forms of protectionism. It was expected that the increase in prices would be moderated by increases in food production in hitherto unsubsidizing countries, including the poor net food-importing ones. While the impact of the AoA on market volatility was uncertain, the mainstream expectation at the time was that the implementation of the provisions of the AoA would have resulted in greater market stability, despite (or because of) the expected withdrawal of governments from marketing and stockholding operations.[1]

In order to respond to the possible difficulties that higher and uncertain world prices of basic foodstuffs might have created for poor net food-importing countries, the Ministers that signed the Uruguay Round (UR) agreements in Marrakesh in April 1994, also agreed to a last-minute provision, the *Marrakesh Decision*[2], which contained a list of instruments to assist the Least Developed Countries (LDCs) and the newly-created group of Net Food Importing Developing Countries (NFIDCs) that might face short-term difficulties in financing normal levels of commercial imports of basic foodstuffs (Annex A).

In many ways the expectations at the time the UR was signed proved wrong. The expected strengthening of world prices, while it took effect eventually, was not necessarily for the reasons anticipated by the architects of the AoA (i.e. the strict implementation of the commitments made) nor did they result in a substantial increase in food production in poor food-insecure countries. Also, world food prices instead of becoming more stable have turned more volatile, again however for reasons not foreseen at the time the AoA was signed.

In the recent past, net food-importing countries have had to contend with high and volatile prices of basic foodstuffs as a result of an adverse trade policy environment including widespread application of measures such as agricultural export restrictions, as well as considerable exogenous shocks emanating from the energy sector and financial markets. These included aggressive biofuel policies, including subsidies, tariffs and inflexible blending mandates, and considerable speculative activity which further exacerbated underlying trends. There has been particular concern about agricultural export restrictions, as these are seen as falling squarely under the purview of the multilateral trading system and there were expectations that the Doha Round negotiations would have addressed related weakness.

The challenges facing LDCs and NFIDCs in securing supplies of basic foodstuffs from the world market at reasonable and relatively stable prices have become more formidable. At the same time, assistance under existing mechanisms and those that could have been developed has been well below expectations. Concerned LDCs and NFIDCs have criticized the lack of concrete follow up to the Marrakesh Decision over many years[3]. They have argued that the Decision is ill-suited to addressing the challenges they face. In particular, they have argued that ambiguities in the specific instruments of the Decision prevent it from being enforceable by the WTO Members and from being effectively implementable.

As regards export prohibitions and restrictions, while the Doha Round included negotiations on the related articles of the existing AoA, the draft modalities on the table had introduced only minor improvements, seen by concerned LDCs and NFIDCs as not enough to address their concerns. The Marrakesh Decision itself was not on the agenda for re-negotiation under the Doha Round. Although negotiations included food aid and export credits, which

are two of the four mechanisms[4] of helping LDCs and NFIDCs under the Decision, the proposed amendments in the modalities text were considered of very limited usefulness to address the new challenges that these countries face.

In anticipation of the impasse in the Doha Round, and in their desire to highlight their concerns about the Marrakesh Decision and the continued application of export prohibitions and restrictions, a group of NFIDCs circulated in October 2011 a draft proposal for a work programme at the WTO "to mitigate the impact of the food market prices and volatility on LDCs and NFIDCs"[5], with three main components: contribute to ensuring access of LDCs and NFIDCs to adequate supplies of basic foodstuffs; develop rules to exempt LDCs and NFIDCs from export restrictions on basic foodstuffs enacted by other WTO members; and address short-term difficulties that LDCs and NFIDCs face in financing imports of basic foodstuffs.[6]

The aim of this paper is to provide some background on the above issues. It addresses some of the challenges poor net food-importing countries have faced in recent years in securing basic foodstuffs from the world market and how these may be addressed. It focuses on issues identified in the Marrakesh Decision as this remains the main relevant trade-related mechanism agreed upon by the international community in the context of the reform in agriculture under the UR.

Chapter II of the paper looks at the evolution of world food prices since the 1990s, including several recent episodes of price volatility. It examines to what extent these price trends and more generally the unit cost of importing basic foodstuffs may be attributed to the implementation of the UR.

Chapter III analyses in some detail the challenges faced by LDCs and NFIDCs in securing food imports during the past two decades; it examines the relative contribution of imported volumes and prices in the growth and year-to-year variability of cereal food import bills; it also analyzes how overall food import bills have evolved over time and at what cost meeting import requirements has been achieved.

Chapter IV suggests a number of responses by the affected countries themselves and the international community in the context of the multilateral trade policy environment. It questions the continued relevance and efficacy of the various instruments under the Marrakesh Decision for the task at hand. It identifies some of their weaknesses as a result of changes in the underlying principles on which they were based or lack of progress in developing policies and appropriate mechanisms for effective implementation. Finally, Chapter V draws overall conclusions on this problematique in particular in the context of the stalled Doha Round of multilateral trade negotiations.

2. TRENDS IN THE PRICE OF IMPORTING FOOD AND CONTRIBUTING FACTORS

The level and year-to-year variability in world food prices are critical parameters in the ability of countries to safeguard food security, especially the poor net food-importing countries that depend for a large share of their food consumption on imports and have limited means to procure food and other necessities. Consumers in these countries spend the largest share of their income on basic foodstuffs, many of them barely afford enough food even in normal times, and any increase in the price of food commodities has immediate and large effects on their food and livelihood security. The already high levels of poverty and chronic food insecurity are further exacerbated in such situations and social and political instability may ensue.

2.1 Perceptions and Interpretations of World Food Price Levels and Price Variability

Perceptions on whether food prices are high or low are very much influenced by comparisons to historical trends and more subjectively to whether one is a net buyer or a net seller of food. At the national level, how each country views the situation depends on whether it is a net exporter or a net importer of food. Also, inevitably the characterization of different outcomes and the interpretation of their causes are prejudiced by the predominant cycle at a time, presently being one of high prices.

Predictably, the latest episodes of high food prices and price volatility have generated considerable debate about the origins of these events, their nature and what they may imply for the future. One interpretation views price fluctuations as a natural phenomenon in agricultural markets, related to the low elasticity of demand and supply in the short term and the weather-related shocks affecting supply. This inherent source of volatility in agricultural markets is something to be expected and is seen as a temporal phenomenon, to be corrected by the forces of the market. This “normal” volatility may be exacerbated by other short-term events and policy reactions resulting in “excessive” volatility, such as that experienced since 2007. While “normal” volatility is an essential component for an efficient functioning of markets, this may not be the case for “excessive” volatility as the “efficiency of the price system begins to break down when price movements become increasingly uncertain and precipitous” and society lacks the means to respond effectively to avoid human suffering and widespread adjustment costs (Prakash, 2011).

The second interpretation of volatility finds explanations in geopolitical and overall macro-economic cycles. During the recent past the world has experienced a broad commodity boom and agricultural and food prices followed the same trend as other commodity sectors. For the agricultural sector this cyclical nature of commodity prices, has also been aggravated by the ups and downs of public and private investments in the sector. For example, between the 1970s and the end of the century there has been a continuous ‘decapitalization’ of agriculture in all regions, with the annual rate of growth in *agricultural capital stock* declining from 1.4 percent to 0.3 percent over this period (FAO, 2011). Growth in public expenditures on agricultural research followed this overall trend and has been much more pronounced in the case of Africa. As McCalla puts it, “it seems clear that 30 years of complacency about agricultural research and development has extracted a high cost in terms of productivity and production growth.” (McCalla, 2009).

The third interpretation attributes the current price volatility and high prices to a combination of permanent structural changes leading to long-term disequilibrium between supply and demand. On the demand side in addition to increasing incomes in large emerging economies

there is the rapidly expanding extra demand for biofuel production. On the supply side, the rate of increase in output has slowed down because of declining rates of productivity growth, due to increasing pressures placed on natural resources, such as water, soil and biodiversity, as well as depletion of fossil fuels and pressures from climate change. This is seen as a warning of impending and lasting scarcities in agricultural and food markets (FAO, 2011).

The above interpretations are not conceptually distinct from one another nor are they contradictory in any way but rather corroborative. Elements of all three of them have been pointed out in the extensive debate and analysis since the onset of the recent cycle of food price increases and price volatility, with the structural changes identified under the third interpretation gaining broader support.

Perceptions of food price levels by society and policy makers are often based on a very short-term perspective. While the concept of price volatility is clearly associated with both extreme events (in fact we are able to discern episodes of high prices because we have had the experience of price troughs), food security concerns are more often linked to episodes of high prices, when there is an immediate impact on peoples' ability to afford enough food. There is much greater visibility of the impact of high prices, often manifested in hardship for a large part of market-dependent households in poor countries, especially in politically sensitive urban centres. However, the opposite episodes of depressed world prices, especially when prolonged, are also detrimental to food security by slowly eroding and displacing otherwise viable domestic production, and resulting in greater national dependency on the world market in the longer term.[7] Hence, what actions are taken during periods of high prices need to bear in mind the impact they may have at the other extreme of the price cycle.[8]

2.2 A Turning Point in the Long–Term Decline in World Food Prices?

Barring several short-term spikes of various causes, real food prices were at a long term decline for much of the last century. A number of factors were responsible for this trend, mainly productivity increases through technological progress aided also by government intervention in several countries. Focussing on the last 50 years since 1960, there is a continued downward trend in real food prices until a levelling-off at about the middle to late 1990s and a clear upward trend since then. This pattern is fairly consistent across all major food commodities (Annex B). There has been an abundance of analytical work trying to explain this phenomenon and sort out structural factors that are responsible for price levels and longer-term trends, and those that concern short-term volatility. Among such assessments is the latest *OECD-FAO Agricultural Outlook* which provides a consolidated account of the key forces that have driven food prices since 2007 (OECD-FAO, 2011, pp. 15-16):

- *Weather and climate change* – The most frequent and significant factor causing volatility is unpredictable weather conditions. In fact, both recent episodes of price spikes had their origin in weather related events in key producing countries. Climate change is altering weather patterns, but its impact on extreme weather events is not clear.

- *Stock levels* – Stocks have long played a role in mitigating discrepancies in short term demand and supply of commodities. When accessible stocks are low relative to use, as they currently are for coarse grains, price volatility may be high.

- *Energy prices* – Increasing links to energy markets through both inputs such as fertiliser and transportation, and through biofuel feedstock demand, are transmitting price volatility from energy to agricultural markets.

- *Exchange rates* – By affecting domestic commodity prices, currency movements have the potential to impact food security and competitiveness around the world.

- *Growing demand* – If supply does not keep pace with demand, there will be upward pressure on commodity prices. With *per capita* incomes rising globally and in many poor countries expected to increase by as much as 50 percent, food demand will become more inelastic such that larger price swings would be necessary to affect demand.

- *Resource pressures* – Higher input costs, slower technology application, expansion into more marginal lands, and limits to double-cropping and water for irrigation, are limiting production growth rates.

- *Trade restrictions* – Both export and import restrictions amplify price volatility in international markets.

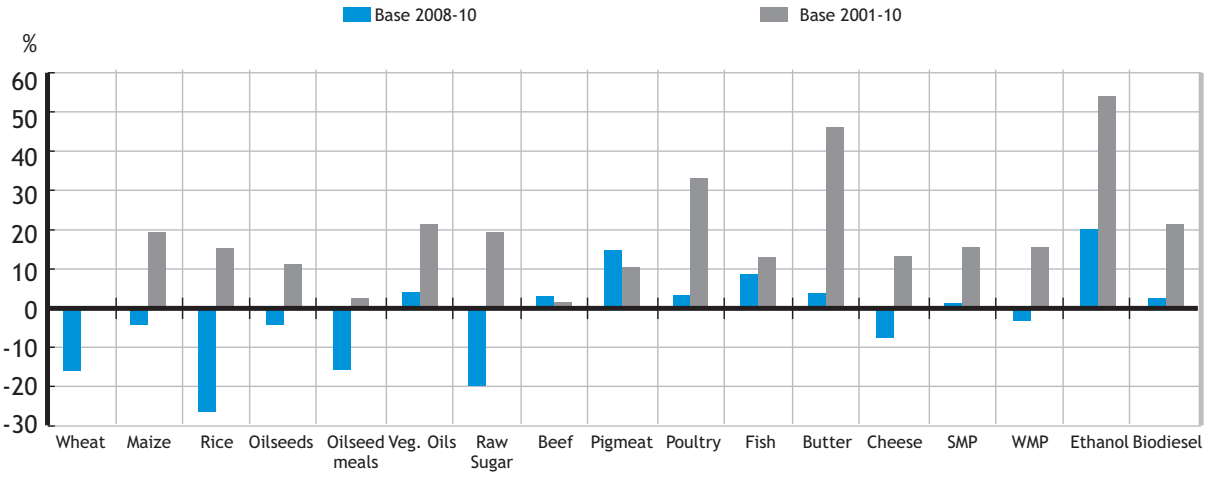
- *Speculation* - Most researchers agree that high levels of speculative activity in futures markets may amplify price movements in the short term although there is no conclusive evidence of longer term systemic effects on volatility.

Considering the dynamics in supply and demand, the *OECD-FAO Agricultural Outlook* projects that most crop prices will remain firm during the 2011-20 period.[9] All food commodity prices in nominal terms will average higher in the decade to 2020 than in the previous decade. In real terms, cereal prices are anticipated to average up to 20 percent higher for maize and 15 percent higher for rice, compared to the previous decade, while for wheat, prices may remain at the same level. For meats, real poultry prices may average more than 30 percent (Figure 1).

The growth in food demand for human consumption has been gradual and will continue to be so in the future. However, what has been a quantum jump in the system is the additional demand for biofuel production. Increasingly during recent years, large quantities of cereals and oilseeds are being siphoned off the food markets and diverted away for biofuel production. This extra demand has changed drastically the traditional links between agriculture and the energy sector. Hitherto, these links were only on the supply side with energy being an input to agriculture and food production (fertilizer and fuel for machinery, for example). Now the links are both on the input and the output side of agricultural production. It is now a well accepted fact that biofuel production has been a major factor in the strengthening of food prices in recent years, although views vary as regards the relative importance of biofuel subsidies and high energy prices in the growth of the biofuel industry (Abbott, et al, 2008; OECD-FAO, 2008; Babcock, 2011).

Figure 1. Change in average 2011-20 real prices compared to 2008-10 and 2001-10

Percent change of average real prices relative to different base periods



Source: OECD and FAO Secretariats.

The *OECD-FAO Agricultural Outlook* projects that the use of agricultural output as feedstock for biofuels will continue its robust growth, largely driven by biofuel mandates and support policies. By 2020, an estimated 13 percent of global coarse grain production, 15 percent of vegetable oil production and 30 percent of sugar cane production would be used for biofuel production.

The critical parameter as regards the continuing pressure of biofuels on agricultural and food prices is the price of fossil fuels, a factor exogenous to the food system. Higher oil prices would induce yet further growth in use of biofuel feedstocks, and at sufficiently high oil prices, biofuel production in many countries becomes viable even in the absence of policy support. Increasingly, agricultural prices will be closely linked to petroleum prices, including being affected by the volatility characterizing the petroleum sector (Schmidhuber, 2007; World Bank, 2009).

In addition to the energy connection, concerns about agricultural sustainability and climatic change also weight heavily on future agricultural performance. The broad consensus by experts in this area is that global supplies of food and agricultural commodities are likely to be tighter in the future on account of several factors (FAO, 2006b; FAO, 2007), including scarcity of land and water resources, climate change[10], higher energy prices[11], and decreasing returns from existing productivity increasing technologies. On the other hand, this would also encourage investments in agriculture at a much greater scale than we have seen in the past and, *a priori*, periods of market weakness may not be ruled out.

2.3 What are the Links to the Reform Process Under the Uruguay Round?

By the mid-1980s, world agricultural trade was in a state of disarray due to the prevalence of production and trade distorting policies in a number of countries (Johnson, 1973; Tyers and Anderson, 1992; Josling, et al, 1996; Hathaway, 1997). This was an era of 'cheap food' and structural surpluses were disposed off, *inter alia*, through export subsidies and food aid. While this situation suited some countries, both subsidizing exporters and subsidized importers, it came at the expense of longer-term food security, including in particular of poor developing countries which, being the 'beneficiaries' of cheap food, ignored the development of their own agriculture. Also, the growing dependence of a large number of countries on a narrow basket of traded foodstuffs and on a few exporters carried with it the risk of greater market volatility when the initial conditions of plenty that promoted this situation were no longer valid.

It was with the coming into force of the WTO in 1995, after the conclusion of the UR of multilateral trade negotiations, that agriculture became part of the overall disciplines governing trade in goods.[12] In agriculture, the main aim of the negotiations was to address long-term imbalances by bringing more discipline and predictability to world agricultural production and trade as well as to reduce the instability in world agricultural markets.[13]

Many of the factors identified above in the *OECD-FAO Agricultural Outlook* as responsible for the recent strengthening of food prices and the attendant price volatility were not foreseen at the time of the UR was negotiated and concluded. However, policy makers and negotiators were operating on the premise of fixing problems that had been encountered in the past, hence to the extent reforms would be successful, certain outcomes were clearly anticipated. Therefore, there were certain *recognized consequences* at the time the UR was signed as regards the implications of the agreed provisions; there were also certain *subdued/muted omissions* whereby while the negotiated rules were seen to be partially adequate to fixing existing problems or not at all, nothing was done to include appropriate disciplines into the agreed commitments; finally, considering how global food markets unfolded since then, there were also certain *unknowns*, i.e. events or tendencies the evolution of which and their implications could not have been predicted at the time.

As regards recognized consequences, the mainstream view at the time the UR was negotiated was that the policy reforms that countries agreed to undertake would have a relatively small impact on the price level of major agricultural commodities, assessed by analysts in the order of 5-10 percent above baseline levels which were expected to continue their long-term downward trend (Sharma, et al, 1996). The basic reason behind these expectations was that the reduction commitments made were relatively small and were spread over several years.

However, even without the anticipation of large increases in world prices of basic foodstuffs as a result of the AoA, several committed reforms were seen as impacting on the ability of net food-importing countries to secure supplies from the world market at the terms prevailing up to that point in time.

One direct consequence of the implementation of the AoA was due to reductions of exports subsidies. While the damaging effects of such subsidies for long-term food security were well recognized and disciplining them was a laudable accomplishment of the UR, their reduction had immediate adverse effects on the ability of hitherto beneficiaries of such subsidies to meet their short-term import needs. For several of them the adjustment to the new realities was not easy, considering the prevalence of export subsidies for many years and the generous handouts that countries used to receive (often from competing exporting countries) which had become an integral part of their food import strategies.

Another anticipated development directly linked to the UR was the reduction of carry-over stocks held by governments. With the private sector replacing only partially the role of governments in this area, the world was left with a lesser cushion against major production shortfalls, although the greater flexibility of privately-held stocks and the more rapid response of production decisions to market fluctuations were expected to counterbalance somewhat that threat.

A corollary to the withdrawal of governments from the marketing and stocking of food commodities was the expectation that the levels of food aid would be reduced. Again, as in the case of export subsidies, a substantial reduction of the high levels of food aid made available prior to the UR meant that discounted supplies from the world market would diminish and a higher share of imports would have to be purchased at commercial terms.

An important muted omission of the UR was the lack of recognition that disciplines agreed and commitments made meant to deal with only one side of the two extremes of price volatility. By and large, AoA rules aimed at addressing situations of depressed prices in world markets and hence the need to reduce import tariffs and domestic support responsible for excess production. The opposite case of policies and measures leading to high world prices (including those responsible for underproduction) are hardly addressed by multilateral rules. While this is understandable considering the concerns at the time, it nevertheless left open a legal loophole in the system by tolerating export prohibitions and restrictions, measures which were used repetitively in the recent past to the detriment of net food-importing countries.

Finally, as regards unknowns at the time the UR was agreed, these include issues having to do with sustainable development and related concerns about climate chance and the critical links of the food sector with the energy sector. As appropriate trade-related disciplines were not addressed at all under the UR, this left yet another loophole in the MTS which was exploited in the recent past in the form of increased subsidization of biofuel production and other forms of distortions and protectionist measures. Such measures were put into effect with limited consideration of their broader spill-over effects on world food markets, aggravating price levels and volatility, thus adding to the challenges faced by poor net food-importing countries.

Overall, while the multiplicity of factors that have contributed to the price increase and volatility in recent years are difficult to disentangle, it is clear that some important consequences of the reform process under the UR (whether anticipated, omitted or altogether unforeseen) were responsible for part of the high food prices and price volatility that the world has experienced in recent years. Therefore there exists a strong justification for providing assistance to vulnerable countries adversely affected by these developments. Assistance of the type envisaged under the Marrakesh Decision would also add to the credibility of the MTS and foster an environment conducive to more trade openness on the part of importing countries, to the extent the latter are assured that the world market is a reliable source of supply, both in periods of plenty and in periods of relative scarcity.

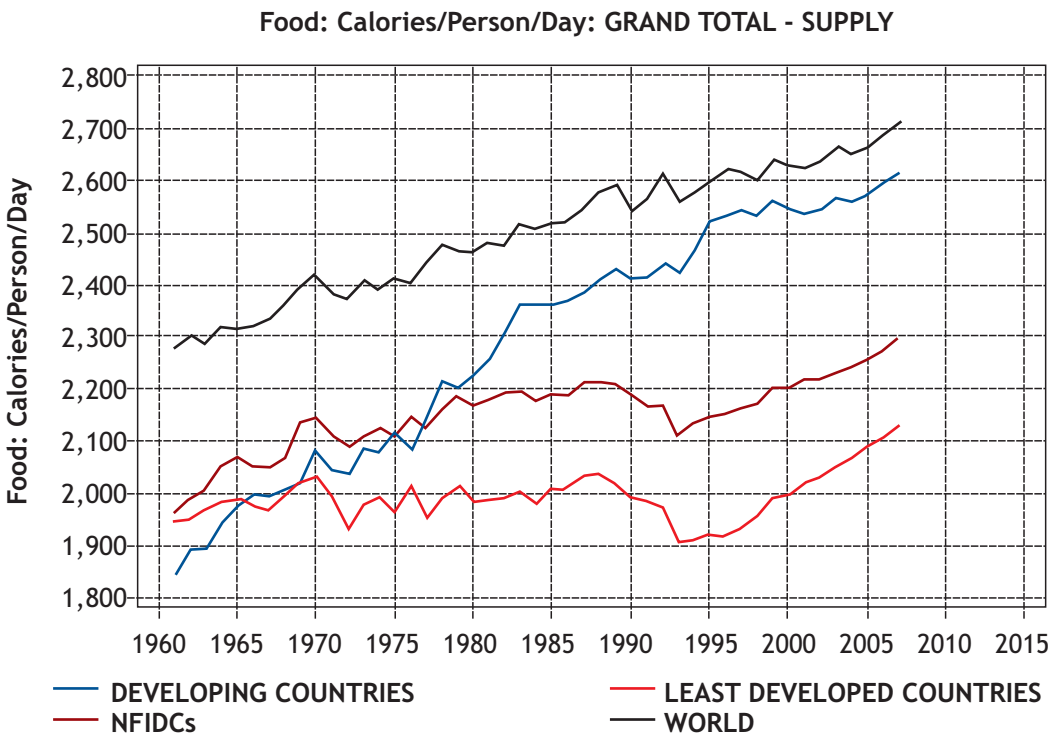
3. CHALLENGES FACED BY POOR NET FOOD–IMPORTING COUNTRIES IN SECURING SUPPLIES

The extent to which net food-importing countries have been affected by high food market prices and price volatility during the recent past will be examined in this Chapter. The clear turning point in the long-term trend of world prices of basic food commodities and the expectations that this is likely to continue at least in the medium term underscores the increasing uncertainty faced by these countries.

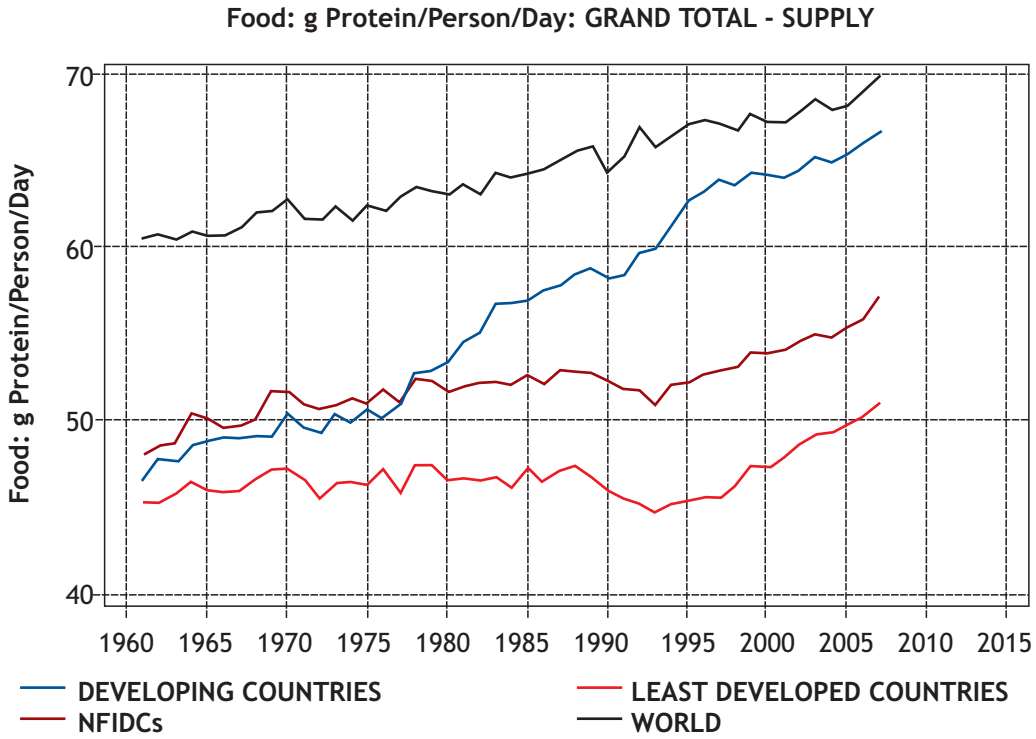
3.1 Characteristics of Food Insecurity and Vulnerability in LDCs and NFIDCs

The average supply of calories in the LDCs and NFIDCs is clearly well below the aggregate for developing countries and the world as a whole.[14] The average cal/person/day in the NFIDCs is some 15 percent below the developing country average while the gap for the LDCs is even greater in the order of 20 percent. What is also evident from Figure 2 for these two groups of countries is that the gains in per caput calorie supply over the past half century have been modest and much more variable than in developing countries overall. Considering also the often very unequal distribution of available supplies within countries, these trends are indicative of their food security vulnerability.

Figure 2. Trends in calorie and protein supply in different country groupings



Source: Faostat Database

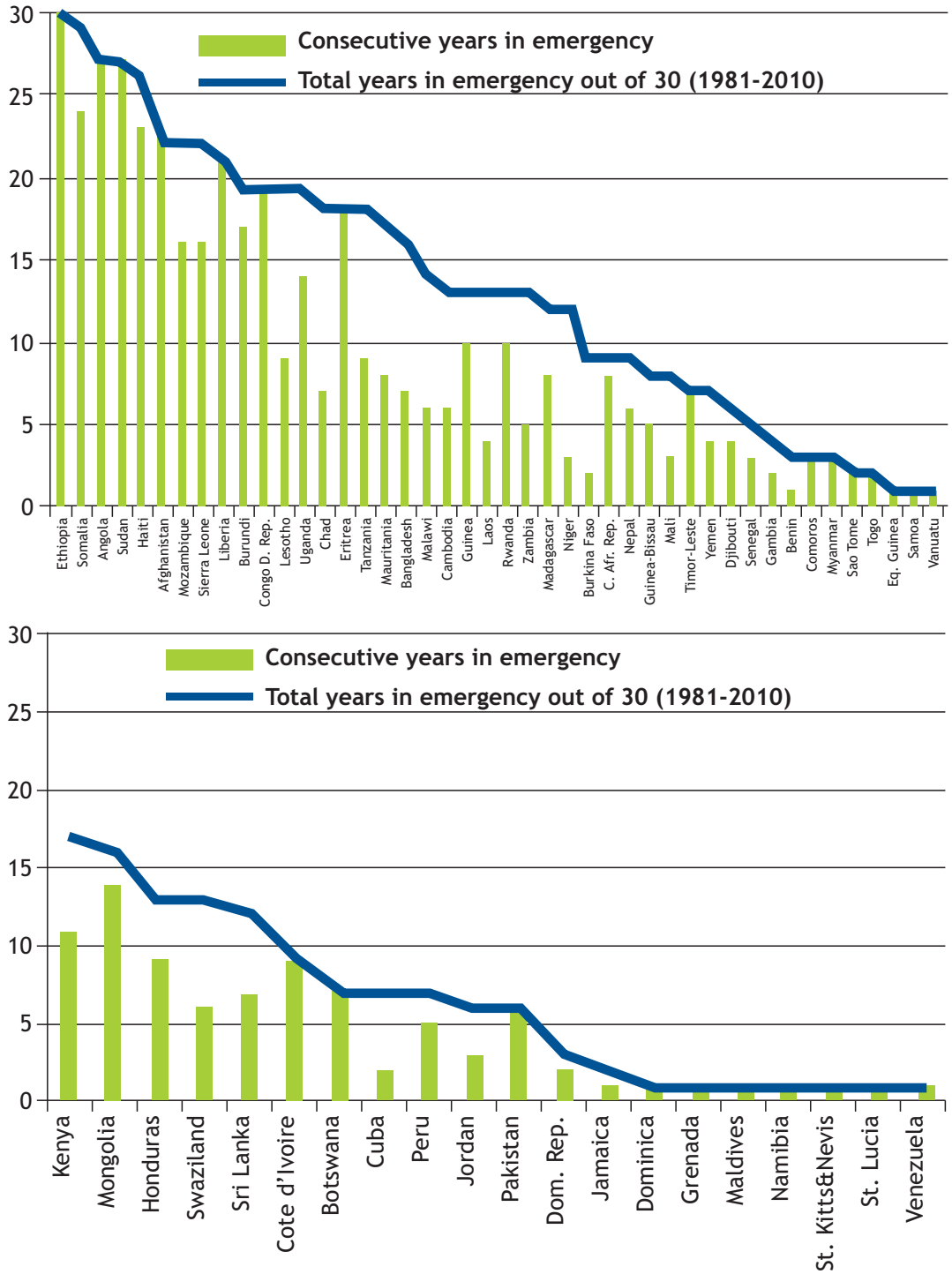


Source: Faostat Database

The same pattern is evident in terms of protein supplies. Again, NFIDCs and LDCs have experienced small gains in aggregate per caput protein supply compared to the developing countries overall and they have experience greater year-to-year fluctuation in available protein supplies. It is interesting to note that although LDCs and NFIDCs started at roughly the same level as the developing countries overall some 50 years ago, in both calories and protein per caput supplies, they lagged substantially behind since then.

A manifestation of the precariousness of the food security situation in the LDCs and NFIDCs is the frequency of being in need of external emergency assistance. Information from the GIEWS compiled over the last 30 years shows that many of these countries not only are subject to frequent emergency situations but also that such emergencies are often of protracted nature (Figure 3). The situation is most dramatic in the LDCs where some countries have been in an emergency for every year in the last 30 since 1980. Only four of the 48 LDCs have not faced an emergency requiring external assistance during this period. Some 40 percent of the LDCs have suffered an emergency during half of the 30 years and for many of them these emergencies were of prolonged duration. The situation is somewhat better for NFIDCs where some 8 countries out of the 28 did not face an emergency during the 30 year period. For those that did, the frequency of emergencies is much lower than that of the LDCs and also the duration of such emergencies also shorter. However, even for that group, there are some countries which have faced an emergency in at least half of the time.

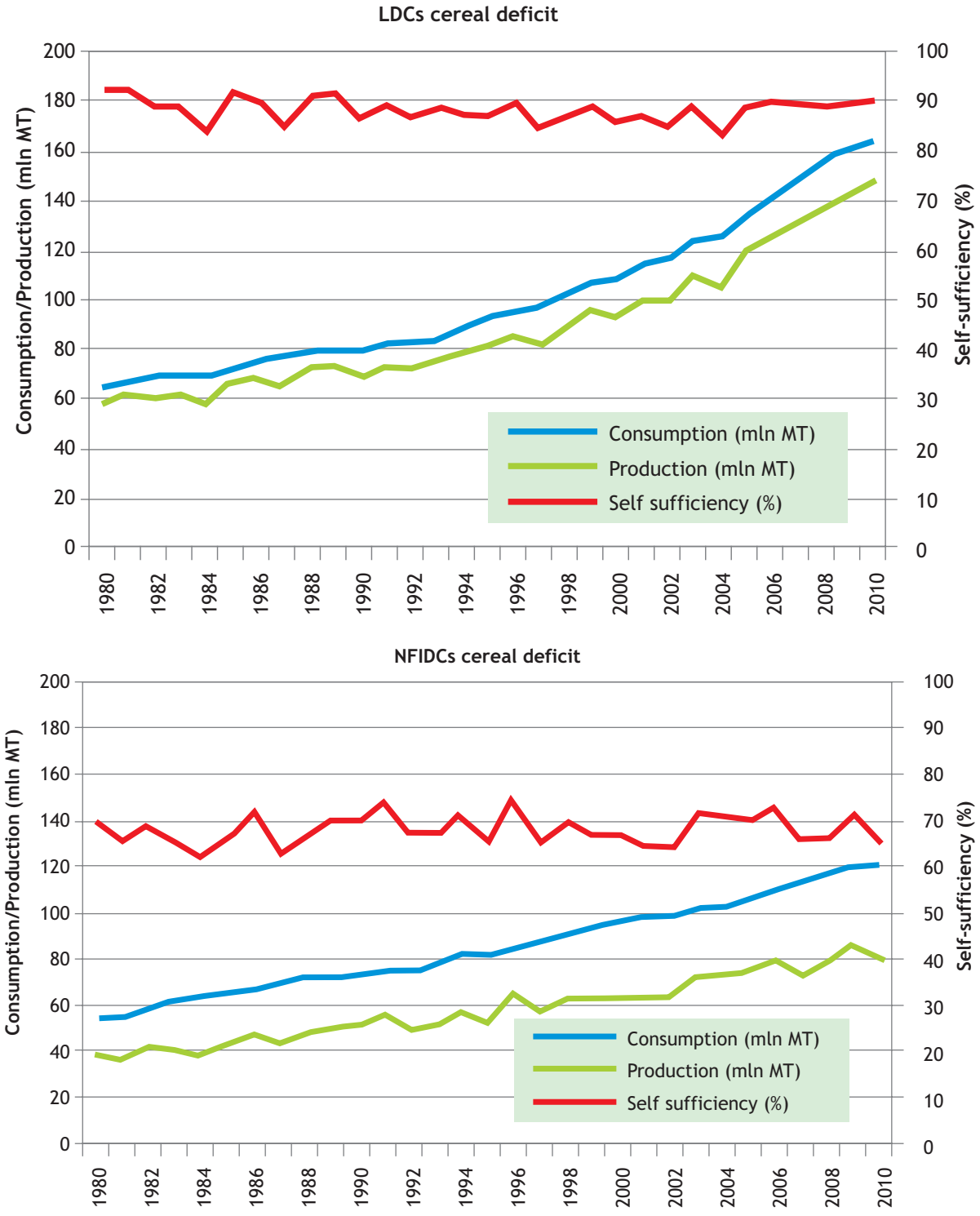
Figure 3. Incidence of emergency situations in LDCs and NFIDCs (1981 to 2010)



Source: Based on data provided by FAO GIEWS.

Focussing on cereals which are the foodstuffs primarily imported to meet the calorie gap, both LDCs and NFIDCs have maintained a fairly stable dependence on the world market in relative terms. Their self-sufficiency ratios (SSRs) have hovered around 90 percent for the LDCs and about 70 percent for the NFIDCs (Figure 4). Clearly, the NFIDCs depend more on the world market both in relative sense compared to their aggregate consumption and in the absolute quantities imported. In recent years the NFIDCs imported well over 40 million MT of cereals annually (some 15-17 percent of world cereal imports in recent years compared to just above 10 percent in the early 1980s). This is about double the amount imported by the LDCs.[15]

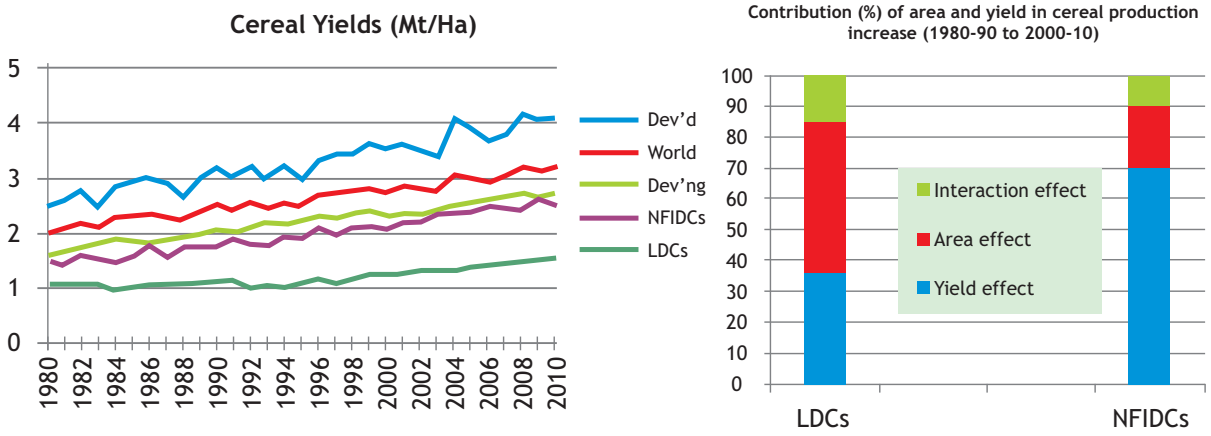
Figure 4. Trends in cereal deficits and self-sufficiency ratios (SSR)



Source: Compiled by the author based on FAO data

While the cereal production performance of LDCs appears to be better than that of NFIDCs (the apparently greater growth rate of output and the higher SSR) this hides two important qualifications. First, as discussed above, the overall per caput calorie and protein supply in the LDCs is substantially lower than that of NFIDCs (by some 10 percent), which suggests that the higher SSR for LDCs has been at the expense of lower consumption levels. The second observation is equally serious and relates to the sources of growth of cereal output in the two groups of countries. In the LDCs, output growth has come to a large measure by increasing area under cultivation and much less from productivity increases. The opposite is the case for the NFIDCs where the increase in cereal output has largely been the result of yield increases. This is shown in Figure 5 where the growth in cereal output between 1980-90 and 2000-10 has been decomposed into its two components, area and yield.[16] Average cereal yields in LDCs remain at desperately low levels and stagnant for several decades (although there appears to be some revival in recent years). They are about half the yields attained by developing countries overall and one-third of those achieved by developed countries. However, this represents also a potential untapped opportunity for these countries to increase cereal output and has important implications for the type of assistance that may be more effective to improving their food security (see Chapter IV).

Figure 5. Cereal yield levels and their contribution to output in LDCs and NFIDCs

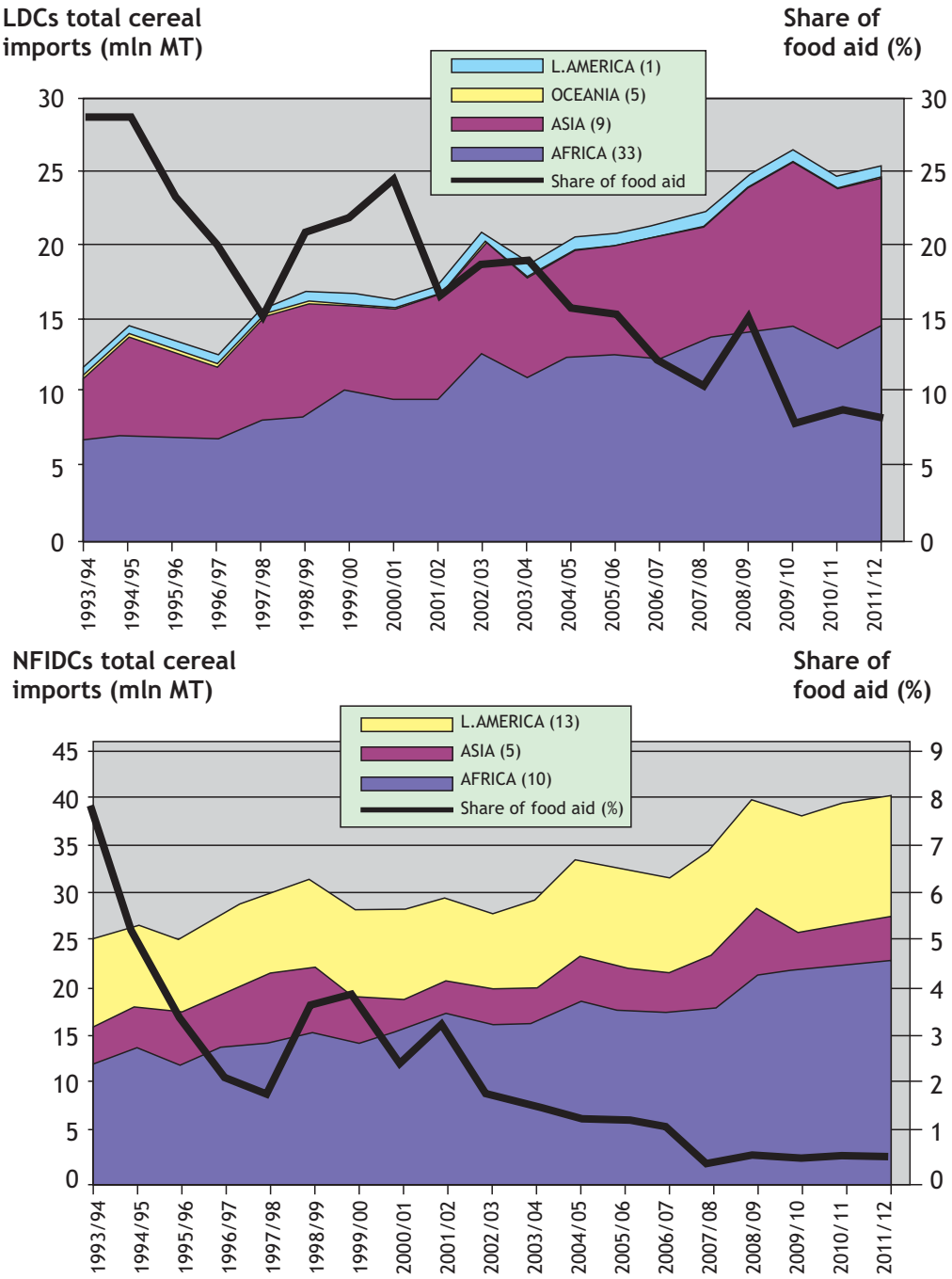


Source: Compiled by the author based on FAO data

3.2 Trends and Variability in Cereal Import Bills of LDCs and NFIDCs[17]

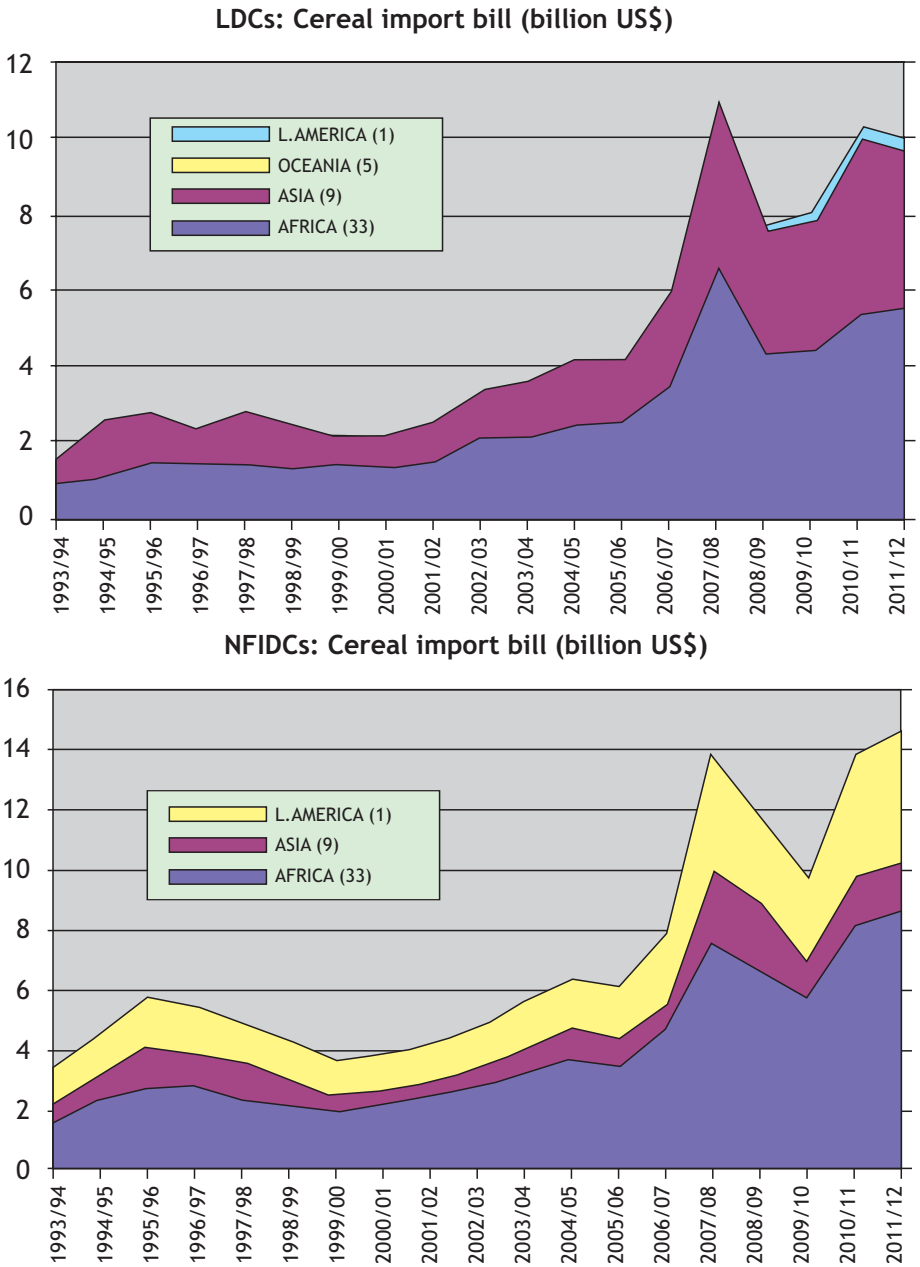
With self-sufficiency practically static in both LDCs and NFIDCs, the volume of commercial cereal imports is in a continuous upward trend. Among the different regions, Africa has the strongest increase in cereal imports in both groups of countries. The share of cereal food aid in the total cereal imports has declined sharply since the mid-1990s. For the LDCs while food aid accounted for close to 30 percent in the beginning of the 1990s, it has dropped to about 8 percent in the last 3 years. For the NFIDCs, the decline in the share of food aid has been even more dramatic, dropping from close to 8 percent in the early 1990s to less than 0.5 percent in recent years.

Figure 6. Total cereal imports of LDCs and NFIDCs and share of food aid



Source: Compiled by the author based on FAO data

Figure 7. Cereal import bills of LDCs and NFIDCs



Source: Compiled by the author based on FAO data

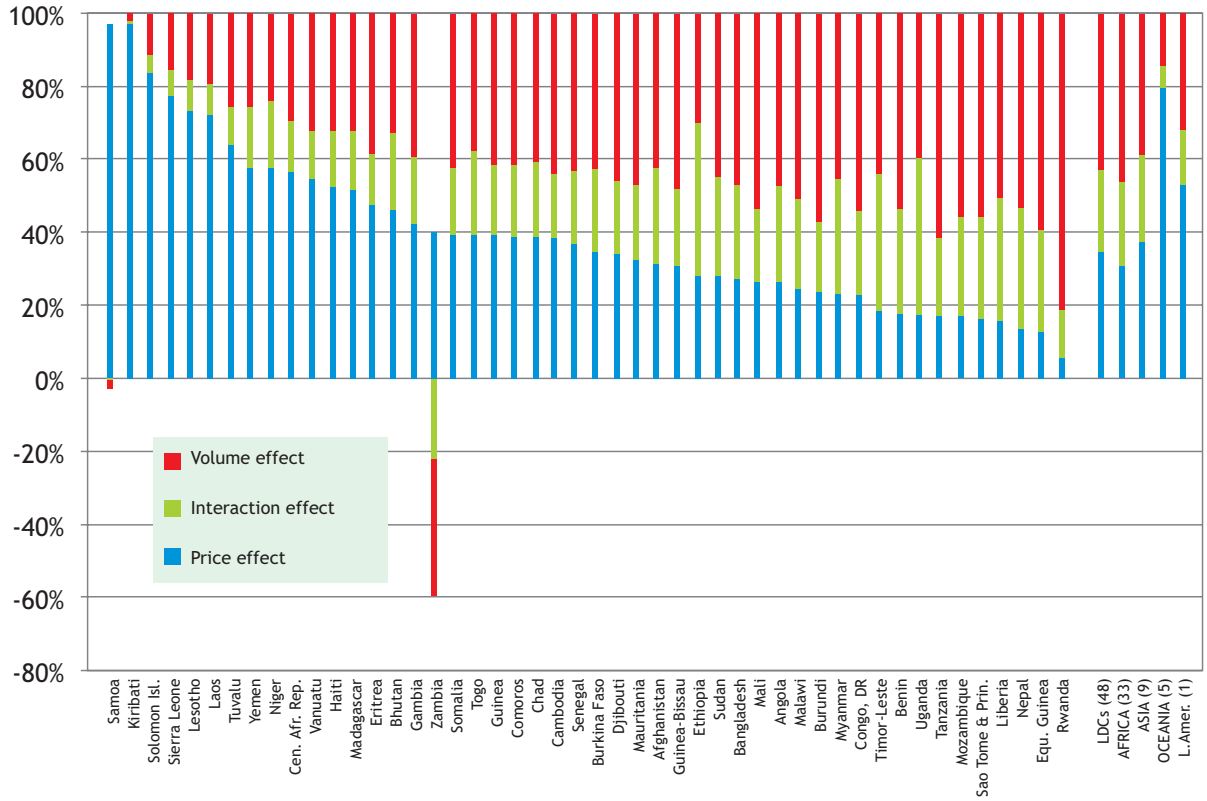
The increase in the cost of cereal imports has been much more pronounced than that of the quantities imported, especially in recent years in view of soaring food prices. Thus, for LDCs while the aggregate volume of commercial cereal imports increased by less than three times during the period under review, their cereal import bill increased by over six times during the same period. Similar sharp increases in the cereal import bill have been experienced by the NFIDCs, with a volume increase by about 70 percent and a cereal import bill nearly quadrupling. The combined effects of an increasing volume concurrent with an increasing import price have been responsible for these trends.

In order to find out how volumes and prices have affected the cereal import bills of different countries, the growth in the cereal import bills of individual countries have been decomposed to a volume effect and a price

effect, a similar process to the one described above in decomposing yield and area effects on the growth in production. The results indicate that for the LDCs as a group, the increase in the price has been responsible for about 35 percent of the increase in their cereal import bill, volume imported for some 43 percent and the remaining 22 percent due to both factors. For the NFIDCs the corresponding percentages are price 56 percent, volume 29 percent and interaction 15 percent.

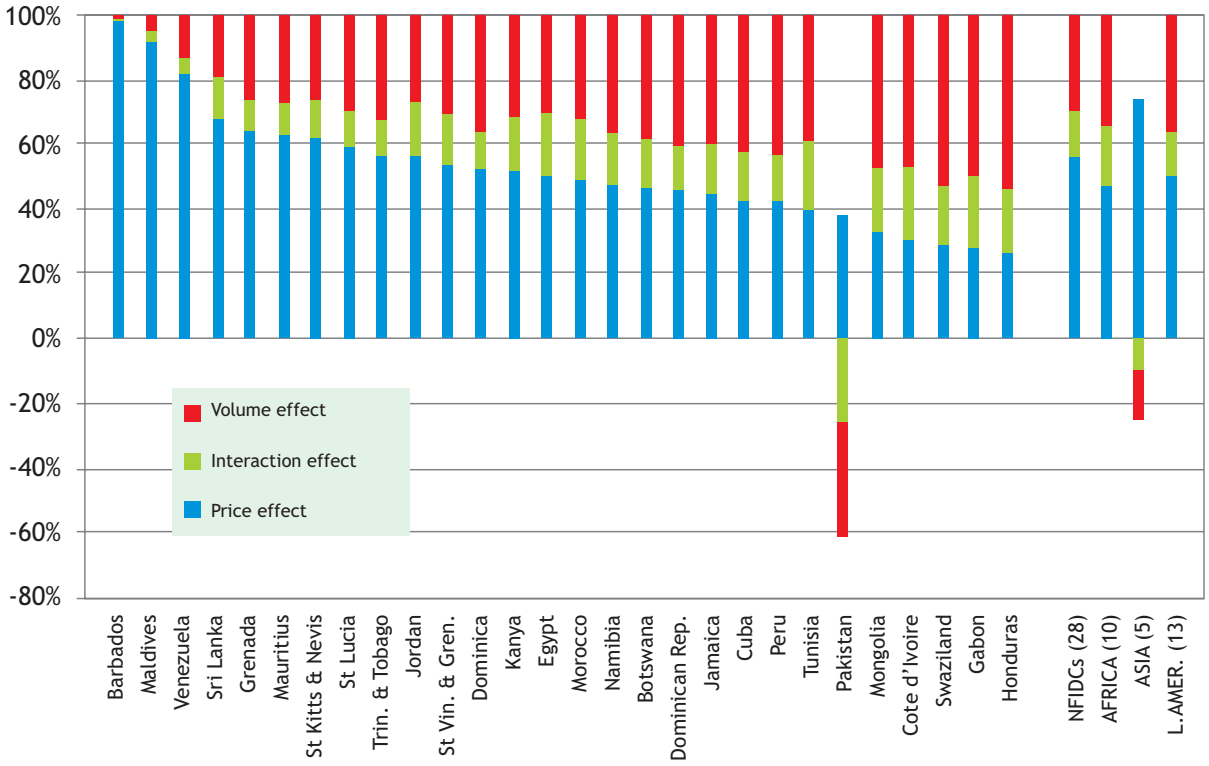
For both LDCs and NFIDCs, there is considerable variation between countries. Thus, for about one-third of the LDCs, import price of cereals was responsible for at least 50 percent of the increase in the cereal import bill (in two-thirds of countries import price was responsible for at least 30 percent of the increase in the cereal import bill). In the case of the NFIDCs, for about half of them import price was responsible for at least 50 percent of the increase in the cereal import bill. For both groups, there are countries that barely increased the volume of cereals imported between the two periods and hence nearly 100 percent of the increase in their cereal import bill was due to the increase in the import price paid.[18]

Figure 8. Decomposition of growth of cereal import bill of LDCs (1993-00 to 2001-11)



Source: Compiled by the author based on FAO data

Figure 9. Decomposition of growth of cereal import bill of NFIDCs (1993-00 to 2001-11)



Source: Compiled by the author based on FAO data

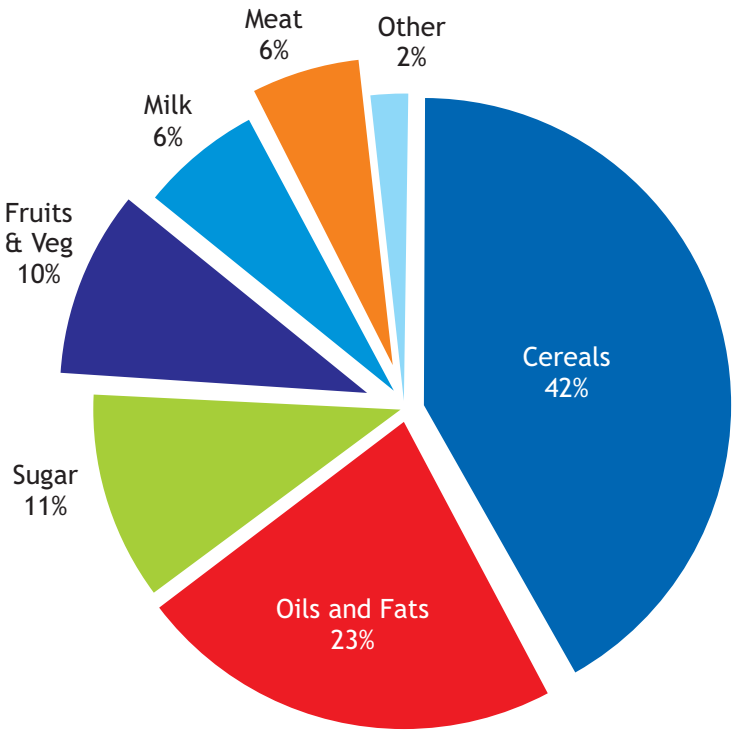
3.3 Overall Food Import Bills in Relation to Merchandize Trade

While the above analysis is indicative of the difficulties LDCs and NFIDCs face in securing cereal supplies from the world market to cover their increasing deficits, in addition to cereals these countries also import other basic foodstuffs, the prices of which have also increased sharply in recent years as we have seen in Chapter II. Therefore, to gain a more complete picture of the burden these countries face we need to look at the trade balance and import cost of the overall food basket.

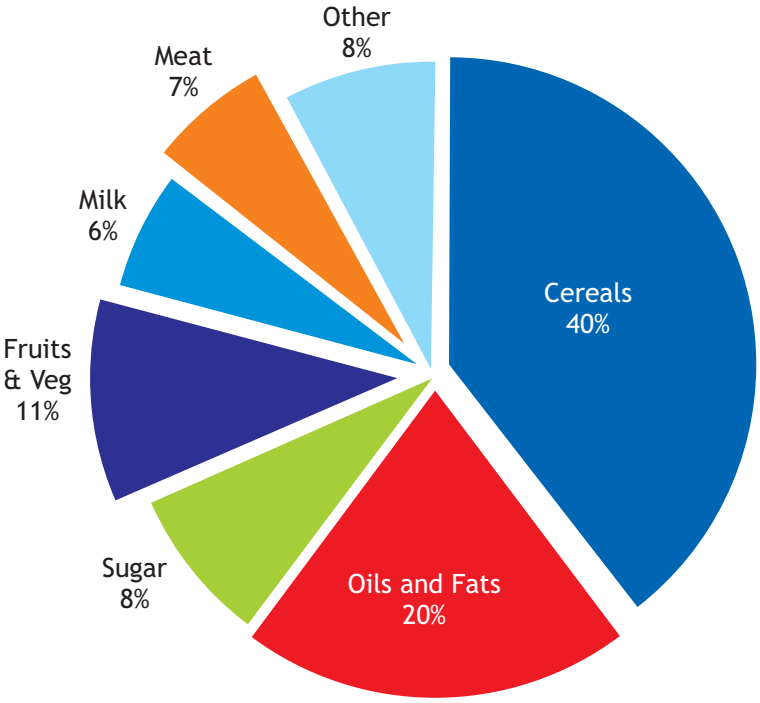
Up to about the mid-1980s, the agricultural trade balances of both LDCs and NFIDCs were on average marginally positive. Since then, this position has been reversed with agricultural imports exceeding agricultural exports by a considerable margin (Annex C). All food commodity sectors, with the exception perhaps of fruits and vegetables are responsible for this development. Cereals are by and large the largest item in the food import basket accounting for some 42 percent and 40 percent of the value of food imports (2000-09 period), for LDCs and NFIDCs, respectively, followed by oils and fats (23 percent and 20 percent), sugar (11 percent and 8 percent), etc. Together these three commodity groups account for over three-quarters of the value of food items imported by LDCs and over two-thirds for the NFIDCs (Figure 10).

Figure 10. Commodity shares in the total food import bill of LDCs and NFIDCs (2000-09)

LDCs: Main commodity groups shares (%) in the value of total Food and Animal products imported (2000-09)



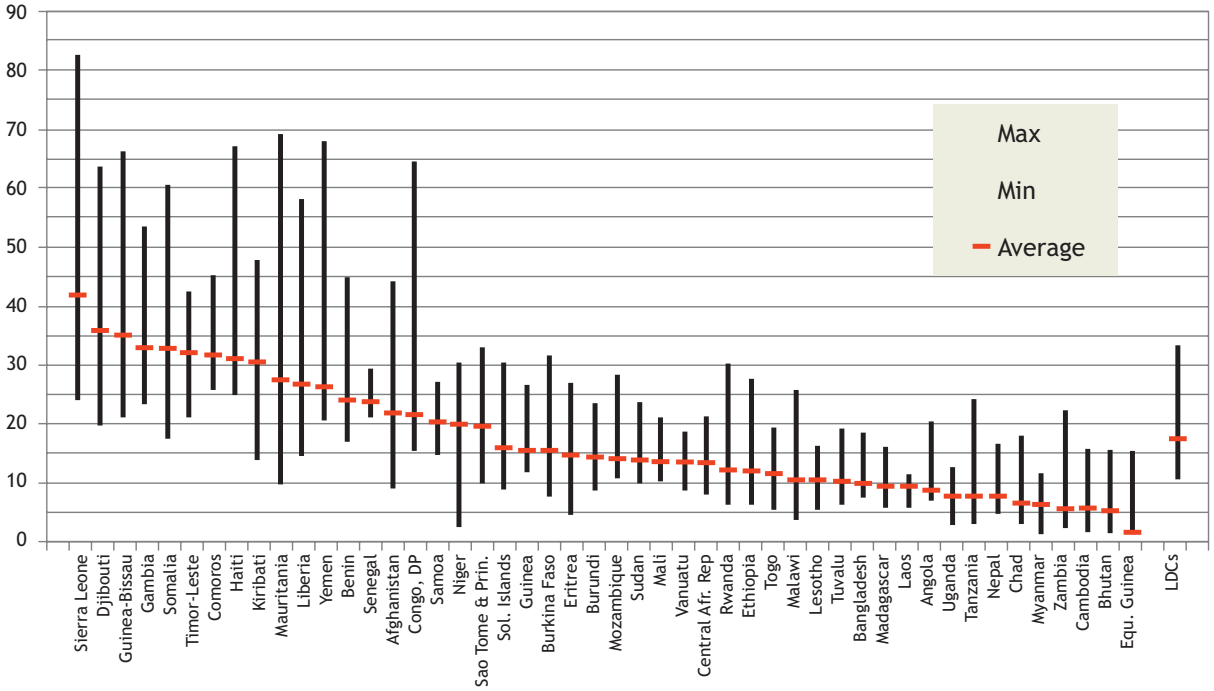
NFIDCs: Main commodity groups shares (%) in the value of total Food and Animal products imported (2000-09)



Source: Compiled by the author based on FAO data

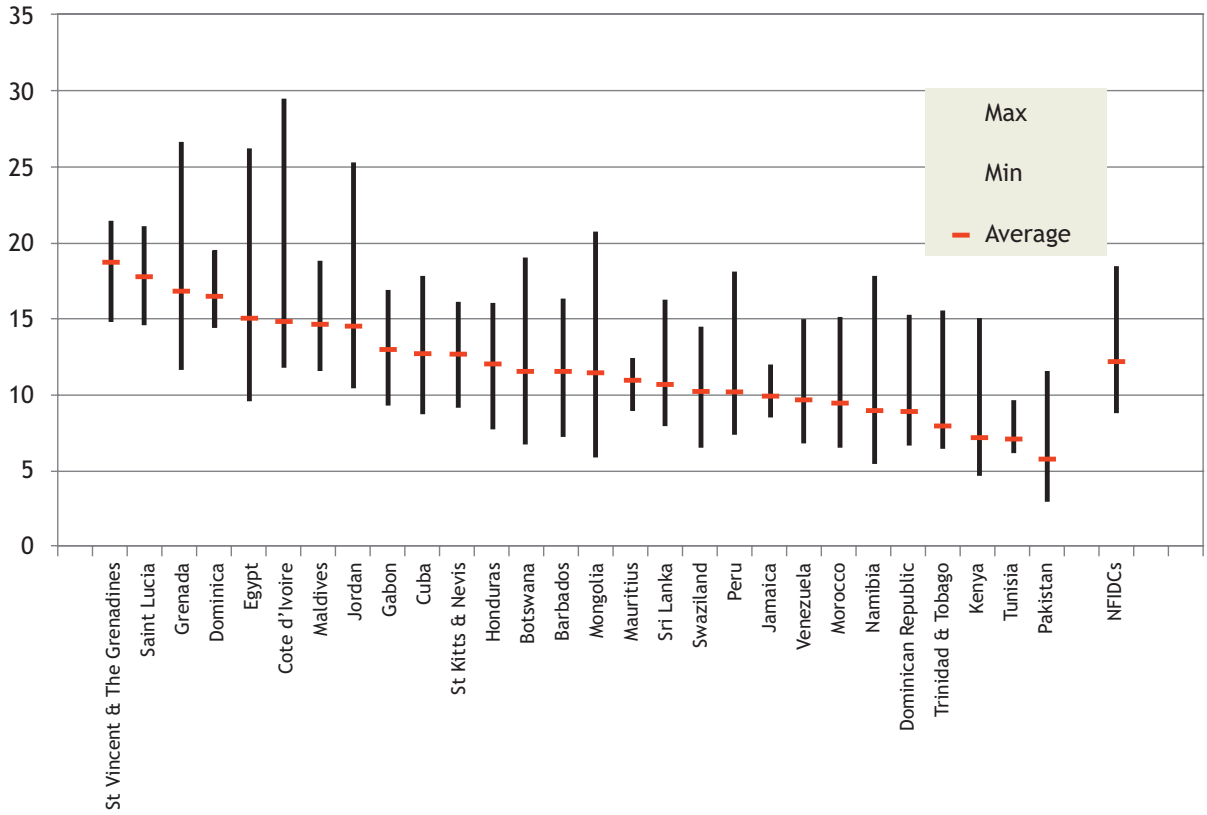
There is a huge variation within the two groups of LDCs and NFIDCs as regards the burden of importing food as reflected by the shares of the cost of food imports in total merchandize imports (Figures 11 to 12). For example, while the share of food and animal products in the aggregate merchandize imports of LDCs averaged 17 percent (simple average) and varied modestly around that level (1990-2009 period), that of individual countries averaged as much as 42 percent and for some years reached a maximum of over 80 percent. For the NFIDCs the situation is not as dramatic with an average of food impost to total merchandize imports of about 12 percent and as much as 18 percent for some countries. Also, for this latter group, the maximum share experienced by any NFIDC country was less than 30 percent.

Figure 11. Share of food imports (%) in total merchandize imports of LDCs (1990-09)



Source: Compiled by the author based on FAO data

Figure 12. Share of food imports (%) in total merchandize imports of NFIDCs (1990-09)

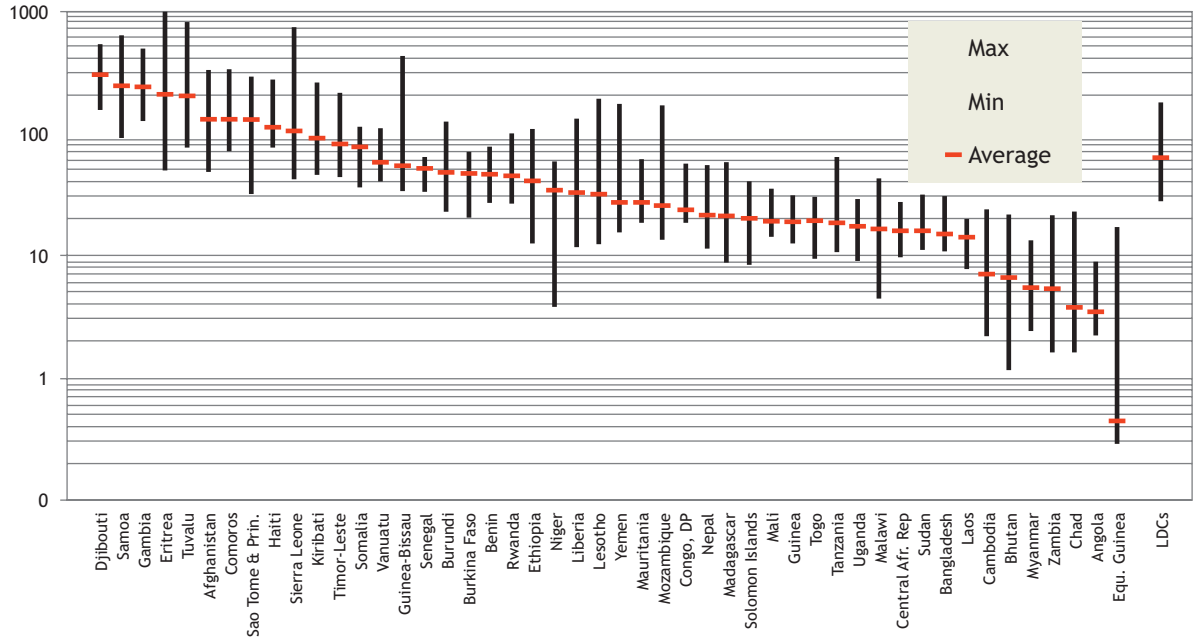


Source: Compiled by the author based on FAO data

Perhaps a more telling statistic is the share of the cost of aggregate food imports to the aggregate merchandize exports of LDCs and NFIDCs (Figures 13 to 14).[19] For the LDCs that share averaged some 60 percent over the same period, with a very wide spread for individual countries. Equatorial Guinea and Djibouti were at the two extremes of the spectrum with 0.35 percent and 120 percent, respectively.[20] What is also important to note is the high year to year variability in the burden of food imports, reaching as much as 1000 percent of merchandize export earnings for some countries. Turning to the NFIDCs, the situation is less dramatic with an overall simple average of cost of food imports to merchandize export earnings of about 12 percent. The share for individual NFIDCs ranges from 3 percent to just over 100 percent and the maximum for any country not exceeding 115 percent at any year during the 1990-2009 period.

Figure 13. Share of food imports (%) in total merchandize exports of LDCs (1990-09)

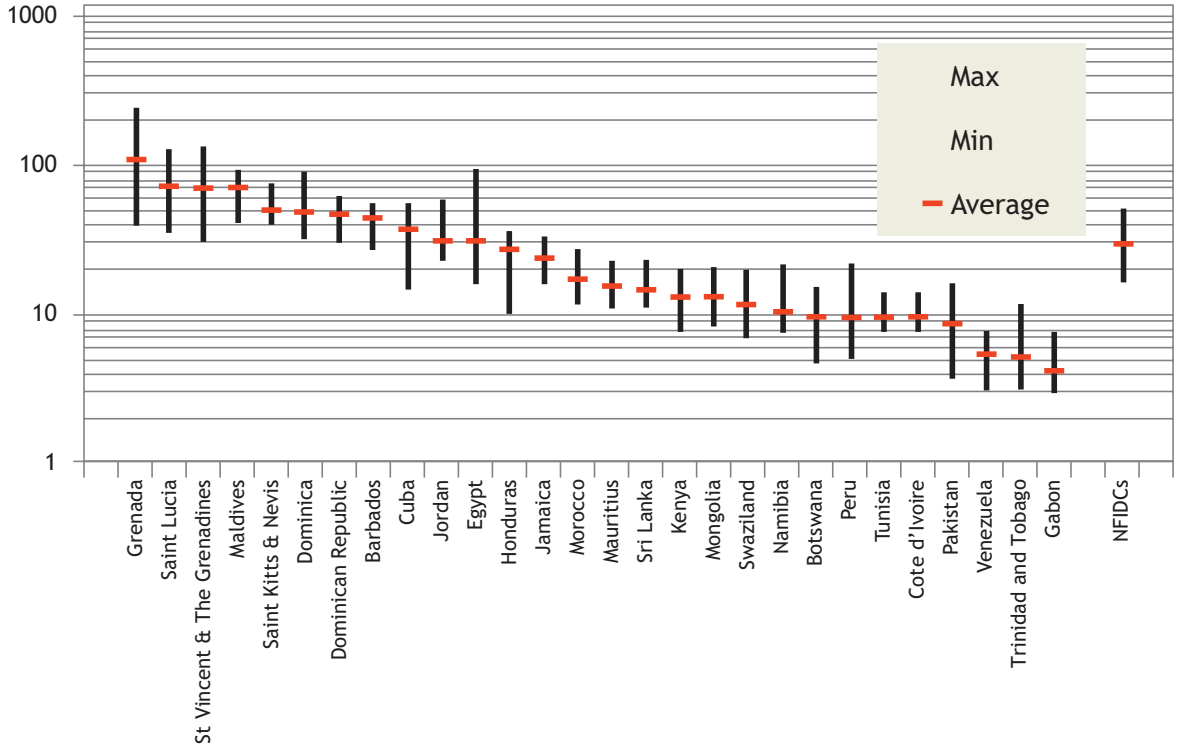
Logarithmic scale (%)



Source: Compiled by the author based on FAO data

The escalating burden of food imports necessary to meet immediate consumption represents a serious threat for the economies of several LDCs and NFIDCs. For some of them it absorbs the lion's share of their export earnings and is particularly worrisome for years when they spent well in excess of their export earnings on food imports, at the expense of other imports including capital goods necessary for their long-term development. And this, often, without meeting fully consumption needs (in quantity and quality) during these years. The factors contributing to this situation are both domestic and external, with the level and volatility in world food prices playing a role (as discussed in the previous section in the case of cereals), especially when extreme domestic outcomes coincide with same originating in the world market. Whatever the causes, the consequences are clear. Many LDCs and NFIDCs greatly compromise their long term development and their efforts to attain food security because of the exigencies of meeting short-term food needs.

Figure 14. Share of food imports (%) in total merchandize exports of NFIDCs (1990-09)
Logarithmic scale (%)



Source: Compiled by the author based on FAO data

4. RESPONDING TO THE CHALLENGES

While in the final analysis attaining food security in an uncertain market environment depends on the actions and coping mechanisms of individual households, the role and support they receive from national governments and the international community are critical factors. This Chapter looks first at a number of trade-related policy measures that can be taken by the affected countries themselves to mitigate the adverse effects of high food prices; it then considers measures that can be taken by the international community and examines in particular the continued relevance and role of specific instruments under the Marrakesh Decision.

4.1 What Countries Can do for Themselves

During years of high import prices affected countries usually put in place policies to support consumers, by lowering import tariffs to make foodstuffs more affordable in the domestic market, releasing supplies from domestic stocks, providing subsidized consumption generally or targeting poor households and specific vulnerable groups, etc.

Trade rules are generally permissive as regards policies that are directed towards supporting consumers. This is understandable because such support, although market distorting (it generally leads to higher overall food consumption than otherwise), is nevertheless trade-enhancing and thus it does not impinge on the export interests of trading partners. On the other hand, the lack of tight disciplines in this area reveals the asymmetry of the WTO rules as regards the interests of exporting and importing countries. In general, policies that lead to strengthening world prices (e.g. export restrictions) are hardly disciplined, even when they may be detrimental to the food security concerns of other countries, unlike the tighter WTO disciplines on reforming trade-restricting import policies, both border and domestic.

4.1.1 Limited help from reducing applied tariffs

Lowering or eliminating import tariffs is the most common measure that governments take to cushion the impact on domestic prices of imported goods when world market prices rise. In 2007, prices rose by between 26 percent and 63 percent, and further by between 40 percent and 105 percent in early 2008. Compared with the 2006 levels, prices were higher in early 2008 by between 88 percent and 160 percent. Approximately half of the countries surveyed by FAO lowered or eliminated import tariffs on cereals during this period (FAO, 2008). However, the scope of this policy response is limited. Applied tariffs on basic foodstuffs were already relatively low in 2006, averaging only 11 percent for cereals for the group of LIFDCs (Sharma and Konandreas, 2008). Effectively, even reducing applied tariffs to zero, would have countered only a part of the price rise of 2007, and not at all during the first half of 2008, unless countries resorted to import subsidization, which most of them could not afford.

The point being made here is that most poor food-insecure countries did not have high enough applied tariffs in 2006 to be able to use this option to stabilize domestic prices in 2007, let alone in 2008. The level of the tariff reduction that would have been required to stabilize domestic prices at the level of 2006 in, say, 2007 or 2008, when world prices increased significantly, would have been several-fold the applied tariffs prevailing in 2006.

4.1.2 Export prohibitions and restrictions

While import subsidization is a prohibitively expensive policy for importing countries to stabilize domestic food prices, export taxation and prohibition is fiscally advantageous and politically attractive for exporting countries to pursue in the face of high world prices. In fact, faced with soaring food prices in 2007-08, several countries took measures to limit

exports of basic foodstuffs, including through taxation and/or outright export bans (FAO, 2008). Approximately a quarter of the countries surveyed by FAO resorted to such measures in 2007-08 and again in 2010-11 several important cereal exporters resorted to similar measures.

However, the potential effects of export restrictions on third countries, especially poor net food-importing countries, can be serious. As the adjustment to higher prices has to be done by a sub-set of countries, the burden on them is higher than what it could have been and world prices rise further, turning a difficult situation into a full-blown crisis. In addition, even for the country imposing export taxation and restrictions, while the rise in domestic prices may be contained somewhat[21], the longer-term food security implications could be adverse in the sense that the needed incentives to domestic producers are dampened and access to export markets may be lost.

What is the role of WTO rules on export restrictions? The relevant provisions are covered under Article 12 of the AoA (*Disciplines on export prohibition and restrictions*) and GATT Article XI according to which *"export prohibitions or restrictions temporarily applied to prevent or relieve critical shortages of foodstuffs or other products essential to the exporting contracting party"* are permitted.

Essentially, current WTO rules allow the use of export restrictions when countries face domestic shortage, a term not defined. Export taxation was never disallowed, and this tax could be prohibitively high because it is not bound, unlike import tariffs. Two important qualifications made in Article 12 of the AoA, i.e. giving due consideration to the effects of such prohibitions or restrictions on importing Members' food security and advance notifications and consultations, are useful to some extent for exerting some moral restraint on the exporter, but may not mean anything in concrete terms.

It is not clear to what extent any of the WTO Members that resorted to export prohibitions or restrictions during the recent past did so by applying objective criteria of what constituted *critical shortage* or whether they gave due consideration to others' food security needs, as stipulated in GATT Article XI and AoA Article 12, respectively. There was not any formal consultation in the WTO Committee on Agriculture (CoA) on the scope and duration of the measures that were put in place or on the possible adverse effects on other Members that may have had a substantial interest as importers of food commodities subject to such export prohibitions or restrictions.

The most recent price spike in world food prices (2010-11), again partly related to export prohibitions by some key exporting countries may provide additional incentives to tighten the rules on export prohibitions and restrictions within the Doha Round negotiations. Net food-importing countries should be enthusiastic proponents of approaches in strengthening WTO rules on export prohibitions and restrictions.

4.1.3 Stockholding and domestic food assistance

Stockholding operations have been a very common response to domestic and international market instability in the past with the objective to both provide minimum support to farmers and also to help consumers through food distribution schemes. While such schemes often proved to be costly and not always effective, and many countries have moved away from such interventions, their appeal is clear from the point of view of vulnerable countries faced with uncertain world markets and the threat of domestic and external shocks. The size of such stocks and their management are key considerations, both as regards costs as well as on how they may interfere with the market. Factors involved in deciding on size would include historical variability of domestic production, import dependency and delays in securing imports, dependability of suppliers and affordability of likely volume of imports.

It is clear that all these factors need to be carefully weighed taking into account both cost/benefit and food security considerations.

What do the WTO rules say public stockholding? As regards public stockholding, the general provisions in paragraph 3 (*Public stockholding for food security purposes*) of Annex 2 (*Green Box*) of the AoA stipulate that the accumulation and holding of such stocks should form an integral part of a food security programme identified in national legislation; the volume and accumulation of such stocks shall correspond to predetermined targets related solely to food security; and the process of stock accumulation and release shall be financially transparent, including being carried out at current market prices. Specifically for developing countries, footnote 5 of paragraph 3 relaxes this general provision, whereby public stocks for food security purposes may be acquired and released at administered prices, provided that the difference between the acquisition price and the external reference price is accounted for in the AMS.

As regards subsidized distribution the general provisions in paragraph 4 (*Domestic food aid*) of Annex 2 stipulate that eligibility to receive food aid shall be subject to clearly-defined criteria related to nutritional objectives; that such aid shall be in the form of direct provision of food to those concerned or the provision of means to allow eligible recipients to buy food either at market or at subsidized prices; and that the financing and administration of the aid shall be transparent, including food purchases by the government made at current market prices. Specifically for developing countries, the provision of foodstuffs at subsidized prices with the objective of meeting food requirements of urban and rural poor in these countries on a regular basis at reasonable prices shall be considered to be in conformity with the provisions of this paragraph.

In the draft modalities (WTO, 2008), the conditions set out in the above provisions are further relaxed. Thus, excluded altogether from the AoA disciplines would be also the acquisition of foodstuffs at subsidised prices with the objective of *supporting low-income or resource-poor producers; fighting hunger and rural poverty;* and *in relation to lowering prices to more reasonable levels*. This additional flexibility envisaged in the new AoA rules is a positive development, even with the requirement that the acquisition of stocks is tied to the objective of supporting low-income or resource-poor producers, a situation generally prevalent in food-insecure developing countries.

For all practical purposes, public stockholding and related domestic subsidized distribution programmes in food-insecure developing countries are WTO-compatible as long as they form an integral part of a food security programme and are targeted to those in need, both laudable objectives.

4.1.4 Reducing the high transaction costs for intra-regional trade

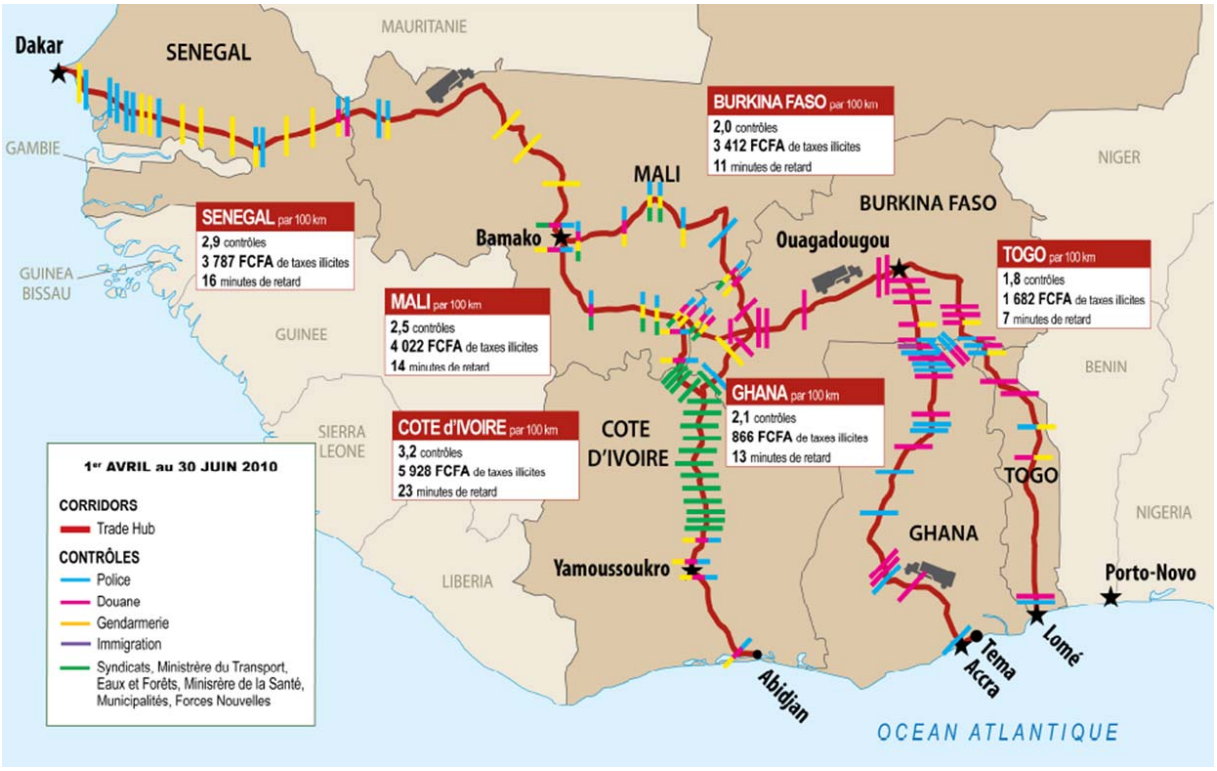
While the defensive policies of export restrictions and stockholding discussed above can provide some short-term relief at the margin, strengthening intra-regional trade and solidarity can go a long way in cushioning the impact of market volatility. However, while this is well recognized, weak market integration in regions where the majority of LDCs and NFIDCs are located adds to their vulnerability to price volatility. Physical and institutional constraints to intra-regional trade result in an excessive cost of doing business. These include supply-side constraints related to quality and regularity of supplies, poor physical infrastructure which adds to transaction costs as well as numerous impediments to trade as a result of formal and informal rules and regulations. These are often serious impediments to the movement of supplies from surplus to deficit areas regionally and even within the same country. In particular, during periods of shortage, expeditious mobilization and transport of supplies through national borders to the deficit areas are critical in avoiding price escalation at the local level.

These problems are common in different regional contexts in Sub-Saharan Africa and

elsewhere and the causes are generally the same and fairly well documented.[22] While the high transaction costs are due to poor physical infrastructure from the farm-gate to the final destination (assembly, storage, processing, transport, etc) there are also numerous non-physical factors that add substantially to these costs. For example, during the 3-month period (April to June 2010), in the corridor Abidjan-Bamako of 1,174Km, there were 31.8 checkpoints (on average 2.7 per 100Km), including gendarmerie, police and customs. The total delay involved amounted to an average of 277 minutes and the total illicit average payments averaged to 62,786 CFA (5,348 CFA per 100Km)[23]. Similar experiences have been recorded in the other main corridors in West Africa (Figure 15). These are major constraints to regional food security even in normal years and much more so during periods of local shortages and high world food prices.

Quick improvements can be made at the local level in reducing transaction costs which is an important mitigating factor in containing price volatility. That road transportation is expensive is a fact of life and progress in this area will be gradual, not because the value of better road network is not recognized but because of the high investment required to do so. However, other interventions are much easier to implement and some of them are costless, such as facilitation of regional transport and transit formalities, including simplification and harmonization of cross-border regulations and related documentation. In addition, cracking down on petty corruption should be high on the hit list. The numerous roadblocks, charges and delays in moving supplies, even within a country's own borders but much more so for cross-border trade, are highly detrimental to food security and are also associated with other undesirable developments.

Figure 15. Checkpoints, associated delays and costs along main trucking routes in West Africa



Source: 12ème Rapport de l'OPA/UEMOA, 10 août 2010, West Africa Trade Hub.

4.1.5 Using AoA flexibility to invest in food production and longer-term resilience

In general the AoA disciplines are not presently constraining developing countries in supporting agriculture, even with production and trade distorting policies.[24] This is due to the additional flexibility that the rules afford to developing countries and more importantly to the fact that actual support to agriculture in many countries has been desperately low.[25] Historically, countries have tended to tax agriculture in their early stages of economic development.[26] Successful take-off to sustained agricultural growth was invariably achieved through a judicious mix of subsidies, pricing policies and border measures, as well as other institutional and infra-structural support measures. Agrarian poor and food-insecure countries that have the resources to increase food production would have to follow the same route.

The policy mix that individual countries may use would depend on their specific circumstances but one policy that has proven effective in achieving rapid increases in output are targeted investment assistance to agriculture and 'smart' input subsidies to resource poor farmers.[27] To the extent that investment assistance is generally available to agriculture in developing countries and input subsidies are targeted to resource poor farmers, they fall under the SDT provisions of Article 6.2 of the AoA. This is well suited to food-insecure developing countries where a large part of the farming population is indeed resource poor. Moreover, there is no limit on the amount of subsidies that can be provided under Article 6.2 as long as the conditions mentioned above apply. However, effectively there are limits in view of the scarcity of resources in these countries and hence the need for targeting support and efficiency considerations can not be overemphasized.

Even for support to agriculture and food production that does not respect the criteria of Article 6.2, there is plenty of room for assisting farmers in developing countries in view of a relatively generous *de minimis* clause. This includes a 10 percent product-specific support and another 10 percent non-product-specific support.[28] Potentially, this implies a total production-distorting support of as much as 20 percent of the value of agricultural production which on top of Article 6.2 and on top of Green Box support leaves plenty of opportunities for countries to support agriculture and food production in particular.

Overall, it may be said that the WTO disciplines allow considerable flexibility to food-insecure countries to support agriculture and increase productivity and food production. The inability of these countries to do so is clearly not due to constraining multilateral trade rules but lack of funds as well as priorities in the allocation of available funds. The inclusion of technical and financial assistance among the instruments of the Marrakesh Decision reflects a wider recognition of this problem by the international community (see next section).

4.2 How the International Community Can Help

Beyond what affected countries can do for themselves to respond to threats to their short-term food security originating from higher prices and market volatility, collective international action to help affected countries has been seen as an integral part of the reform process in agriculture. In this connection, among the measures that can be taken by WTO Members and the international community are those specifically mentioned in the Marrakesh Decision. These include four instruments: food aid; export credits; compensatory financing; and assistance to increase agricultural productivity and infrastructure. In addition, those policies that have been responsible for aggravating recent world food markets would have to be addressed, in particular biofuel policies and export prohibitions and restrictions.

4.2.1 International food aid[29]

While the provision of food aid has now a largely humanitarian motive and is not trade related, for a variety of reasons the disciplines on

food aid have become effectively intertwined with the WTO rules under agriculture so that developments in both areas move together.[30] Existing disciplines on food aid under the AoA are contained in paragraph 4 of Article 10 on the *Prevention of Circumvention of Export Subsidy Commitments*. It is clear that the incorporation of food aid disciplines under this article was meant to avoid abuse of food aid, particularly in situations where it could be provided in terms and conditions that would circumvent export subsidy commitments.

The FAO Principles of Surplus Disposal[31], administered by the FAO Sub-Committee on Surplus Disposal (CSSD), together with the Food Aid Convention (FAC), continue to be the key institutional arrangements governing food aid, explicitly recognized as such in the AoA rules. While their explicit mention in the AoA may have implied better adherence to CSSD[32] and FAC guiding principles (being now part of the binding WTO system), it also brought with it certain inertia to change, in the sense that food aid rules could no longer move independently from the rest of the rules governing agriculture. Indeed, as for the whole package of issues on agriculture being negotiated under the Doha Round, there has been an impasse in the arrangements governing food aid (awaiting the completion of the Doha Round), although it is widely recognized that the situation on the ground necessitates important changes in the provision and use of food aid.[33]

Growing emergency needs and limited role of food aid in high price years

Over time there have been important improvements in the food aid system in terms of assessing more precisely the specific needs of recipient countries and responding with more flexibility as regards the resources needed and the complementary measures to be taken. However, the system is yet to be freed from its legacy dating back to almost five decades ago when the notion of "surplus disposal" was first introduced and when food aid policies were driven, by and large, by supply availabilities in donor countries. Complete de-linking from donor surplus supplies has yet to be attained. As a consequence, food aid still remains highly variable and an uncertain resource, with commodity prices, stock levels and shipping costs playing a key role.[34]

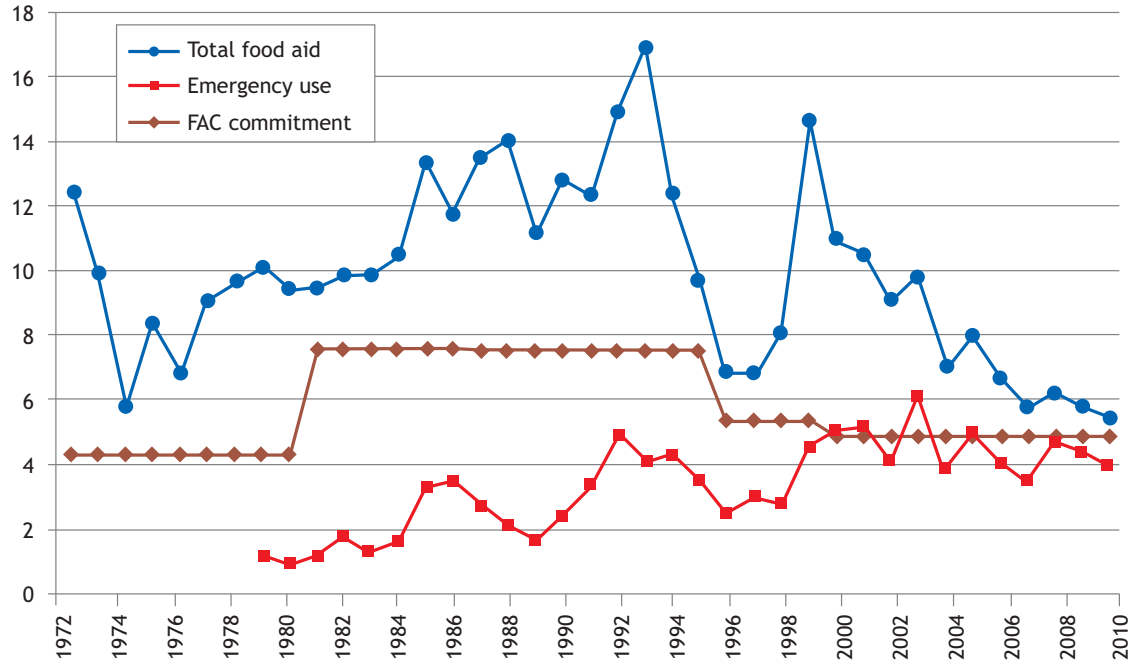
This precarious nature of food aid is more evident during high price years when volumes actually decline. This perverse relationship is anticipated as food aid is expressed in monetary terms in donor national budgets. Hence, a given amount of funds translates to less quantity under a situation of rising prices. Overall, whether in normal years or years of dear food, the role of food aid has declined considerably since the mid 1990s and its share in total volumes imported by LDCs and NFIDCs has diminished as we have seen in Chapter III, although it remains a critical source of supply for some food-insecure countries.

The first priority of food aid is in responding to the rapid increase in humanitarian relief and crisis-related emergency situations. The number of emergency operations during 2001-10 nearly doubled compared to the 1980s and the use of food aid for emergencies has also doubled. At the same time, following the WTO agreement in 1995, total food aid availability has declined considerably, in parallel with the aggregate minimum commitment under the FAC which was adjusted downwards by over 2 million tonnes and now stands at some 4.895 million tonnes. As a result, emergencies now absorb nearly 80 percent of total food aid compared with well below 20 percent up to 1990 (Figure 16).

On average, there is now barely a margin between aggregate minimum FAC commitments and aggregate emergency needs (Figure 16). It follows that to the extent that all commitments under the FAC were for the exclusive use of emergency operations, these resources would just about suffice, although this may not be the case for long, considering past emergency trends. In addition, the other legitimate use of food aid in addressing nutritional needs of vulnerable groups (targeted 'project' food aid[35]) is continuously compromised in view of

dwindling resources. By and large these involve multi-year projects and address the needs of chronically food-insecure people, and there is very little room for reducing such resources without inflicting hardship on the dependent target populations.

Figure 16. Emergency food aid against FAC commitments (million MT)



Source: Based on FAO and WFP data

It follows that, based on present FAC commitments and declining overall food aid availability, there is little flexibility to allow a permanent and inconsequential diversion of food aid resources to address additional difficulties that countries may face during periods of high price years. Moreover, it is during such years that commitments under the FAC are barely above the minimum and also during such years that nutritional interventions become imperative, as more people fall under the poverty line.

The conclusion is that under the present aggregate minimum commitment of the FAC, diverting food aid resources away from their prioritized use may seriously compromise the timely availability of resources for meeting pressing emergency needs as well as the needs of chronically food-insecure people. Thus the present FAC offers little room for providing any relief to countries facing difficulties from high food prices. It follows that serious consideration should be given in the renegotiation of the FAC to raising its aggregate minimum commitment (see below).

The need to strengthen the Food Aid Convention (FAC)

Expediting the renegotiation of the FAC to better meet its objectives has been the focus of attention by the international community for some time. The FAC is no longer seen as simply having an 'instrument focus' (i.e. food aid) but also a 'problem focus' (i.e. food security), thus becoming part of the broader processes to address longer-term developmental and poverty reduction objectives.[36] Food aid is increasingly seen as an integral part of efforts towards creating resilience in the affected countries to reduce the need for this type of assistance.

This is especially the case in emergency situations (mostly in LDCs and NFIDCs as we have seen in Chapter II) where often agricultural activity is disrupted and productive resources are lost, threatening the longer-term livelihood of affected populations. Agricultural inputs, in addition to food, to help affected populations to quickly recover and be able to rehabilitate

their agriculture sector is of paramount importance in these situations.[37] This was the rationale for the suggestion made by FAO to incorporate agricultural inputs in the new FAC, as part of donors' contributions against their minimum FAC commitment.[38] In addition, several other suggestions were also advanced by FAO for consideration in the renegotiation of the FAC, reflecting the realities on the ground in recent years:

- Raising the FAC minimum commitments to better respond to recognized needs and avoid resorting to ad hoc and expensive last minute resource mobilization;
- Broadening the donor base by bringing new donors formally into the FAC;
- Earmarking and prioritizing FAC resources to emergency operations and genuine nutrition intervention projects, and perhaps excluding programme food aid from being counted under a donor's FAC commitment;
- Introducing flexibility in funding arrangements through carry-forward (from one year to the next) and call-forward (from future years) to better respond to variable needs;
- Ensuring compatibility with WTO rules, including reflecting in new FAC principles already agreed in the Doha Round negotiations.

4.2.2 Export credits

An export credit is understood to be a guarantee, insurance, financing, refinancing or interest rate support arrangement provided by a government which allows a foreign buyer of exported goods and/or services to defer payments over a period of time (OECD, 2000). A frequent justification for officially supported export credit programmes is that they may help developing countries overcome liquidity constraints in order to import necessary goods where otherwise they would not be able to do so.

The record of export credits in providing assistance to liquidity-constrained countries to import food commodities has not been very good. An OECD study[39] found that export credits were unlikely to be of great help for that purpose as the bulk of officially supported export credits were arrangements between OECD countries themselves, where binding liquidity constraints were unlikely. Only a very small share of officially supported export credits was given to NFIDCs and LDCs amounting to some 9 percent and less than one percent, respectively. Another finding of the study was that the benefits to importers are very small and unlikely to be of much help to countries which are truly in need of financial assistance to import food. Because of the narrow empirical base, the OECD study admits that these conclusions cannot be considered to be conclusive evidence that export credits never help net food-importing countries to overcome liquidity constraints, although they also make it difficult to claim that they do.

There are no rules on export credits in the existing AoA but a built-in agreement (Article 10.2 of the AoA) for WTO Members to work towards developing relevant disciplines. By and large, negotiations under the Doha Round on these issues focused not so much on how related provisions can be made more effective in helping food-insecure countries in financing needed food imports but on preventing circumvention of export subsidy commitments. This is understandable from the perspective of export competition, considering the principle agreed by WTO Members to undertake commitments in all areas of direct and indirect export subsidization, including export credits and food aid, in parallel with the elimination of export subsidies. However, it does very little to address the basic rationale of export credits which is to increase the capacity of liquidity-constrained countries to import needed food.

In the Draft Modalities text measures under export financing support (comprising export credits, export credit guarantees or insurance programmes) there are two aspects that would be disciplined: maximum repayment term and premium rates. On the former, the general rule is to limit the maximum repayment term for

export financing support to no more than 180 days. On the latter, the fundamental principle proposed is that export credit guarantees, insurance and reinsurance programmes, and other risk-cover programmes shall be self-financing by the interest rate charged.

Beyond these general provisions, there are some specific SDT provisions in the Draft Modalities for LDCs and NFIDCs. One important SDT provision concerning LDCs and NFIDCs *as beneficiaries* of export financing is the repayment period which will be between 360 and 540 days for the acquisition of basic foodstuffs.[40] In addition, should an LDC or NFIDC face *very exceptional difficulties*[41] which preclude financing normal levels of commercial imports of basic foodstuffs and/or in accessing loans granted by multilateral and/or regional financial institutions, the repayment term can be extended (beyond 540 days) to meet humanitarian needs for basic foodstuffs.

Clearly disciplines on export credits would aim at avoiding the possibility of being used to circumvent export competition commitments. However the case of LDCs and NFIDCs as targets of these schemes provides a degree of certainty that this is unlikely to be the case, to the extent that the credit provided targets true liquidity constraints in these countries and therefore generates additional trade. This additionality of imports would imply that displacement of other exporters' trade would be minimized.

4.2.3 Food financing facilities

That many LDCs and NFIDCs have balance of payments difficulties even in normal times and face additional short-term difficulties in financing normal levels of commercial imports of basic foodstuffs in more difficult times, such as when food prices soar in the world markets, is hardly disputed. In the context of the Marrakesh Decision, FAO had undertaken a detailed analysis in 2002 of the difficulties of LDCs and NFIDCs in financing food imports (FAO, 2003). Among other things, the FAO analysis noted that unlike the past, food imports were now largely undertaken by private traders and this had not helped financing food imports when needs surged. This is largely because the private sector – working in an environment of *inter alia* high risks, underdeveloped banking services and the extra collateral demand this entails – lacks finance and related guarantees which importing government agencies used to enjoy in the past.

IMF's Compensatory Financing Facility (CFF)

As regards possible assistance from food financing facilities the relevant paragraph of the Marrakesh Decision mentions explicitly the IMF and the World Bank. Among the facilities, the one closest to that envisaged in the Decision and which attracted most attention, was the IMF's Compensatory Financing Facility (CFF).[42] The CFF was created in 1963 and the cereal import element added to it in 1981, following increased food price volatility in the 1970s and the recognition that proposed price stabilization initiatives would not address the main source of variability in food import bills, mainly due to the variability of imported volumes as a result of domestic production fluctuations (Valdes et al, 1981; Konandreas et al, 1978).

Over the years there has not been great use of the cereal component of the CFF especially by LDCs and NFIDCs. Commentators had all along pointed to the limitations of the CFF. These included a number of conditionalities, including linking difficulties in financing food imports to concurrent commodity export earnings and overall balance of payments position of a country, non-concessionary nature of loans, etc. IMF's own evaluation of 2004 also reached similar conclusions (IMF, 2004).

In view of these recognized limitations of the CFF, a group of LDCs and NFIDCs proposed in 2001 the creation of a new dedicated financing facility (WTO, 2001). The proposal (based on FAO analysis) was to create a *revolving fund* from which LDCs and NFIDCs would borrow short-term loans in the event of soaring food import bills (FAO, 2001). An *Inter-Agency Panel on Short-Term Difficulties in Financing Normal*

Levels of Commercial Imports of Basic Foodstuffs considered this proposal and recommended that, instead, the feasibility of an *ex ante* financing mechanism be explored further (WTO, 2002). FAO and UNCTAD elaborated further on how such an *ex ante* facility (one that would allow countries to draw resources in advance in order to finance excessive costs of imports of basic foodstuffs) could work in practice and developed a proposal for the creation of a *Food Import Financing Facility (FIFF)* (FAO, 2003). The FIFF was supposed to be a market-based instrument to provide credit guarantees to importing agents/traders of LDCs and NFIDCs to meet the cost of excess food import bills. Although this was seen favourably by many countries, there was no concrete interest for a practical follow up, partly because of lack of urgency at that time to act (world market prices were still at "reasonable" levels).

Recent facilities under the Poverty Reduction and Growth Trust

In 2005, the IMF established a new facility, the *Exogenous Shocks Facility (ESF),* within its Poverty Reduction and Growth Facility (PRGF). After further modifications in 2008, to provide faster and higher access and make it easier to use, some 12 countries are known to have received loans under the ESF for a total amount of US$1.25 billion.[43]

More recently, the IMF has upgraded its support for low-income countries, reflecting the changing nature of economic conditions in these countries and their increased vulnerability due to the effects of the global economic crisis. To make its financial support more flexible and tailored to the diversity of low-income countries, the IMF has established a new *Poverty Reduction and Growth Trust (PRGT)*, which has three new lending windows, all under highly concessional terms (IMF, 2011). The new windows, which became effective in January 2010, are the following:

- **The Extended Credit Facility** (ECF) replaces the Poverty Reduction and Growth Facility (PRGF). It provides sustained engagement over the medium to long term, in case of medium-term balance of payments needs;

- **The Standby Credit Facility** (SCF) supersedes the Exogenous Shocks Facility's High Access Component. It provides flexible support to low-income countries with short-term financing and adjustment needs caused by domestic or external shocks, or "policy slippages"; it targets countries that do not face protracted balance of payments problems but may need help from time to time; it can also be used on a precautionary basis to provide insurance.

- **The Rapid Credit Facility** (RCF), provides rapid financial support in a single, up-front payout for low-income countries facing urgent financing needs, and offers successive drawings for countries in post-conflict or other fragile situations; provides flexible assistance without program-based conditionality when use of the other two facilities is either not necessary (limited nature of need) or not possible (institutional or capacity constraints).

All these facilities allow for significantly higher access to financing and offer more concessional terms than previously. IMF resources available to low-income countries would be more than doubled up to $17 billion through 2014. Zero interest would be charged on all concessional lending through 2011 and concessionality will be reviewed every two years thereafter.

The IMF also established recently a new **Post-Catastrophe Debt Relief Trust** (PCDR)[44], which allows the IMF to join international debt relief efforts for very poor countries that are hit by the most catastrophic of natural disasters. In July 2010, this allowed the IMF to eliminate Haiti's entire outstanding debt to the IMF following the devastating earthquake.

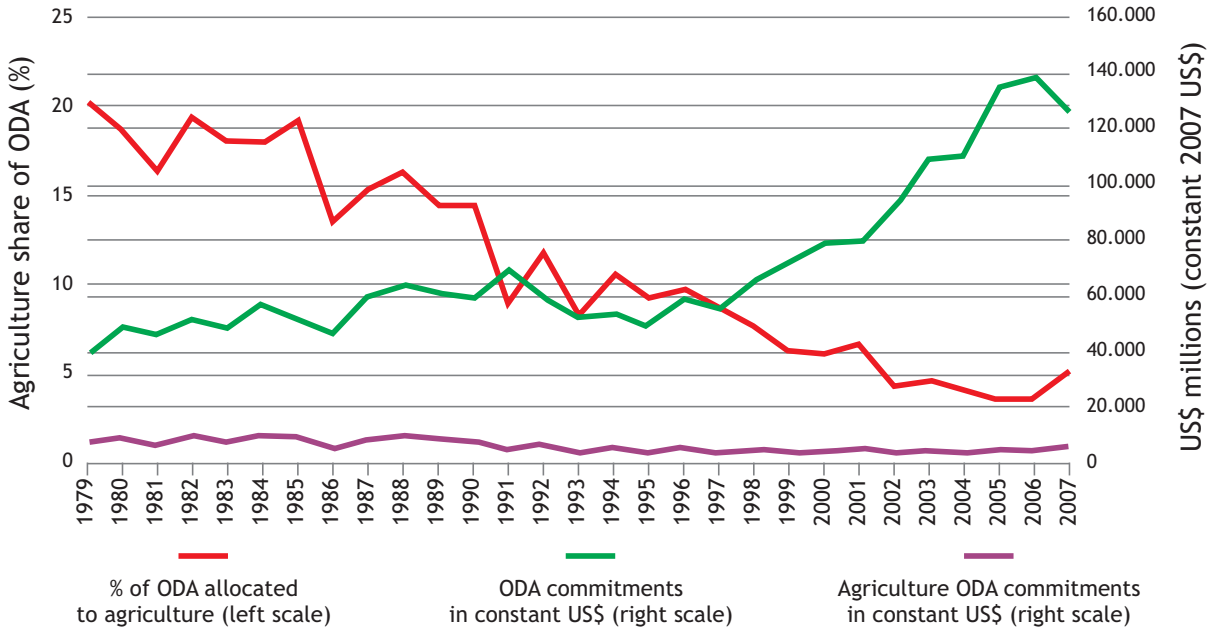
4.2.4 Technical and financial assistance to increase agricultural productivity

Among the four instruments under the Decision to support LDCs and NFIDCs, this is the only one that relates to the longer-term food security

problem that these countries face. Its inclusion reflects a genuine recognition by the authors of the Decision of the imperative to address the fundamental vulnerability of these countries, which is their poor performance in increasing agricultural productivity. The fact that productivity levels are low, especially for LDCs as we have seen in Chapter III, are indicative of the untapped potential that these countries have to bridge the gap between growing food needs and domestic production.[45] The fact that they have not done so yet reflects, inter alia, the very low levels of investment in agriculture, whether from domestic or external sources.

However, agriculture is key to food security and poverty reduction: GDP growth generated in agriculture is at least twice (3.5 times for some countries) as effective in reducing poverty as GDP growth originating outside agriculture (World Bank, 2007). It follows that if poverty and food insecurity are to be tackled in poor net food-importing countries, the productivity of the agricultural sector must be boosted. This is imperative in addressing both the prevalence of chronic food insecurity in theses countries as well as in strengthening their resilience to short-term shocks whether from internal or external origin.

Figure 17. ODA commitments and share allocated to agriculture



Source: OECD

The wide range of specific interventions that could boost agricultural productivity and render domestic food production competitive in local and regional markets are beyond the scope of this study. As discussed in the previous chapter, the AoA rules leave ample flexibility on the types of domestic support to increase agricultural productivity; matching this with increased external assistance for that purpose is crucial, considering the scarcity of resources in these countries. Effective use of Aid for Trade and other technical and financial assistance could be useful in this respect. Such funding could be used for private sector development, public-private partnership to create viable seed, fertilizer and agriculture manufacturing industry. Attracting FDI in developing these allied industries would not only generate employment but a surety to more sustainable growth.

The Marrakesh Decision could provide the impetus to reverse the long-term trends in ODA allocated to agriculture (Figure 17). The types of technical and financial assistance would have to be holistic by addressing needs along the supply chain, including new technologies related to production of basic foodstuffs, processing, storage and

marketing of agricultural commodities, all of which can positively affect the productivity, competitiveness, and livelihoods of farmers and rural communities. International community can also help in developing social safety networks.

4.2.5 Rationalizing biofuel policies

After several years of biofuel policies in major producing countries being dominated solely by inflexible mandates, disregarding damaging impacts on food security, there are concrete hopes that this situation will change. In the US, prevailing legislation that provided tax credits and tariff protection to corn-based ethanol production was not renewed by Congress at the end of 2011, signaling a shift in nearly three decades of policy (54 cent per gallon tariffs on imports and 45 cent per gallon tax credits for blending ethanol with petroleum). This is a very welcome development, although some fear that unless the blending mandate also comes to an end, it will continue to drive demand for corn and food prices higher (e.g. Babcock, 2010).

In view of these fears, possibilities for innovative approaches based on flexible mandates have been suggested to reduce food price volatility (de Gorter, et al, 2010). Flexible mandates would imply making them conditional on the price of food, so that mandated targets can be reduced or eliminated if food prices rise beyond some trigger level. It is clear that this policy would work when energy prices are within limits. However, when petroleum prices are high enough to the point where food commodities can be used profitably in biofuel production, reduction in mandated levels would not be effective.

It is because of this last point that other complementary approaches have been suggested for the establishment of "safety valves" that would allow the diversion of agricultural feedstocks from biofuel production into the food chain in times of acute need (Wright, 2011). The idea is to purchase call options on grain from biofuel producers, so that a diversion from biofuel use to food use could be triggered by specified indicators of food shortages, and the biofuel supplier would commit to making a corresponding reduction in output. For a programme to protect the poor, delivery specifications would also be required to ensure that the grain will get to the vulnerable target population.

More ambitious objectives that go beyond the needs of a target population (e.g. to influence world food prices during periods of tight supplies) could also be envisaged for countries which are large producers and exporters of a feedstock used in biofuel production, such as maize in the case of the US. Call options would divert supplies from biofuel use to food use under certain price-related triggers, and this could lessen the pressure on world food markets. A more realistic arrangement for donor countries with large food assistance and large biofuel programmes is to purchase call options on grain from biofuel producers with the specific purpose of maintaining their food aid commitments even in years of high prices, when actually such assistance is most needed.

4.2.6 Strengthening WTO disciplines on export prohibitions and restrictions

As already discussed the damaging effect of such policies both for world food security[46] and for the MTS itself have been well recognized and concrete proposals have been made to strengthen the related WTO disciplines.[47] A proposal that deserves immediate attention is the banning of "food export restrictions or extraordinary taxes for food purchased for non-commercial humanitarian purposes" (FAO, 2009).[48] This was also included in the set of proposals put forward under the G20 initiative as regards purchases by the WFP but has not received the approval of the Eighth WTO Ministerial Conference.

Beyond the food security concerns of net food-importing countries, weak WTO rules in this area are also detrimental to the multilateral trading system itself. It raises doubts about the world market being a reliable source of food supplies and puts into question the credibility and impartiality of efforts to reform world agricultural trade.

5. CONCLUDING REMARKS

Volatility in world prices of agricultural commodities has been a perennial problem and many approaches have been tried to deal with it. Some of them aim at dealing with strictly short-term volatility while others combine longer-term objectives, such as defending a floor price for producers or containing excessive costs to consumers. Most of them are defensive in nature dealing with symptoms, by trying to mitigate the effects of volatile prices. They are also narrow in scope addressing the problem from the perspective of individual countries with the aim of preventing shocks in the world market from being transmitted to the domestic market. However, by insulating the domestic market from the world market, the residual world market becomes more inelastic and volatility becomes more acute in the process.

These detrimental effects of ad hoc approaches and acting alone in responding to volatility have been understood for a long time and the merits of many countries acting collectively well appreciated. What has also been clear is that there are important trade-offs between the cost of insulating the domestic market from the world market when acting alone and the benefits of supporting a collective multilateral effort in dealing with price instability.

In this connection, the multilateral negotiations under the GATT/WTO have been the dominant force shaping the policy environment in food and agriculture during the past three decades. Agricultural commodities are now under the multilateral trading system governing trade in goods and services, albeit the process of integration of agriculture in that system is not yet complete. By and large, the AoA rules have been helpful in disciplining measures responsible for structural surpluses and depressed prices in world markets but the rules leave much to be desired as regards measures that have the opposite effect leading to price spikes. This asymmetry in the WTO rules very much reflects the trade concerns in agriculture over a long period, characterized by an oversupply and cheap food policies, a situation that may not continue in the future and trade rules would need to be adjusted accordingly.

The Marrakesh Decision was a step in recognizing this asymmetry in the AoA by offering a degree of comfort to LDCs and NFIDCs that were potentially adversely affected by the reform in agriculture. In retrospect, the Decision was a wise and insightful complement to the reform process in agriculture. A renewed effort is necessary to translate the good intentions of the international community into a functional instrument.

The need to fully implement the specific provisions under the Decision was reaffirmed by the experience of recent years when poor net food-importing countries faced serious challenges in procuring food supplies in the world market at affordable prices. The experience of recent years also helped in identifying what type of assistance, among those envisaged under the Decision, is likely to be more effective in helping these countries. Priority should be given on technical and financial assistance to agricultural productivity and related infrastructure, considering the potentially high pay-off of this approach in boosting food production and its longer-term effects on poverty reduction. At the same time, assisting these countries to countenance short-term difficulties in importing basic foodstuffs from the world market is also essential and in this respect strengthening the various financing facilities of the IMF and the World Bank is a priority.

Another important consideration of the international community in responding to the problem in the context of the Decision is the great heterogeneity of the two target groups of countries, the LDCs (a clearly defined UN category comprising the poorest countries) and the NFIDCs (a group of self-designated middle income countries with generally better average nutritional status than that of the LDCs). This has implications on the prioritization of assistance as well as on the types of instruments that may be more effective for one group of countries

vs. the other. Prioritization could be based not necessarily on strictly country categorizations but on more objective criteria such as the percentage and absolute number of hungry and malnourished population as well as the capacity of different countries to manage the situation on their own.

Ultimately, dealing with price volatility is the preoccupation of national governments and individual households within countries and cannot be addressed at the international level. However, the international policy environment, the multilateral trading system and the rules that govern it can be highly supportive to help countries in mitigating the effects of extreme price swings. More symmetry in the rules in addressing problems of both exporters and importers, more predictability in the application of the rules, and a more faithful implementation, not only of the letter but also of the spirit of the agreed rules, removes uncertainty in the market and allows countries to focus on interventions with more confidence and certainty about the expected results.

The AoA was only a very partial and incomplete first step in disciplining agricultural trade and in addressing adequately the concerns of both exporting and importing countries, especially in periods of market volatility. Recent periods of food price spikes have demonstrated that existing rules and disciplines are far from being fully effective and the resumption of the Doha Round needs to address some of these rules. This would add to the credibility of the MTS and foster an environment conducive to more trade openness on the part of importing countries, to the extent they are assured that the world market is a reliable source of supply, both in periods of plenty and in periods of relative scarcity.

ENDNOTES

1 The market stabilizing effect of trade openness was expected to come about, *inter alia,* by greater price transmission to domestic markets and thus greater responsiveness by producers and consumers to world price changes; greater flexibility of private stocks (expected also to fill partially the gap from government withdrawal); greater transparency and consistency on the part of governments in implementing trade and domestic policies and measures (including stockholding); and greater confidence in the multilateral trading system as a secure and dependable source of supplies.

2 *Decision on Measures Concerning the Possible Negative Effects of the Reform Programme on Least-Developed and Net Food-Importing Developing Countries* http://www.wto.org/english/docs_e/legal_e/35-dag_e.htm

3 LDCs and NFIDCs, with the support of international organizations including FAO and UNCTAD (FAO, 2001), had been proactive in the early days of the UR coming into effect with proposals for implementing the Decision (WTO, 2001). However these did not receive the broad support of the WTO Membership (WTO, 2002) and interest lapsed for some time.

4 The other two are drawing on food financing facilities and technical and financial assistance to improve agricultural productivity and infrastructure.

5 Eventually tabled as G/AG/W/90 (14 November 2011), WT/GC/140 (18 November 2011) and in modified form as WT/GC/140/Rev.1 (25 November 2011).

6 While this proposal was not adopted by the WTO Eighth Ministerial Conference in December 2011, the chair's summary of the meeting mentions that "some Ministers signalled their support for a proposal to establish a work programme on trade-related responses to mitigate the impact of food market prices and volatility, especially on LDCs and NFIDCs, for action by the Ninth Ministerial Conference" (WT/MIN(11)/13)

7 Import surges, as a result of such depressed world prices and unfair practices by exporters undermine otherwise competitive import-competing sectors and could pose a serious threat to the viability of domestic food production (FAO, 2006a). In fact, depressed prices have been the predominant state of world markets over the last 50 years and have greatly shaped multilateral trade negotiations in agriculture.

8 By and large, price spikes are a short-term concern, affect consumers and are immediately visible. On the other hand, depressed prices are a longer-term concern, in the first place affecting producers but ultimately contribute to eroding national food security. Another complication about assessing the effects of price volatility on different segments of society is the fact that in poor countries many food producers are also net buyers of food and as such adversely affected in periods of price spikes.

9 Critical drivers on the supply side include high and increasing energy and related inputs and feed costs. These are mainly driven by high oil prices, but resource pressures, in particular those related to water and land are also increasing. These higher costs would limit production increases and result in slower yield growth. Relatively slower rates of agricultural production growth would also slow the replenishment of stocks, which could make commodity markets more unstable.

10 Climate change is also associated with greater variability in precipitation and temperatures, increasing the frequency and intensity of droughts and floods that will significantly magnify

the impacts of climate shocks on agriculture. Developing country regions including Africa will be negatively affected by these developments (Cline, 2007).

11 While oil prices have come down considerably from their peak witnessed in 2008, there is broad agreement that over the longer term, prices of fossil fuels would be higher than the average prices experienced in the past. This would lead to higher agricultural production costs than in the past (through pressure on the cost of machinery, fuel and other energy dependent inputs such as fertilizer). Beyond the farm gate, costs of inputs and long-distance food distribution would also be affected by higher transport and refrigeration costs.

12 Although agriculture was never outside the GATT officially, certain exceptions for agriculture negotiated in the 1950s, primarily to suit domestic and trade policies of a handful of countries, meant that the regular GATT rules that applied to industrial goods did not apply to agriculture.

13 "The CONTRACTING PARTIES agree that there is an urgent need to bring more discipline and predictability to world agricultural trade by correcting and preventing restrictions and distortions including those related to structural surpluses as so to reduce the uncertainty, imbalances and instability in world agricultural markets" (*Punta del Este Declaration* launching the Uruguay Round).

14 It is clear that the aggregation of countries into LDCs and NFIDCs inevitably masks individual country problems. In particular, there is a considerable degree of heterogeneity among countries in the NFIDC group, both in terms of size and economic structure. The statistics of some large countries in this group (such as Pakistan and Egypt) tend to outweigh all others, such as the numerous small island economies whose weight in the aggregate statistics is indeed very small; hence this issue of heterogeneity among countries need to be borne in mind in interpreting aggregate indicators reported here and in subsequent sections.

15 For individual cereal commodities the weigh of NFIDCs and LDCs in world trade is even larger and on the rise. Thus for wheat NFIDCs accounted for over 20 percent of world imports in recent years compared to about 15 percent in the early 1980s, while LDCs accounted for some 10 percent of world wheat imports compared to half that amount in the early 1980s. Thus, together these two groups of countries accounted for over 30 percent of world wheat imports in recent years.

16 The increase in quantity produced between two time periods can be decomposed into effects attributed to yield increase, effects attributed to area increase and the combination of these two factors. The related formula is as follows:

$$Q2-Q1 = A2*Y2 - A1*Y1 = A1*(Y2-Y1) + Y1*(A2-A1) + (Y2-Y1)*(A2-A1)$$

$$= \text{Yield effect} + \text{Area effect} + \text{Interaction effect}$$

where:

Q, Y and A are quantity produced, yield realized and area harvested, respectively, and subscripts 1 and 2 correspond to averages of periods 1980-90 and 2000-10, respectively. At one extreme of the spectrum is a country with constant area harvested over time, in which cases growth in output can come from yield increases. In that case the area effect is equal to zero and the yield effect is 100 percent. In the opposite extreme of a country with stagnant yield level, the only source of increase in output is through area expansion. In that case the yield effect is zero and the area effect is 100 percent. The reality is always somewhere in between, whereby both area and yield vary between the two periods (not necessarily

increasing) which results in a positive interaction term (if changes in are and yield are of the same sign) or a negative one (if of the opposite sign).

17 The data used here are based on those compiled by FAO GIEWS in its monitoring of the food import bills of LDCs and NFIDCs since the signing of the UR. These data are reported annually to the CoA when the Marrakesh Decision is being reviewed.

18 There were also two countries, one among LDCs (Zambia) and one among NFIDCs (Pakistan) which substantially reduced the quantity imported, resulting in large negative volume and interaction effects, effectively negating any effect from the increase in the imported price.

19 Again, the heterogeneity among countries as regards sources of export earnings should be pointed out. In particular, for some of the small island NFIDCs food imports are partly an input into large tertiary sectors (tourism), so that merchandise exports alone gives a wrong measure of capacity to fund imports (Dom. Rep., Jamaica, Maldives, St Kitts & Nevis, St Lucia, Dominica, Grenada, Barbados, Mauritius, Trinidad & Tobago, St Vin. & Grenadines); others are mineral exporters and barely constrained in importing foodstuffs (Botswana, Namibia, Gabon, Venezuela, Trin. & Tobago).

20 This 'special' position of Equatorial Guinea is due to the discovery of large oil reserves in 1996 and its subsequent exploitation which have contributed to a dramatic increase in government revenue. As of 2004, Equatorial Guinea is the third-largest oil producer in Sub-Saharan Africa. However, poverty and food insecurity still remain prevalent.

21 The rational for imposing such measures seem to vary by country with some of them doing so not primarily about food security but to support value addition in domestic industry in related sub-sectors (e.g. Argentina's taxation on soybean exports and Russia's grain export bans to reduce feed prices to livestock sector). In other countries (e.g. India, Vietnam), food security or at least consumer food prices may have been a more important motivation. Such measures can also be controversial domestically, as shown by the recent Indian experience with the temporary cotton export ban (*Bridges Weekly Trade News Digest*,14th March 2012 http://ictsd.org/i/news/bridgesweekly/128233/).

22 For example, in the West African region, an excellent analysis of the role of physical, logistical and institutional constraints is found in USAID (2010) and USAID (2011).

23 *Observatoire des Pratiques Anomales (OPA)* was established in 2005 jointly by the WAEMU and ECOWAS with the financial support of USAID and the World Bank, in partnership with the West Africa Trade Hub. Its objective is to facilitate trade by monitoring unlawful harassment faced by truckers along interstate highways in West Africa.

24 See, for example, Sharma (2002).

25 In the aggregate, developing countries as a whole account for less than 10 percent of global agricultural subsidies and these are basically accounted for by the better-off among them. In many instances farmers in poor countries are taxed instead of subsidised.

26 In many developing countries, agriculture was heavily taxed directly and indirectly in the past (Krueger, et al, 1988), although the situation appears to have improved somewhat in recent years (Anderson, et al, 2010).

27 Such as the well-known case of Malawi, for example (Dorward, A. and E. Chirwa, 2011)

28 While the 10 percent *de minimis* appears generous compared to the 5 percent for developed countries, the majority of developing countries do not have "entitlements" to production

distorting support under the Aggregate Measurement of Support (AMS), which was largely the prerogative of developed countries.

29 The section is largely based on Konandreas (2010).

30 For an excellent discussion on the changing role of food aid see Clay (2012).

31 The *Principles* is a code of international conduct adopted by the FAO Council in 1954, encouraging the constructive use of surplus agricultural commodities and at the same time safeguarding the interest of commercial exporters and local producers (FAO, 2001).

32 The CSSD is largely in abeyance because of the long ago understanding that emergency aid and project aid would not be reported to the CSSD (Clay, 2012).

33 This includes in particular the growing requirements of protracted emergency situations and the need for flexibility of food-related assistance to better respond to these needs. Emergency food aid now constitutes nearly four-fifths of the total food aid.

34 This continuing uncertainty in the availability of food aid has been underscored yet again during the period of extreme grain price volatility in recent years (Clay, 2012).

35 Ignoring 'programme' food aid, which is declining rapidly and enjoys little support for a variety of reasons

36 Suggestions for substantial changes in the institutional arrangements governing food aid and how the FAC should relate to the wider aid architecture have been advanced in recent years by Hoddinott and Cohen (2007), Konandreas (2010) and Clay (2010).

37 Actually, since 1999 the EU's contribution under the FAC includes cash for 'food assistance', inter alia for the provision of seeds (Clay, 2012).

38 It is recognized that inclusion of agricultural inputs under the FAC could lead to further reduction in the provision of food aid. This is why TAFAD (Transatlantic Food Assistance Dialogue) suggests a 5% limit for non-food assistance under the FAC www.tafad.org

39 This OECD study (OECD, 2000) is somewhat outdated, being concluded in 2000 and based on 4 years' data (1995 to 1998), however, its overall conclusions appear to be still valid as they were reflected in a more recent OECD publication (OECD, 2011).

40 It should be noted that this SDT for LDCs and NFIDCs concerns only the acquisition of basic foodstuffs and not all other food and agricultural commodities.

41 The term "very exceptional difficulties" is not defined.

42 The World Bank also has several instruments for emergencies, like Import Rehabilitation Loan and Emergency Recovery Credit/Loan, and more recently the Global Food Crisis Response Programme (GFRP).

43 Comoros, Congo DR, Dominica, Ethiopia, Kenya, Kyrgyz Republic, Tanzania, Malawi, Maldives, Mozambique, Senegal and St Lucia.

44 See www.imf.org/external/np/exr/facts/pcdr.htm

45 Technical and financial assistance to increase agriculture productivity is a crucial part of the solution, including the linking LDCs and NFIDCs with the global research system of CGIAR to strengthen their R&D base and ensure sustainable production.

46 Josling and Mitra (2009).

47 Japan's negotiating proposal was the most comprehensive *Negotiating Proposal by Japan on WTO Agricultural Negotiations*, WTO Document G/AG/NG/W/91, 21 December 2000. Other countries that pressed on disciplines in this area include Korea and Switzerland. See also Sharma (2011).

48 *Declaration of the World Summit on Food Security,* Rome, 16-18 November 2009, para 21.

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ANNEX A: DECISION ON MEASURES CONCERNING THE POSSIBLE NEGATIVE EFFECTS OF THE REFORM PROGRAMME ON LEAST DEVELOPED AND NET FOOD–IMPORTING DEVELOPING COUNTRIES

1. *Ministers recognize* that the progressive implementation of the results of the Uruguay Round as a whole will generate increasing opportunities for trade expansion and economic growth to the benefit of all participants.

2. *Ministers recognize* that during the reform programme leading to greater liberalization of trade in agriculture least-developed and net food-importing developing countries may experience negative effects in terms of the availability of adequate supplies of basic foodstuffs from external sources on reasonable terms and conditions, including short-term difficulties in financing normal levels of commercial imports of basic foodstuffs.

3. *Ministers* accordingly *agree* to establish appropriate mechanisms to ensure that the implementation of the results of the Uruguay Round on trade in agriculture does not adversely affect the availability of food aid at a level which is sufficient to continue to provide assistance in meeting the food needs of developing countries, especially least-developed and net food-importing developing countries. To this end M*inisters agree:*

   (i) to review the level of food aid established periodically by the Committee on Food Aid under the Food Aid Convention 1986 and to initiate negotiations in the appropriate forum to establish a level of food aid commitments sufficient to meet the legitimate needs of developing countries during the reform programme;

   (ii) to adopt guidelines to ensure that an increasing proportion of basic foodstuffs is provided to least-developed and net food-importing developing countries in fully grant form and/or on appropriate concessional terms in line with Article IV of the Food Aid Convention 1986;

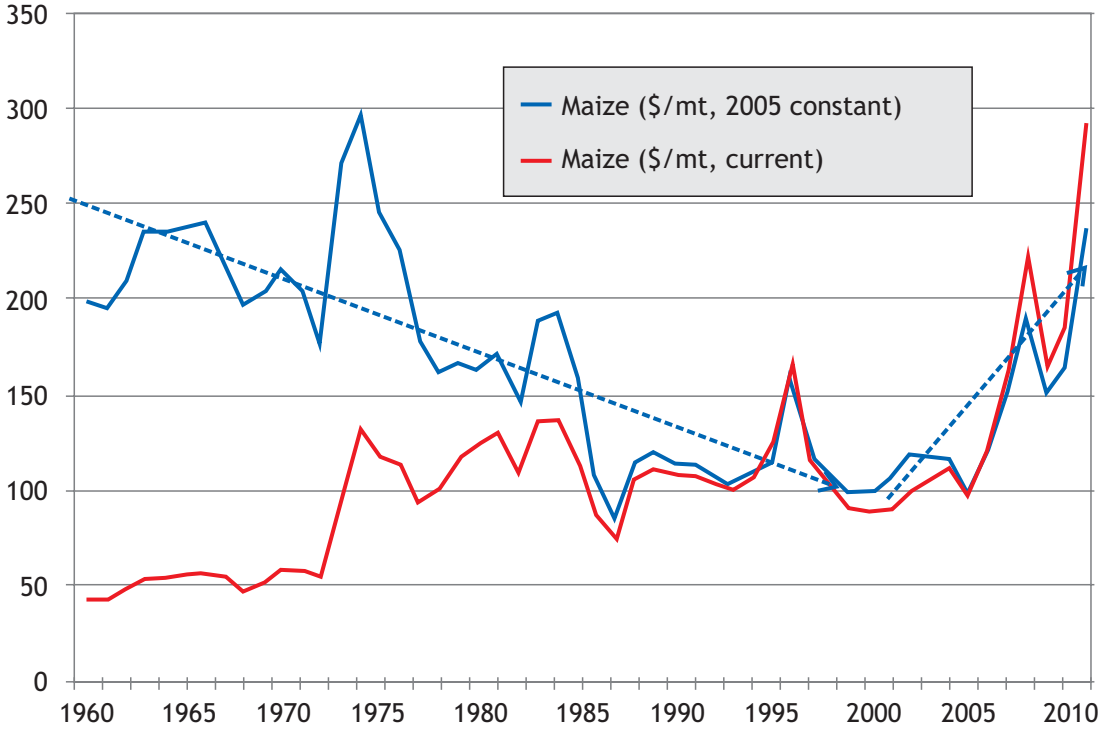
   (iii) to give full consideration in the context of their aid programmes to requests for the provision of technical and financial assistance to least-developed and net food-importing developing countries to improve their agricultural productivity and infrastructure.

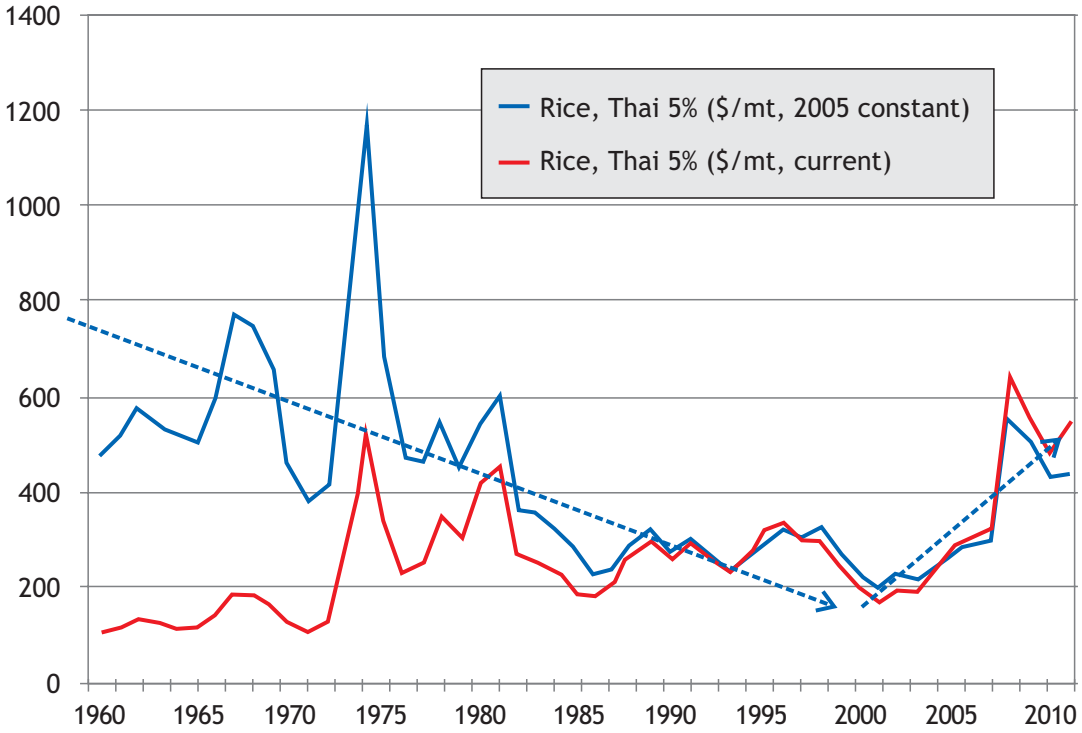
4. *Ministers* further *agree* to ensure that any agreement relating to agricultural export credits makes appropriate provision for differential treatment in favour of least-developed and net food-importing developing countries.

5. *Ministers recognize* that as a result of the Uruguay Round certain developing countries may experience short-term difficulties in financing normal levels of commercial imports and that these countries may be eligible to draw on the resources of international financial institutions under existing facilities, or such facilities as may be established, in the context of adjustment programmes, in order to address such financing difficulties. In this regard Ministers take note of paragraph 37 of the report of the Director-General to the CONTRACTING PARTIES to GATT 1947 on his consultations with the Managing Director of the International Monetary Fund and the President of the World Bank (MTN.GNG/NG14/W/35).

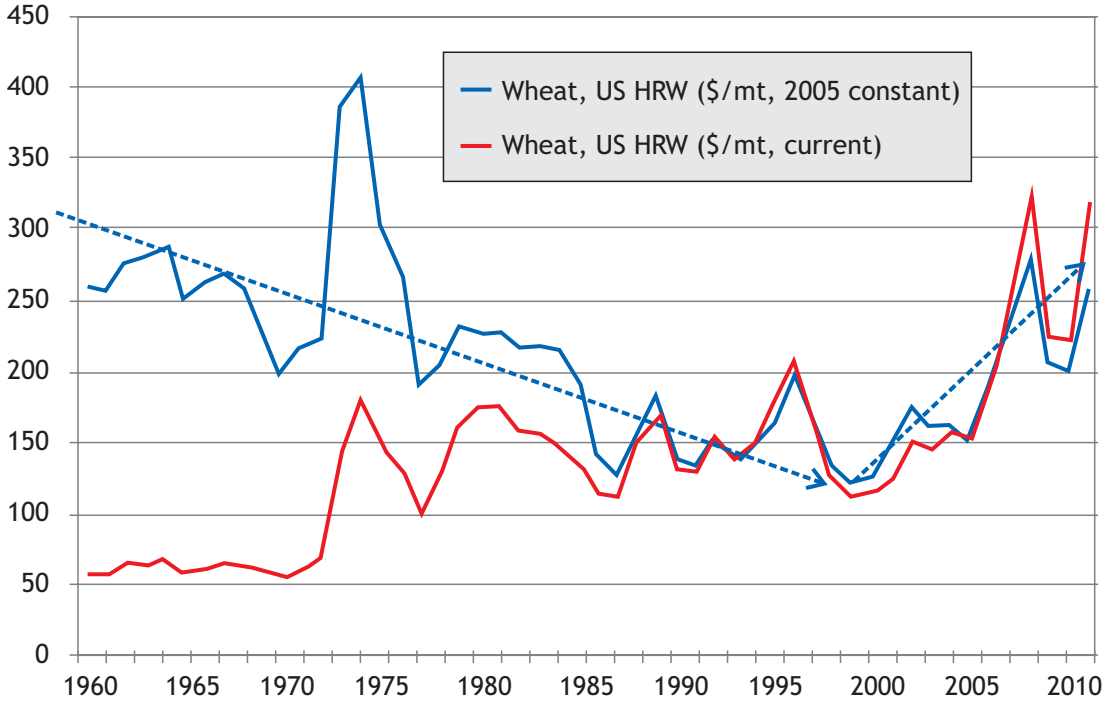
6. The provisions of this Decision will be subject to regular review by the Ministerial Conference, and the follow-up to this Decision shall be monitored, as appropriate, by the Committee on Agriculture.

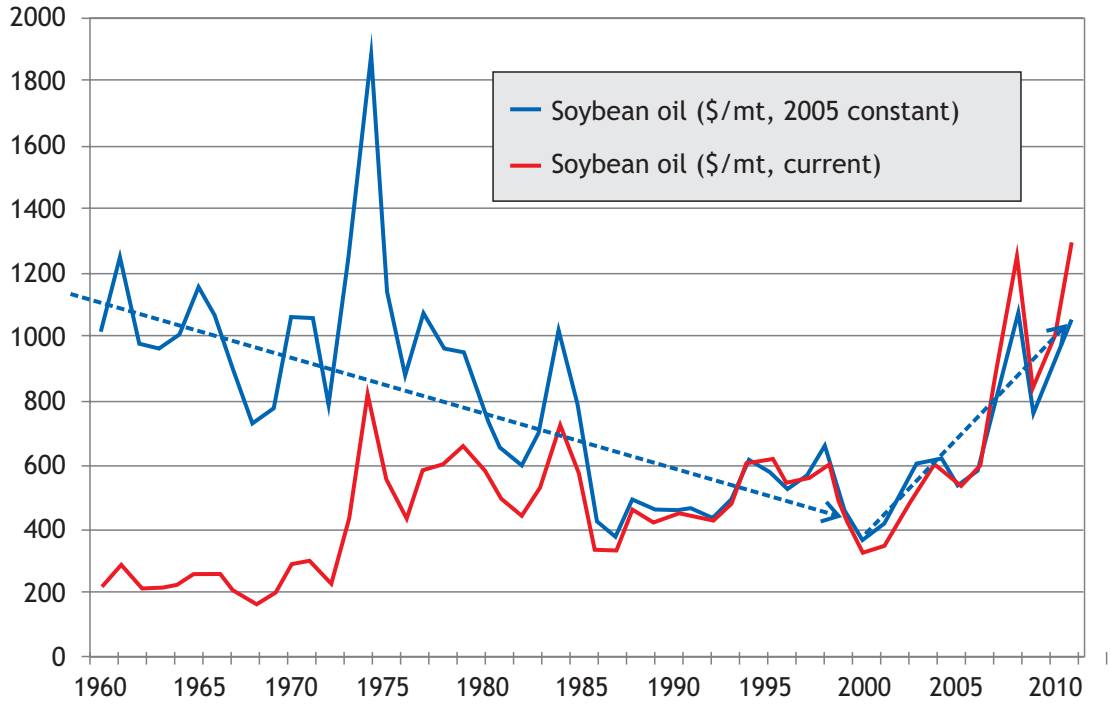
ANNEX B: TRENDS IN CURRENT AND CONSTANT WORLD PRICES OF KEY FOOD COMMODITIES





Source: World Bank Prices (Pink Sheet)





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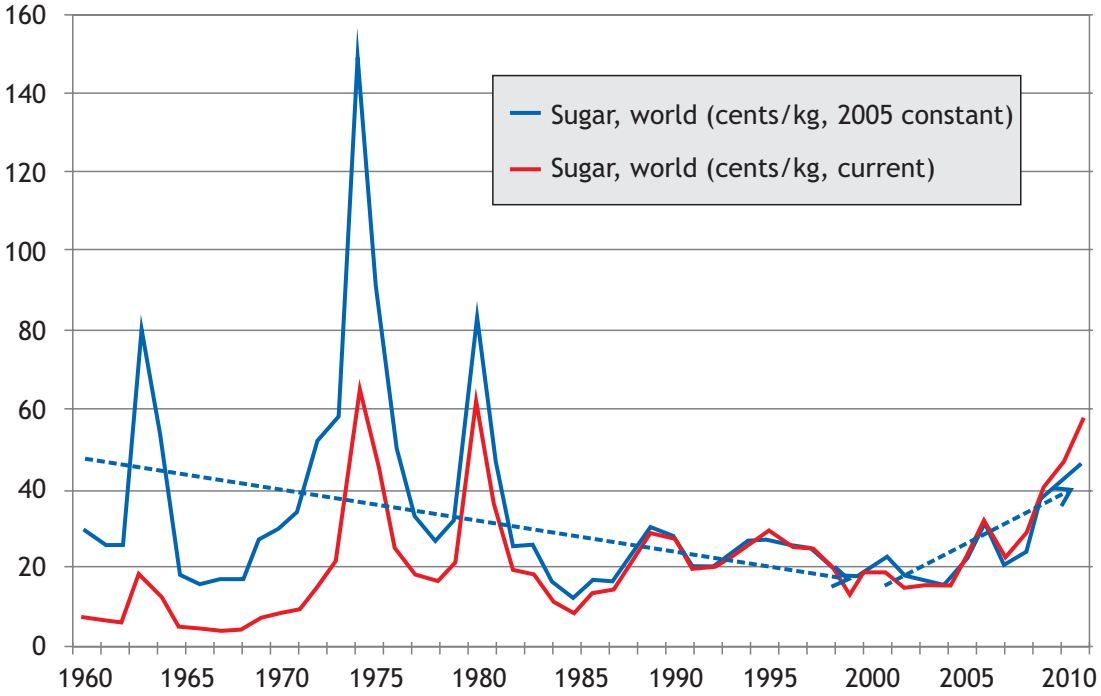
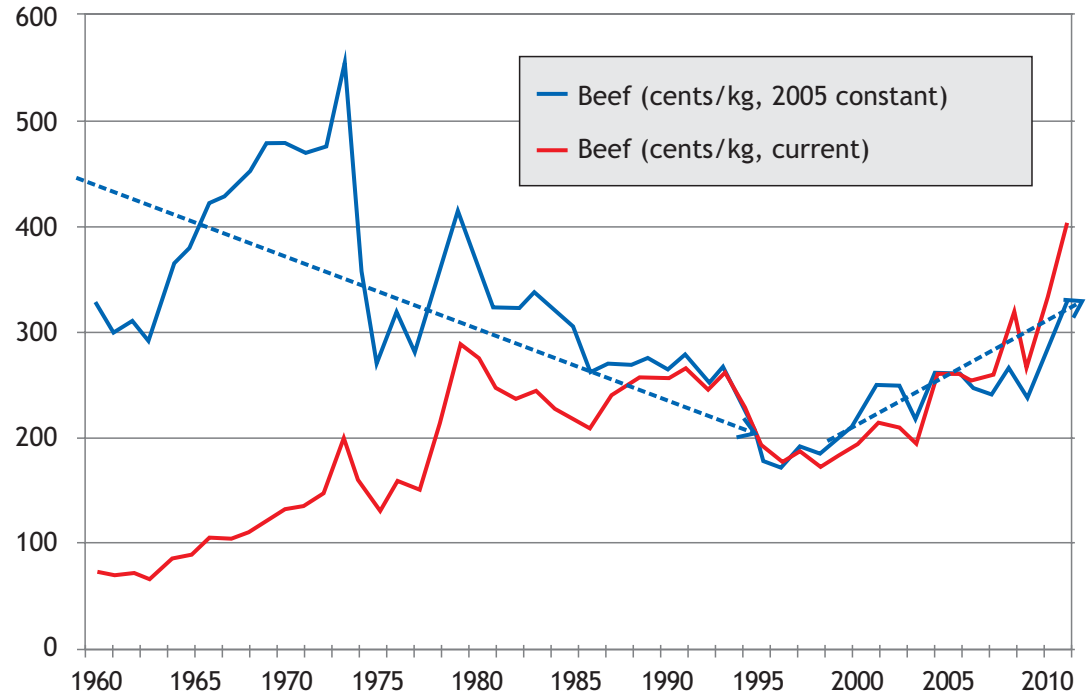
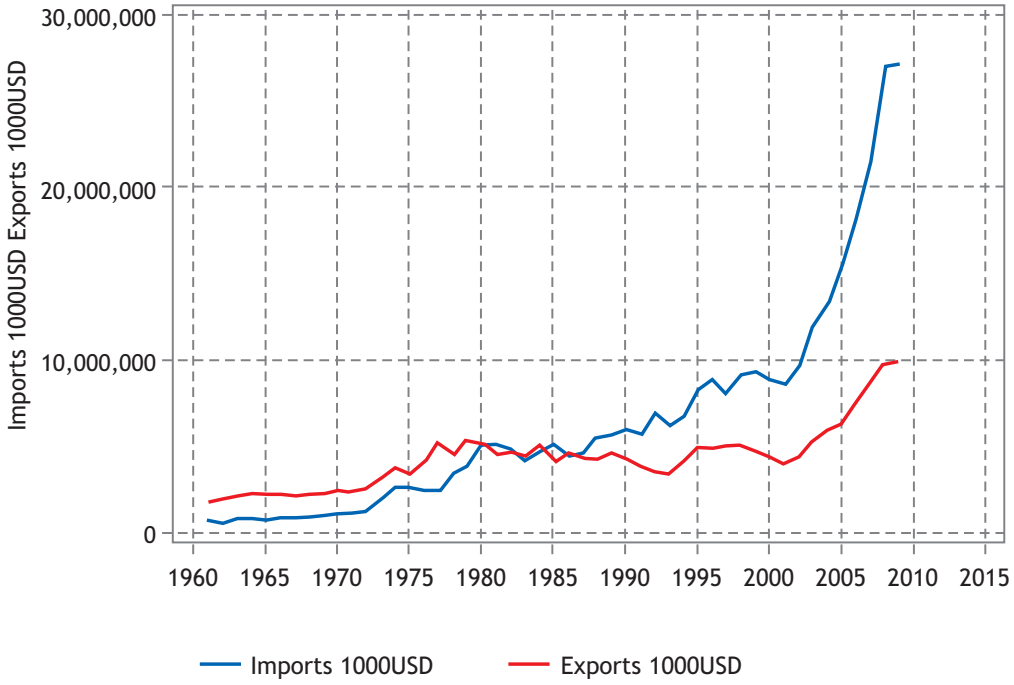




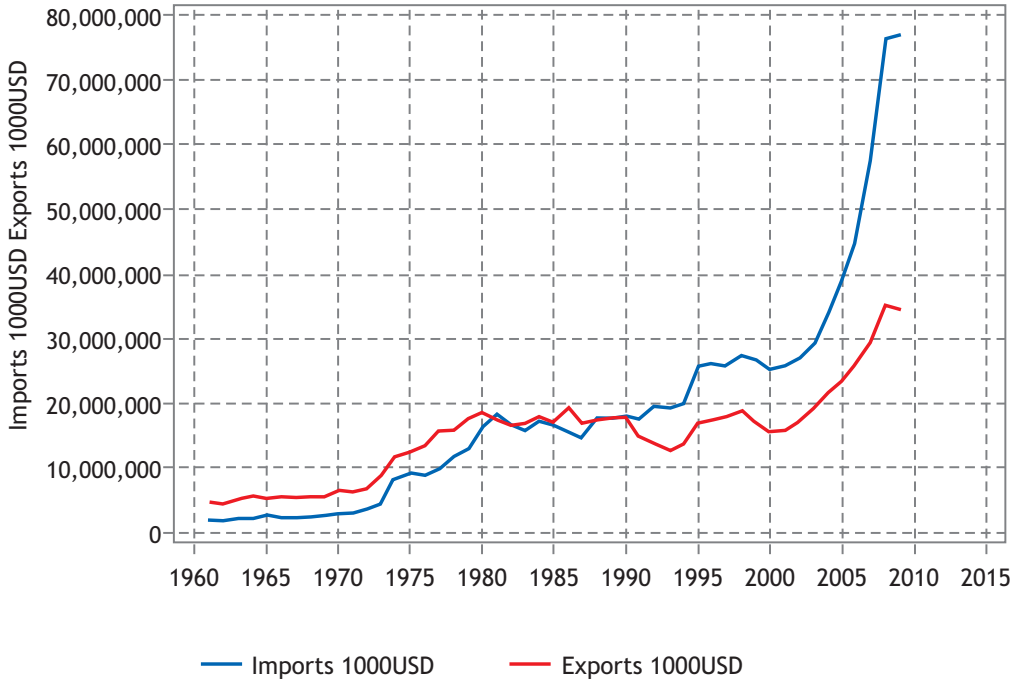
Source: World Bank Prices (Pink Sheet)

ANNEX C: TRADE BALANCES IN AGRICULTURAL AND FOOD PRODUCTS OF LDCS AND NFIDCS

LEAST DEVELOPED COUNTRIES: AGRICULT. PRODUCTS, TOTAL



NET FOOD IMPORTING DEVELOPING COUNT: AGRICULT.PRODUCT, TOTAL



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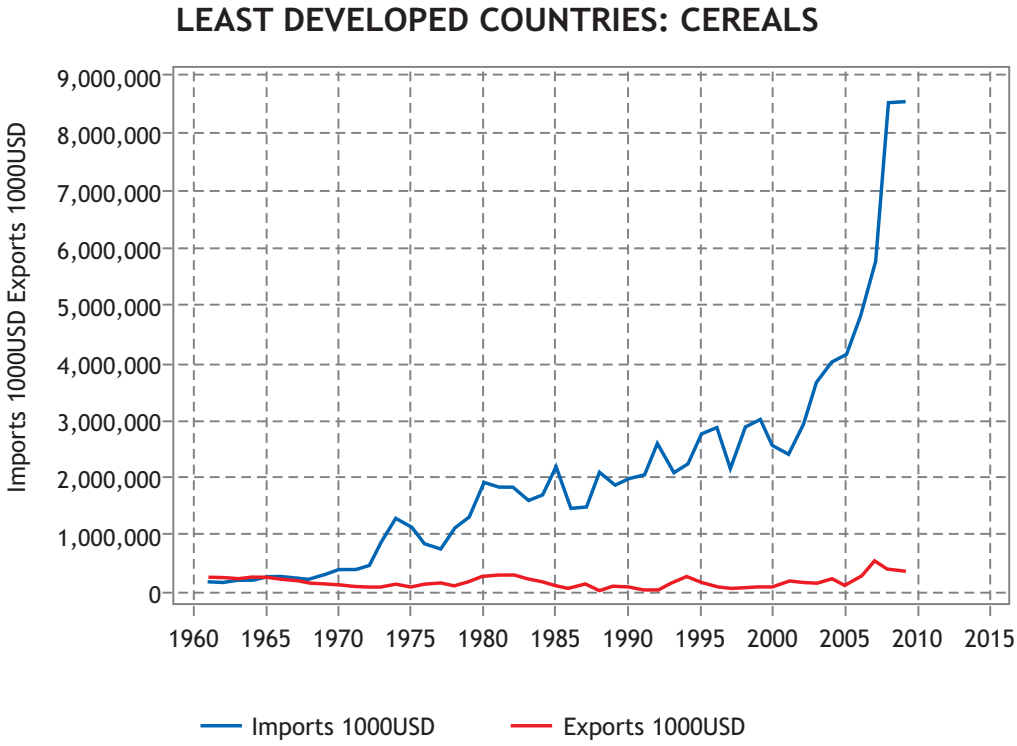
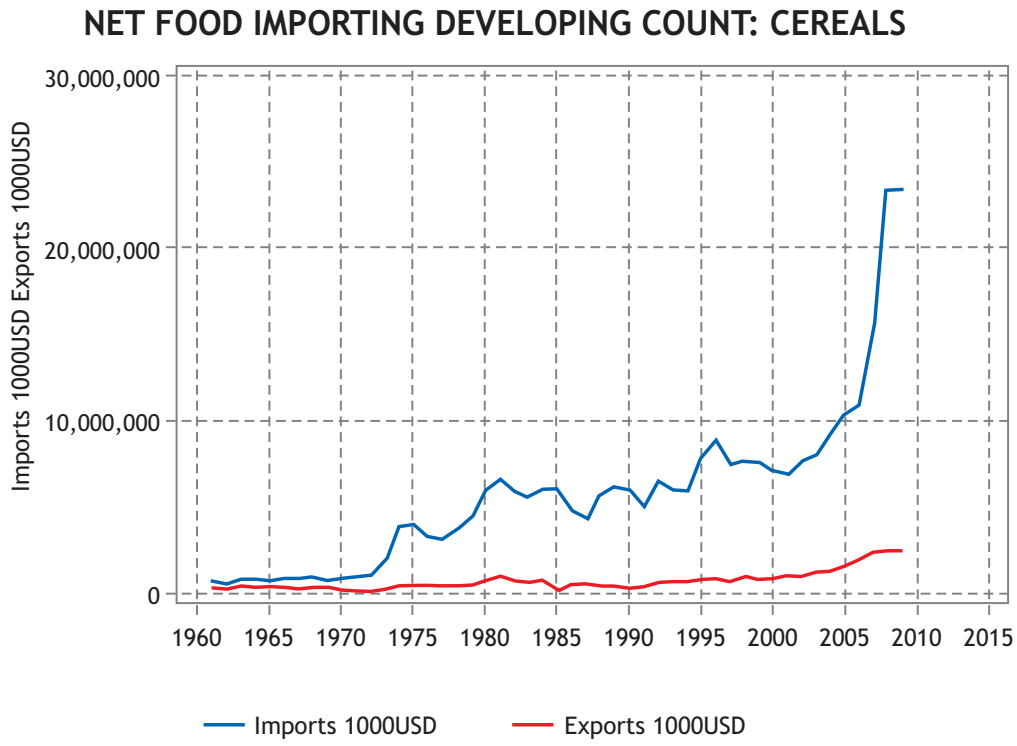
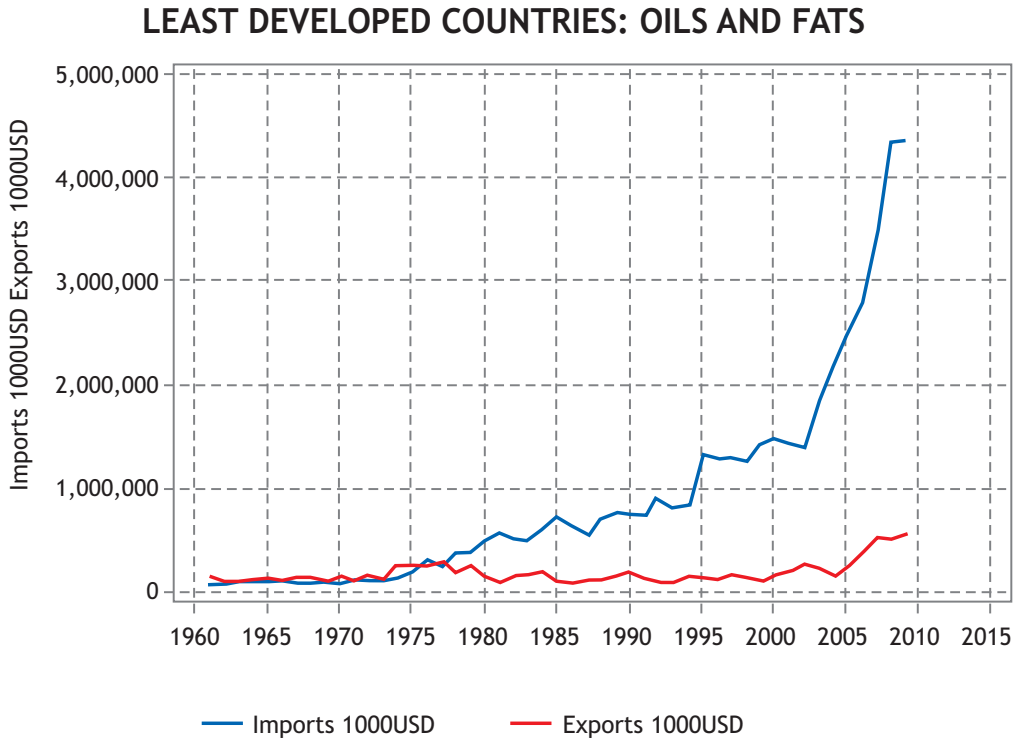
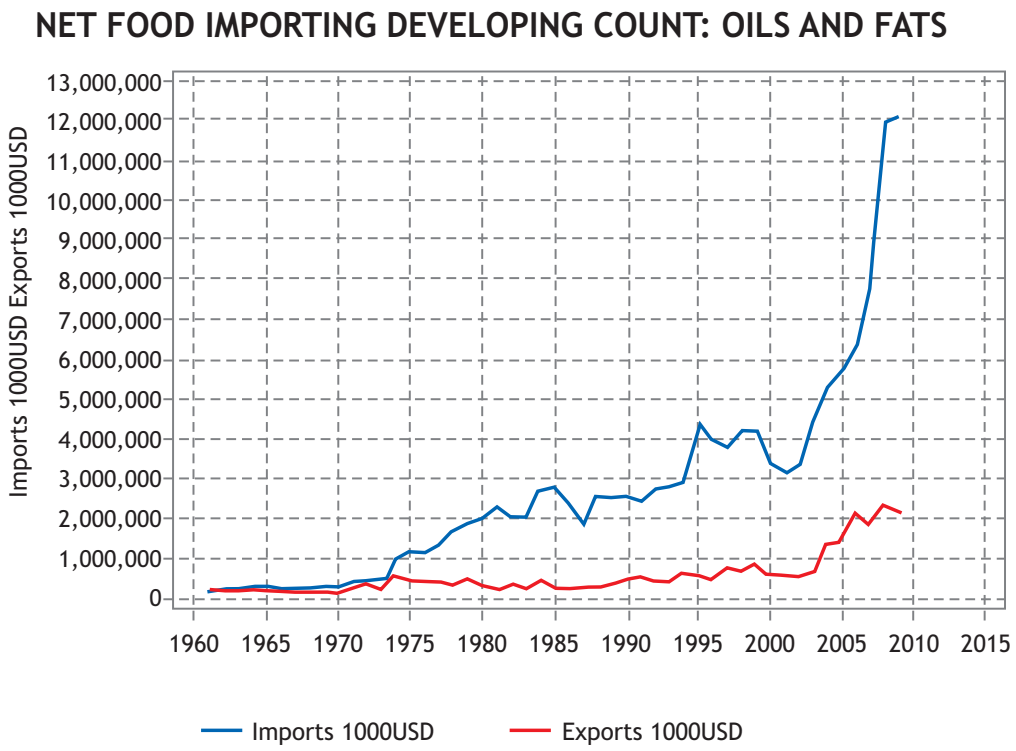




Source: Faostat Database





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