

Impacts of the Global Economic and Financial Crisis on Food Security in Eastern Europe and Central Asia

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Highlights

- In the first half of 2008, the world faced the highest food price levels in 30 years which soon thereafter was combined with the global economic and financial crisis. Both of these phenomena threatened global food security. Food prices were up as much as 40 percent from their 2007 level and 76 percent from 2006.
- In 2009 domestic prices have declined from their peaks in most countries, but the declines have been small and real prices are typically 19 percent higher than they were before the price surge.
- As a result of the global financial and economic crisis, domestic and foreign trade declined around the world and severely depressed economic growth and the purchasing power of consumers, unemployment increased and incomes, including remittances, diminished and poverty increased. FAO estimates that the number of hungry people increased by a further 100 million in 2009 and reached 1.02 billion people. Since global food production has accelerated in recent years, this increased food insecurity is primarily due to reduced affordability and accessibility.
- The region of focus in this paper includes a wide range of economic conditions from low income (Kyrgyzstan, Tajikistan, and Uzbekistan) to lower middle income (Armenia, Azerbaijan, Georgia, Republic of Moldova, Ukraine and Turkmenistan) to upper middle income (Belarus, Kazakhstan, Russian Federation and Turkey), so poverty and food security conditions vary widely. Malnutrition continues to prevail in some parts of the region.
- Satisfaction of world demand necessitates achieving crop production growth by increasing the productivity of the land already being farmed. This means a reversal of declining global agricultural productivity growth since the Green Revolution of the 1960s and 1970s.
- It is estimated that cereal production in the region experienced a 50 percent increase from the beginning of this decade to 2008/09, though it might be lower in 2009/10 than in the record crop year 2008/09. Nevertheless, the region that was 15 percent of world grain net imports in the late 1980s was 13 percent of world net exports in the last 4 years.
- The levels of both national and international investment and research activity in the agricultural sector have to increase through the use of different instruments and through the development of a more favourable agricultural investment environment.
- Safety net measures should be developed or improved to cushion the biggest impacts of market and financial shocks in order to limit the long term consequences of the dual crises on vulnerable households.
- The enabling environment for farms and agribusiness should be enhanced to develop or improve financial services, technical support services, information services and risk management tools. This requires government action as well as private sector engagement.
- Rural development is not the same as agricultural development and it needs targeted attention, including provision of rural development support systems and social infrastructure to enhance infrastructure investment, rural development, income opportunities and quality of life for rural inhabitants.

Abstract

The food crisis and financial crisis have led to social unrest in scores of countries, including some in Eastern Europe, Turkey and Central Asia, and have added more than 140 million people to the number of hunger and undernourished in the world that reversed progress toward the Millennium Development Goals (MDGs) hunger target. The food crisis peaked in 2008 and was followed by the global economic and the financial crisis of 2009. The latter has severely depressed economic growth and the purchasing power of consumers, while also impacting food and agricultural markets through depressed demand, declining credit availability and increasing food insecurity. All of these shocks are more severe for low income populations, especially in food deficit areas.

Agricultural markets are traditionally very volatile due to weather variation and very inelastic short run supply and demand. Since the end of WWII, inelastic demand for food, volatility of real agricultural prices has been going together with yield declines due to poor weather and decreased investments in the sector. At the same time during the last years the market behavior is linked to the growing interdependence of energy and agricultural markets.

It is clear that rising commodity prices have more impact on food prices of consumers in low income countries than on those in high income countries. Aside from the higher share of income spent on food, the commodity price itself is a larger share of the household food cost in a low income country. The food import bills have grown faster in developing countries and it is estimated to increase by nearly 35 percent from 2007-2008 and 32 percent for Low Income Food Deficit Countries (LIFDCs). The scarcity of trade financing during the current financial crises only compounds this problem.

Food security has three main dimensions that include sufficient availability, accessibility, and stability of access which is fragile in periods of shortage and financial stress. Therefore, it is useful to understand to what extent each of these factors is expected to be a persistent influence on markets and prices, a temporary or a very uncertain one. A similar understanding is needed for the macroeconomic crisis and recovery. The different pathways by which the financial crisis can impact food security are elaborated. It includes the obvious direct income and employment effects of an economic decline or stagnation, a big toll on credit and financing needed for production and trade of food and agricultural products. The unusually uncertain path of recovery, if that is what happens, is an added threat to already vulnerable populations.

Conditions in the Commonwealth of Independent States (CIS), Turkey and Georgia vary greatly, so countries are classified and analyzed in groups according to the World Bank classification. Within this region there is a range of economic condition from low income (3) to lower middle income (6) to upper middle income (4) and even one country which is classified as a highly indebted poor country, so conditions obviously vary widely.

To meet the challenges and exploit the opportunities of this dual crisis, national and international policy actions are being recommended. These include the provision of social protection or safety nets to protect the citizens and especially the most vulnerable populations, risk management tools for farmers, policy actions on agriculture and agriculture commodity trade, investments and research and development (R&D) in related areas. The international community, governments as well as the private sector have a role in exploiting such opportunities.

1. Introduction

The paper discusses the many dimensions of food security and the pathways through which the food price crisis and the financial crisis could impact food security. Next, the anatomy of the food price crisis is explored and the various factors evaluated to see how many of them may be persistent or temporary and to assess the future prospects for more price stability or volatility. The anatomy of the macroeconomic crisis is discussed and the possible impacts of this crisis on food security in Eastern Europe, Central Asia and Turkey (hereafter EE, CA and Turkey). The food security status of the region and of individual countries is evaluated and the means by which the dual crises could influence this status. Finally, policy challenges and opportunities in this risky economic environment are explored.

2. Food security: What is it and how is it jeopardized?

Food security has many dimensions that include sufficient availability, means of households to access adequate food through self production or other sources, health and knowledge to appropriately utilize acquired foods, and stability of access in periods of shortage and financial stress. It does not mean that food is produced in the same country or in close proximity to the point of consumption, though local production is one means to improve food security and becomes more important when poor infrastructure constrains the proper functioning of markets.

A nation achieves food security for its citizens when all of its people have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life at all times. There are several aspects of the recent food and financial crises that can prevent a country from achieving food security or can move a population from being food secure to being food insecure. In short, these conditions increase the vulnerability of those at the margin of food security or food insecurity. During such crises, the pathways from food security to food insecurity for a household could include one or more of the following:

- Reduction in the quantity and/or quality of food purchases
 - a. High food prices
 - b. Loss of employment or reduction of wages and income
 - c. Market disruption or policy reaction that impairs availability
- Reduction in food production
 - a. High prices of feed and other inputs
 - b. Lack of credit access
- Reduction in the quantity and/or quality of food aid
 - a. High food prices
 - b. Decline of government/international donor financial resources
 - c. Macro instability, market disruption or policy reaction that impairs availability

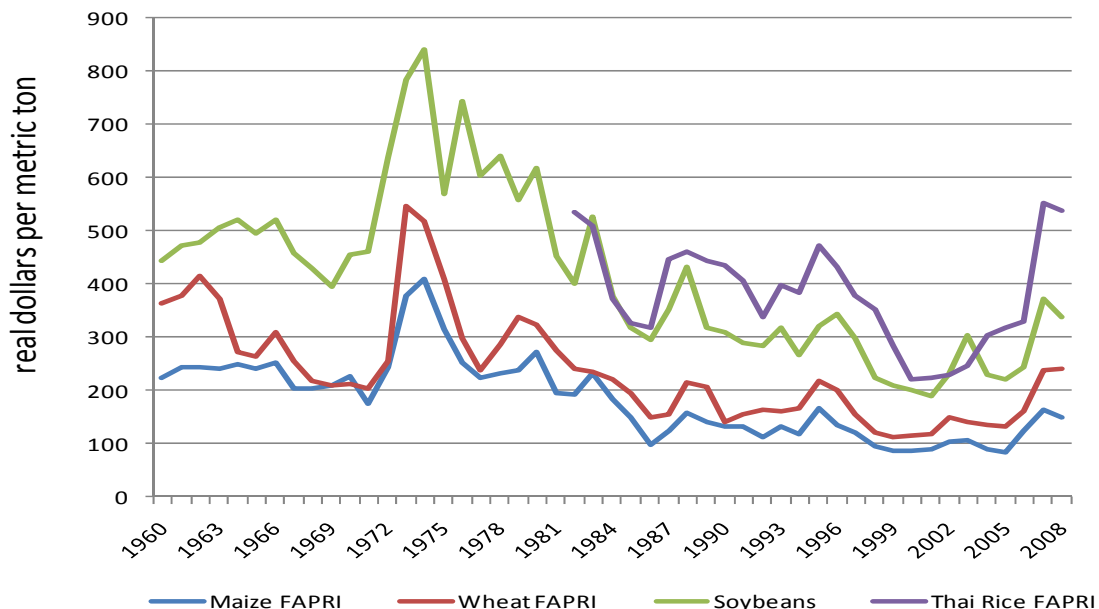
In the discussion that follows, attention will be given to each of these pathways and how they are actually or could be affected by the food and financial crises.

3. Anatomy of the food price surge and retreat

Agricultural markets are traditionally very volatile due to weather variation and very inelastic short run supply and demand. Also, rapid technological change since the end of WWII has combined with inelastic demand for food to generate declining real agricultural prices (Figure 1). Consumers have been the ultimate beneficiaries of agricultural technology, while farmers have had to continually grow in size as well as to improve technological and financial practices to offset price declines. Governments in high income countries adopted various support and protective trade policies to protect their farmers from these price declines, which often contributed further to low prices. This long-term decline in real prices has periodically been interrupted by price spikes that were mostly caused by yield declines due to poor weather.

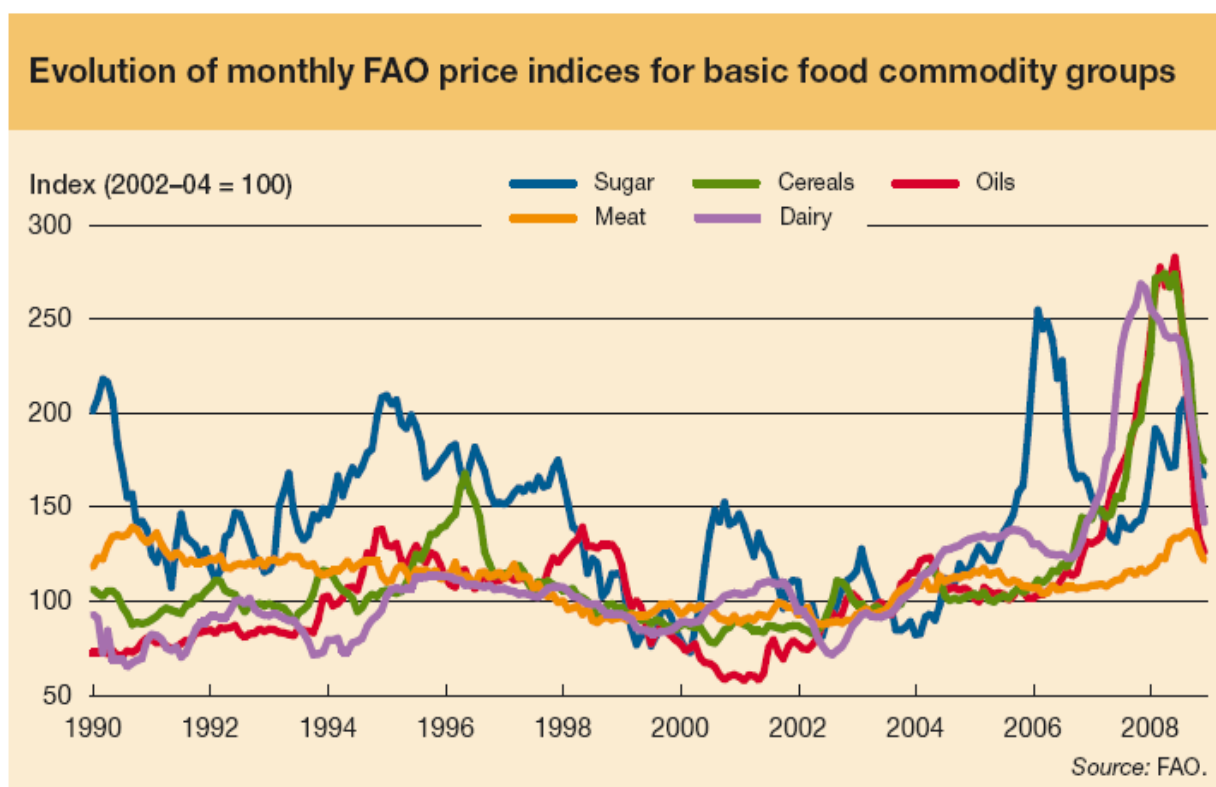
Since the beginning of 2006, the world has seen the largest surge of commodity and food prices since the early 1970s (Figure 2), and it seems unlikely that prices will soon return to the lower levels of the early part of this decade. This price surge has again raised the age-old Malthusian question of whether food production can keep pace with growing demand. Historically, the main driver of production has been technological progress, and the drivers of consumption have been population growth, which increases the number of mouths to feed, and income growth, which increases the quality and quantity of food consumed per person. Changing diets that accompany both increased incomes and increased urbanization generally lead to more meat consumption and hence more direct and indirect grain consumption per person.

Figure 1. Real annual prices of grains and soybeans 1960 to 2008, 2000 US\$



Source: USDA prices deflated by gross domestic product deflator.

Figure 2. Nominal monthly prices of selected food commodity groups 1990 to 2008



A new and significant factor in the growth of grain and oilseeds consumption since the early 2000s was the rise in petroleum prices combined with policies in a number of countries to stimulate increased biofuels production related to environmental and farm support objectives. These changes increased profitability of investments in biofuel capacity and increased the use of existing capacity, resulting in more grains and oilseeds being used as feedstock for biofuel production. More fundamentally, the rise in the size of the biofuel industry induced by higher crude oil prices and government policies has formed a much stronger link between fuel and food markets that can contribute both to the higher level and the higher volatility of food prices.

Examination of grains and oilseeds world markets indicate that the rate of production growth has been slowing since the 1970s (Table 1), though the new millennium saw a rebound partly in response to higher commodity prices. Comparing growth rates in yield over each decade from 1960-2007, there was a slowdown in yield growth rates in the 1970s, a partial recovery in the 1980s then a significant decline from 1990 onward. According to the Intergovernmental Panel on Climate Change (IPPC), natural disasters may be more frequent and extreme now and in the future due to climate change (IPPC 2007, page 299), so adverse weather may have contributed to slowing average yields. Since 1980, grain area was also declining until the end of 1990s, so production growth slowed to less than one percent per annum during the 1990-2000 period then rebounded.

It may be hypothesized that the slowdown in the 1990s could be primarily due to the large decline in production that occurred in the Former Soviet Union during the very difficult adjustments in first decade of the transition from planned to market economy. In order to assess this hypothesis, the same calculations were made with and without the FSU-12 (Table

2). It is clear that the decline in grain production in the region did contribute substantially to the slowing of global grain production growth, although the growth rate of grain production also slowed in the rest of the world without FSU 12. It is also clear that this region contributed significantly to the remarkable rebound of grain production in the 2000/01 to 2009/10 (estimated) period.

Table 1. Exponential growth rates in area, yield and production of grains and oilseeds

Grains	1960-70	1970-80	1980-90	1990-00	2000-07
Yield	2.7	1.9	2.1	1.23	1.56
Area	0.5	0.9	-0.5	-0.41	0.47
Production	3.3	2.8	1.6	0.82	2.03
Consumption	3.3	2.6	1.7	0.94	1.70
Grains and Oilseeds					
Area	1.6	1.3	-0.03	0.18	0.79
Production	4.0	3.0	2.0	1.29	2.32
Consumption	4.1	2.9	2.0	1.31	2.05

Source: Calculated from PSD database, USDA.

In summary, the 1980s consumption growth rates for both grains and total grains and oilseeds have declined, suggesting that declining growth in population has been dominating the effect of income growth on consumption (Alexandratos 2008). However, grain and oilseed production growth rates slowed even more than consumption growth rates. Sustained reductions in buffer stocks are the hallmark of an imbalance in supply and demand, where consumption grows faster than production. Such reductions in grain stocks laid the foundation for the price shocks that arrived in the 2006 -2008 period (Meyers and Meyer 2008).

Table 2. Exponential growth rates in grain production with and without the FSU 12 countries

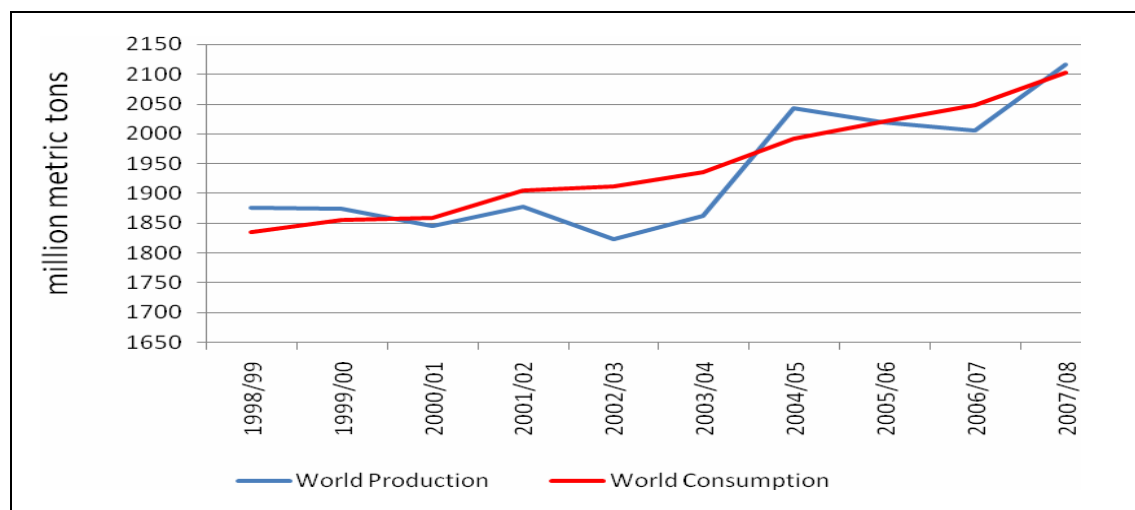
Region	1960-70	1970-80	1980-90	1990-00	2000-09e
World	3.28	2.81	1.63	0.82	2.28
FSU 12	3.74	0.97	2.10	-5.93	3.57
World less FSU 12	3.21	3.09	1.58	1.41	2.19

Source: Calculated from PSD database, USDA.

Preamble to the price surge

In the years leading up to the price surge, consumption of the five major grains exceeded production and by large amounts in three of those years (Figure 3). As a consequence, ending stocks of grain were drawn down to 40 percent of 1998/99 levels. The stock-to-use ratio reached record low levels (Figure 4) for total grains, coarse grains and wheat. It was also the lowest since the 1972 price surge for maize. Likewise, the vegetable oil stock-to-use ratio reached the lowest level since 1972, though for oilseeds in general the stocks situation was not as dire.

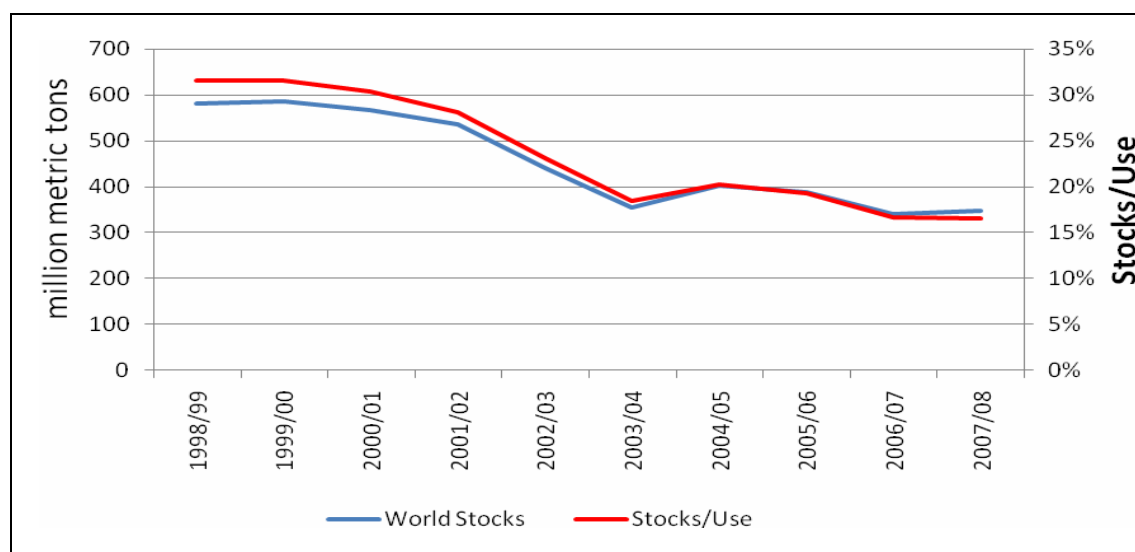
Figure 3. World production and consumption of maize, wheat, rice, sorghum and barley



Source: PSD database, USDA.

A longer run contributor to the tightening conditions in the early part of this decade was the slowing rates of grain production growth. The international research investments of the 1960s were deliberate policy actions to enhance agricultural productivity in developing countries and resulted in the high yielding Green Revolution wheat and rice varieties that spurred yield growth and enhanced multiple cropping opportunities with shorter growing seasons. Along with continuing public and private agricultural research and development (R&D) in industrial countries, these improved technologies supported grain yield growth of 2.4 percent and production growth of 3.1 percent annually from 1960-1980. Yield growth in the 1980s remained relatively high, but grain area declined. From 1990 until 2000 world grain production grew an average of less than one percent annually and yields a mere 1.2 percent per annum (Table 1).

Figure 4. Grain ending stocks and stocks-to-use ratio



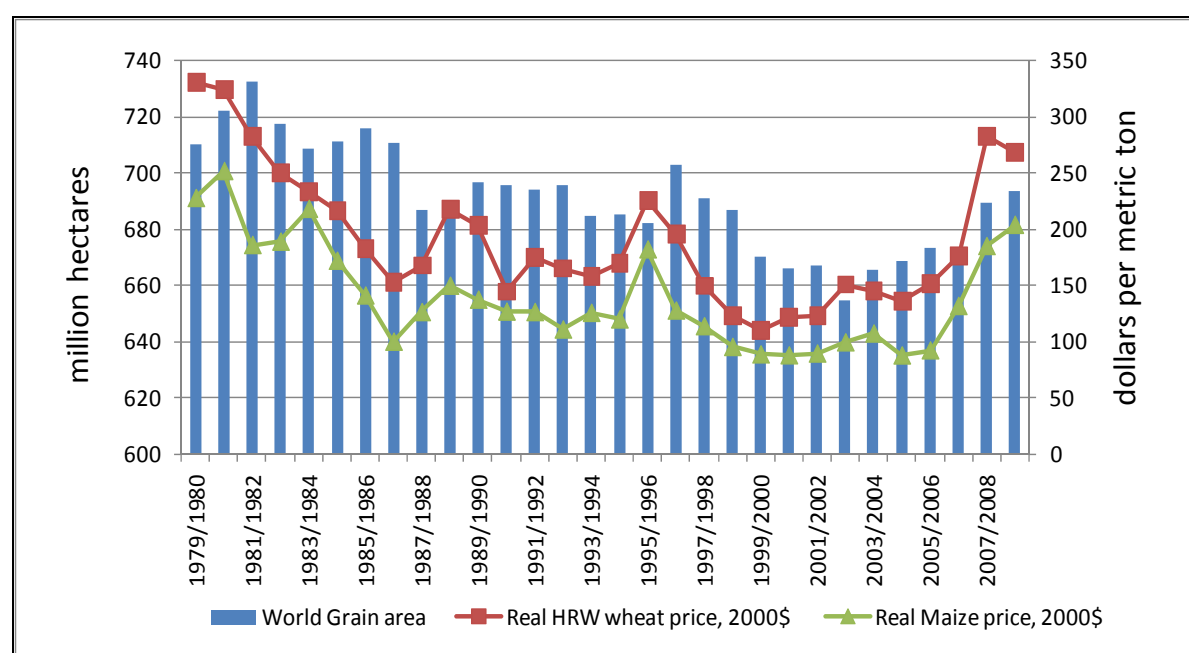
Source: PSD database, USDA.

Several factors contributed to the relatively slow production growth and stocks decline in the last two decades. The key market factor was declining real prices for an extended period that reduced market incentives to invest and produce. It was interrupted only by short-lived price surges in short crop years in 1988/89 and 1995/96. So, grain area declined (Figure 5) while yield growth was also slowing.

On the policy side, production support and trade barriers in some developed countries insulated these producers from world price fluctuations and stimulated more production than market signals would justify. Fortunately, these support levels (especially support tied to production) as measured by the Organization for Economic Co-Operation and Development (OECD) producer support estimate (PSE) have been gradually declining during negotiations for the Uruguay Round Agreement on Agriculture (URAA) and since its adoption in 1994.

Furthermore, national stocks policies and price support stocks also were reduced or disbanded in the pre and post-URAA era. The large decline in US grain stocks after 1986/87 was primarily due to elimination of the Farmer-Owned Reserve Program and other policy changes that essentially eliminated government owned stocks as well. One may conclude that even if agricultural and food trade liberalization was progressing slowly after the URAA, many countries have seen less need for price support or buffer stocks or to build national food security reserves, as trade was expected to offer an improved alternative for offsetting domestic shortfalls.

Figure 5. World grain area relative to real price of wheat and maize



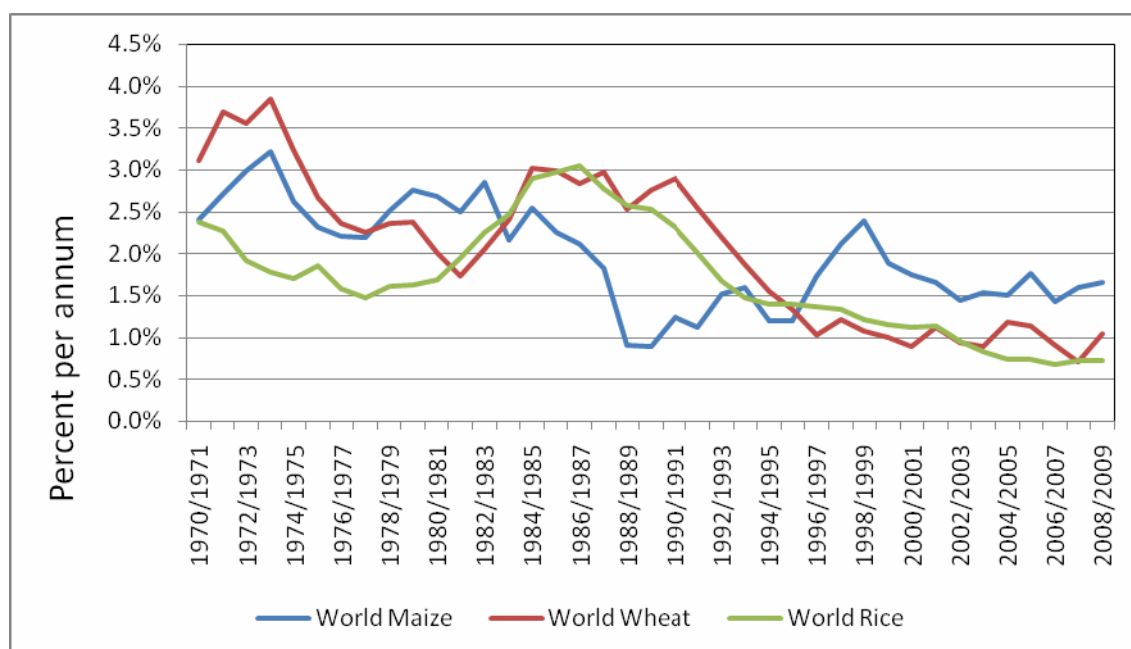
Source: PSD database, USDA.

An important policy factor in slowing yield and production growth rates, especially for rice and wheat (Figure 6), is that national and international public investment support for agricultural R&D has slowed in developing countries and even in developed economies since the 1990s (Van Braun et al., 2008). It has been well established in numerous documents of the World Bank, FAO and IFPRI that investment in agriculture has been lagging in developing countries especially. Pardey et al. found that growth in public agricultural R&D spending, which was critical to the Green Revolution, declined by more than 50 percent in most

developing countries from 1980 onward and even turned negative in high-income countries from 1991 onward. There were important exceptions in China and India (World Bank, 2007), but national governments and international organizations mainly have neglected these investments, despite the high rates of return that have been demonstrated in past R&D projects. The international component of this neglect is clearly seen in official development assistance (ODA) data from 1980 to 2007, where ODA for agriculture declined while the total ODA increased, and the share of ODA allocated to agriculture (Figure 7) declined from more than 10 percent to less than 5 percent (FAO 2009a).

Finally, it is part of the normal behavior of commodity markets that a shortfall in production results in a drawdown of stocks and more volatile price behavior. In this regard, the relatively modest price increases and stock declines of 2002/3-2003/4 are similar to those of 1988/89-1989/90 and 1995/96 (Figure 8); but unlike the two previous periods, production in subsequent years was not sufficient to meet growing consumption and also rebuild stocks. So when the next shortfall occurred in 2006/7, stocks were not adequate to buffer it. As already noted, the demand for agricultural commodities is very price inelastic, so even in the face of rising prices, consumption growth remained strong.

Figure 6. Exponential growth rates for yields the previous 10 years



Source: Calculated from PSD database, USDA.

Figure 7. Evidence of declining international assistance to agricultural development

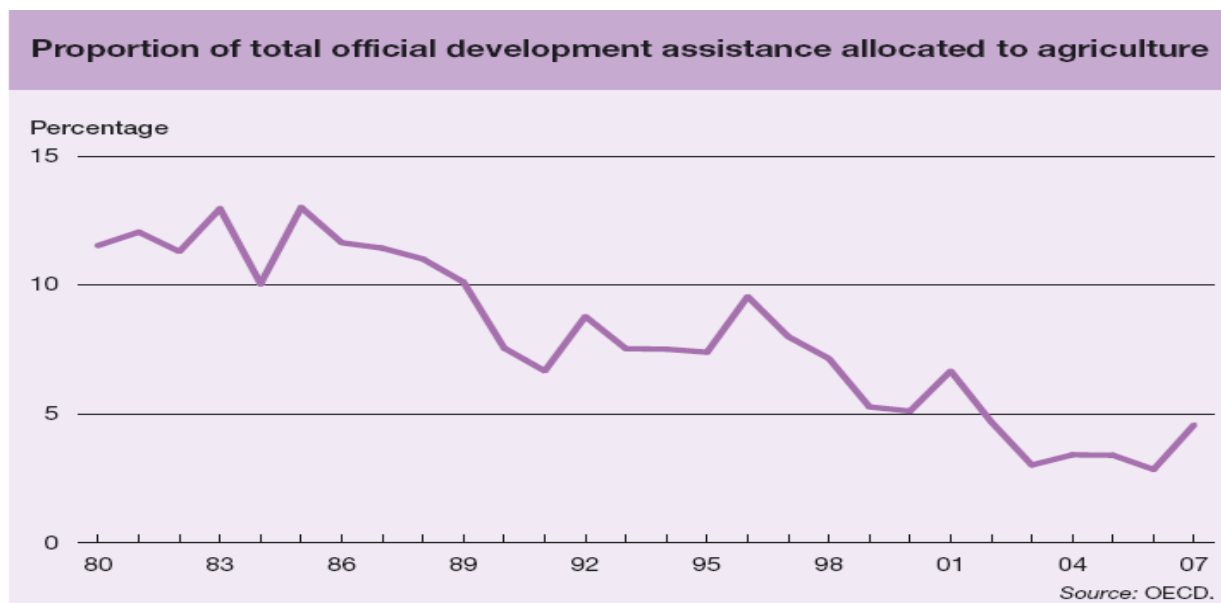
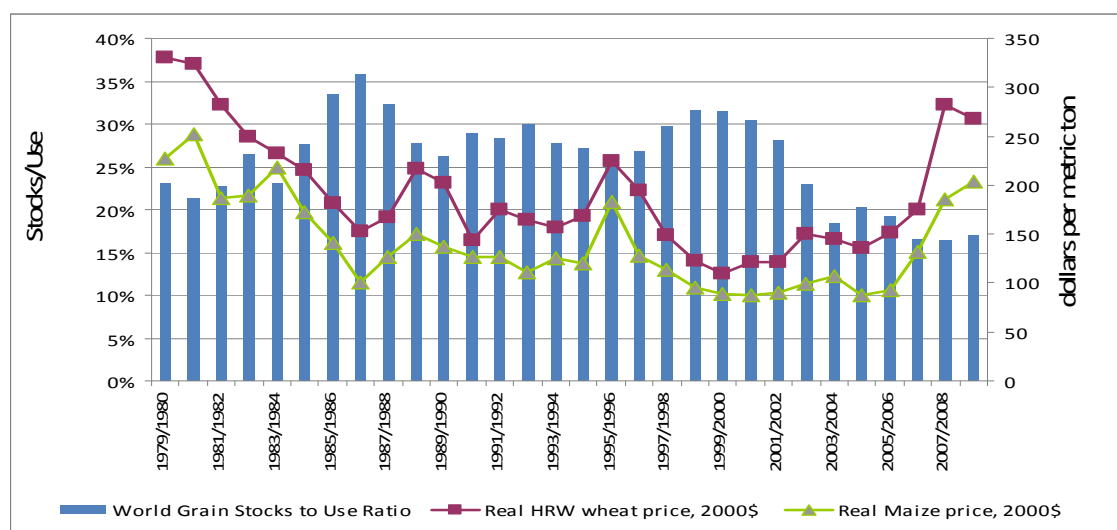


Figure 8. World grain stocks to use ratio and real wheat and maize prices

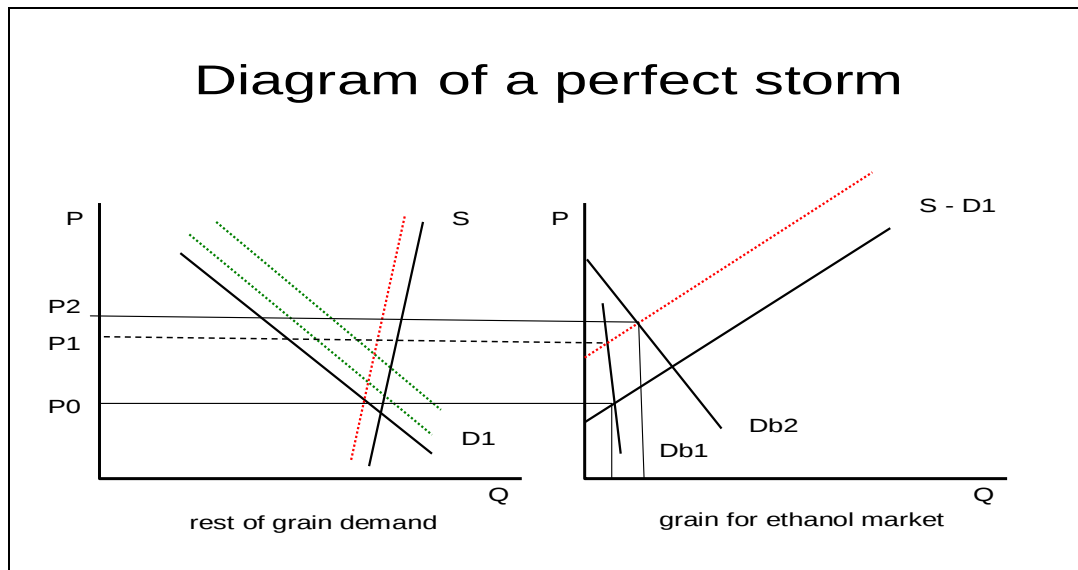


Source: PSD database, USDA.

The Perfect Storm

Given the tight market situation in the middle of this decade as represented by low stock levels, there was no possibility for the market to absorb, without substantial price increases, a series of developments that all worked to increase demand or limit supply. This combination of events is illustrated in the conceptual model of Figure 9, where there were several factors that shifted demand to the right, while supply shifts to the left were caused by bad weather in some countries and rising petroleum prices that were increasing production and transport costs. By itself, these supply and demand shocks would increase price from P^0 to P^1 , but then the shift in biofuel demand ($Db1$ to $Db2$) added another shift in demand raising price from P^1 to P^2 .

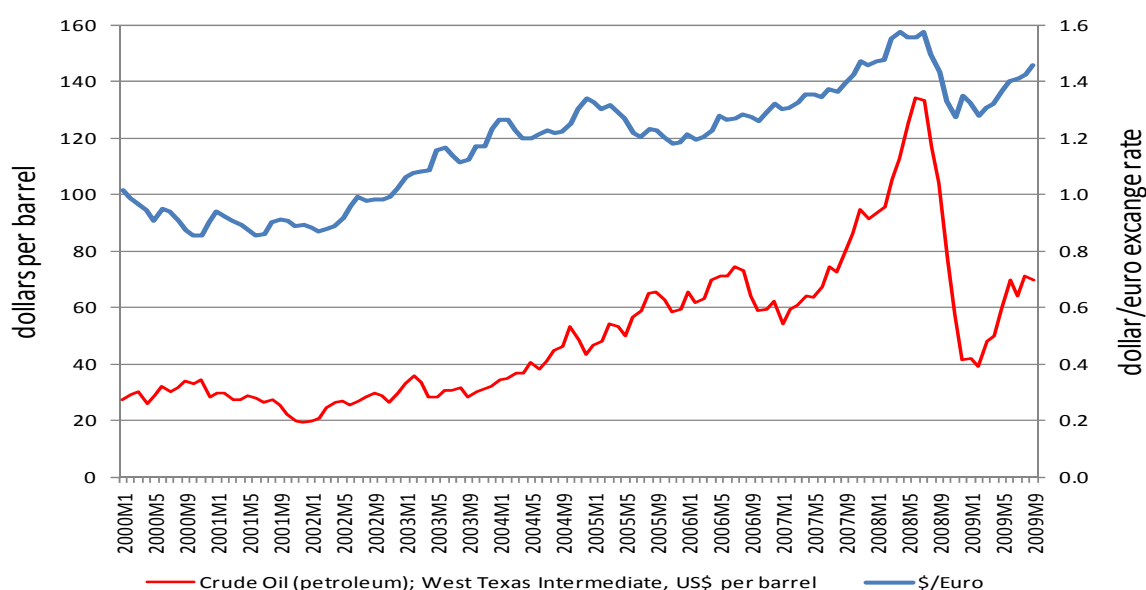
Figure 9. Illustration of all factors moving together to raise prices



These shifts are enumerated below:

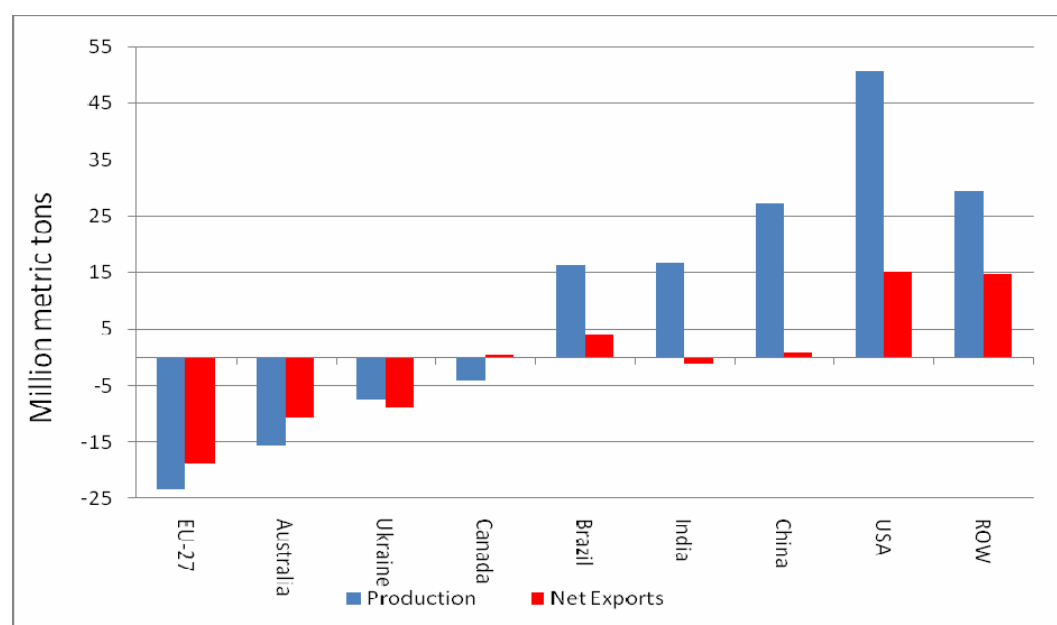
- Depreciation of the US dollar (Figure 10) increased purchasing power of many importing countries and drove up the US\$ price of commodities.
- Rising petroleum prices (Figure 10) not only increased production costs and transport costs for commodities; but combined with policies in a number of countries to stimulate increased biofuels production related to environmental and farm support objectives, they increased profitability of investments in biofuel capacity and stimulated the increased use of existing capacity resulting in more grains and oilseeds being used as feedstock for biofuel production.
- Grain production shortfalls occurred in Australia and the EU two years in a row and to a lesser extent in Ukraine and Canada, while India produced more but exported less (Figure 11). Normally, these would not be such big market shakers, especially since world production actually increased slightly more than consumption. But in the face of record low stocks and continuing strong demand (Figure 3), the price response in grains was dramatic.
- There was not a similar shortfall in oilseeds markets, but shifting of cropland from oilseeds to grains, especially in the US, quickly brought the price boom to oilseeds.

Figure 10. Pattern of Crude oil and US\$ moving in similar pattern since 2000



Source: IMF commodity price database; Euro from Global Insight, Inc.

Figure 11. Changes in grain production and net exports for 05/06 to 07/08 crop years



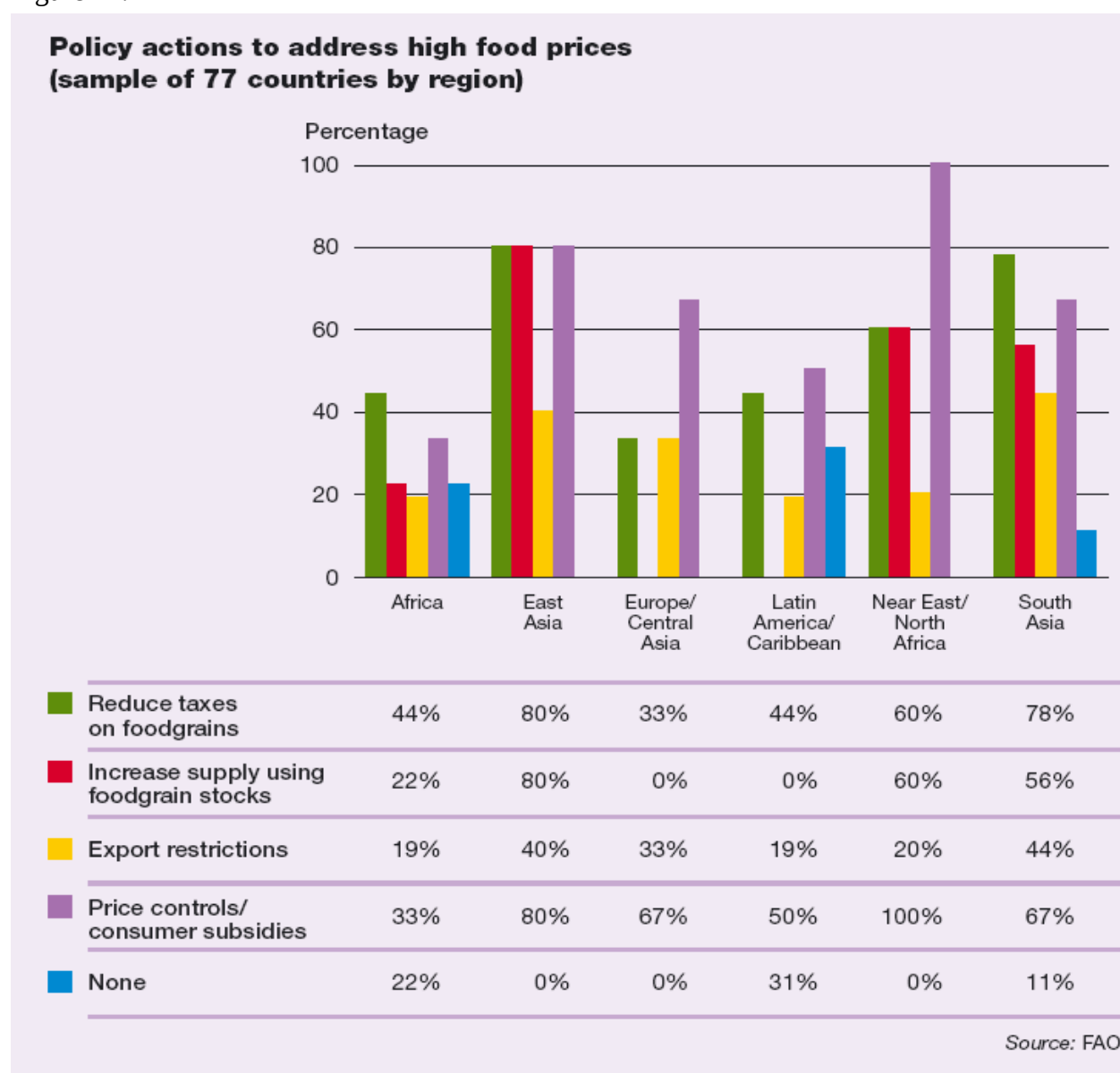
Source: PSD database, USDA.

- In reaction to the rising international prices and in order to safeguard domestic consumers, numerous exporting countries banned, taxed or otherwise limited exports of grains and oilseeds and numerous importing countries reduced import tariffs, subsidized consumers or increased imports as precautionary measures. An FAO survey of 77 countries (Figure 12) found that 67 percent of those in the ECA region took action to reduce price transmission to consumers and 33 percent imposed export restrictions in some form (FAO 2009a). These policy

actions, of course, increased the pressures on world market prices, and even some emergency food aid purchases by the World Food Program were delayed by these measures.

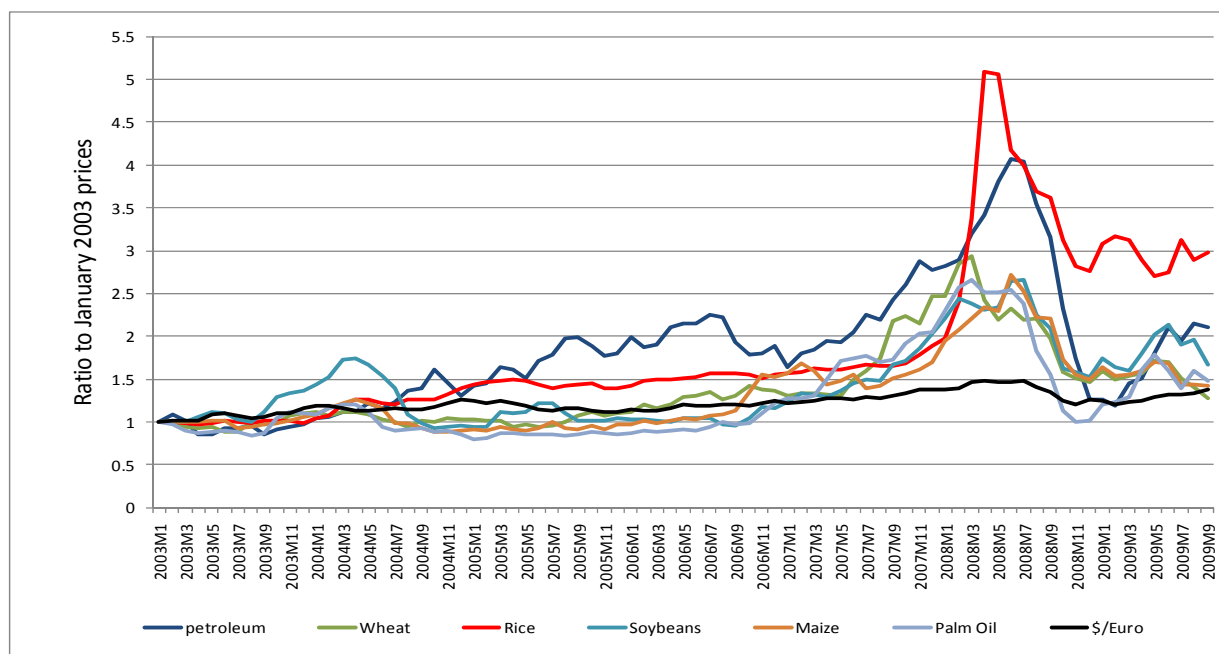
- During this time period, there was increased activity in futures markets by financial investors (non-commercial traders), who may have been diversifying their portfolios or expecting greater returns than in alternative investments. It may well be the case that noncommercial trading (e.g. institutional investors or index funds) drove futures contract prices higher than they would otherwise have been and later contributed to their rapid decline. These investors were buying and selling contracts but never took ownership of the product, so the argument is that they may increase short term volatility but there not much evidence that they have influenced season average price by moving supply or demand.
- Long-term demand growth driven by population and income growth is also important in this story, especially in cases where demand is growing faster than supply (Table 1). However, demand is seldom a factor that is a market shock, because it develops in a more predictable manner. A fast emerging new demand component, such as biofuels, could be an exception. But even in this case, plant construction takes time and is well known by market agents, so it was no surprise to the market.

Figure 12.



As already noted above, there are differences and similarities in how the price surges played out for different commodities, which are compared in Figure 13. In particular, a starting point in January 2003 is used to indicate when a monthly price increased by more than a certain percentage of the January 2003 level. Crude oil first hit the 50 percent increase level in late 2004 while rice reached that level of increase six months later, then remained stable for nearly three years (Table 3). Maize reached the 50 percent increase level in late 2006 but did not have another major increase until early 2008. Oilseeds, palm oil and wheat prices started the surge a bit later in mid 2007 and continued to increase to their peaks in early to mid 2008. Barley price also began to rise in mid 2007 but did not go as high nor increase as quickly as others. Maize and soybeans were last in getting to more than 150 percent above January 2003 levels and barley never got that high. The maximum increase in the monthly average of crude oil price (306 percent in July 2008) was much higher than for most agricultural commodities, though rice had an even higher and slightly earlier (408 percent in April 2008) peak.

Figure 13. Differing patterns of monthly price developments among commodities



Source: Calculated from IMF commodity price database.

Table 3. Differences in speed and level of monthly price increases from January 2003

Price greater than X percent over January 2003	Crude oil	Rice	Maize	Barley	Palm Oil	Soybeans	Wheat
Greater than 50%	10/04	04/05	11/06	06/07	04/07	07/07	07/07
Greater than 100%	04/06	02/08	02/08	03/08	11/07	12/07	09/07
Greater than 150%	10/07	03/08	06/08	None	02/08	06/08	02/08
Greater than 200%	03/08	03/08	None	None	None	None	None
Maximum % over January 2003	306%	408%	171%	118%	166%	166%	194%
Month of maximum	07/08	04/08	04/08	07/08	03/08	07/08	03/08

Source: Calculated from IMF commodity price database.

Looking at this main period of the price surge from crop year 2005/06 to 2007/08, a few conclusions can be made on some of these differences in price developments and factors behind them. All these price surges occurred after the crude oil price increases and US\$ depreciation were already well underway, and we know from the impacts they have on demand and supply that both of these factors contributed to the price surges of all these products. At least these two factors are common to all cases, though the impacts would certainly have different magnitudes. The US\$ depreciation is quickly translated into increased purchasing power in all currencies that appreciated relative to the US\$ and into higher US\$ prices of traded commodities; but petroleum price has more impact on maize and vegetable oil prices, since higher petroleum prices stimulate greater biofuel investment and production. As demand

for maize and vegetable oils increase, it raises the prices of maize and oilseeds, induces shifts in cropland from other crops to these as well as substitution on the demand side for feed and food and thereby increases prices of other crops. Petroleum price increases also raise production costs of all crops; and increased crop prices raise production cost for livestock and dairy, so over the period of two years or more these impacts permeate throughout the agricultural industry. Likewise, the higher petroleum prices increase processing and transport costs, and over time this raises the farm to retail margins, including international shipping costs, and the cost of food.

Possible persistence of factors

One important question is whether the current price surge will ultimately lead back to the long run declining real price path or will leave real prices on a higher long term path. So now attention is turned to the task of looking ahead. If this was a perfect storm, it has passed, short run commodity prices have been declining; and the question is whether and how the future may be different or similar to this volatile period. By definition, a perfect storm is a rare event; and that also seems to be the case here. It does not mean such a price surge cannot happen again, but it is not the norm. Since early to mid 2008, monthly and daily petroleum and agricultural commodity prices, except rice, have fallen from their peaks to levels that existed in 2007 or earlier, so is it time to exhale or will the slightest weather event or market shock send them into orbit again? This question is addressed by looking at each of the major factors and assessing whether it is likely to be persistent, temporary, or completely uncertain.

Yield and production shortfalls—Poor weather and disease are generally considered to be temporary setbacks and have usually been a one year phenomenon and very seldom more than two. The natural disasters may be more frequent and extreme now and in the future due to climate change according to IPPC (IPPC 2007, page 299), but this factor is expected to be sporadic and short-lived even if the frequency of production setbacks were to be higher than in the past. In 2007/08 world grain production increased nearly six percent split almost evenly between area growth and yield growth. In 2008/9 grain production increased another 5 percent and was the largest crop ever, and stocks increased 25 percent over this two year period. High prices are already doing their work of inducing increased planting and higher yields, though they are being partially offset by production costs, such as fertilizer and fuel that rose with energy costs.

Export restrictions and import barrier reductions—Most of the export restrictions have already been removed or reduced. It is anticipated that most of these export and import measures were seen as temporary safeguard measures and would not be maintained for a long time. China has kept export restriction measures mostly by eliminating the value added tax rebate, which has the effect of charging the same VAT on export and domestic sales. Argentina also maintains its export taxes, though further increases were successfully blocked by farmer protests. Most of the other export restrictions were temporary in nature and are now suspended. Argentina and other exporters who tax or restrict exports to dampen domestic grain prices have thereby also constrained the incentives for their producers to increase production. The same holds for importers who tried to dampen the transmission of rising internal prices to their domestic markets. In the past, WTO has focused mainly on measures which depress world prices, such as export subsidies and import tariffs or restrictions; and the disciplines regarding limiting exports or enhancing imports are weak or non-existent. There is weak language discouraging export restrictions in Article 12 on *Disciplines on export prohibition and restrictions* of the URAA, so it is not likely that any of the recent measures could be successfully challenged (Sharma and Konandreas 2008). Thus, in the event of another food

price surge, there is little except diplomatic pressure to prevent similar trade disruptions from happening again.

Dollar depreciation, petroleum price and the financial crisis—In late 2008 and early 2009 the dollar appreciated and oil prices declined substantially, continuing the parallel movement that we have seen during most of this decade (see figure 10). However, after this short period there was reversal again as oil prices increased and the dollar depreciated. As emphasized in the foregoing analysis, these are very important factors in determination of commodity prices and in explaining the price surge. However, they are in the “uncertain factor” category, because it would be difficult to predict which way they may move and when. The crisis in financial markets just added another level of risk and uncertainty to this highly volatile mixture and has added trade financing to the list of market disruptions. The widespread slowdown in economic activity around the world certainly depresses demand and reduces the likelihood of higher oil prices.

“Speculative” activity—The participation of noncommercial traders may be as erratic or uncertain as currency and petroleum prices, so it is likely that this aspect of market behavior will continue as in the recent past. Their participation diminished when oil and commodity prices declined, but it increased again when commodity prices strengthened.

Low stocks and stock/use ratios—The 2009/10 grain harvest is expected to be slightly below the record of 2008/09, but stocks are still expected to increase about one percent more. However, even if this projection proves to be correct, it would not bring grains stocks to a very comfortable level of over 25 percent stocks to use ratio such as existed during 20 years from 1982 to 2001. So this likely to be is a medium-term issue that may take years of average or better than average production or some as yet unexpected drop in consumption growth.

Investment deficit in agriculture—As already mentioned, declining real prices may have contributed to the investment deficit even in developed countries. Though the market incentives are clearly better in the current situation, this investment deficit will be a long-term problem. It takes decades to see the returns to agricultural R&D, because part of the deficit is the lack of institutional capacity that takes time to build. Short-term response to higher prices will be limited, meanwhile, to increased land and input use and expanded exploitation of currently existing technologies.

Long-term demand growth—Clearly a persistent factor, the rate of growth in demand for feed, food, seed and industry (excluding biofuels use) will depend upon population and income growth rates and is the most stable part of the market picture. The main uncertainty will be the downturn in economic performance due to the current financial market crisis, which could temporarily reduce pressures on commodity prices.

Biofuel production and support measures—The existence and growth of this industry is a persistent factor, since there is every expectation that it will continue to grow over time and its growth will be strongly linked to the price of petroleum as well as to various government support measures. The only recent policy change in the US was to reduce the blenders’ tax credit from \$0.51 to \$0.45 per gallon. While the highly elastic demand for biofuel feedstocks might be thought of as a price stabilizer, the tighter linkages between highly volatile petroleum price and commodity prices as well as short run structural and policy constraints may add to commodity price volatility. Determining which factor is playing the primary role is highly dependent on the short run market context, such as the level of petroleum prices and whether or not the US biofuel mandate is binding, which did happen briefly for the first time in 2009. While the effect on commodity price levels may be clearer, the net effect on price volatility

remains uncertain. The EU also has not changed biofuel policies, but they are under review and it is not yet clear yet how current targets would be achieved or how strictly they will be enforced.

Implications for the future

A rather rapid transition has been described from the decades-long period of falling real prices of grains and food more generally to a new market environment in which commodity and food prices are, higher, more volatile and more tightly linked to petroleum prices. Much of the market behavior seen during the past few years is linked to the growing interdependence of energy and agricultural markets. This market behavior and the conditions surrounding it are likely to continue, and the prospects of returning to the patterns of the previous decades are less likely.

World markets have turned around and many commodity prices have declined significantly from their peaks, but are still well above what they were before the price surge¹. Even so, there could be a repeat of such price shocks at almost any time, so we should not be complacent. Moreover, rising commodity prices have more impact on food prices of consumers in low income countries than on those in high income countries. Aside from the higher share of income spent on food, the commodity price itself is a larger share of the household food cost in a low income country. An example in Table 4 illustrates how a 50 percent increase in a commodity price would translate into an increase from 10-10.6 percent in the share of income spent on food in a high income country, while the same commodity price increase leads to an increase from 50-60.5 percent in the share of income spent on food in a low income country. Likewise, the food import bills have grown faster in developing countries (FAO 2008c). The food import bill of developing countries and for LIFDCs. increased by nearly 36 percent from 2007 to 2008. This is after another sharp rise the previous year. The scarcity of trade financing during the current financial crises only compounds this problem.

The market conditions that have developed since 2005 and that seem likely to continue, even if food price increases have abated somewhat, raise challenges and offer opportunities. The challenge is how to provide social protection or safety nets for the most vulnerable populations that have been thrust into a much more desperate financial situation because of sharply higher food prices. The opportunity is that higher prices offer a chance to increase incomes from food production in many rural areas where agriculture is the main source of income and employment. To meet these challenges and exploit the opportunities, national and international policy actions are being recommended (FAO 2008a, World Bank 2008, von Braun et al 2008). However, before visiting these suggested remedies, the financial shock and its implications are analyzed.

¹ See annex Box 1 for some indications of food prices in 13 countries covered in this paper.

Table 4. Impact of Food Commodity Prices on Consumers' Food Budgets

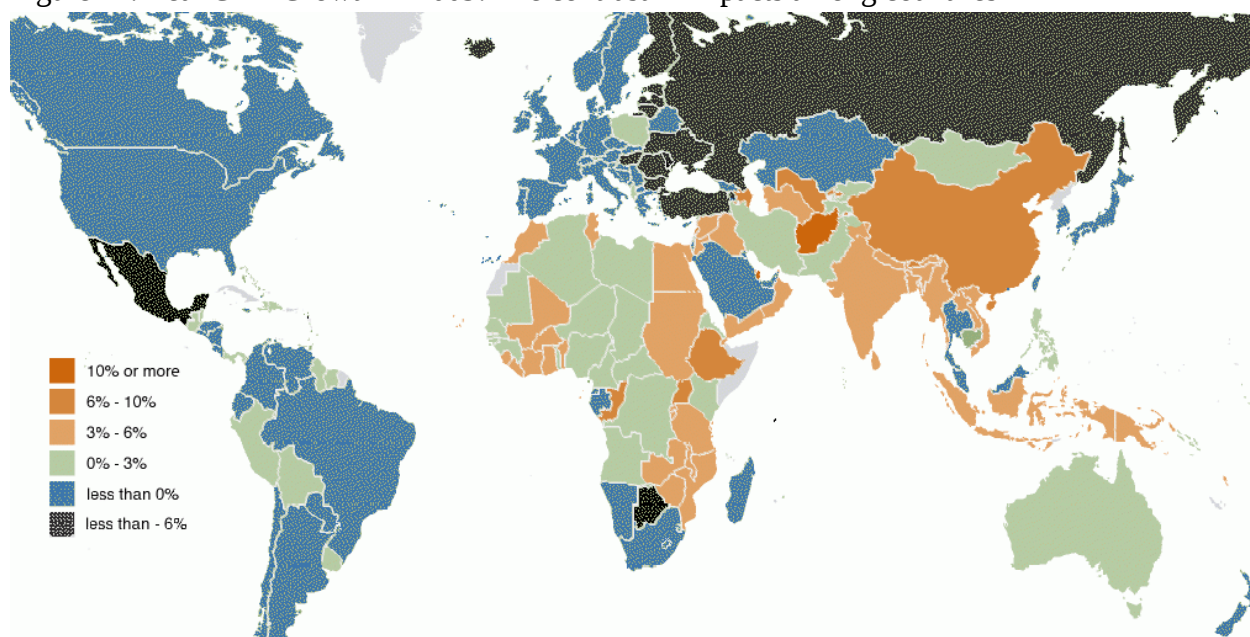
	High-income countries	Low-income food-deficit countries
I. Base Scenario		
Income	\$40,000	\$800
Food expenditure	\$4000	\$400
Food costs as % of income	10%	50%
Disaggregate retail food spending (staples vs. non-staples)		
Staples as % of total food spending	20%	70%
Expenditures on staples	\$800	\$280
Expenditures on non-staples	\$3200	\$120
II. Scenario: 50% price increase in staples, partial pass through on staples		
Assumed % pass through	60%	60%
Increase in cost of staples	\$240	\$84
New cost of staples	\$1020	\$364
New total food costs	\$4240	\$484
Food costs as % of income	10.6%	60.5%

Source: Trostle, 2008, page 25.

4. Anatomy of the macroeconomic crisis and recovery

There are relatively few countries in the world where the estimated 2009 decline in real GDP is – 6.0 percent or more, and many of these are from 13 countries considered in this paper (Figure 14). There were two major elements to the financial and economic crisis that has impacted the global economy and the economies of countries in this region. One was financial contagion arising from the collapse of US financial markets and the second was the severe recession that followed, which curtailed consumption and severely slowed demand facing exporting countries. Impacts on individual countries differed depending upon to what extent their economies and financial institutions were integrated with global financial and/or global economic markets and the extent to which their economic growth was dependent on exports. This discussion will begin with the most recent estimates of the economic impacts on GDP growth rates for each country, then differences in impacts will be analyzed relative to these two sources of economic effect.

Figure 14. Real GDP Growth in 2009: The contrast in impacts among countries

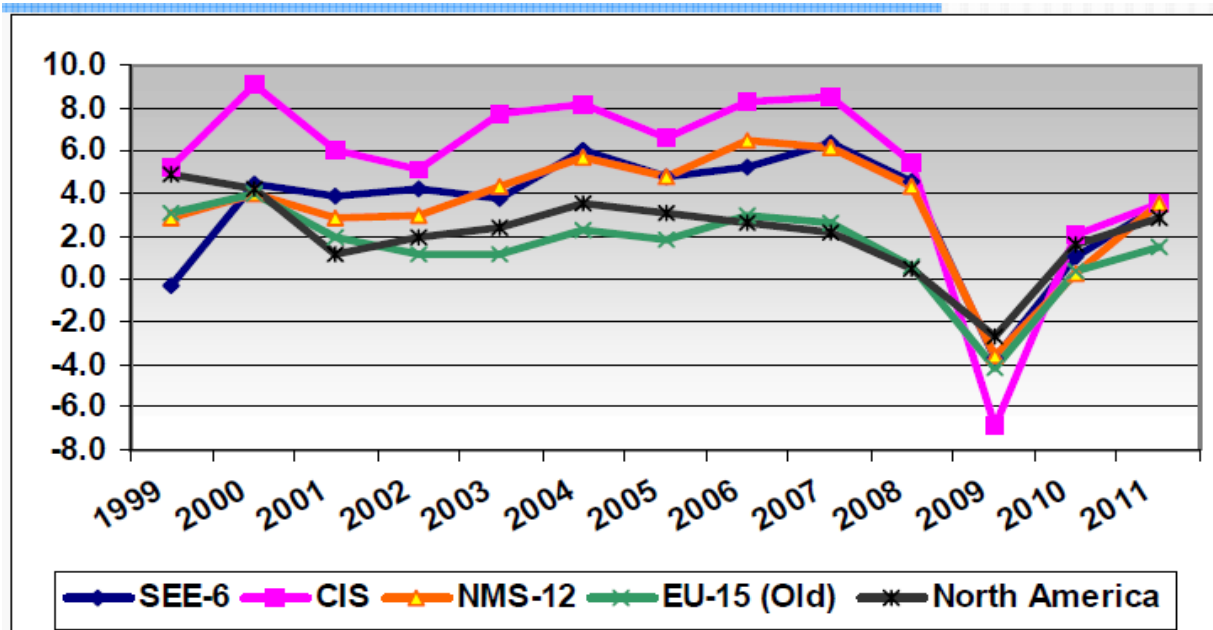


Source: Shelburne, 2009

Though the region covered in this paper had a real GDP growth performance that was as well or better than most other regions in the decade before the 2009 financial crisis (Figure 15), the economic collapse in 2009 is estimated to be harder than in any other region. However, there were substantial differences within the region, with four or five countries estimated to retain positive growth in 2009, two dropping below -3.0 percent and two dropping below -6.0 percent, including the Russian Federation, while two countries are estimated to drop more than -12 percent (Figure 16). There are reasons for such big differences in the economic performances that will be discussed, but an overriding factor for the CIS aggregate is that Russia comprises more than 75 percent of the CIS economy (Georgia and Mongolia are included by IMF for consolidation in the CIS aggregate), so what happens in the Russian economy has an overriding impact on the CIS total. Moreover, the Russian economy has differing impacts on the other economies in the region, and those more dependent on remittances are particularly influenced by Russian economic performance.

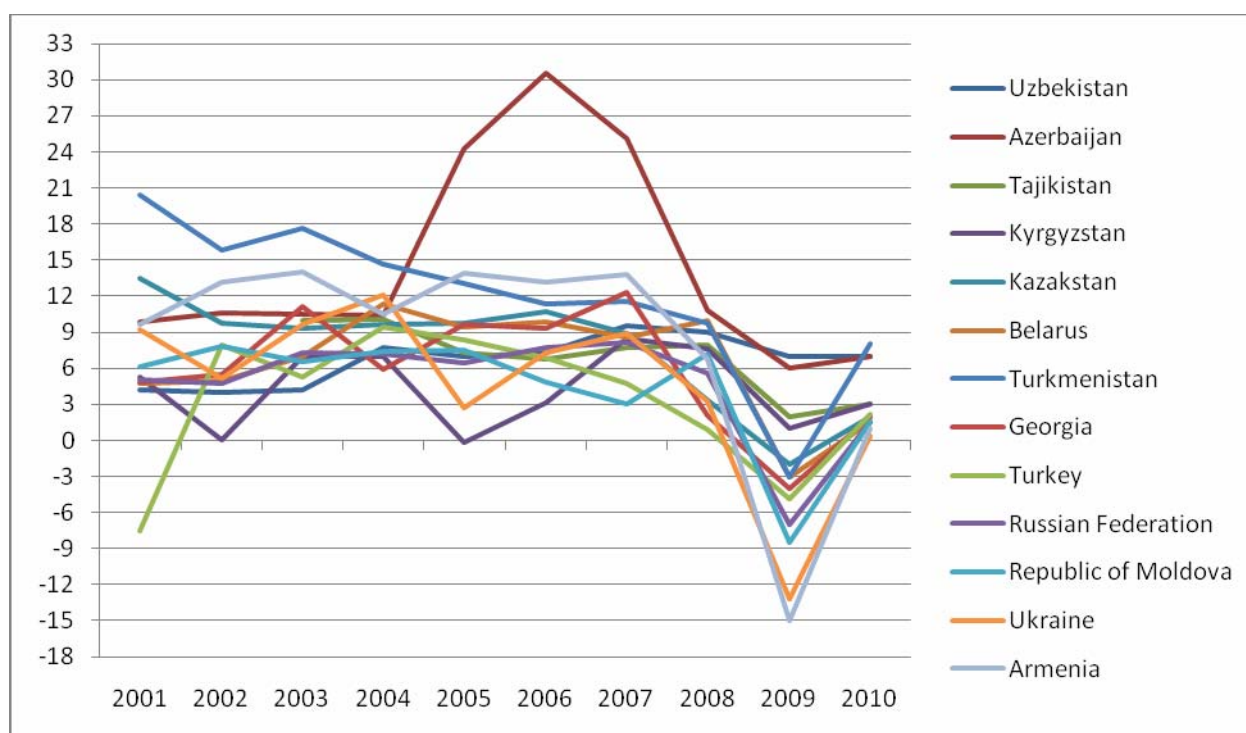
Most countries had fairly robust growth in 2008, with exceptions being Georgia and Turkey (Table 5). Countries that are expected to have positive growth in 2009, based on three sources of October 2009 estimates, are Azerbaijan, Kyrgyzstan, Tajikistan, Uzbekistan, and possibly Turkmenistan. Azerbaijan and Turkmenistan (according to two of the three forecasts) are buoyed up by their strong linkages to oil and gas exports that have not suffered as much as other exported goods. The other three countries are currently the poorest countries in the region (Figure 17) and, as such, are less tightly linked to the global economic and financial system than are the others. So they have felt less of the impacts of the financial collapse and export declines that followed

Figure 15. Comparison of CIS real GDP growth rates with selected other regions



Source: Shelburne, 2009

Figure 16. GDP growth rates in order of highest to lowest projected growth in 2009



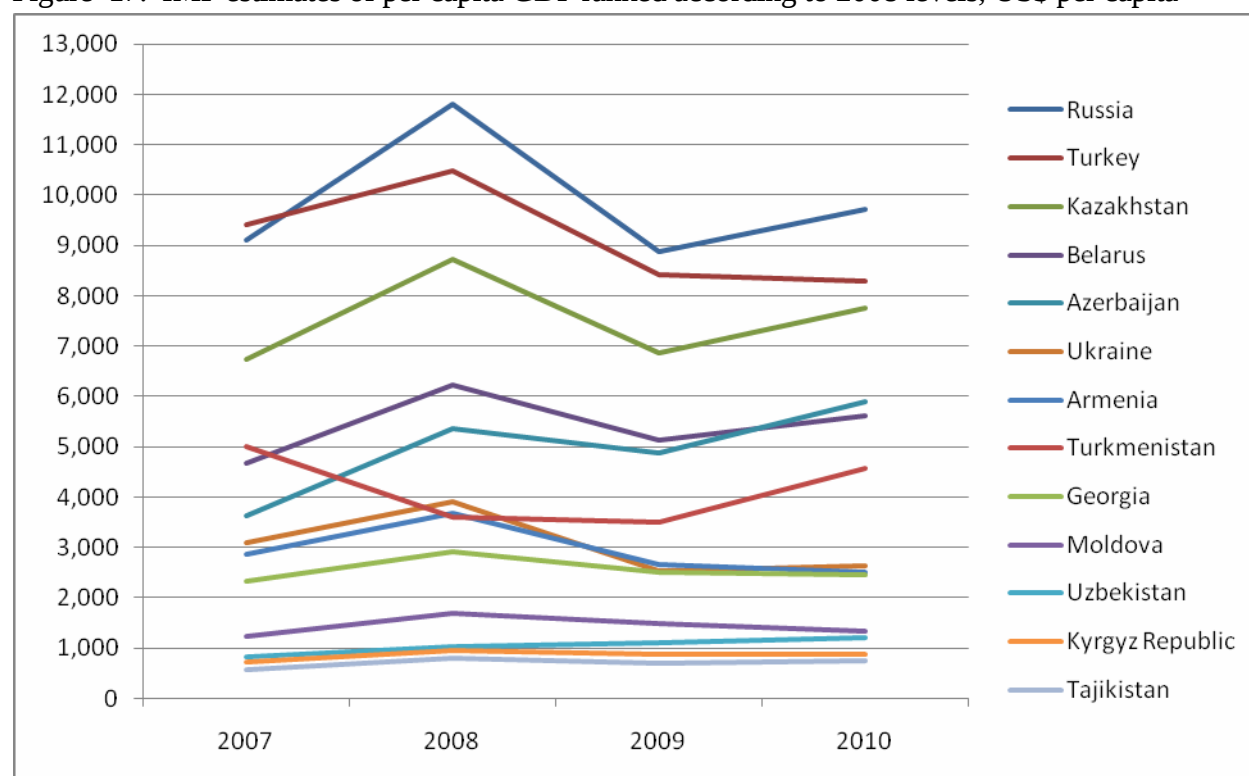
Source: LINK Global Economic Outlook, UN DESA, October 2009

Table 5. Comparison of UN Project LINK, IMF and EBRD forecasts of real GDP

	2008	2009			2010		
		LINK	IMF	EBRD	LINK	IMF	EBRD
Armenia	6.8	-15.0	-15.6	-14.3	1.0	1.2	1.3
Azerbaijan	10.8	6.0	7.5	5.0	7.0	7.4	7.1
Belarus	10.0	-3.0	-1.2	-3.0	1.5	1.8	0.9
Georgia	2.1	-4.0	-4.0	-5.5	2.0	2.0	2.0
Kazakhstan	3.2	-2.0	-2.0	-1.3	2.0	2.0	1.6
Kyrgyzstan	7.6	1.0	1.5	1.5	3.0	3.0	3.0
Republic of Moldova	7.2	-8.5	-9.0	-8.5	1.5	0.0	1.5
Russian Federation	5.6	-7.0	-7.5	-8.5	1.5	1.5	3.1
Tajikistan	7.9	2.0	2.0	2.0	3.0	3.0	3.0
Turkey	1.1	-4.9	-6.5	-6.0	2.2	3.7	3.0
Turkmenistan	10.5	-3.0	4.0	6.0	8.0	15.0	13.0
Ukraine	2.1	-13.2	-14.0	-14.0	0.4	2.7	3.0
Uzbekistan	9.0	7.0	7.0	7.0	7.0	7.0	7.0
World	1.9	-2.2	-2.3	na	2.4	2.3	na

Source: IMF, EBRD and LINK for Turkey and World; Shelburne for all other countries

Figure 17. IMF estimates of per capita GDP ranked according to 2008 levels, US\$ per capita

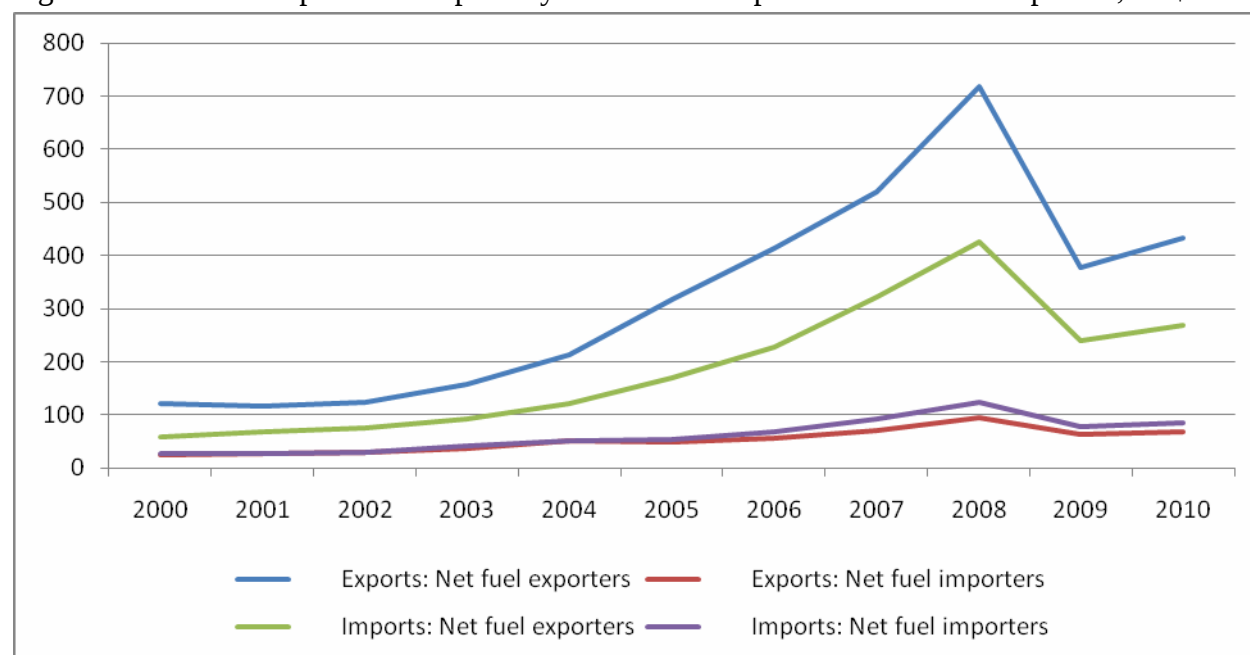


Source: IMF data and projections, October 2009

The economic crisis has impacted the countries of this region through a withdrawal of capital from these markets, diminished export earnings (Figure 18) due to lower commodity prices and lower demand for exports arising from reduced economic activity in the region's main export

markets (UN DESA 2009). On a percentage basis, the export earnings decline of net fuel exporters and net fuel importers was similar, but the value decline was far greater for the net fuel exporters. Countries that were more integrated with global financial markets and had benefited from significant capital flows from FDI and bank credit (often denominated in foreign currency) saw a large reversal in capital flows in response to the global credit crisis². This led to depreciation of many currencies in the region relative to the Euro and US\$, and many currencies also depreciated relative to the Russian Ruble (Figure 19). Such currency depreciation is helpful in restoring export growth and mitigating declining remittance revenues.

Figure 18. Value of exports and imports by CIS net fuel importers and net fuel exporters, bil \$

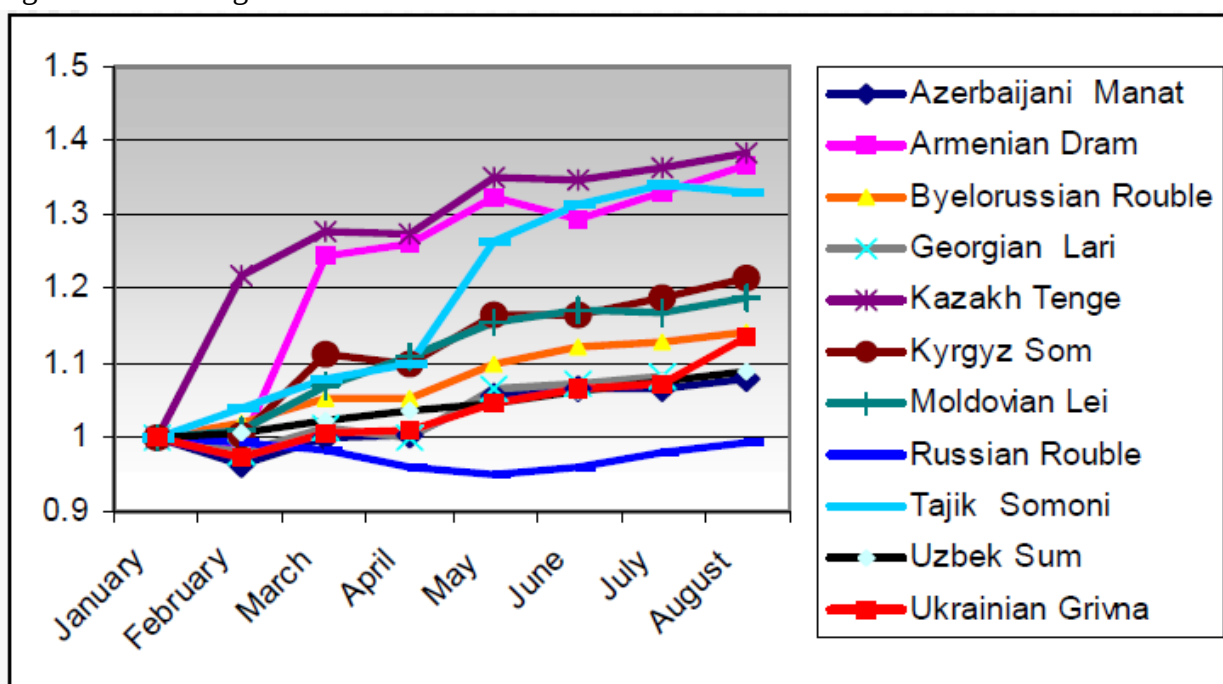


LINK Global Economic Outlook, UN DESA, October 2009

Unemployment increased substantially as economies declined, and is expected to reach 10 percent in Russia by the end of 2009. Since the number of migrant workers in Russia from other countries of the regions is substantial, the spillovers to the region in the form of reduced remittances are significant. Remittances account for 20 percent or more of GDP in four CIS countries and up to 45% of GDP in Tajikistan (Figure 20). According to Shelburne, remittances out of Russia declined by 31 percent by the second quarter of 2009, so those countries where remittances are a large share of GDP would be heavily impacted by that, since most of the effected workers are or were in Russia.

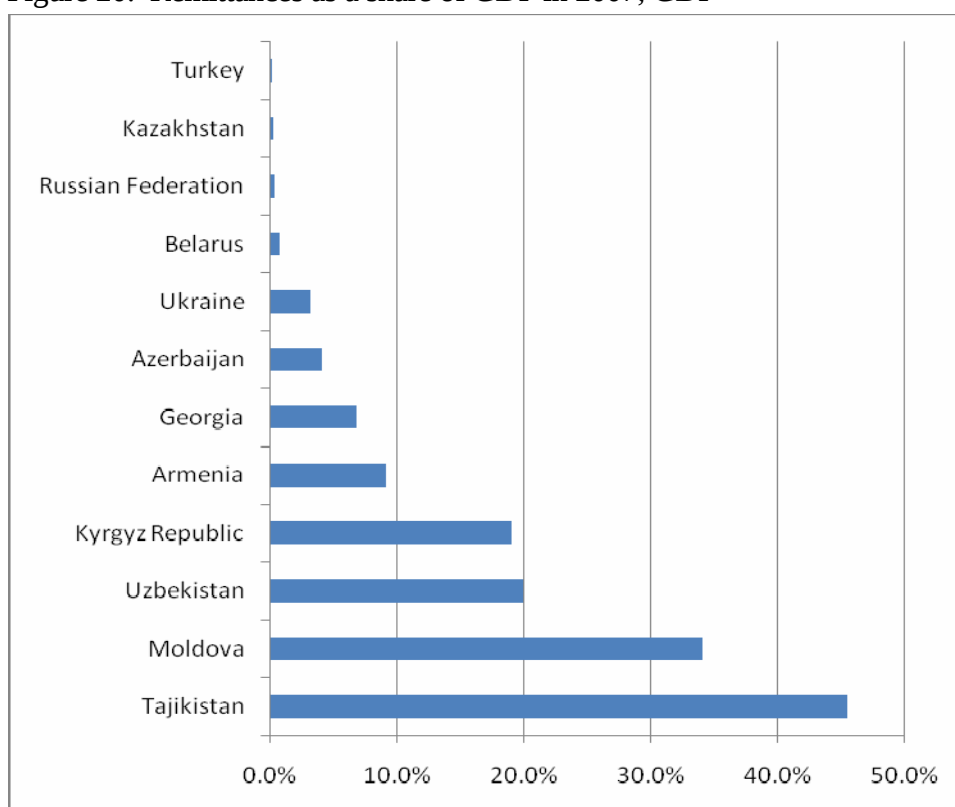
² Bank lending to emerging economies dropped the most, reversing from \$400 billion inflows of 2007 to net outflows in 2009. The Russian Federation and Ukraine were among the most severely impacted by such reversals of capital flows (UN, October 2009)

Figure 19. Exchange rate movements in 2009 relative to the Euro in selected countries



Source: Shelburne, 2009

Figure 20. Remittances as a share of GDP in 2007, GDP

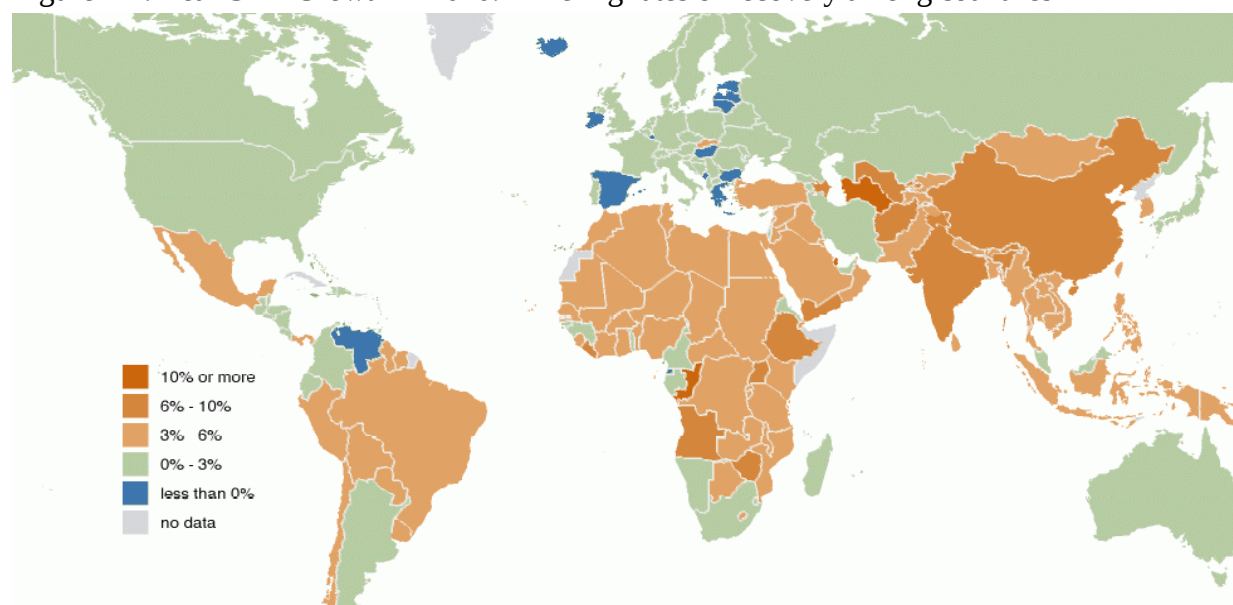


Source: Source: World Bank staff estimates based on the International Monetary Fund's Balance of Payments Statistics Yearbook 2008. (Turkmenistan not available)

With very few exceptions, the GDP forecasts for 2010 around the world are positive, and this is also true of the 13 countries in this region (Figure 21). Some estimated recovery rates are very weak, and some are rather strong; but given the severity of the recession in most countries, the projected recovery is weak (Table 5). It is clear that a worse crisis was averted by stimulus programs of many governments that sought to fill the large consumption gap left by the drop in private demand. Among countries in this region, the UN estimates that the share of GDP targeted to fiscal stimulus was as high as 13.8 percent (Kazakhstan). Not all countries had the financial capacity to respond with adequate stimulus, though the greatly increased IMF support approved by the G-20 has helped to fill this gap. The mild global real GDP growth forecast by UN LINK for 2010 is 2.4 percent, but there is a wide range in country prospects from 8.7 percent for China to 0.6 percent for the EU. A few of the energy-exporting countries covered in this paper are at the high end of this range, but most are projected to have a weak recovery.

There is, indeed, concern among macroeconomic analysts that there are numerous risks associated with these forecasts. First of all the stimulus actions of governments that helped to avert a worse crisis and supported the recovery cannot be sustained very long. There is a risk that if these are aborted prematurely, there could still be another recession, a so called double dip or W-shaped recovery. Another factor that has helped turn around the global economy is that the rapid shedding of inventory that accompanied the global recession has been replaced with inventory building that helped to turn around industrial production and trade in recent months. But this also may not be sustained if it is merely adjusting for the overshooting of inventory shedding. Other concerns are that credit constraints remain an impediment to growth and unemployment is still expected to rise into 2010 and may be very slow to decline thereafter in such a weak recovery as is currently foreseen. Rising protectionism could be another threat to recovery, as the number of trade protection measures recorded by WTO has been rising; but so far they are few and of low intensity.

Figure 21. Real GDP Growth in 2010: Differing rates of recovery among countries



Source: Shelburne, 2009

This recovery is not expected to be driven by a resurgence of consumption in the United States and other developed countries, as has so often fueled recoveries in the past. However, the economic resilience of India, Indonesia, North Africa, and China, which rebounded strongly in the 2nd and 3rd quarter of 2009 and is expected to achieve relatively good growth during 2009, is one of the few encouraging upside signals and more likely to support the recovery. Unfortunately, the

recovery of the global economy and the economies of the 13 countries in this region is still subject to significant downside risk.

5. Possible effects of the food price and macroeconomic crises on food security

As was stated at the beginning of this paper, the pathways from food security to food insecurity for a household could include one or more of the following. Now attention is focused on each of these pathways and how they are actually or could be affected by the food and financial crises:

- **Reduction in the quantity and/or quality of food purchases**

This aspect of food security is really about economic access to sufficient quantity and quality of food. Higher prices of food or reduced income or market disruptions can all impair access to food that may be available but is not economically accessible.

- a. **High food prices**

As elaborated in section 3 of the paper, the price surge has abated, at least for now, and most food prices, except sugar, are much lower than in 2008. This surely relieves some of the pressure created by the food price surge, but it is good to recall that food world grain prices are still 40 percent or more above the average in the 2000-04 period. Moreover, food prices in individual countries may have seen less of a decline, because of local conditions or market imperfections. Recent FAO analysis finds that bread prices remain well above pre-food crisis levels and several are still 30-50 percent higher than in 2006 (Figure 22 and Annex Box 1).

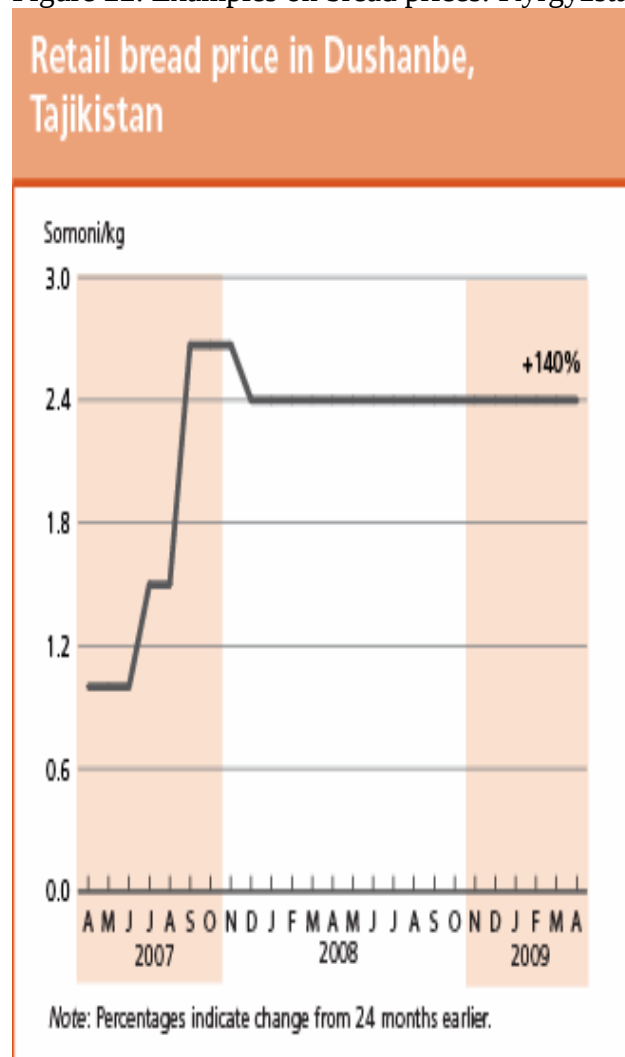
- b. **Loss of employment or reduction of wages and income**

As the financial and economic crises hit this region, unemployment naturally increased in every country, but the large increase in unemployment in Russia also had significant spillover effects on labour markets of other countries in the region through remittances. This region includes several remittance dependent economies (RDEs), seven CIS economies with remittances greater than four per cent of GDP.³ It was noted in section 4 above that estimated remittances out of Russia declined by 31 percent by the second quarter of 2009, so this would seem a significant further shock to economic wellbeing of the RDEs over and above the direct impacts of economic slowdown and unemployment. One factor that moderates this impact is that this remittance decline is measured in US\$, so the depreciation of Ruble against the US\$ explains part of the remittance decline. Also, according to Figure 19 above, all the currencies of the region depreciated more than the Ruble, so remittances in terms of national currency would have declined less than what would be measured in Rubles and US\$. Despite these caveats, it is clear that purchasing power has been significantly curtailed and poverty has increased as a result of unemployment and declining remittances⁴.

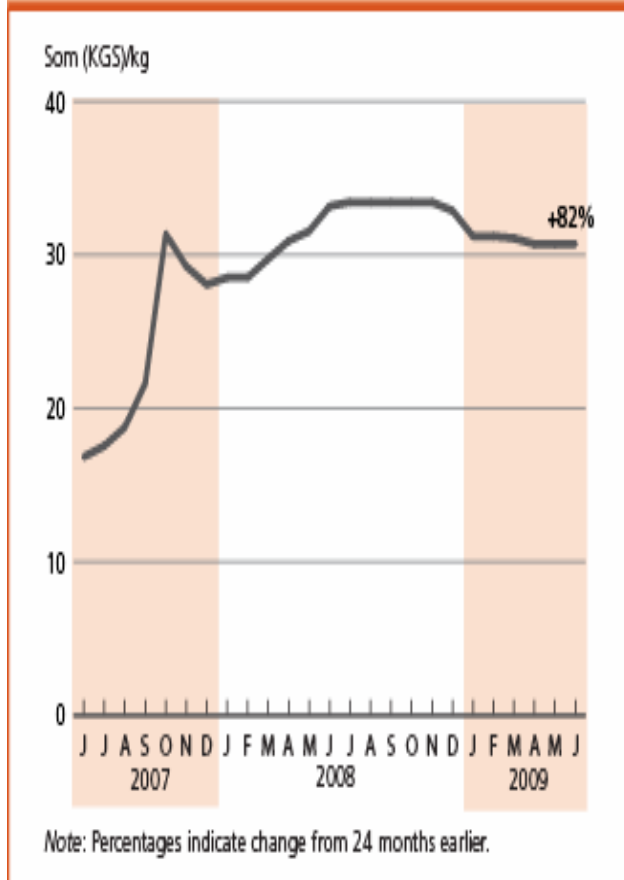
³ RDEs in this region consist of Armenia, Azerbaijan, Georgia, Kyrgyzstan, Moldova, Tajikistan, and Uzbekistan.

⁴ In the Philippines, Capistrano and Sta.Maria 2007 show that remittances and the number of overseas workers both have a significant impact on overall poverty. They find that a 1% increase in the share of remittances in GDP leads to a 2.55 % reduction in the incidence of poverty, which implies that reducing remittances shares of GDP can as well increase the incidence of poverty. Though the study was in a country outside the CIS region, similar linkages may apply in CIS cases.

Figure 22. Examples on bread prices: Kyrgyzstan and Tajikistan



Retail bread price in Bishkek, Kyrgyzstan



Source: FAO

c. Market disruption or policy reaction that impairs availability

During the food price surge, a number of grain exporting countries, including some in this region, curtailed exports or taxed exports in order to protect domestic consumers. Such actions necessarily constrain access to these commodities in importing countries, which include five countries in this region that are significant net importers of grains and also RDEs.

- **Reduction in food production**

This aspect of food security is about availability. Whether the food be produced in the country or imported, the availability is dependent on changes in supply.

a. High prices of feed and other inputs

High prices of products stimulate more production, and high prices of inputs depress production. Both have been seen during recent years. When grain prices rose in 2006/07 and beyond, there was a significant production response around the world, including in this region, and especially in Russia and Ukraine and to a lesser extent in Kazakhstan. As input prices,

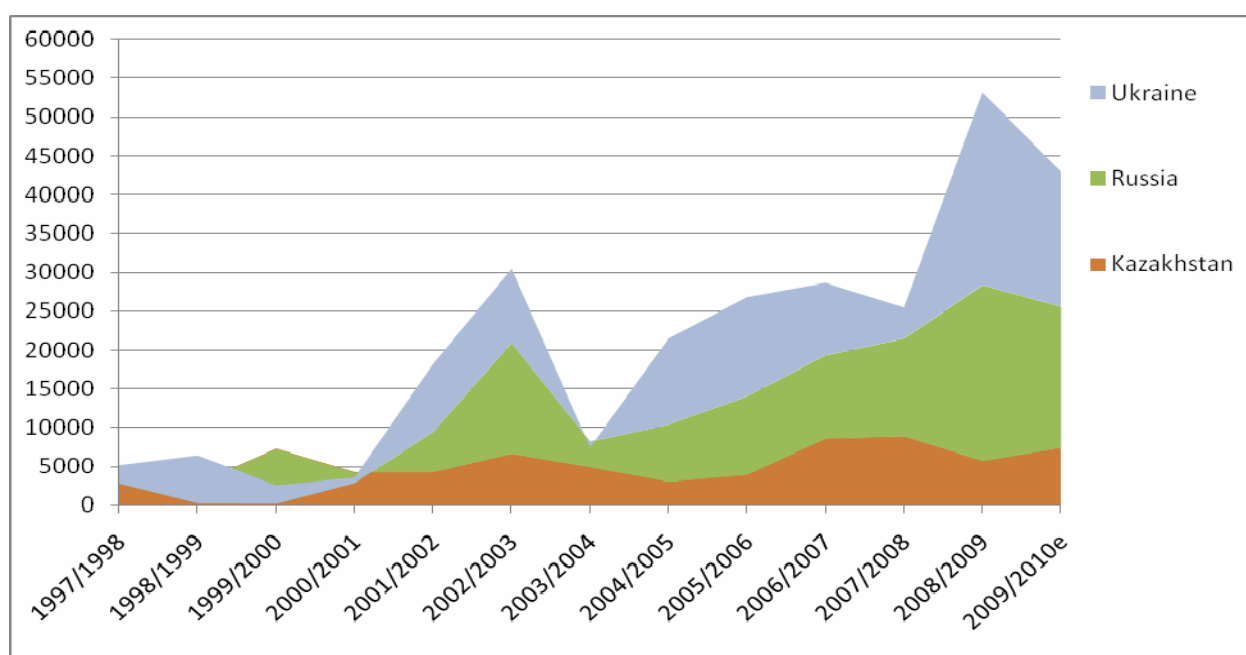
such as fertilizer, surged in 2008, and weather was less favorable, the surge in global grain production is expected to slow in 2009. Similarly, higher grain prices have increased the cost of meat and dairy production and slowed their production growth.

It is significant that the exporting countries of this region have been contributing to global food availability as production and exports have increased substantially during the last decade (Figure 23). Turkey is excluded for part of this analysis, because it has been at times a significant exporter, but has mostly been a significant importer of grains in the last decade. So imports of the other importers has increased in recent years (Figure 24), but is expected to decline in 2009, due to good harvests in several countries. So the net effect on the rest of the world is that export growth far exceeded import growth from this region, including Turkey, and reached 45 million tons in 2008/09 crop year (Figure 25). It is very significant that this region which accounted for about 15 percent of global grain imports from 1987 to 1990, has accounted for more than 13 percent of global grain exports from 2005 to 2008.

b. Lack of credit access

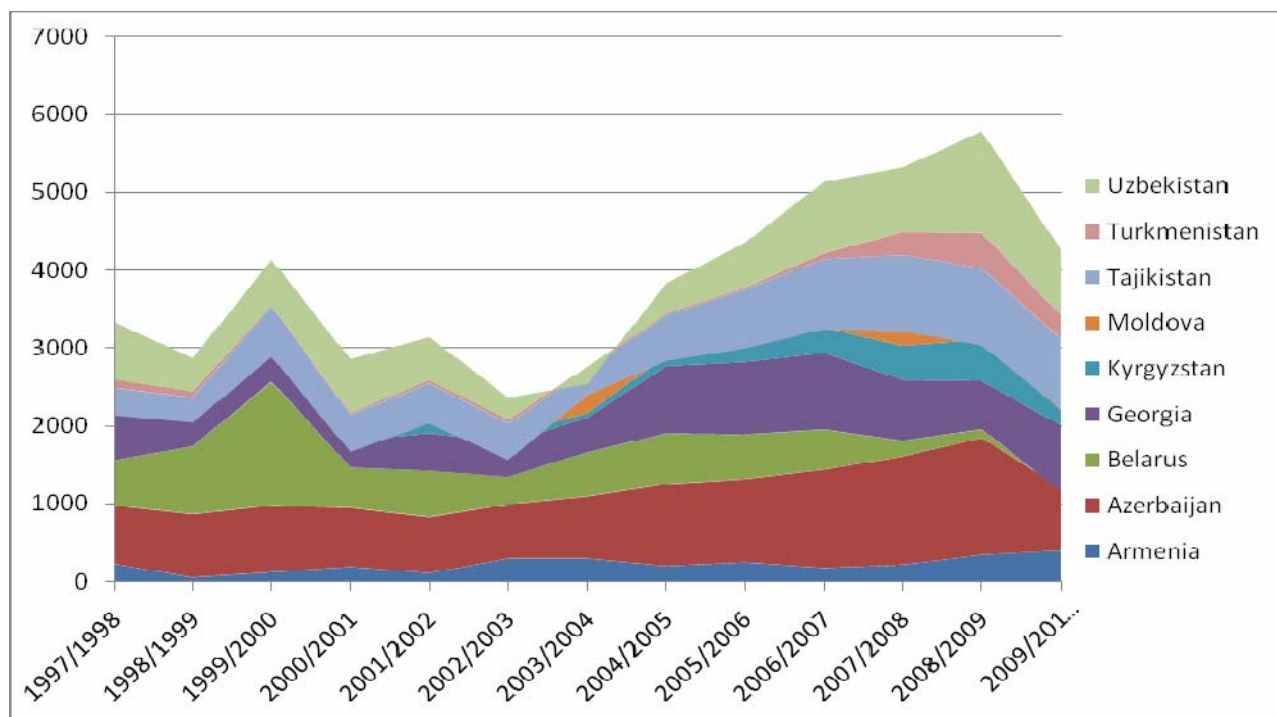
The financial crisis has reduced the availability of production credit to farmers just as it has to other business enterprises and thereby has the potential to slow production growth. Likewise, trade finance is constrained because the financial crisis exacerbates a shortage of liquidity to finance trade credit, and the credit crunch and economic slowdown have made banks averse to financial risk (ICTSD 2008).

Figure 23. Grain net exports of exporters excluding Turkey, 1000 mt



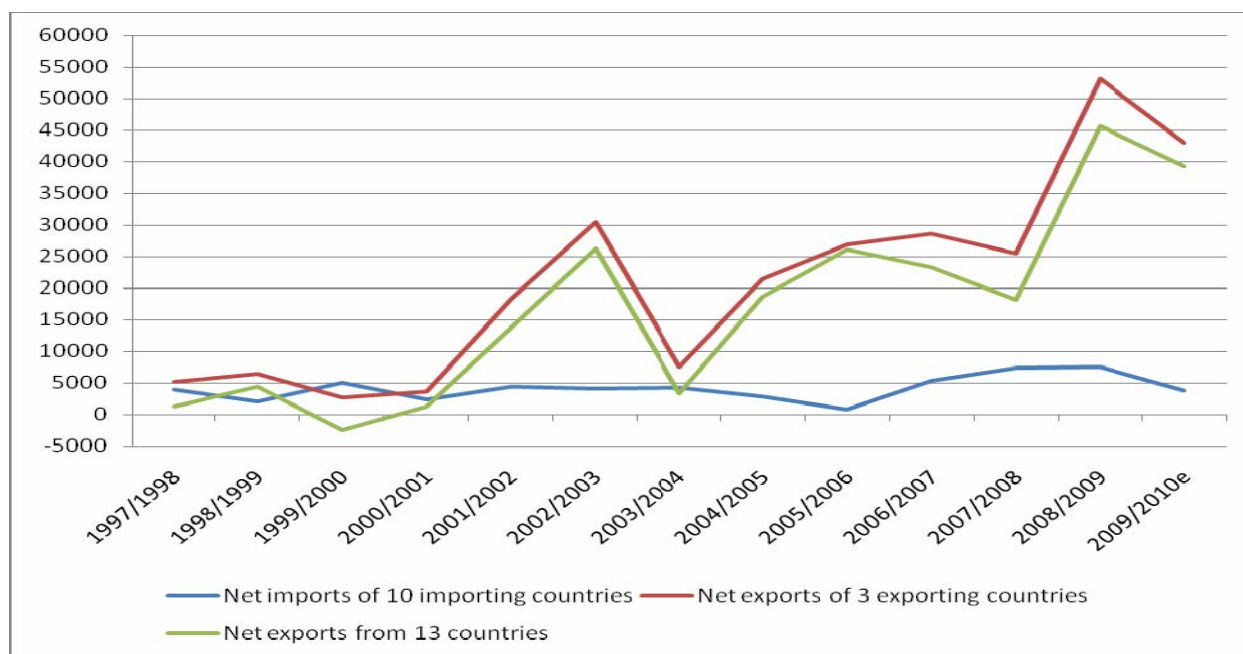
Source: USDA, PSD database October 2009

Figure 24. Grain net imports of importers excluding Turkey



Source: PSD database, USDA.

Figure 25. Growth of net exports from the region, including Turkey



Source: PSD database, USDA.

- **Reduction in the quantity and/or quality of food aid**

Five of the countries in this region, Armenia, Azerbaijan, Georgia, Kyrgyzstan, and Tajikistan are significant food aid recipients, so these aspects could influence food availability and accessibility in this region.

- a. High food prices

High food prices reduce the quantity of food aid that can be purchased and delivered with a fixed budget, which is frequently a constraining factor.

- b. Decline of government/international donor financial resources

The global economic slowdown and recession has constrained the financial resources that can be provided to national and international food aid programs

- c. Macroeconomic instability, market disruption or policy reaction that impairs availability

Macroeconomic instability can impact the availability of financing for food aid and the ability of recipient countries to manage its distribution. Export constraints imposed by countries during the food price crisis, which impaired trade during the price surge in 2008, also disrupted the food acquisition logistics for the World Food Program.

The summary of the pathways by which the food and financial crises have impacted different aspects of food security indicate that it occurs both through impacts on poverty (economic access to food) and impacts on food availability, through prices, production and trade. These impacts on food security are not only a reflection on what has happened in the recent past, but also reflect what could happen again in the future. It is not yet certain that the global economy and economies of this region will emerge from the financial and economic crisis without another setback. Also, it is entirely possible that we will have another food price shock, as we have had in the past, though the timing and scale of it are unknown. So the dual crises have also revealed the increased vulnerability of low income populations to economic and food insecurity and the need for policies that can be proactive in the event of other economic or food market shocks.

6. Underlying structural issues for countries in this region

Food insecurity or hunger of a population can be measured in many ways, and it is useful to have different measures to reflect differing dimensions of food insecurity (Table 6). The “FAO” measure is undernourishment, which is the percent of the population for which caloric availability is less than the minimum dietary energy requirement. The “MDG 1” refers to the Millennium Development Goal 1, target 1C, which is to halve between 1990 and 2015 the proportion of people who suffer from hunger. So if this ratio is 0.5 or less, such as in Armenia, Azerbaijan, and Georgia, the target is already met. If it is between 1.0 and 0.5 as in Tajikistan and Turkmenistan, some progress has been made, but if it is higher than 1.0, as in Uzbekistan, it means the situation has gotten worse rather than better. The “GHI” is the Global Hunger Index of the International Food Policy Research Institute (IFPRI), which is the simple average of the

Table 6. Measures of Food Insecurity from different sources,

Countries	2004-06 %	2004-06 ratio	2003-05 %	2004-06 Kcal/day	2008 \$/cap
Low Income (LI)	FAO	MDG 1	GHI	DES	GDP
Kyrgyzstan	<5	*	<5	3110	951
Tajikistan	26	0.8	18.5	2180	795
Uzbekistan	13	2.8	7.5	2470	1027
Lower Middle Income (LMI)					
Armenia	23	0.5	9.2	2290	3685
Azerbaijan	11	0.4	7.9	2580	5349
Georgia	12	0.3	6.1	2500	2924
Republic of Moldova	<5	*	<5	2840	1693
Ukraine	<5	*	<5	3120	3910
Turkmenistan	6	0.7	6.3	2770	3606
Upper Middle Income (UMI)					
Belarus	<5	*	<5	2890	6235
Kazakhstan	<5	*	<5	3190	8719
Russian Federation	<5	*	<5	3100	11807
Turkey	<5	*	<5	3340	10479

*not provided

Sources: SOFI 2009 FAO, Global Hunger Index 2009 IFPRI, IMF

percent of undernourished (FAO), the prevalence of underweight in children under 5 years and the under 5 mortality rate. As with the FAO statistic, a lower number is better. “DES” is the average dietary energy supply for the country based on availability. Finally, the “GDP” is the IMF figure of GDP per capita in 2008. For this comparison, countries are grouped using the World Bank income category designation for July 2009, which often but not always corresponds to food security status. Kyrgyzstan has a relatively high DES (especially given its GDP level), and therefore is below the FAO threshold of 5.0 percent and is not reported. Two of the LMI countries and all of the UMI countries also fall below that threshold of 5% and are therefore not reported.

Because of the sensitivity of vulnerable populations to increased food prices or declining incomes, it is very likely that either higher prices or lower incomes could increase the prevalence of food insecurity, slow or reverse the progress towards target 1C of the MDG 1, or increase the global hunger index for one or more of these countries. In fact, analysis by Ivanic and Martin (2008) found that higher food prices can increase poverty and therefore food security for those who are mostly buyers rather than producers and sellers of food, while the same higher prices improve incomes of those producers who sell most of their production. The balance really depends on the individual situations. Of course, direct income losses caused by loss of employment or decline in wages increase poverty and also would increase the prevalence of food insecurity⁵.

⁵ See annex boxes 3 and 4 for examples of food security conditions and coping strategies in Kyrgyzstan and Tajikistan.

The most commonly used policy measures to mitigate macroeconomic shocks are social protection or safety net measures. These are more prevalent in European countries than in the United States except for the very large food stamp program for low income families, for example, and they are even less prevalent in lower income countries, where budget resources are more of a constraint. These measures range from unemployment benefits to food subsidies to retraining and relocation assistance. In response to the financial crisis and subsequent recession, many governments launched extraordinary fiscal stimulus packages to prevent a larger economic collapse. These ranged from 12-14 percent of GDP in China, Kazakhstan, Thailand and Saudi Arabia, to 1 percent of GDP in the Russian Federation and many other countries. The Philippines, where remittances were more than 11 percent of GDP in 2007, also included in its stimulus program a special assistance to Overseas Workers⁶.

7. Policy recommendations for a risky economic environment.

The risky economic environment that has been outlined in this paper places countries and their citizens in a more vulnerable situation than has been seen for a long time. For countries in this region, it may remind some of the huge economic and social adjustments that accompanied the transition reforms and restructuring that occurred in the last decade of the 1990s. However, for most countries in this region, that economic decline and subsequent adjustment was even larger than what is now foreseen in the coming years of this recovery. Such significant adjustments in economic structure and performance always bring with them both opportunities and challenges. These are briefly outlined relative to the agricultural and rural economies of this region.

a. Opportunity – increase availability and access;

The higher commodity prices can stimulate more production in the region and more income and employment for farm and rural populations. In most countries of this region, the higher prices in the mid part of the decade have already stimulated an increased production response. The comparison of grain production the last two years compared with the three years average from 1999/00 to 2001/02 show exceptional production growth in all but a few countries of the region (Table 7), most countries improved much more than the world average and all countries together realized a total of 50 percent increase in production. The expected production in 2009/10 crop year is even higher for many countries in the region, though it is expected to decline from the record 2008/09 level for others. Some recommended policies would reinforce the production growth that the market signals are already incentivizing.

⁶ Neda (2009) said that OFWs abroad and those returning would be assisted through enhanced reintegration services and livelihood assistance. In fact, there would be a “payback package” for OFWs which include the setting up of a PhP250 million support fund, skills training to avail of in-demand jobs in other parts of the world, and setting up of Department of Labor and Employment (DOLE) and Overseas Workers Welfare Administrations (OWWA) desks in the provinces to match OFWs’ skills with available jobs.

Table 7. Changes in total grain production from 1999/2001 to 2008/06 and estimated for 2009/10.

Country	Average 08/07 and 07/06 vs 99-01 USDA	2009/10 vs 2008/09 FAO*	2009/10 vs previous 5 years FAO*
Armenia	44%	-13%	-2%
Azerbaijan	77%	-3%	5%
Belarus	66%	5%	22%
Georgia	-30%	-9%	-25%
Kazakhstan	65%	6%	23%
Kyrgyzstan	-12%	9%	6%
Moldova	-13%	na	-4%
Russia	70%	-10%	9%
Tajikistan	34%	29%	23%
Turkey	-4%	Na	na
Turkmenistan	17%	29%	-15%
Ukraine	66%	-13%	12%
Uzbekistan	63%	6%	10%
13 countries above	50%	na	na
World	17%	- 3%	No change

Sources: USDA, PSD October 2009 and FAO for the 2009 crop forecast

*Crop Prospects and Food Situation, Global cereal supply and demand brief,

<http://www.fao.org/docrep/012/ai484e/ai484e04.htm>

- b. Challenge - provide social protection and safety net measures for the most vulnerable populations

The future of agricultural markets and financial markets are likely to be volatile and uncertain in many ways, so it would be prudent to provide more social protection for the general population and risk management tools for producers. Some recommended policies are in response to this need.

c. Short run policy priorities

- i. Expand **food assistance** and early warning and rapid response capacities and target **food production programs** with inputs, credit and extension education packages

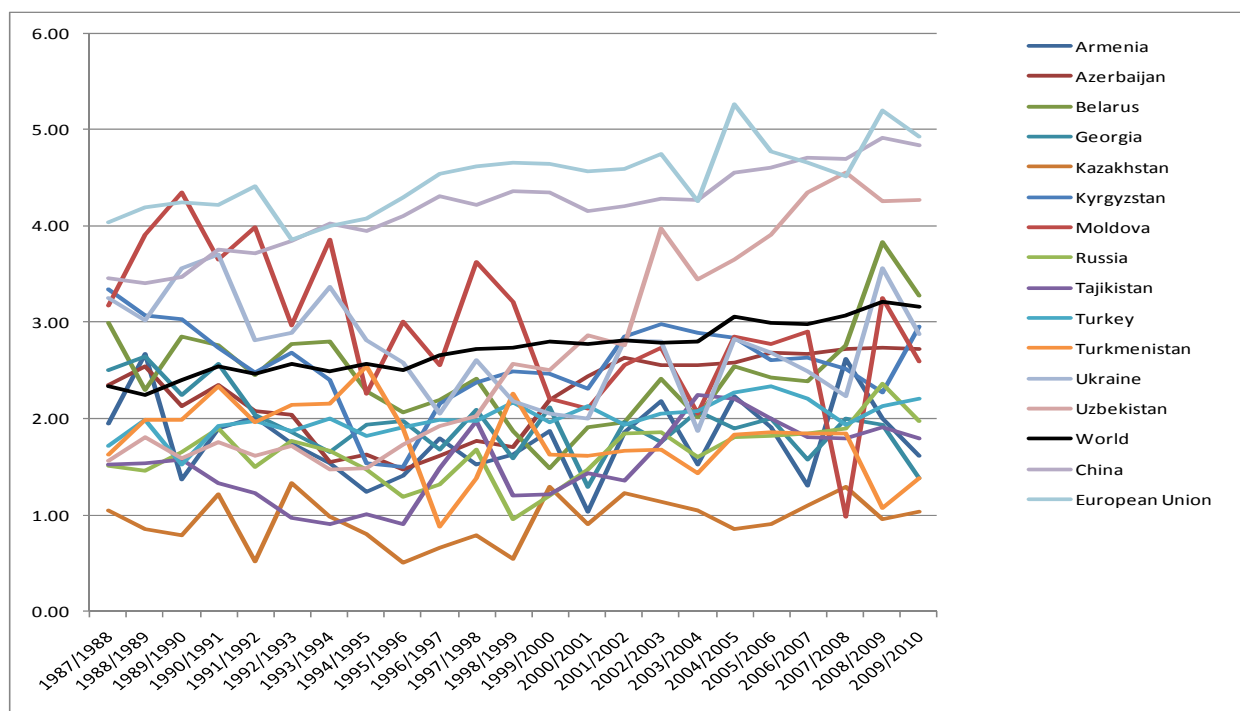
This Twin-Track approach to reducing hunger advanced by FAO is a valid response to this dual crisis. It helps make food accessible to the most vulnerable and simultaneously helps producers, especially smallholders, to raise their output and increase their incomes.

- ii. Accelerate local adaptation and dispersion of currently **existing technology**

Although production potentials and agro-climatic conditions in the region vary greatly, most countries have a significant unrealized yield growth potential. The constraints on production growth can be reduced by improved technology transfer mechanisms and improved functioning of credit markets. There have been some improvements in yields in recent years in

many countries of the region, but most countries are still below the world average in grain yields (Figure 26) and far below the potential that could be realized with existing technology.

Figure 26. Grain yield growth and change in CIS, Georgia and Turkey, mt/hectare



Source: USDA, PSD October 2009

- iii. Complete the **Doha Round** of trade negotiations and **Restore trust** in the international trading system with improved multilateral or plurilateral rules and agreements

The experiences with trade restricting policies employed by many countries in reaction to the food price crisis and the increased protectionism that has been seen since the financial crisis have created distrust in the global trading system and increased the cost of doing business in international markets. A Doha Round agreement would be an important step in restoring confidence in the trading system and in further reducing distortions that restrict trade and create more uncertainties for farmers and traders. Although it is very tempting for countries to look inward and limit exposure of their own consumers and producers to world market volatility in times of trouble, one of the best ways to protect food security in a global market is to expand trade and reduce trade restricting policies.

d. Long run policy priorities

- i. Make **Investments** in agricultural development and R&D for production and post harvest technology

The World Bank Development Report 2008 states that the developing countries have “suffered from neglect and underinvestment over the past 20 years. While 75 percent of the world’s poor live in rural areas, a mere four percent of official development assistance goes to agriculture in developing countries.” To address this shortfall, both national governments and international agencies and donor programs need to give new priority to investment in

agriculture. The fact that this is a long run priority does not mean it can wait. It should begin immediately, because the payoff from such investment often takes a long time.

- ii. Improve **market functioning** to facilitate price transmission and better integration with global commodity markets

Farmers and the national economy would gain from improvements in market efficiency, which can include improved transport infrastructure, improved market information systems, increased competition in the marketing chain⁷, and increased efficiency and transparency in regulatory systems. In transition countries with fledgling market institutions, it is especially important to strengthen these institutions and let them play their role in market adjustment. The government role is important to create an enabling environment for new farm and agribusiness to develop, but it should focus on improving financial services, technical support services, information services and the like.

- iii. Develop **Risk management tools** for farmers

Farmers face risks associated with yield and price variability that can be mitigated with good risk management tools. Yield insurance, revenue insurance, contracting and improved access to futures market tools can all assist farmer in managing risk. Government can assist the private sector in developing and offering such tools and even could use prudent incentive measures to encourage adoption of such risk management tools.

- iv. Enhance **rural development** and rural infrastructure investments

In eight of the countries in this region, the share of rural in total population is 40 percent or more, and the share has been increasing in many cases (Figure 27). Rural development is not the same as agricultural development and it needs targeted attention, including provision of rural development support systems and social infrastructure. A rural development support system provides rural residents and local governments with information, coordination, and technical assistance. Social infrastructure needs will vary from place to place, but will include such things as roads and highways, schools and child care facilities, hospitals and clinics, community centers with libraries, internet connections, and adult learning facilities. These support measures are territorial not sectoral, and they improve the rural business environment as well as the capacity of rural residents to improve their own human capital, increase their economic opportunities and enhance the quality of life in rural areas.

- v. Invest in social protection or **safety net measures** to protect vulnerable populations

“Safety net” is an umbrella term that covers various programmes aimed at assisting vulnerable population groups. It includes targeted food distribution programmes; targeted cash transfer schemes, feeding programmes and employment schemes (FAO 2009a). The concept of social protection or safety net is to cushion the biggest impacts of market and financial shocks in order to limit the long term consequences. For example, when unemployment increases, incomes decline and food price or shortage threaten households, they may dispose of valuable assets, interrupt the education of their children or suffer malnutrition. These are but a few

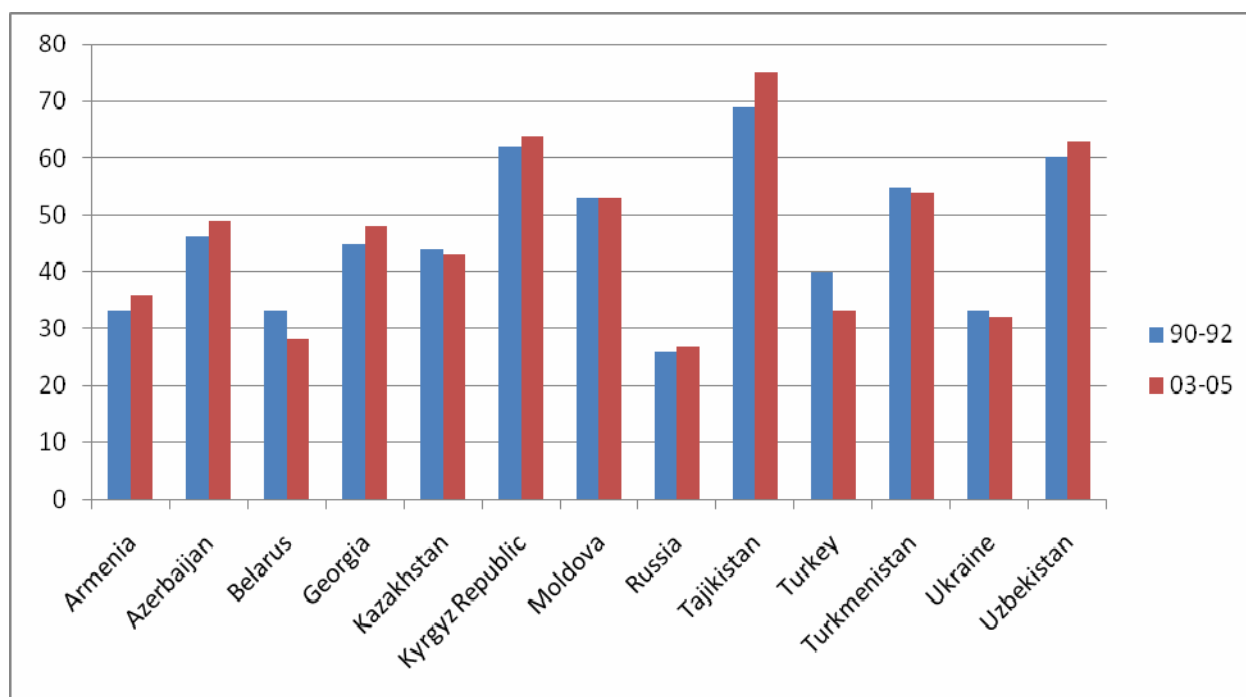
⁷ Box 2 gives an example in Kyrgyzstan of the impacts of poorly functioning agricultural markets on farm prices and its effect on increasing dependence on labour migration for rural inhabitants.

examples where the short run impacts of a crisis create long run damage to the household's income earning capacity. So, the safety net measures are temporary and targeted to mitigate the worst consequences of a financial or food crisis.

8. Conclusions

The countries of this region have faced many challenges in the last two decades, and most have experienced massive changes in social and economic institutions and policies. Some policies and some countries have clearly been more successful than others, and much can be learned from the successes and failures during these 20 years. The lessons learned dealing with adversity during those years of change will be valuable in dealing with these new crises, and the recommendations provided in this paper need to be discussed, evaluated and applied to the particular situation in each country. As with all policies, means to implement action may be different under different circumstances. So it is important to engage in this policy forum to gain the benefit of differing experiences and perspectives of different countries and different individuals that can together improve the application of these principles to concrete conditions in the countries of this region.

Figure 27. Share of rural population in the total, average of 1990-92 compared with 2003-05



Source: FAO country profiles

References

Alexandratos, N. (2008) “Food Price Surges: Possible Causes, Past Experiences, Relevance for Exploring long-term prospects.” *Population and Development Review*, 34(4): 663–697 (December 2008), <http://www.fao.org/es/esd/FoodPriceSurges-Alexandratos.pdf>

Capistrano, L.O., and M. L.C. Sta. Maria. 2007. The Impact of International Labor Migration and OFW Remittances on Poverty in the Philippines. Mimeo paper. Quezon City: School of Economics, University of the Philippines.

DEVPULSE. (2009) “NEDA Development Advocacy Facksheet” Vol. 13 No. 1 January 15, 2009. National Economic Development Administration, Republic of the Philippines http://www.neda.gov.ph/devpulse/pdf_files/ERP%20DEVPULSE.pdf

FAO. (2008a) “Soaring food prices: facts, perspectives, impacts and actions required.” 3-5 June 2008. HLC/08/INF/1. 50 pp. Rome, Italy

http://www.fao.org/fileadmin/user_upload/foodclimate/HLCdocs/HLC08-inf-1-E.pdf

FAO. (2008b) “Food Outlook: Global Market Analysis.” GIEWS, November 2008. Rome, Italy

<http://www.fao.org/docrep/011/ai474e/ai474e00.htm>

FAO. (2009a) “The State of Agricultural Commodity Markets: High food prices and the food crisis-experiences and lessons learned” Rome, Italy

<http://www.fao.org/publications/soco/en/>

FAO. (2009b) “The State of Food Insecurity in the World: Economic crises-impacts and lessons learned” Rome, Italy

<http://www.fao.org/publications/sofi/en/>

FAO. (2009c) “Food Outlook: Global Market Analysis.” GIEWS, June 2009. Rome, Italy

<http://www.fao.org/giews/english/fo/index.htm>

FAO (2009 d) “How to Feed the World in 2050.” Rome, Italy

http://www.fao.org/fileadmin/templates/wsfs/docs/expert_paper/How_to_Feed_the_World_in_2050.pdf

ICTSD, (2008) “Financial Crisis Threatens Global Trade Flows, WTO Says”. [Bridges Weekly Trade News Digest](#) • [Volume 12](#) • [Number 39](#) • 19th November 2008
<http://ictsd.net/i/news/bridgesweekly/33962/>

IPCC (Intergovernmental Panel on ClimateChange). 2007. *Climate change 2007: Impacts, adaptation and vulnerability. Contribution of working group II to the fourth assessment report of the Intergovernmental Panel on Climate Change*, ed. Parry,M. L., O.F. Canziani, J.P. Palutikof, P.J. van der Linden, and C.E. Hanson. Cambridge: Cambridge University Press.
<http://www.ipcc.ch/ipccreports/ar4-wg2.htm>

Ivanic, Maros and Will Martin (2008) “Implications of Higher Global Food Prices for Poverty in Low-Income Countries“. Policy Research Working Paper 4594. World Bank
http://www-wds.worldbank.org/external/default/WDSContentServer/IW3P/IB/2008/04/16/000158349_20080416103709/Rendered/PDF/wps4594.pdf

Meyers, William H. and Seth Meyer. (2008) “Causes and Implications of the Food Price Surge” FAPRI-MU Report #12-08. December 2008. 53pp

http://www.un.org/esa/policy/wess/wesp2009files/wesp09bkgroundpaper_meyer.pdf

Pardey, Philip G., Nkenke Beintema, Steven Dehmer and Stanley Wood. (2006) “Agricultural Research: A Growing Global Divide?” IFPRI, August 2006.

<http://www.ifpri.org/pubs/fpr/pr17.pdf>

Shelburne, Robert C. (2009) “The Global Economic Crisis and the Transition Economies“. Presented at the Project LINK Conference, Bangkok, Thailand. UNECE

Shelburne, Robert C and José Palacín (2009).“ Remittance Flows in theTransition Economies“. mimeo, Economic Commission for Europe, Geneva.

Trostle, Ronald. (2008) “Global Agricultural Supply and Demand: Factors Contributing to the Recent Increase in Food Commodity Prices.” USDA/ERS Report WRS-0801. 23 July 2008 (revised). 30 pp. <http://www.ers.usda.gov/Publications/WRS0801/>

United Nations (2009) “LINK Global Economic Outlook: October 2009”. Department of Economic and Social Affairs, New York.

Von Braun, J., A. Akhter, K. Asenso-Okyere, S. Fan, A. Gulati, J. Hoddinott, R. Pandya-Lorch, M. W. Rosegrant, M. Ruel, M. Torero, T. van Rheenen and K. von Grebmer. “High Food Prices: The What, Who, and How of Proposed Policy Actions.” Policy Brief May 2008 Washington, DC: International Food Policy Research Institute.
<http://www.ifpri.org/PUBS/ib/FoodPricesPolicyAction.pdf>

World Bank. (2008) “Rising food prices: Policy options and World Bank response.” 11 pp.
http://siteresources.worldbank.org/NEWS/Resources/risingfoodprices_backgroundnote_apr08.pdf

Box.1 Basic Food Prices trends in CIS, Georgia and Turkey

(2006-2009)

Georgia: Inflation is around 2% due to the weakness of economy, possible deflation is expected. Food prices have remained stable with not significant changes from the beginning of 2009. In 2009 prices for meat (mainly pork) increased by 30%. Prices for bread are still higher than pre-food crisis. From the beginning of 2009 food import increased by 34% and reached 15.2% of the total volume of import. Import of wheat increased twice due to the less grain harvest. The price of bread is higher by 33% than its level in 2006.

Turkey: Inflation remains high (10.5 % in 2008, and expected 6.5 % in 2009). By OECD projection export goes down by 12.0% import by 21.8% down from the level of 2008. GDP is going to decline by 6% Turkey is one of the largest wheat importers in the world. There is no indication of growing food insecurity but due to financial position of the country increasing of vulnerability is likely due to the high rate of unemployment which reached 15.5% in 2009.

CIS COUNTRIES: For most countries of the CIS region, food prices continued to remain stable at previous annual increase levels; and while the rates of food price increases have slowed, the prices themselves have remained substantially higher than during the previous year.

Armenia: The rate of inflation has been steady for the last seven months of 2009, amounting to 2.7 %. During the period between January and July of 2009, the average sale value of agricultural products remained moderately stable. However the price of bread is almost 30 % higher of its level in 2006.

Azerbaijan: Inflation is around 3.7 %. Prices have been reasonably stable over the first seven months of 2009, with actual decreases, albeit slight, in the prices of vegetables (as can be seen in the table below). The price of bread is almost the same as in late 2008, though still 50 % higher than before the food price crisis.

Belarus: Inflation is over 14.6%. There has been a large (30%) increase witnessed in the wheat flour price between the 1st half of 2008 and the 1st half of 2009. The price of bread decreased by 5% during the last seven months but is still over 50% higher than the level at end of 2007. The price of potato is sharply fluctuating upwards. There is also 23% increase in the price of milk and dairy products.

Kazakhstan: Inflation is over 8.5 %. Food prices during the last seven months have remained more or less stable. The price of bread, however, is still higher than its peak in 2007, with a slight (2%) increase in 2009.

Kyrgyzstan: Inflation is 12.5%. The country faces difficulties due to imposed tariff duties and non-tariff trade barriers imposed by neighboring countries (Kazakhstan and Uzbekistan). Average bread prices nationwide have decreased by 2% compared with its peak in 2007, however, they are still higher than in the pre-food crisis period. In poor regions, such as Naryn, prices are at the same peak level and remain higher than national average prices.

Considering the volatile fiscal situation of the country and the significant level of import of wheat and other basic food stuff as well as the dependency on remittances, the situation in this country requires special attention.

Moldova: Inflation is slow (1.1%) due to decreasing of demand. There is a slight downward trend in the price of food items as a category in the 1st half of 2009. Based on the information provided by the National Bureau of Statistics, the average sale price of agricultural products sold by agricultural enterprises has decreased by 46% during January-June 2009 compared to the corresponding period of the previous year. Deflation is expected due to the weakness of the economy and decreasing demand. Dry conditions have severely affected the main spring crop, maize, notably in the districts of Kahul, Chadry-Lunga, Bassarabjaska, Leova, Stefan Voda, Taraska and Streshen. The effect of drier weather on other crops, potatoes, vegetables and fruit is expected to be alleviated as their production is spread throughout the country and often takes place on household plots. Household and farm income (already amongst the lowest in Europe) is expected to be further reduced in the affected areas. Due its dependency on remittances as well as import of wheat, Moldova would require regular monitoring with regard to its vulnerability to food insecurity.

Russia: Inflation in Russia is over 13 % due to the depreciation of the ruble as well as resulting from food imports. The price of bread in Russia is still increasing in Russia and remains 50% higher than during the pre-food crisis period. The Povolzhje Region has experienced drought this year, however due to a relatively good harvest, the Russian Government is able to cover losses of this region by its stocks and harvest from other regions of Russia.

Tajikistan: Inflation is 8.8% in the examined period. Though the price of bread remains higher than during pre-food crisis period, it has dropped from its peak by 10%. Overall, the prices of food items in Tajikistan have remained stable, particularly with regard to meat, fish and oils. The price of fruits, following an initial significant increase of some 12% during the beginning of 2009 has now completely stabilized. Vegetables are actually experiencing a substantial recent downward price trend, particularly onions and carrots. The price of sugar, on the other hand, has increased by around 15%. The food security of the country depends on imports, which explains why the government has increased the import of wheat by over 30%. Taking into account the country's weak fiscal stability, coupled by its dependency on imports and remittances, Tajikistan should be monitored on a regular basis with regard to vulnerability and food security.

Turkmenistan: Since Turkmenistan economy is less integrated to the international financial markets, impact of the global economic crisis is not significant at present time. Country relies on oil and gas revenues and imports a large volume of food stuffs. One of the major importing food item is wheat flour, because of the underdeveloped milling industry. A significant share of households' incomes is spent for food. Therefore, fluctuation of international food prices negatively impacts living standards of the majority of population. The Government practices the distribution of a certain volume of flour to all the population. Although appreciation of a national currency and fiscal stability do not deteriorate access to basic food, high

unemployment and malnutrition, in particular in rural areas, increases vulnerability of many people.

Ukraine: The fiscal situation in the country as well the currency exchange rate fluctuation in the country is out of control. The currency was depreciated by 30% in 2009. Inflation is over 17%. The most notable trend in terms of food prices is a sharp increase in the price of potatoes by some 7% during the last month. This year has produced a good cereal harvest. Ukraine is the third largest exporter of wheat in 2009, therefore from a food security point of view there is no need for special assistance to be provided to the country. Ukraine possesses a very strong potential to become one of the major cereal suppliers in the world.

Uzbekistan: The impact of the current global economic and financial crisis on the economic development of the country is not significant due to the low integration of Uzbekistan economy to the global market. Official statistics indicate that in the period January-July 2009 Uzbekistan's GDP increased by 8.2 percent and agricultural output by 3.3 percent. By authorities official information for the nine months of 2009 is defined as 4.2 percent though the methodology of it's measurement remains questionable. At the same time Uzbekistan remains a low-income food-deficit country with a high level of poverty and vulnerable population.

Sources: Statistics Agencies of 13 countries, OECD, IMF, FAO.

Box 2. Kyrgyz Republic: Agriculture*

One reason for labour migration is lack of work at home, as farming does not produce sufficient income. Reasons given for this included shortage of land, an absence of effective farming practices, poor local markets, a lack of knowledge of how to market agricultural produce elsewhere, and, in some cases, a lack of access to markets for producers. The problem is especially acute in small towns where households do not have land plots and incomes are dependent on salaries.

The number of animals owned by the households has not changed significantly in the past year.

According to Focus Group Discussion (FGD) participants, however, the number of animals has decreased in the past two years, particularly the number of heads of cattle. One reason given was that last year, prices for fodder were very high due to poor weather conditions; this combined with falling cattle prices forced owners to sell or slaughter cattle. In addition, over the past three months of this year one third of surveyed households faced the problem of animal disease. The main issues relating to this identified by respondents are inadequate, expensive or non-existent veterinary services. Only 4.3% of households reported receiving adequate veterinary assistance.

Practically all key informants at district and aйл okmotu levels raised the problem of land degradation. Degradation of pastures is most noticeable in near-village pastures due to unregulated intensive cattle grazing. Other agricultural land is being degraded due to lack of crop rotation, no observation of technical norms for crop farming, and the high cost of mineral fertilisers. A lack of land management skills among farmers means that in some cases even manure is not being used. Land salinisation, waterlogging and poor irrigation also all lead to soil degradation. Productivity of agricultural crops is not high because of lack of good breeding and selection, and lack of elite seed funds, as well as the factors noted above. Another serious issue is lack of attention to improving soil fertility, limited pest control and lack of irrigation water.

According to key informants, prices for agricultural produce vary greatly and increase several fold on the path from producers to consumers. Prices for agricultural goods in rural areas are the lowest, higher in district and provincial centres, and the highest in Bishkek. Prices for agricultural products are lower when supply increases as a result of favourable weather conditions. Producers are dependent on middlemen who set purchase prices by bulk buying produce. Many middlemen operate on the market and it is practically impossible to enter the market independently to sell produce. FGD participants expressed the opinion that the government should be more active in setting prices for producers.

*Source: Rapid Multi Sector Needs Assessment, Office of the Resident Coordinator United Nations in Kyrgyzstan, November 2009.

Box 3. Food Security: Kyrgyz Republic.*

According to 48% of the vulnerable households surveyed, the economic situation at the household level has deteriorated significantly compared to last year. At the same time a third of households say that the situation deteriorated greatly. Only about 10% of respondents noticed some improvement of the situation in their households. The study showed that in all of the past 12 months there have been families experiencing shortage of food. Shortage is most prevalent in a “hungry season” of February – May. For instance in March, 80% of vulnerable households noted that they had problems acquiring food. The best months are September and October, when the number of families that experience food shortage declines to 13-14%.

In order to cope with food shortage, a number of strategies have been employed by the households interviewed. These include purchasing food on credit (84%), borrowing food or relying on help from friends (75%), reducing number of meals eaten per day (74%), seeking occasional work to buy food (74%), limiting portion size at meal times (74%) and relying on less expensive or less preferred foods (74%). Sixty-five percent of respondents reduce food consumption by adults so that children can eat enough. Special attention should be drawn to coping strategies involving children. Parents tend to give them cheaper less preferred foods or seek temporary work for children to find food.

*Source: Rapid Multi Sector Needs Assessment, Office of the Resident Coordinator United Nations in Kyrgyzstan, November 2009

Box 4. Tajikistan: Overall food supply situation and access to food*

The Agriculture sector. Agriculture is one of the most important sectors of the economy employing about 67 percent of the economically active population, accounting for 22 percent of the GDP and making around 10 percent of official exports in 2008. The importance of agriculture contrasts with the comparatively small area of arable land (7 percent of total area) as Tajikistan is a mountainous country. With 93 percent of its surface area taken up by a complex of east-west and north-south ranges forming the Tyan-Shan and Pamir mountain systems, half the country is at altitudes of more than 3 000 metres. Elevations range from 300 metres above sea level in the Ferghana Valley to 7 495 metres at the Ismail Somoni Peak in the Akademiya Nauk Range (Pamir). Huge glaciers covering more than 8 000 sq. km, mainly in the Pamir Mountains, are the primary source of water for Tajikistan's many rivers, which also feed the rivers of Uzbekistan to the west.

Food Supply. The significant increase in this year's cereal output is expected to result in a satisfactory food supply situation at national level during 2009/10 (July/June). As the expansion in food production has been widespread across regions and in both the main producer zones and marginal areas, food security is anticipated to improve in areas previously affected by poor harvests. However, despite the satisfactory food output at national level, the relatively high level of food prices continues to give rise to concern for the food security of low-income vulnerable populations, who spend a large share of their incomes in food and have seen their incomes reduced by the sharp decline in remittances this year. The situation of these populations needs to be closely monitored.

Credit supply. Farmer interviews including cooperatives, collective *dekhan* farms, and private *dekhan* farms indicate in almost all cases that interest rates of seasonal credit available to the farmer were above 20 percent and often above 30 percent. Additional 10 percent payments to *secure* the credit were frequently mentioned. Aga Khan Foundation small-scale credit available in GBAO region was reported to be less this year. In general, credit through banks was avoided or unavailable to the small farmers due to high interest rates and bad debts preventing uptake of seasonal agricultural loans. Corruption within the lending bodies is allegedly a significant feature as well as the risk involved with not insurance policies covering the cost to the borrower, while substantial guarantees are required by the lender.

Food Access. The country still has a high level of poverty with a per capita income of USD 550 (World Bank, Atlas method, 2008). It is estimated that about 53 percent of the population live below the poverty line established at USD 41 per month, and 17 percent below the extreme poverty line of USD 26 per month. While poverty is still high, these rates are a significant improvement over the levels of 64 percent in 2003 and 83 percent in 1999. About 71 percent of the poor and 76 percent of the extremely poor live in rural areas. The high poverty rate of people living in rural areas makes them exceptionally susceptible to weather shocks. Food comprises over 50 percent of total expenditures of Tajik households making the poor also susceptible to price shocks. Food prices of staple food, for example bread, remain well above the levels of September 2007, affecting food security of the vulnerable population. Tajikistan remains the poorest and among the most socio-economically fragile of the CIS countries. Social indicators, although having improved in the past few years, remain at low level, reflecting poor public service delivery, weak governance, persistent energy shortages and low per capita incomes. Tajikistan is the only country in the Central Asia region, which is at risk of not achieving most of its Millennium Development Goals (MDGs).

* Source- FAO Crop and Food Security Assessment Mission to Tajikistan, 22 October 2009, GIEWS, FAO, <http://www.fao.org/giews/english/alert/index.htm>