Asia-Pacific Economic Cooperation

THE ADVISORY GROUP ON APEC FINANCIAL SYSTEM CAPACITY-BUILDING

A Public-Private Sector Initiative

Third Meeting 2008
5 August 2008
Ballroom 3, Hyatt Regency Hotel
Hangzhou, People's Republic of China

Meeting Paper 7-C

FOOD AND FUEL PRICES
Recent Developments, Macroeconomic Impact and Policy Responses

International Monetary Fund
Fiscal Affairs, Policy Development and Review, and Research Departments

INTERNATIONAL MONETARY FUND

Food and Fuel Prices—Recent Developments, Macroeconomic Impact, and Policy Responses

Prepared by the Fiscal Affairs, Policy Development and Review, and Research Departments

(In consultation with other departments)

Approved by Teresa Ter-Minassian, Mark Allen, and Simon Johnson

June 30, 2008

Contents

Executive Summary

This report provides a first broad assessment of the impact of the surge in food and fuel prices on the balance of payments, budgets, prices, and poverty of a large sample of countries. It reviews countries' macroeconomic policy responses to date and also discusses Fund advice for managing the price increases. Policies should (i) ensure that food and finance reaches the most affected countries as quickly as possible, (ii) include targeted and scaled-up social measures, and (iii) avoid high costs in terms of macroeconomic instability or loss in future agricultural production. Collaborating with international partners, the Fund also stands ready to provide balance of payments assistance. As the paper presents an initial assessment of a still-evolving situation, the somewhat tentative nature of the analysis should be borne in mind.

The recent surges in oil and food prices reflect a confluence of factors. As more resources need to move into the two sectors, prices are expected to ease only gradually from recent highs, but remain subject to considerable uncertainty. Sustained global growth, especially in emerging and developing economies, has catalyzed demand growth for many commodities since 2003, including for oil, metals, and, more recently, food. At the same time, supply has been slow to respond to the demand impetus, notwithstanding rising prices. The price impact has been reinforced by other factors such as increased biofuels demand, and, mostly in 2008, more restrictive trade policies—particularly for rice. Purely financial factors, including market sentiment, can have short-term effects on the prices of oil and other commodities, but a lasting impact on recent oil price trends remains difficult to establish. The food price surge is expected to take longer than usual to unwind, given expectations of further increases in biofuels production continued strong growth in emerging and developing economies, and the cost impact of high oil prices. A lasting supply response is likely to be gradual and depend on improved policy frameworks.

The food and fuel price surges have greatly raised the policy challenges associated with reducing poverty, ensuring food security, and maintaining macroeconomic stability. Adverse balance of payments effects of higher food and fuel prices remained limited until recently, but are now having larger effects. A prolonged period with prices around or above current levels will place serious strains on the balance of payments of many countries. Furthermore, inflation is on the rise, hurting the poor, and fiscal balances are under strain.

Government responses to these pressures have varied:

Fiscal policies: Measures introduced include reductions in fuel and food taxes and tariffs, increases in universal subsidies, expansions in transfer programs, and public-sector wage increases. Roughly half of the countries surveyed reported a net increase in fiscal cost stemming from these measures, with a median annualized increase in 2007-08 of 0.6 percent of GDP. For about one-fifth of the countries, the fiscal costs exceed 1 percent

of GDP. The largest increases were driven by expansions in universal fuel price subsidies.

Monetary and exchange rate policies: Many countries have allowed the pass-through of the first-round effects of food and fuel price increases. The sharp increase in food and fuel prices so far in 2008 will raise headline inflation, and spillovers into generalized inflation have become an increasing concern, although many countries have tightened monetary policy. In many cases, the exchange rate has not been a major shock absorber.

Trade and other policies: Several countries have resorted to export restrictions and export taxes focused on key food commodities (e.g., rice and cereals).

Addressing the fuel and food crisis requires broad cooperation involving the countries affected, donors, and international organizations. A multilateral approach to addressing this global problem would enhance the effectiveness of the response and would help minimize negative spillovers, laying the foundations for improved supply over the medium term.

The Fund stands ready to help countries by providing policy advice and balance of payments support. On advice, the Fund helps countries, first, to put in place measures to protect the poor without compromising macroeconomic stability and growth and, second, to enhance the effectiveness of policy responses over the medium term. To promote efficiency and sound fiscal policy, higher global commodity prices should be passed through to consumers and producers. This, however, can have significant effects on poverty, requiring mitigating measures. Less than full pass-through and/or other fiscal measures to mitigate the impact of higher prices typically result in fiscal costs that need to be assessed carefully. Consumption tax decreases and universal price subsidies are not well targeted, result in over consumption, and may be difficult to reverse. Public-sector wages should be adjusted only in line with those in the private sector. A key challenge is thus to strengthen targeted transfer programs as part of the social safety net. More broadly, governments need to balance financing and adjustment, taking into account country-specific conditions and priorities.

Fiscal policy: Policy measures need to reflect each country's macroeconomic situation and capacity to create fiscal space. Some countries have the scope to loosen their fiscal positions to accommodate the cost of measures taken while others may need to create fiscal space to offset these costs. Countries that find it difficult to create fiscal space will need to limit the size and duration of fiscal responses or seek outside assistance.

Monetary and exchange rate policies: While the first-round effects of higher food and fuel prices on inflation should generally be accommodated, monetary policy should seek to avoid spillover to more generalized inflation. To the extent that the shocks are deemed permanent, they will likely call for a real exchange rate depreciation for net importers.

Trade policies: Global food markets need to be kept open, with restrictive policies such as export taxes and bans removed to maintain incentives for producers and consumers. Tariff reductions can help reduce inefficient trade distortions and mitigate price increases.

Fund financing is provided through PRGF arrangements, several of which have recently been augmented. And, the Exogenous Shocks Facility is being streamlined to make it more useful.

I. Introduction

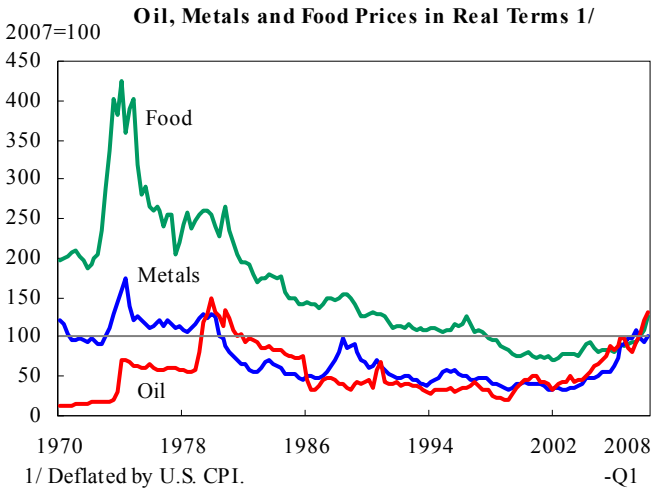
1. **The recent sharp increases in food and fuel prices have had adverse effects on the poor and could pose risks to macroeconomic stability in a number of low and middle-income countries.** In collaboration with its international partners, the Fund has been actively involved in the provision of advice and support to address the urgent concerns, at both multilateral and bilateral levels.

2. **This paper provides an analysis of the macroeconomic policy challenges resulting from the price surges.** It presents an overview of their impact on the balance of payments, budgets, inflation, and poverty, and discusses recent policy responses, as well as the Fund's policy advice. At this stage, the analysis does not cover the impact of the price increases on economic growth in the countries concerned. The growth effects will depend not only on maintaining appropriate macroeconomic policies, but also on sectoral policy responses, in particular for agriculture. Following the improvements in fiscal and monetary policies and institutions in many low-income countries during the past decade or so, the current price increases present a challenge to their effectiveness and robustness. Fund advice has focused on the promotion of targeted social measures in the affected countries, while avoiding policy responses with high costs in terms of macroeconomic instability or losses in future production and that provide insufficient protection to the poor.

3. **The paper is structured as follows:** To set the stage, Section II provides an overview of the causes of the recent surges in food and fuel prices and the prospects going forward. Section III discusses the impact of the price increases on the balance of payments, inflation, and poverty in low and middle-income countries. Section IV presents an overview of the policy responses adopted so far, with emphasis on fiscal policies. Finally, Section V, on the role of the Fund, sets out the Fund's policy advice and its role in providing balance of payments financing.

II. High Fuel and Food Prices: An Overview of Developments, Causes, and Prospects

4. **The global economy is in the midst of the broadest and most buoyant commodity price boom since the early 1970s. Against the backdrop of** strong global growth in 2004–07, prices of many commodities have been booming. Oil prices in particular have risen from $30 a barrel in early 2003 to around $140 by end-June, some 35 percent above the earlier



record high in real terms in 1979. Prices of food commodities only started booming in 2006—much later than those of oil, metals, and other minerals—and are generally still far below their 1970s highs. Among food prices, those of grains, edible oil, and protein meals accounted for the bulk of the increase in the IMF's overall price index.

5. **Emerging and developing economies have been the main source of the growing demand for commodities.** While favorable global macroeconomic conditions have provided the backdrop for the broad-based commodity price boom, it has been the strong growth in emerging and developing economies that has catalyzed demand for commodities**.** Economic growth in these economies is relatively more commodity-intensive in nature than that of advanced economies, given industrialization take-off and strong per capita income growth from a low base (as reflected in rising meat consumption and household vehicle ownership). Thus, slowing growth in advanced economies has had less impact on commodity prices than in previous business cycles.

6. **In the oil market, the price impetus from demand forces has been amplified by a sluggish supply response, which has led to a perpetuation of very low spare capacity and tight market conditions.**

- After decades of substantial spare capacity, demand largely caught up with capacity early on in the current oil price cycle. However, the supply response to robust demand growth and high prices has been sluggish, and there is now widespread consensus that the production and distribution capacity will be slow to build up reflecting soaring investment costs, technological, geological, and policy constraints. High oil prices along the entire futures price curve now partly reflect expectations that only sustained high prices will induce the investment required to satisfy demand going forward.

- Financial conditions have temporarily added to upward price pressure earlier this year. In particular, the drop in real policy interest rates and U.S. dollar depreciation likely contributed to the rising prices of oil and other commodities through their impact on physical oil demand and supply. In contrast, there is no compelling evidence that the increasingly prominent role of oil and other commodities as an asset class has affected price trends for oil and other commodities, although purely financial factors, including shifts in market sentiment, can have short-term price effects.[1]

7. **In the food markets, unfavorable weather conditions, rising fuel costs, rising biofuels production, and, more recently, trade restrictions have added to upward price pressures.**

---

[1] See Appendix 1.1 in the September 2005 *World Economic Outlook*, Box 5.1 in the September 2006 *World Economic Outlook*, and Box 1.4 in the April 2007 *World Economic Outlook*.

- On the supply side, production of the four major food crops has not kept up with rising demand growth in recent years, and inventory levels of these crops have declined to levels last seen in the early 1970s. Against this backdrop, unfavorable weather conditions in a number of countries led to a bad wheat harvest in 2007 for the second consecutive year and a sharp bidding-up of wheat prices, with spillovers into other crops through substitution effects. Furthermore, the recent rise in oil prices has boosted production costs of food commodities.

- Rising biofuels production in advanced economies—in response to higher oil prices, and, increasingly, generous policy support—has boosted food demand. In particular, rising corn-based ethanol production has accounted for about ¾ of the increase in global corn consumption in 2006-7. This has not only pushed up corn prices, but also prices of other food crops and, to a lesser extent, edible oils (through consumption and acreage substitution effects), and poultry and meats (feedstock costs).

- A growing number of food exporters and importers have begun to use trade policies to raise domestic food supplies and lower domestic prices, with lower exports of major producers putting pressure on world prices. In the case of rice, staff estimates suggest that recent export restrictions by some major exporters—including India, China, Vietnam, Cambodia, and Egypt, which together supplied around 40 percent of global rice exports in 2007—have likely accounted for a substantial part of the price surge this year.

8. **Looking forward, oil and food prices are expected to ease only moderately from recent highs as more resources need to move into the sectors to alleviate supply constraints.**

- **Futures markets suggest that oil prices will ease gradually over the next five years, with a wide band of uncertainty**. Futures prices embed the widely shared expectation that only high prices will induce the capacity expansion needed for continued robust oil demand growth. Prices for oil futures options also imply a much wider than usual band of uncertainty. This reflects a broad range of views by market participants about downside risks to near-term global growth prospects, the medium-term evolution of demand and supply—including their responses to sustained high prices.

- **Food prices are also projected to ease only gradually in the short-term, but a more substantial easing is expected in the medium term.** Expectations of better harvests in 2008–09 have already led to significant easing in wheat prices, and some other prices have also eased from recent peaks. Nevertheless, the recent price surge is expected to take longer than usual to unwind, as rising biofuels production in the

United States and the European Union and continued strong demand from emerging and developing economies will likely sustain robust consumption growth. The supply response to this higher growth is likely to be gradual, but not as protracted as in the oil sector, and depend on improved policy frameworks to encourage lasting increases in yields and overall acreage for planting.

III. MACROECONOMIC IMPACT

9. **Higher food and fuel prices have serious macroeconomic effects throughout the global economy, including adverse effects on growth and inflation, and large swings in the terms of trade—with important balance of payments repercussions.** This section focuses on the immediate effects of the higher food and fuel prices on the balance of payments of net importers of these items, on overall inflation, and on poverty, both across and within countries. The final impact of the price increases is highly dependent on the policy responses, which is covered in the next sections. The analysis concentrates on PRGF-eligible and middle-income countries (MICs)[2] and is based in part on the results of a questionnaire completed by country desks.

A. Balance of Payments Impact: Identifying the High-Impact Countries

10. **While higher food and fuel prices have the potential of generating serious balance of payments problems, until recently, the effects remained relatively limited.** In particular, the large increase in world oil prices since 2003 has had a relatively small macroeconomic impact on low-income countries (LICs).[3] Stronger exports reflecting favorable global conditions, a compression of oil import volumes due to the pass-through of world prices to domestic consumers, debt relief, and a large increase in capital inflows helped low-income countries cope with the higher oil prices. The increase in world oil prices was also more gradual than during earlier episodes, giving countries time to adjust.

11. **However, the most recent increases are having larger balance of payments effects.** For the 33 PRGF-eligible net food-importing countries with available data, the adverse balance of payments impact of the increase in food prices during the last 16 months (i.e., from January 2007 until April 2008) is estimated at 0.5 percent of 2007 annual GDP (US$2.3 billion, or 0.2 months of 2008 imports of goods and services). In the same time period, the impact of the increase in oil prices on the 59 PRGF-eligible net oil importers is

[2] MICs are defined as not PRGF-eligible nor pertaining to the WEO list of advanced countries.

[3] See Dudine, Paolo, James John, Mark Lewis, Luzmaria Monasi, Helaway Tadesse, and Joerg Zeuner, 2006, "Weathering the Storm So Far: The Impact of the 2003–05 Oil Shock on Low-Income Countries," IMF Working Paper 06/171.

estimated at 2.2 percent of GDP (US$35.8 billion, or 0.7 months of 2008 imports of goods and services).[4]

12. **The size of further balance of payments problems is highly dependent on the permanency of the price increases as well as on the risk of further increases.** The Spring 2008 World Economic Outlook (WEO) assumed an increase of oil and food prices between 2007 and 2008 of 34.3 percent and 18.2 percent, respectively. This was projected to result in an increase in the net food import bill for the 33 net food importers between 2007 and 2008 by 0.8 percent of their 2008 GDP (US$3.9 billion, or 0.3 months of 2009 imports).[5] For the 59 net oil importers, the increase of the net oil import bill would amount to 0.9 percent of 2007 GDP (US$18.8 billion, or 0.4 months of 2009 imports). If food and fuel price moderate during subsequent years as foreseen in the WEO projections, these balance of payments effects would also diminish, especially in conjunction with envisaged adjustment policies. However, further or more lasting price increases could result in more serious balance of payments needs.

13. **Against this background, this section assesses the impact on the balance of payments of possible further increases in food and fuel prices in 2008 and 2009.** It attempts to identify countries most heavily impacted by further price shocks. A key finding is that further oil price increases would have larger and more widespread adverse balance of payments effects than similar food price increases.

14. **The estimated effect of a further increase in oil and food prices on international reserves is used to measure its impact.** In particular, the exercise compares the 2008 Spring WEO baseline projections for 2008 and 2009 with an alternative scenario for these two years in which food and fuel prices are 20 percent higher than in the baseline.[6]

---

[4] The average percentages are weighted by GDP. See Appendix I.

[5] These estimates cannot be added to those presented in the previous paragraph, as they partially overlap; both include the impact of the price increases in early 2008. An important difference between the estimates is that those in the current paragraph incorporate projected policy responses and available shocks financing.

[6] More precisely, this estimate is based on questionnaire data from country teams as of April 2008 and WEO projections for reserves accumulation during 2009 as of February 2008. GDP and imports projections, which serve as denominators for the presented indices are also adjusted to reflect the effect of the shocks. See Appendix II, for a more detailed discussion of the methodology.

- For oil prices, this alternative scenario can be considered conservative, as the assumed price increase corresponds with the actual rise in oil price projections since then.[7]

- For food, assuming prices to be 20 percent higher than projected for 2008 and 2009 at the time of the latest WEO submission can be seen as a "worse case" scenario, illustrating the policy challenges associated with a further price shock. The projections underlying the Spring 2008 WEO have not yet been revised . However, food prices remain uncertain, and the price surges of 2007 and early 2008 also had not been anticipated.

It is important to note that the absolute numbers for the size of these shocks are generally smaller than the actual shock already faced by countries, on the basis of 2008 estimates—as presented above. For simplicity, it is assumed that each country draws on its reserves to cover the additional cost stemming from rising oil and food import prices. On that basis, the analysis identifies both the magnitude of the increase (measured as the change in reserves in months of imports) and the level of reserve coverage before and after the increase. The focus on simple measures of reserves provides a useful snapshot regarding the impact of the increase and the ability of countries to withstand it without major external adjustment and/or assistance. We present the results on the current account and reserves both for each increase in isolation and for a combined increase.[8]

15. **The results of the presented price increase exercises are for illustrative purposes only, with simple underlying assumptions allowing for cross-country comparison, and should not be considered as actual projections at the country level**. Thus, these estimates cannot form the basis for country-specific assessments of the impact of the shocks and resulting needs for financing. In particular, the analysis assumes that there are neither policy or behavioral responses to the increase in prices. In addition, different components of the food trade balance have not been distinguished, even though price increases have diverged greatly across food items, thus affecting countries differently depending on the composition of their food trade.[9]

---

[7] We model the difference in oil prices from the February WEO projection (US$95 per barrel for 2008 and US$ 94.50 for 2009) to the latest projection (US$ 112 per barrel in 2008 and US$ 116.25 in 2009), which corresponds to an average increase of 20.4 percent.

[8] Area department's projections for the Spring WEO and information on food trade in response to questionnaire to area departments constitute the baseline for our exercise. Only major revisions were included: for example, Mauritania and Vietnam were projected to become net oil importers rather than net oil exporters in 2008 shortly after the release of the WEO. These changes have been incorporated in our exercise.

[9] A more complete list of the relevant caveats comprises the following: (i) in order to reflect the entire impact of the shocks into one simple measurement, full financing through reserves is assumed and policies are hence assumed to remain unchanged; (ii) in order to concentrate on the price effect, zero elasticity in import and

(continued)

16. **The choice of reserves coverage as a measure of impact raises a number of additional limitations.** We consider a country to be "high impact" if the price increases lead to a "severe" reduction in coverage, i.e., by more than 0.5 months of imports of goods and services, and a reserves level as "low" if coverage falls or remains below 3 months of next year's imports of goods and services. Both labels should be considered just as rules of thumb. In particular for dollarized economies (such as El Salvador and Panama) and countries that participate in currency unions (such as the CFA franc zone and the ECCU) and thus benefit from reserve pooling, these simple benchmarks may be less informative. [10]

17. **A rise in oil prices is expected to have a larger balance of payments effect than a similar food price increase.** Because oil imports are 2½ times larger than food imports for low-income countries and twice as large for MICs, the oil price increase would have a larger balance of payments impact, assuming equal price increases and no behavioral or policy response. Indeed, the oil price increase would severely weaken the external position of 81 countries, while the food price increase would have a severe negative effect for 16 countries, and the combined price increases for 72 countries. The latter finding points to a number of countries where the negative oil price increase could be compensated by gains from the food price increase. (Table 1 and Appendix I, Table 1).

---

export volumes is assumed (iii) different components of the food trade balance have not been distinguished; (iv) there is no uniform definition of food or the food price baseline across countries; and (v) some potentially offsetting or aggravating developments from correlated shocks are not included in the scenarios.

[10] A further qualification is that total imports may not provide the appropriate measure for scaling reserves, for example, because of exceptional imports associated with re-exports or high FDI. The measure also does not recognize that part of the change may be channeled through special funds, such as oil funds, rather than reserves. More generally, other indicators are also of relevance (for example, the size of the shock in terms of government revenue).

Table 1. Number of Countries Affected by Food and Oil Price Increases

	PRGF	MICs
Countries with severe negative shocks [1]		
Oil price shock	48	33
Food price shock	13	3
Combined shock	42	30
Countries with positive shocks [2]		
Oil price shock	11	23
Food price shock	30	28
Combined shock	23	23
Countries with less-than-adequate reserves		
Before the shocks	30	18
After the oil price increase	37	26
After the food price increase	27	19
After the combined shock	37	25
Total Countries	74	71

Notes: [1] *drop in reserves larger than 0.5 months of imports*
[2] *shock results in an increase in reserves.*

Oil Price Increase

18. **For many countries, a rise in oil prices would significantly weaken the balance of payments.** The results show a "high impact" in 48 PRGF-eligible countries and 33 MICs (implying a loss of reserves exceeding 0.5 months of imports). Thirty-eight of the 48 countries that already had reserves of less than three months of imports are net oil importers, whose reserves position would deteriorate further in case of an oil price increase. For 21 PRGF-eligible countries and 7 MICs within this group, the oil price increase would have a high impact.[11] These results are also illustrated in Figure 1, which depicts the impact of the price increase on the horizontal axis, and reserves coverage after the price increase on the vertical axis. The lower left corner shows the countries that would both suffer from a relatively large balance of payments impact and with reserve coverage after the price increase falling short of the three-months benchmark—including Tonga, Togo, Sierra Leone, Eritrea, and Pakistan in the group of low income countries and Jamaica, Dominican Republic, Fiji, and Jordan in the MIC group.

Food Price Increase

19. **For most countries, the estimated balance of payments effect of a further 20 percent increase of food prices would be less severe than the effect of a similar oil**

[11] In major metal exporters such as the Kyrgyz Republic, Mongolia, Mauritania, and Guyana, the favorable terms of trade effects of higher prices for their main export commodities may offset the negative effects of higher fuel and/or food prices on external balances if the shocks were correlated.

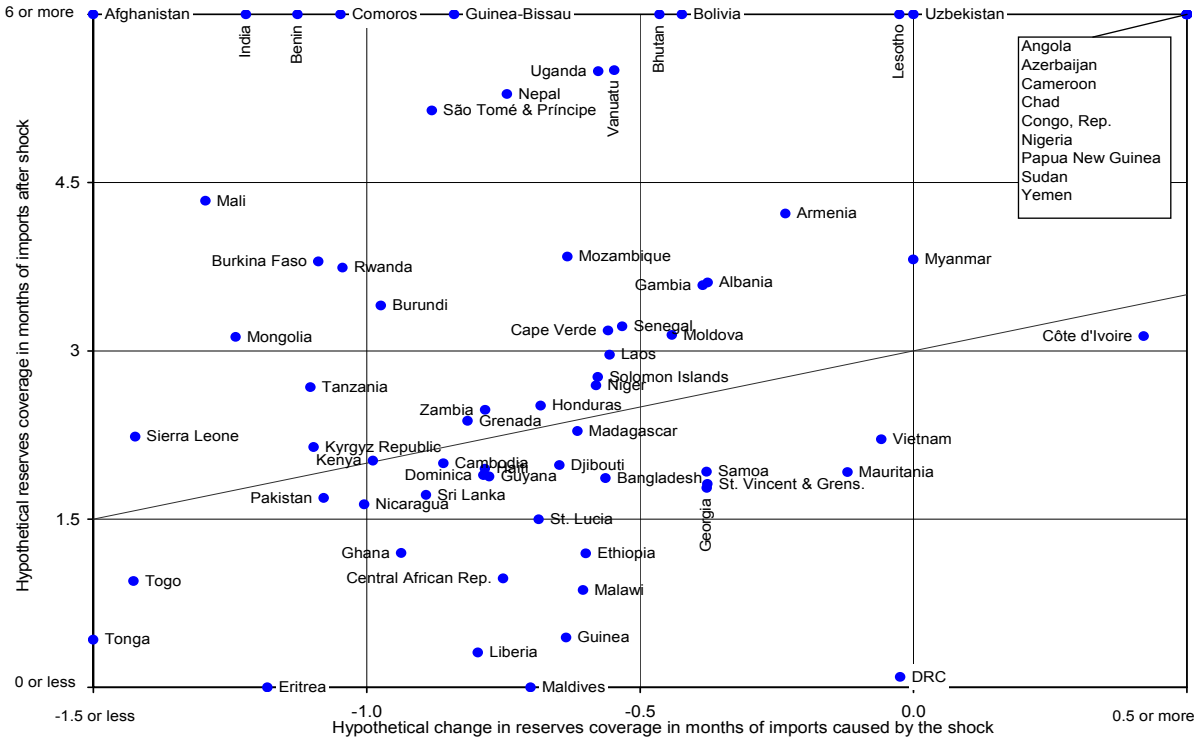
price increase. For 13 PRGF-eligible countries, and 3 MICs would there be a high adverse impact. Among the countries with low reserves before the price increases, 19 PRGF-eligible and 14 MICs would suffer further from the food price increase. On the other hand, 21 PRGF-eligible and 25 MICs would gain from higher food prices. The lower left corner of Figure 2 shows the high-impact countries with reserves coverage below three months after the food price increase, including Eritrea, Liberia, and Tajikistan in the group of low-income countries and Bahamas, Seychelles, and Namibia in the MIC group.

Combined Oil and Food Price Increase

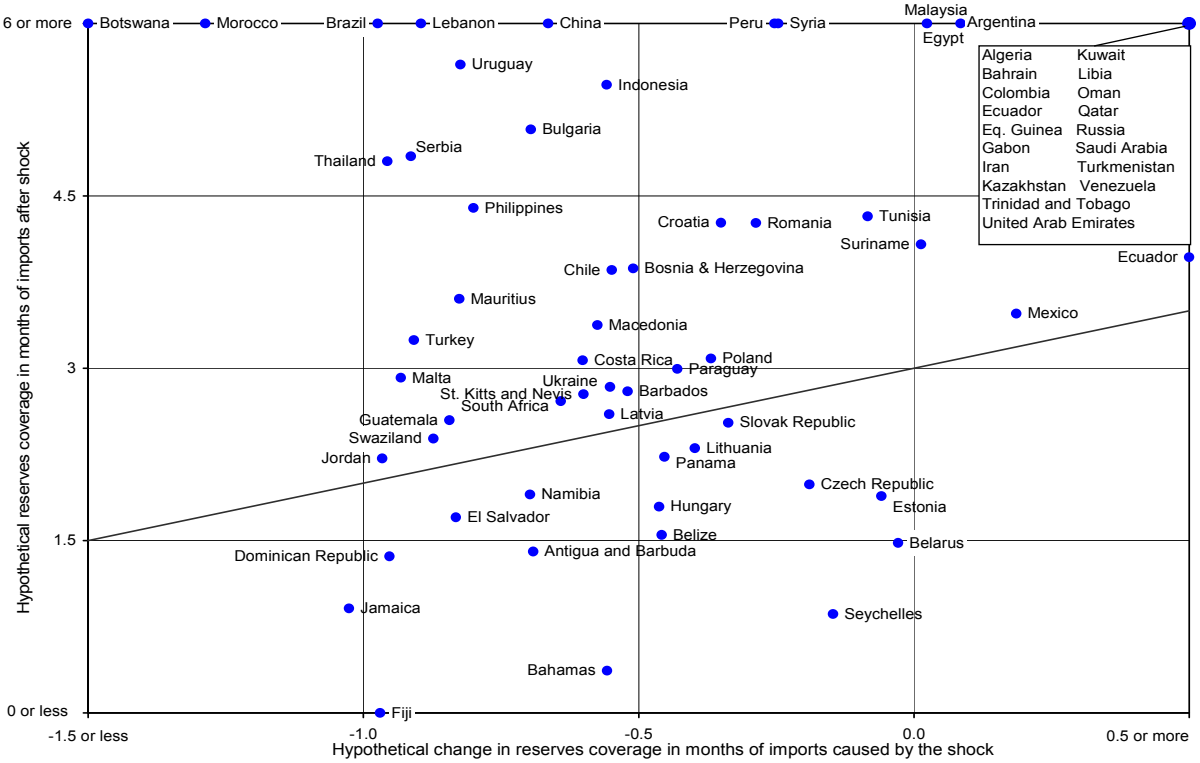
20. **A combination of the two price increases leads to offsetting outcomes in some countries but mostly aggravates the situation.** Forty-two PRGF-eligible and 30 MICs suffer from a high-impact negative combined price increase. Thirty-seven PRGF-eligible countries and 25 MICs would be left with reserves below a safety level of three months of imports after the combined price increase. Of the 48 countries with low reserves before the price increase and available data, 41 see their reserve coverage decrease further. On the other hand, reserves increase above three months of import coverage in Qatar and Sudan (which gain from the oil price increase), in Cote d'Ivoire (a net food exporter), and in Ecuador (both a net oil and food exporter). (see Figure 3).

Figure 1. Impact of an Oil Price Increase 20 percent higher than WEO's last baseline

a. PRGF-Eligible Countries



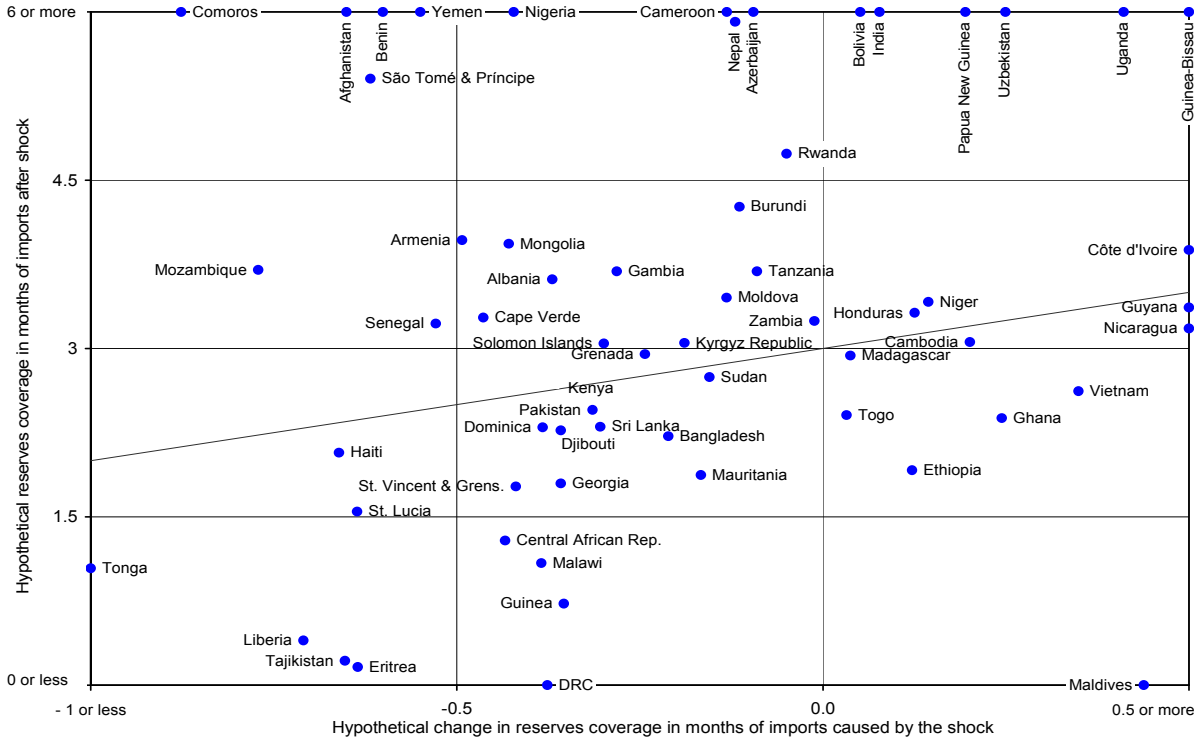
b. Middle-Income Countries



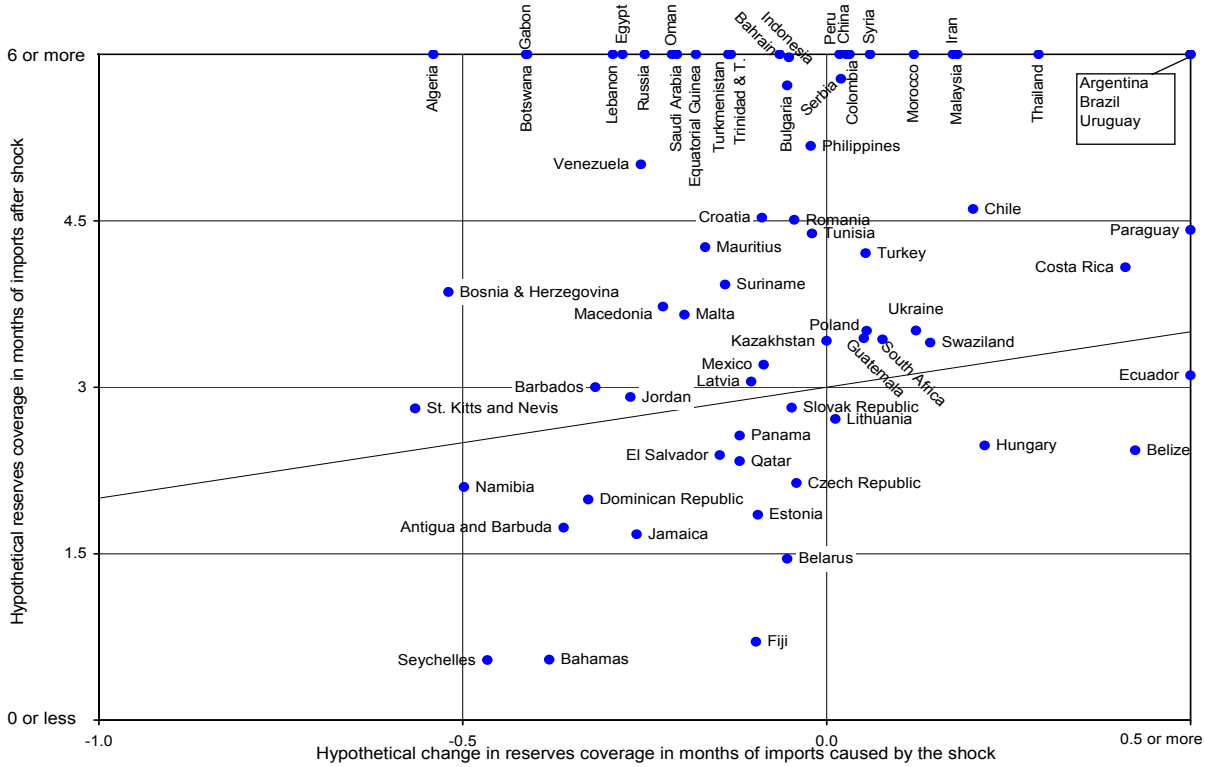
Note: Countries above the diagonal lines have had a reserves coverage of more than 3 months of imports before the price increase.

Figure 2. Impact of a Food Price Increase 20 percent higher than WEO's last baseline

a. PRGF-Eligible Countries



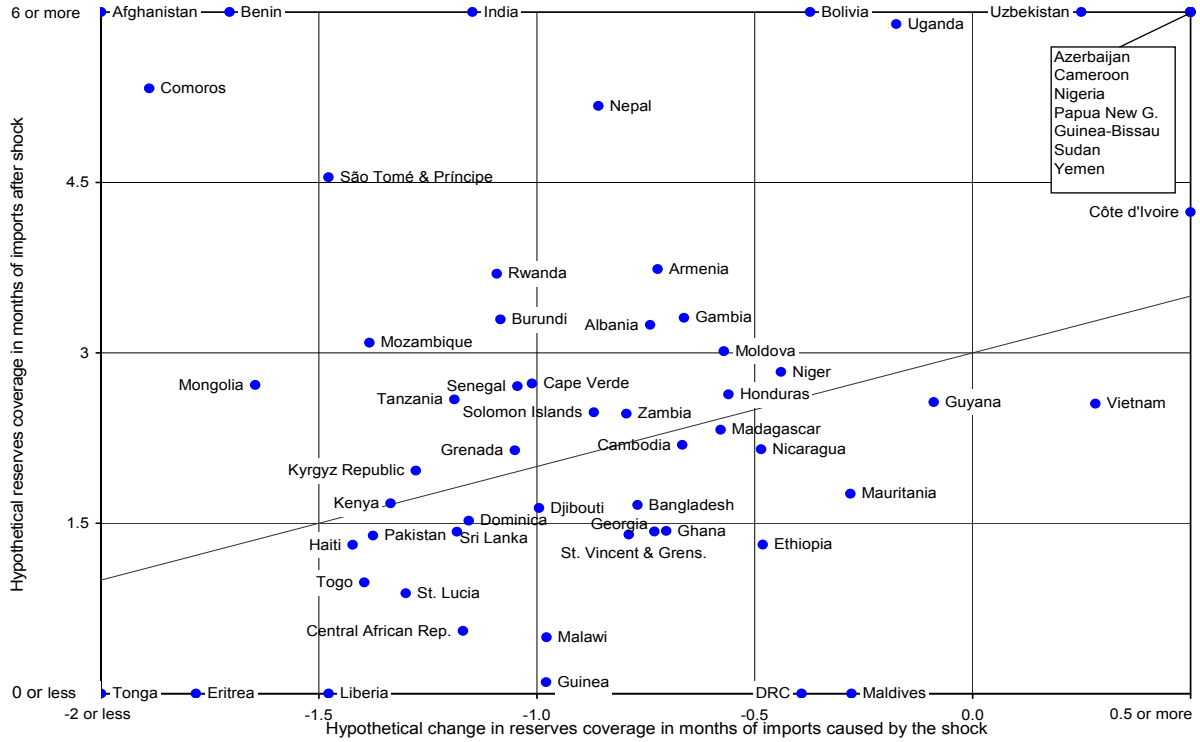
b. Middle-Income Countries



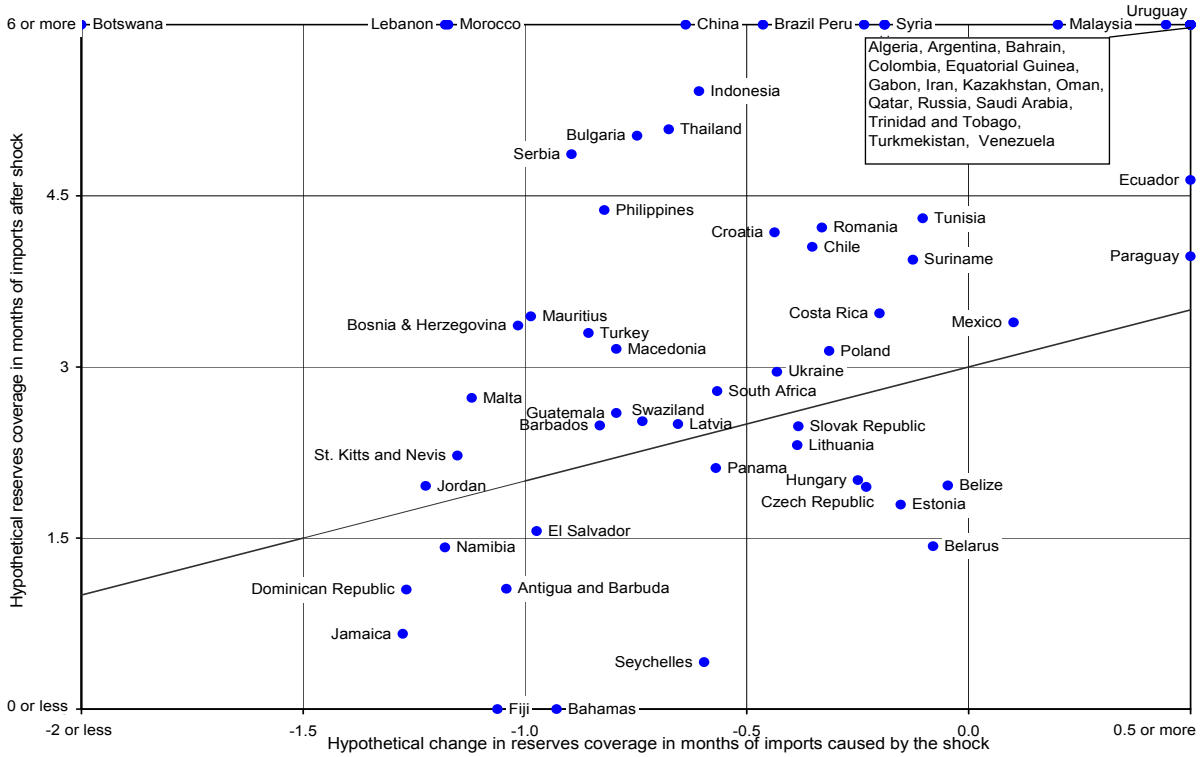
Note: Countries above the diagonal lines have had a reserves coverage of more than 3 months of imports before the price increase.

Figure 3. Impact of a Food and Oil Price Increases 20 percent higher than WEO's last baseline

a. PRGF-Eligible Countries



b. Middle-Income Countries



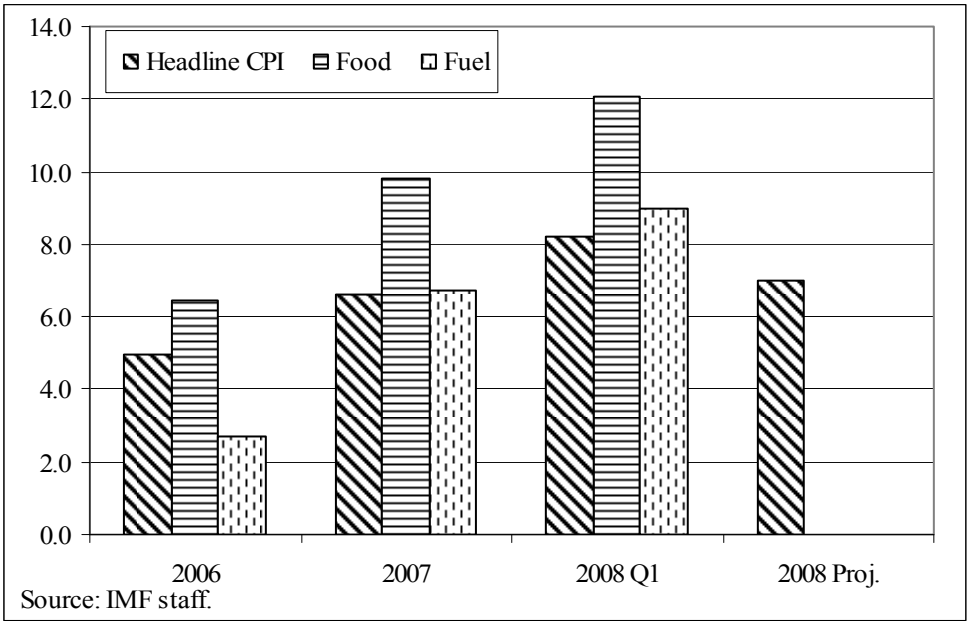
Note: Countries above the diagonal lines have had a reserves coverage of more than 3 months of imports before the price increases.

B. The Impact on Inflation

21. **Higher food and fuel prices have already led to substantial increases in headline inflation, particularly in emerging markets and low-income countries**. International food and fuel prices are for the most part denominated in U.S. dollars. In many countries, an appreciation of the nominal exchange rate vis-à-vis the U.S. dollar during 2007 and the first few months of 2008 has provided some relief from the higher international prices. However, notwithstanding the dampening effects of exchange rate movement, global food price inflation (weighted by GDP in purchasing power parity terms) almost doubled in 2007. While food inflation in advanced economies was relatively low (below 3 percent), the figure is almost 10 percent for developing countries, and would have been higher in the absence of food subsidies. Compared to advanced economies, reflecting less liberalized price setting mechanisms, low-income countries have so far allowed less of the higher international fuel price increases to be passed through to the retail level.

22. **Preliminary country team data through the first quarter of 2008 indicate that global food and fuel inflation has accelerated further this year** (Figure 4). The median 12-month rate of food price inflation for a sample of 120 non-OECD countries rose from 10 percent at end-2007 to 12 percent at end-March 2008, almost twice the median food price inflation rate of 2006. Median fuel price inflation is up by 2.3 percentage points, from 6.7 percent at end-2007 to 9 percent at end-March 2008. Actual 12-month inflation in March 2008 exceeded IMF staff projections for the end of 2008 by more than one percentage point.

Figure 4. Median Inflation in 120 non-OECD countries (y-o-y, in percent)



Source: IMF staff.

23. **Several countries have experienced a substantial acceleration of inflation since end-2007 (Table 2)**. In some of these countries the inflationary impact of rising food and fuel prices is likely to have been amplified by continuing demand pressures (e.g., Egypt, Ethiopia, Pakistan, Sri Lanka, and Ukraine). In others, reflecting low income levels, much of the food basket includes products that are unprocessed or have little value added, causing a relatively high pass-through of increases in imported food prices (e.g., Haiti). In several cases, the inflation accelerations were also associated with large step adjustments in energy prices as existing fuel subsidy schemes became too costly (e.g., Ethiopia, Jordan, and Sri Lanka).

Table 2. Strong Accelerations in Inflation

(increase in the 12-month rate of inflation since end-2007)

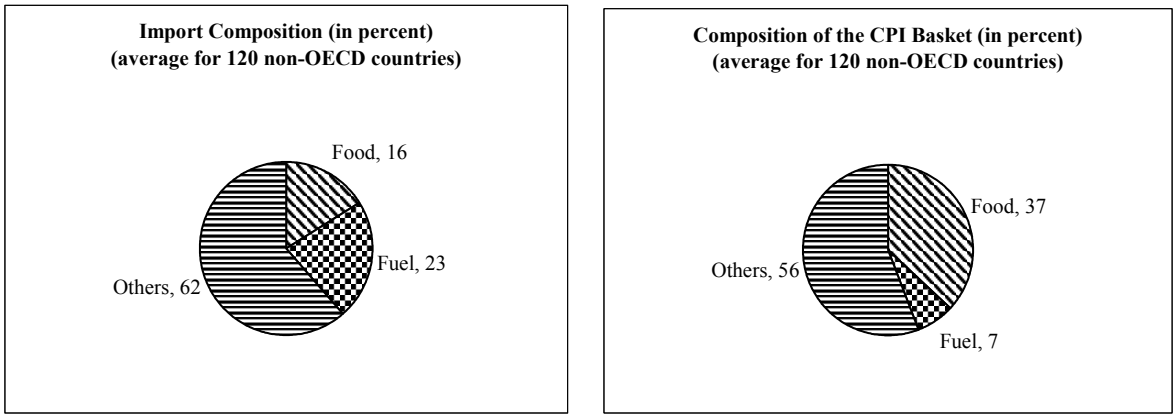
Ethiopia	13.9	March
Vietnam	12.6	May
Ukraine	9.6	March
Jordan	9.7	April
Pakistan	8.4	April
Egypt	7.9	April
Kyrgyz Republic	7.7	May
Sri Lanka	7.5	May
Haiti	7.0	March
Tajikistan	6.9	April
Sao Tome	6.2	March
Libya	5.8	March
Mongolia	5.5	March
Suriname	5.4	March
Paraguay	5.3	May
Venezuela	5.3	March
Tonga	5.2	March
Azerbaijan	5.1	May

Source: IMF staff.

24. **Food price developments are much more significant—in the first instance—for the evolution of overall inflation than fuel price changes, particularly in low-income countries** (Figure 5). The share of household expenditure spent on food typically far exceeds the direct share of oil-related products and services. The 2006 average weight of food in the CPI of 37 percent is more than five times higher than the one for fuel at about 7 percent. Therefore, for every one percent increase in food prices, overall inflation increases by 0.37 percent, compared to 0.07 percent for every one percent increase in fuel prices. However, this conclusion should be tempered for two reasons. First, the direct impact of fuel price changes *understates* the importance of fuel because it is an intermediate input into most other goods. Second, the weight of total food *overstates* the importance of food because the

category is much broader than the importance (both direct and indirect) of the food commodities currently experiencing rapid price increases.[12]

Figure 5. Food and Fuel Weights in Imports and in the CPI Basket

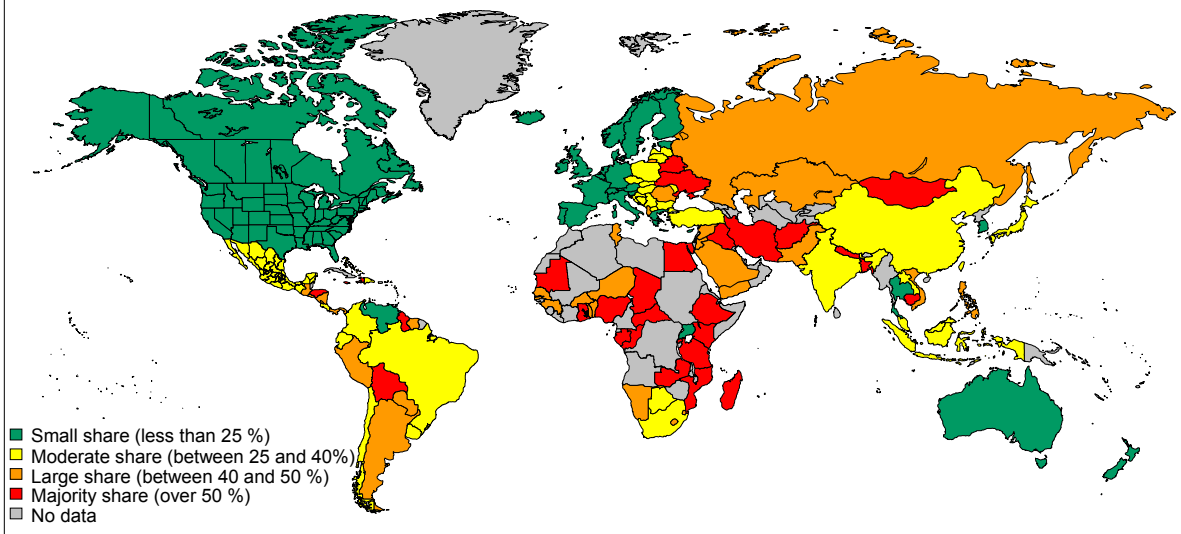


C. Impact on Poverty

25. **Rising food and fuel prices both have adverse effects on poverty; however, for the direct poverty impact, the main concerns typically relate to the higher cost of food especially for the urban poor.** The main reason is that the share of household expenditure spent on food typically far exceeds the direct share of oil-related products and services, particularly in emerging and developing economies. In large emerging economies, the share typically exceeds 25 percent, and in developing economies, it is often above 50 percent (see Figure 6). In contrast, the share spent on fuel is typically below 10 percent, partly reflecting high domestic fuel subsidies in some countries. In advanced economies, the share of household expenditure on food in total income is much lower, but still above 10 percent. However, cumulative fuel price increases over the last three years have been significantly larger than those on food prices, even when considering the latest months of accelerating food prices. This factor, combined with the indirect impact of fuel price increases on household real incomes, which country cases have shown to be larger than the direct impact, are important reasons not to discount the overall impact of fuel price increases on the poor (see Box 1).

[12] The increase in prices for some food staples (such as corn and soy) has also contributed to increases in the prices of other food items such as meats and poultry.

Figure 6. Shares of Food, Beverages, and Fuel in Household Expenditure, 2007 1/



Source: IMF staff estimates, based on expenditure weights used by countries to calculate the CPI.
1/ Definition of fuel weights vary and in some cases may include public transport and fuel for heat.

Box 1: Country Examples of Distributional Impact of Fuel and Food Price Increases

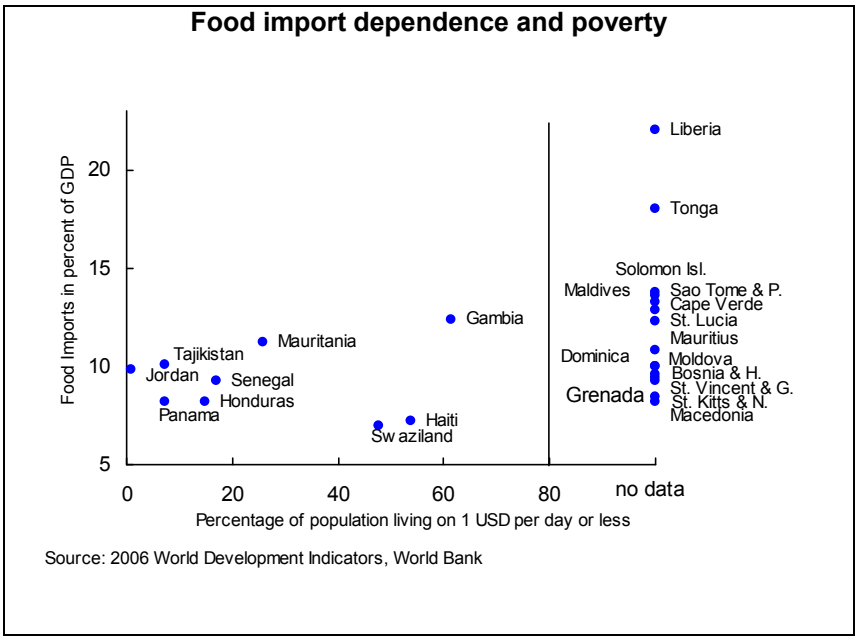
The welfare effect of higher fuel prices on household real incomes will depend both on the *direct effect* of higher prices for petroleum products consumed by households and on the *indirect effect* on the prices for other goods and services consumed by households that use petroleum products as intermediate inputs.

Often—and particularly for poorer households—the bulk of petroleum is consumed indirectly through household consumption of other goods and services that use petroleum products as inputs. For example, a recent analysis for Senegal combining household survey data and input-output model found the indirect effect of fuel price increases on household real income was nearly 3.5 times larger than the direct effect. It also showed that fuel price increases are progressive, mainly due to the indirect impact, and that the overall impact of fuel price increases is more than 50 percent higher for urban than for rural households. Similar impacts were found in a recent country case study for Bolivia, Ghana, Jordan, Mali, and Sri Lanka, showed that in all cases (D. Coady and others, "The Magnitude and Distribution of Fuel Subsidies: Evidence from Bolivia, Ghana, Jordan, Mali, and Sri Lanka", IMF Working Paper No. 06/247).

Finally, Senegal also illustrates how overall food inflation can differ significantly from food commodity inflation. Over the past 12 months, the price indices for cereal grains and milk increased an average of 27 percent, but the overall CPI for food increased by a much smaller 9 percent.

26. **Within countries, the urban poor are the most affected by high food and fuel prices, as the rural poor are more likely to be at least partially self-sufficient in food supplies.** Low-income households are least able to protect their income from inflation, but domestic distributional issues are important in analyzing the most vulnerable groups, not only to higher inflation, but equally as important, to changes in relative prices. The urban poor, together with food-deficit farmers, are the worst affected by food price inflation, because they rely on food purchases for their food supply. Although better protected, even food-surplus farmers may not benefit from the food price surge, as the pass-through of higher input costs (fuel, fertilizer, and transportation) is often faster than that of world market prices for food. Finally, the share of undernourished could rise rapidly above the current 40 percent of total population in developing countries.

27. **High import dependence combined with a high incidence of poverty makes countries more vulnerable to rising food prices.** Low quality data, especially for the most affected poor small countries, make an assessment of the poverty impact difficult. From current estimates, it appears that the Gambia, Swaziland, Mauritania, and Haiti are among the countries with most severe poverty impact of food import price increases.



IV. Countries' Policy Responses

28. **The countries most vulnerable to the higher international food and fuel prices typically face a menu of options that is constrained by their limited access to foreign financing, low reserve cushions, or high external or public debt burdens.** External financing that could help the private or public sectors cushion their adjustment may be limited. And central bank credibility can be lower in some of these countries, necessitating extra caution in monetary policy. Therefore, to the extent donors are not providing more aid to alleviate balance of payments pressures, these countries will have little choice but to gear their macroeconomic policies to facilitating the economy's rapid adjustment to the terms of trade shock, through a combination of price adjustment—involving real depreciation and pass-through of world market prices—and fiscal adjustment to offset the higher fiscal costs.

A. The Nature and Cost of Fiscal Responses to Higher Food and Fuel Prices

29. **Increasing world prices for fuel and food products present a difficult policy challenge for governments**. Passing these price increases on to consumers results in a decrease in real incomes for households, especially poor households. On the other hand, passing through the higher prices encourages producers to increase supply and consumers to decrease demand, thus either reducing the adverse impact on the current account balance of net importing countries or increasing the gains to net exporting countries. Without the increases in supply and reductions in demand engendered by full pass-through of world prices, the upward pressure on world prices will be exacerbated. Moreover, less than full pass-through results in fiscal costs that require offsetting measures or additional donor support and can potentially reverse key fiscal and structural reforms. The policy challenge is largest for countries that must rely on imports for food and fuel.

30. **The policy challenge is to ensure that economic efficiency and stability are maintained while at the same time protecting vulnerable population groups.** The best option in the longer term is to develop a well-targeted social safety net that can protect vulnerable households in the face of rising prices. However, the design and implementation of such a program is itself a challenge, and countries have had to resort to less direct policy measures to mitigate the adverse effects of recent price increases.

Changes in Fuel Taxes and Subsidies

31. **This sub-section focuses on tax rate reductions and subsidy increases implemented in response to recent price increases in petroleum products.** The analysis is complicated, however, by the fact that countries use a variety of methods to set fuel prices. It is straightforward to measure changes in taxes and subsidies in countries where petroleum product markets are liberalized or in which prices are set according to rigorously applied formula. In many countries, however, prices are controlled, or price formulas, even though they exist, are ignored. This makes it difficult to sort out the level of price distortion, tax preferences, and subsidies.

32. **Pricing regimes largely explain the degree to which world prices are passed through to local markets.** Liberalized and automatic fuel pricing mechanisms are associated with the highest level of retail fuel prices and price pass-through. In 2007, average retail fuel prices in countries with liberalized and automatic pricing mechanisms were about 25 percent higher than in countries that adjusted prices on an ad hoc basis. In addition, these countries had an average pass-through of international prices between 2003 and the end of 2007 of 121 percent, as compared with 75 percent for countries with ad hoc pricing mechanisms.[13] Oil importers are more likely to have liberalized pricing regimes than oil exporters, which

[13] See T. Baig, et al., "Domestic Petroleum Product Prices and Subsidies: Recent Developments and Reform Strategies," IMF Working Paper 07/71 for a detailed discussion of methodology and results.

have typically provided petroleum products to their population at relatively low prices. These variations in market structure complicate the quantification of tax preferences and subsidies.

Fuel Taxes and Tariffs

33. **The fact that consumption of petroleum fuels produces a range of pollutants and other negative externalities complicates the formulation of an appropriate tax policy.** The externalities require a special tax treatment and, since they are related to the quantity consumed rather than cost, externalities are typically addressed with specific taxes. On the other hand, ad valorem taxes—usually a VAT—on all (or most) consumption goods are typically used to raise revenue in a manner that does not distort consumer decision making more than is necessary. Most countries apply a combination of specific and ad valorem taxes to petroleum fuels, which allows for a combination of tax policy responses when fuel prices increase.

34. **Tax changes reflected a variety of factors.** Many of these factors were unrelated to recent fuel price increases. The focus here is on tax *decreases* implemented to offset the impact of increasing world prices. Of course, with both ad valorem and specific taxes, countries can combine increases in one tax with decreases in the other to achieve any desired level of total taxation.

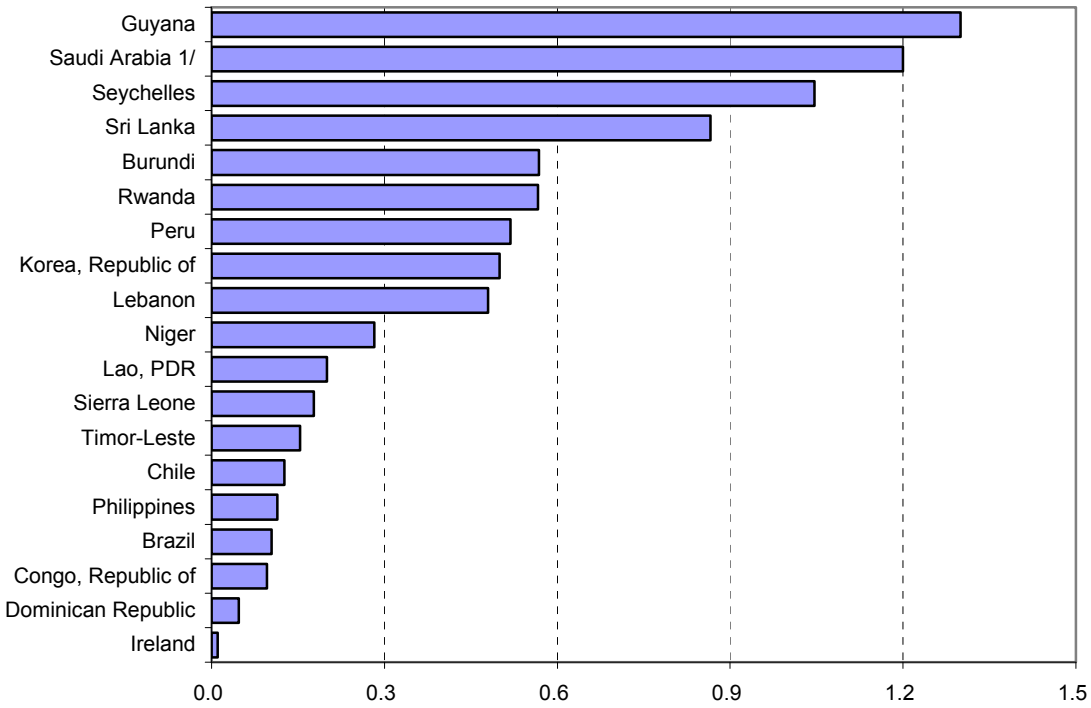
35. **Changes in the taxation of petroleum products have been both pervasive and diverse (Appendix II, Figure 1 and Table 1).** Thirty-seven of the 147 countries responding to a recent survey of area department teams (see Appendix III for a description of the survey) reported that they decreased some fuel tax rates, and 40 reported increases. The proportion of countries decreasing taxes did not vary much across income groups. The increases, which were not in response to higher fuel prices, occurred primarily in high-income OECD countries. The proportion of those decreasing taxes was also lowest in European countries and highest in Asian countries. Finally, the proportion decreasing taxes was lower in PRGF-eligible countries compared to other countries. Although oil exporters were less likely to decrease fuel taxes (possibly reflecting taxes that were already low), they were also less likely to increase taxes.

36. **The fiscal cost of fuel tax decreases in response to the run-up of oil prices has in some cases been substantial.**[14] Nineteen countries reported that they decreased fuel tax rates, with a fiscal cost ranging from near zero to 1.3 percent of GDP and a median cost of

[14] The survey collected information on tax rate changes, the date of the change, and the actual fiscal cost of the change for that year as a share of GDP. This part-year fiscal cost was divided by the proportion of the year the new rate was in effect in order to obtain a full-year cost. The full-year costs for 2007 and 2008, as shares of the GDP in each year, were then summed to obtain the costs reported here.

0.3 percent (Figure 7). Some countries, such as Niger, reduced excise taxes to mitigate the price increase stemming from ad valorem taxes. Some other countries had to reverse tax decreases due to fiscal pressures (for example Burundi and Cote d'Ivoire).

Figure 7. Fiscal Cost of Fuel Tax Rate Reductions as a percent of GDP



1/ In May 2006, Saudi Arabia lowered retail prices for gasoline and diesel from US$0.16/ltr to US$0.07/ltr resulting in foregone revenues of 1.2 percent of GDP per year.

37. **Reducing consumption tax rates and excise taxes to offset price increases is both inefficient and badly targeted.** Selective reductions in these taxes will distort consumer choices among goods and result in overconsumption of the tax-preferred good. Reductions in excise taxes on fossil fuels is of particular concern where these taxes address negative externalities, such as greenhouse gas emissions. In VAT systems, differential rates are difficult to administer and enforce. The price and revenue implications are also difficult to quantify when intermediate inputs are subject to VAT. This latter problem is solved if goods are zero-rated, but this would exacerbate the administration and enforcement problems. Because higher-income households consume a disproportionate share of almost all goods, they will also receive a disproportionate share of the benefit from a tax rate reduction. Moreover, tax rate reductions are difficult to reverse, because so many households benefit.

38. **Import tax rate reductions are more benign**. Tariffs distort trade patterns, so eliminating them can have a positive impact. Also, the lost revenue can be recouped over time by using more efficient revenue raising instruments as part of a broader reform of the fiscal system. Similar treatment should be applied to all sources of import for a given commodity in order to avoid distorting trade patterns.

Fuel Price Subsidies

39. **Higher fuel prices have had important fiscal implications for those governments that have traditionally relied on price subsidies as a key component of their safety net**. Forty-six countries reported price subsidies for 2008, almost all of which were untargeted. The projected level of these subsidies ranges up to 14.6 percent of GDP, with a median cost of 1.0 percent. Five countries—Turkmenistan, Yemen, Egypt, Venezuela, and Ecuador—have universal fuel subsidies in excess of 5 percent of GDP. Moreover, these subsidies have increased significantly since 2006 in each of these countries except Egypt. Another eight countries have subsidies in excess of 2 percent of GDP. Universal subsidies are more prevalent in MCD countries, although Iraq and Jordan have decreased their subsidies by 93 and 71 percent, respectively, since 2006.

40. **Thirty-eight countries increased or decreased fuel price subsidies between 2006 and 2008** (Figure 8). The increases (in 29 countries) range from near zero to 4.0 percent of GDP, with a median increase of 0.7 percent. The biggest increases have occurred in countries with large pre-existing subsidies. The decreases (in 9 countries) range from 0.2 to 5.3 percent of GDP, with a median of 0.6 percent, with the largest decreases in countries that were restructuring their subsidy programs.

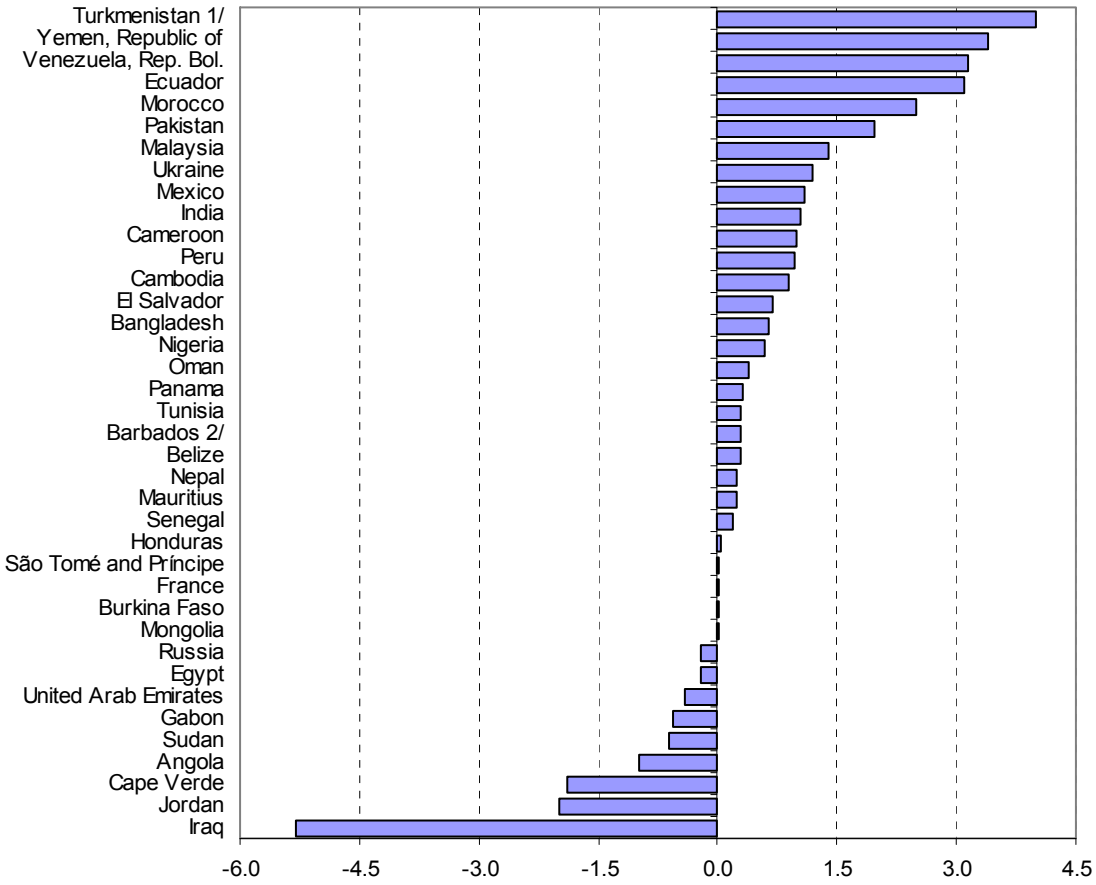
41. **Universal price subsidies suffer from the same policy flaws as tax rate reductions.** They distort price signals, resulting in over-consumption. As noted above, the benefits accrue primarily to higher income households. Finally, they can be costly, especially if a domestic price is frozen at an absolute level, and the world price increases.

Changes in Food Taxes and Subsidies

Food Taxes and Tariffs

42. **A high proportion of low- and middle-income countries reported decreases in food taxes and tariffs since 2006.** Eighty-four countries reported reducing food taxes (Appendix II, Figure 2 and Table 2). Tax rate reductions are most prevalent in high-income countries, owing to a suspension in import tariffs by the European Union. A relatively high proportion of African countries and countries with high food-import-to-GDP ratios report reducing food taxes.

Figure 8. Change in Fuel Price Subsidies as a percent of GDP: 2006 to 2008



1/ The increase in subsidies in 2008 reflects, in part, the depreciation of the exchange rate.
2/ Takes into account the increase in prices implemented in April 2008.

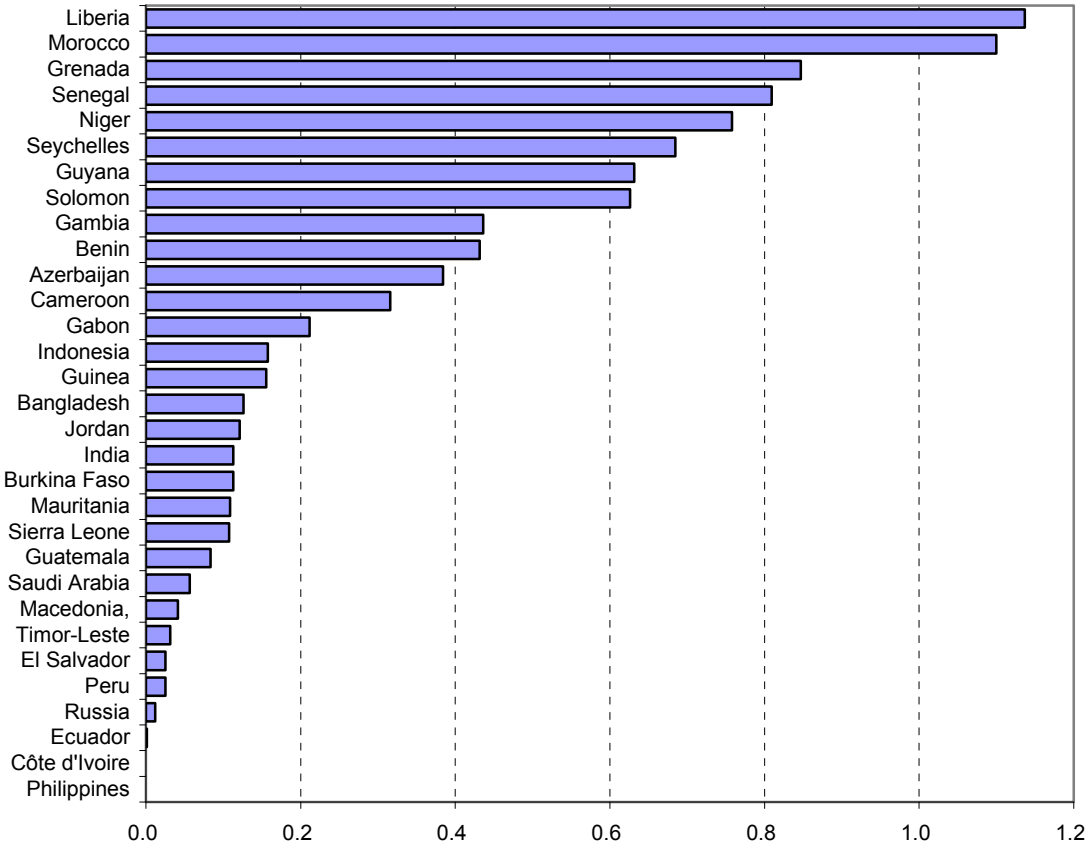
43. **More countries reduced import duties than domestic value-added taxes (VATs).** Food import taxes were decreased in 76 countries and VATs in 22 countries. Reductions in import duties are much easier to administer than preferential VAT rates. More than two-thirds of tax cuts in low and middle-income countries occurred in the last five months, with 45 countries decreasing taxes in 2008. Therefore, the prevalence of tax cuts is likely still increasing.

44. **Some exporters of key food products have introduced quantitative restrictions on export volumes or introduced or increased export taxes to reduce domestic food prices.** At least 30 countries have imposed export restrictions or bans on agricultural commodities, especially on rice. Such taxes and quotas are highly distortionary and reduce the gains from higher prices for exports. Moreover, lower prices provide perverse incentives to producers who should be encouraged to increase food production and exacerbate the increase in world prices.

45. **Tax responses have also been influenced by country membership in economic and monetary unions.** For instance, the West African Economic and Monetary Union allows every member state to exempt seven basic food items that comprise a relatively large share of consumption by poorer segments of society from VAT. This pre-existing policy limited the use of VAT reductions to offset price increases in these countries. On the other hand, CARICOM decided earlier this year to reduce or suspend the common external tariff (CET) on a range of food products including cereals, baby formula, milk, and beef.

46. **The annualized fiscal costs of food tax decreases are not insignificant.** Thirty-one countries reported tax decreases between 2006 and 2008 that ranged from near zero to 1.1 percent of GDP, with a median cost of 0.1 percent (Figure 9). Given that countries are continuing to use tax-rate reductions to mitigate price increases, this number could easily increase.

Figure 9. Fiscal Cost of Food Tax Rate Reductions as a percent of GDP



Food Price Subsidies

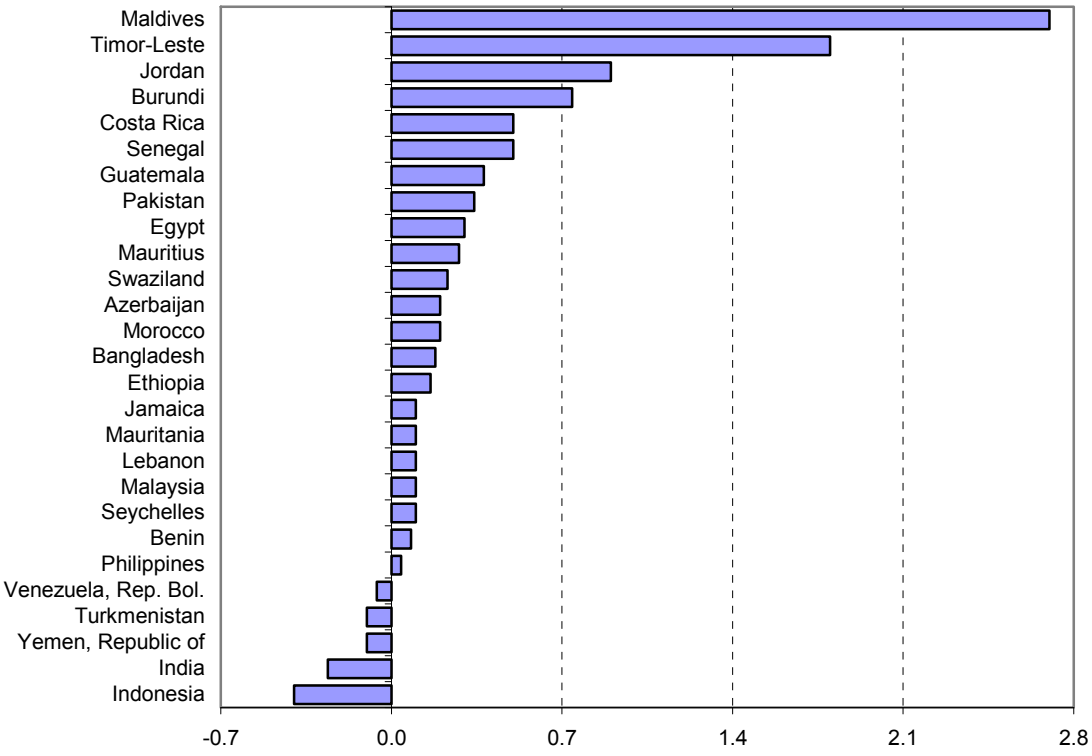
47. **Almost all current food price subsidies are universal**—that is, they accrue to anyone buying the product. Some universal food price subsidies have been *implicitly* targeted because they apply to products that are disproportionately consumed by the poor. This can

increase the share of benefits going to poor households, but it will not typically allow poorer households to receive larger absolute subsidies than wealthier households.

48. **Currently, 28 countries have food subsidies.** Six—Burundi, Egypt, Jordan, the Maldives, Morocco, and Timor-Leste—have subsidies that are expected to exceed 1 percent of GDP in 2008. Each of these countries has increased their universal subsidies since 2006 (Figure 10). Sixteen other countries also reported increasing food subsidies. The increases ranged from near zero to 2.7 percent of GDP, with a median of 0.2 percent. On the other hand, five countries have reduced price subsidies since 2006. The decreases ranged from

0.1 to 0.4 percent of GDP, with a median of 0.2 percent.

Figure 10. Change in Food Price Subsidies as a percent of GDP: 2006 to 2008



Targeted Transfers

49. **Targeted transfer programs have the potential to reach the poor much more efficiently and effectively than the tax decreases and price subsidies described above.** They can protect the poor without distorting incentives for nonpoor households and, as such, are the preferred response to food and fuel price increases. The benefits from these programs can be indexed to inflation, so beneficiaries can be automatically compensated for higher prices. However, the best of these programs require detailed planning and significant administrative capacity. The most prevalent of the targeted transfer programs are part of the

countries' social safety nets. These programs can vary from school lunch programs to public works projects all the way to conditional cash transfer systems. A total of 21 countries reported outlays on targeted social safety net programs.

50. **Agricultural subsidies are the next most prevalent type of transfer program (15 countries).** Subsidies targeted on the agricultural sector raise concerns on fiscal, efficiency, equity, and environmental grounds. To avoid leakages and inefficiencies, such subsidies should be further targeted on low-income farmers and be part of a more comprehensive strategy focused on increasing agricultural productivity.

51. **Many transfer programs—especially in developed countries—have automatic mechanisms to adjust benefits in response to price changes.** For instance, the food stamp program in the United States increases benefits with food price inflation. In many cases, it is difficult to separate out the increase in transfers due to food and fuel price increases from other changes in benefits, even though these changes do represent an (automatic) response to price changes. Consequently, some changes in transfers due to increased prices were not reported, especially in developed countries.

52. **Fifty-six countries reported targeted transfer programs for 2008, with projected outlays ranging up to 4.8 percent of GDP.** The changes since 2006 in transfer program outlays range from -2.1 to 2.0 percent of GDP (Figure 11). Seven countries reduced the size of their programs, with a median decrease of 0.2 percent of GDP. Thirty nine countries expanded their programs, with increases ranging up to 2.0 percent of GDP and a median increase of 0.2 percent.

Other Public Sector Measures to Offset Higher Food and Fuel Prices

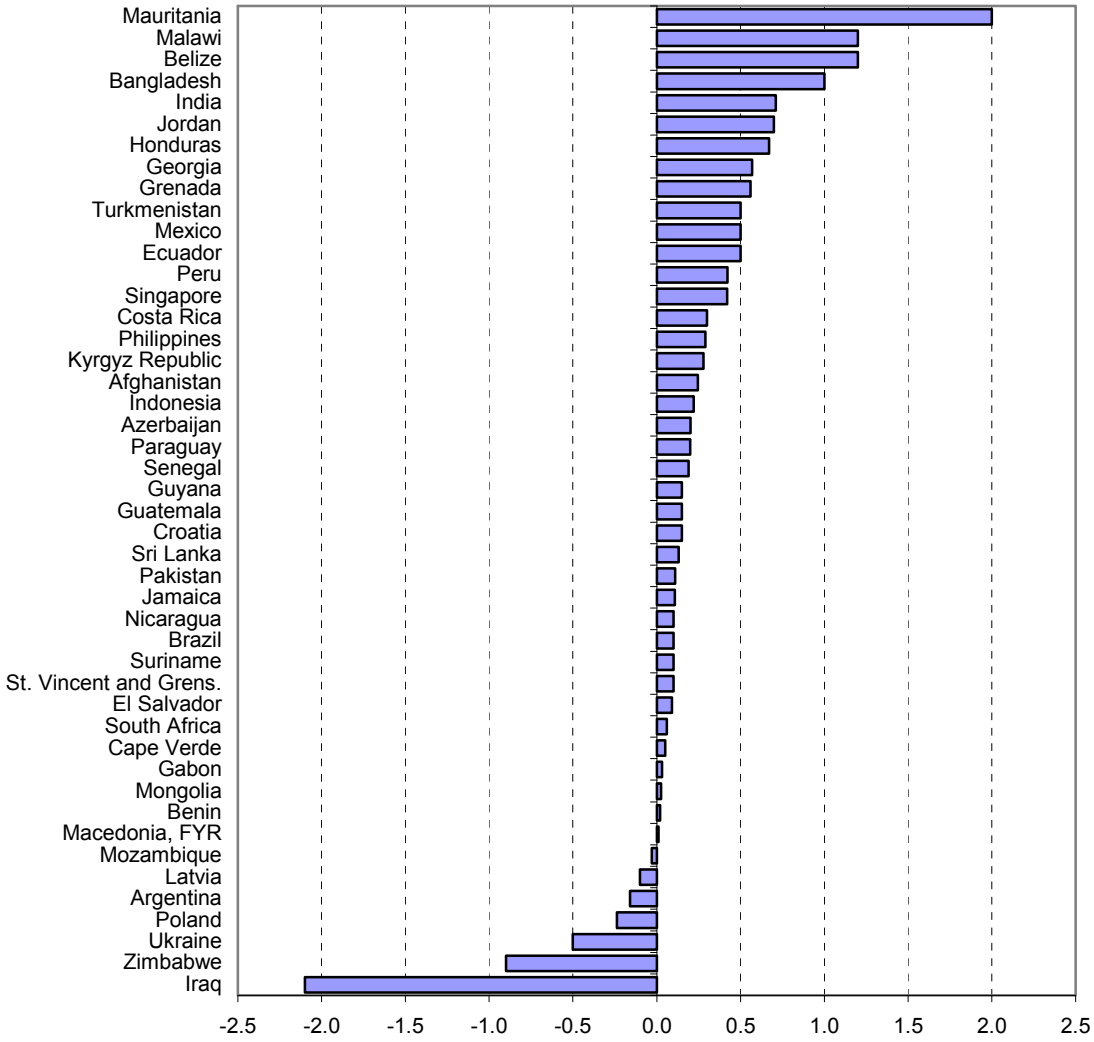
53. **Ten countries increased public sector wages to compensate workers and pensioners for higher prices.** The fiscal cost of these increases range from near zero to 1.9 percent of GDP, with a median cost of 0.6 percent. These costs reflect primarily increases in public sector wages and pensions, except in Guyana, Kyrgyz Republic, and Azerbaijan where they reflect increases in minimum public-sector wages and pensions. Ad hoc adjustments to public sector wages in response to price increases are not well targeted, as public servants are rarely in the lower ranges of the income distribution.

Aggregate Fiscal Cost

54. **Seventy-nine countries reported a net increase in fiscal cost stemming from all of the measures implemented in response to higher fuel and food costs**. The increases ranged from near zero to 4.8 percent of GDP, and the median increase was 0.6 percent (Appendix II, Figure 3). Ten countries reported a net increase of more than 2 percent of GDP, and another 19 had fiscal costs greater than 1 percent of GDP. The largest increases in fiscal costs were driven by increases in universal fuel price subsidies. As a percentage of total

revenue plus grants, the increases ranged from near zero to 22.9 percent, with a median of 1.9 percent.

Figure 11. Change in Transfer Program Outlays as a percent of GDP: 2006 to 2008



55. **Thirteen countries reported net decreases in fiscal cost, with a median decrease of 0.6 percent of GDP.** Only the decrease for Iraq, reflecting its reform of fuel price subsidies, exceeded 2 percent of GDP. As a percent of total revenue plus grants, the decreases ranged from near zero to 4.7 percent, with a median of 0.3 percent.

56. **Of the 79 countries reporting fiscal costs, thirty-nine are PRGF-eligible countries.** The share of PRGF-eligible countries is higher for countries with large fiscal costs relative to GDP. Of the 79 countries, 50 are classified as vulnerable to balance of payment pressures.

B. Monetary and Exchange Rate Policy

57. **In many, but far from all, countries, monetary policy has responded to the risks of rising inflation.** The main concern is that the first-round effects of higher food and fuel prices on inflation should not be allowed to spill over to higher prices of other goods and services (second-round effects). Such risks are particularly elevated for countries where domestic demand has been growing strongly because of loose financial policies. In light of this, recent actions to tighten monetary policy in several countries which already had elevated levels of inflation before the recent acceleration of international food and fuel prices (e.g., Ghana, Egypt, Pakistan, and Sri Lanka) represent attempts to bolster the credibility of the monetary authorities and prevent higher inflation from becoming entrenched. In several cases, monetary policy should be tightened further.

58. **Movements in nominal exchange rates can play a useful role in cushioning the impact of the food and fuel price increases on the balance of payments.** Some of the countries adversely affected by the price increases are members of a currency union (e.g., countries in the Caribbean and West- and Central Africa) or have a fixed exchange rate. These countries can not actively use the exchange rate as a shock absorber. But the CFA franc-zone countries' peg to the euro shielded these countries considerably from the increase in the U.S. dollar price of food and oil in international markets, by virtue of the appreciation of the euro vis-à-vis the U.S. dollar over the past one and a half years.

59. **A group of nine low- and middle-income countries allowed their currencies to experience a substantial turnaround vis-a-vis the U.S. dollar (top panel of Table 3).** These countries have broadly adequate reserves and allowed their currencies to appreciate substantially against the U.S. dollar during 2007, broadly in line with the euro. During the first four months of 2008, faced by the shock to food and fuel prices, these countries let their currencies depreciate vis-à-vis the U.S. dollar by a median 2½ percent.

60. **A further group of nine countries allowed an ongoing depreciation of their currencies vis-à-vis the U.S. dollar** (middle panel of Table 3). These countries are typically somewhat less affected by the food and fuel price increase than the first group of countries but most have a relatively weak reserves position.

61. **A group of 11 mostly low-income countries that is seriously affected by the terms of trade shock and has typically less-than-adequate reserves has continued to stabilize the exchange rate vis-à-vis the U.S. dollar** (bottom panel of Table 3). These countries may expect the terms of trade shocks to be temporary, in which case financing could obviate the need for a depreciation. However, the rigid exchange rate could also indicate that necessary adjustment is being postponed, undermining an already weak level of reserves coverage.

Table 3. Nominal Exchange Rate Changes vis-à-vis the U.S. dollar and the Level and Projected Change of Reserves

Turnarounds *: Countries with a depreciation vis-à-vis the U.S. dollar during first 4 months of 2008 following appreciation during 2007 (in percent)*

	2007 (1)	4 mo. 2008 (2)	Turnaround (2)-(1)	Baseline reserves (months of imports)	Shocks effect	
Armenia	19.5	-0.8	-20.3	4.5	-0.8	
Haiti	7.5	-3.5	-11.0	2.7	-1.4	
India	12.3	-1.7	-14.0	10.1	-1.1	
Kyrgyz Republic	7.4	-3.4	-10.8	3.2	-1.2	
Philippines	18.7	-1.1	-19.8	5.2	-0.8	
PNG	9.3	-1.2	-10.5	6.7	1.0	
South Africa	2.3	-10.3	-12.6	3.4	-0.6	
Tanzania	11.4	-8.5	-19.9	4.2	-0.4	
Uganda	13.2	-3.8	-17.0	6.1	-0.2	
Median	11.4	-3.4	-14.0	4.5	-0.8	

Ongoing depreciations *: Countries with an ongoing depreciation vis-à-vis the U.S. dollar (in percent)*

	2007 (1)	4 mo. 2008 (2)	Sum (1)+(2)	Baseline reserves (months of imports)	Shocks effect	
Argentina	-2.5	-0.5	-3.0	9.2	1.8	
Ethiopia	-4.6	-3.1	-7.7	1.8	-0.5	
Ghana	-4.8	-1.0	-5.8	2.1	-0.7	
Guyana	-1.2	-0.4	-1.6	2.7	-0.1	
Jamaica	-4.6	-0.9	-5.5	2.1	-1.4	
Nicaragua	-4.8	-1.2	-6.0	1.7	-0.2	
Pakistan	-1.8	-1.2	-2.9	2.8	-1.4	
Sao Tome and Principe	-9.0	-2.6	-11.5	6.0	-1.5	
Uzbekistan	-3.9	-0.8	-4.6	17.5	0.3	
Median	-4.6	-1.0	-5.5	2.7	-0.5	

Stable exchange rates *in high-impact countries*

	2007 (1)	4 mo. 2008 (2)	Sum (1)+(2)	Baseline reserves (months of imports)	Shocks effect	
Bangladesh	0.6	0.0	0.6	2.4	-0.7	
Cambodia	1.5	0.0	1.5	2.9	-0.7	
Dominican Republic	-1.6	0.3	-1.3	2.3	-1.3	
Guatemala	-0.3	0.2	-0.1	3.4	-0.8	
Liberia	-4.8	0.0	-4.8	1.1	-1.5	
Malawi	-0.7	-0.1	-0.8	1.5	-1.0	
Mongolia	-0.4	0.2	-0.3	4.4	-1.7	
Solomon Islands	-0.6	0.0	-0.6	3.3	-0.8	
Sierra Leone	-0.1	0.2	0.1	3.7	-1.5	2/
Sri Lanka	-0.8	0.8	0.0	2.6	-1.2	
Tajikistan	-1.1	1.0	-0.1	0.9	-0.5	1/
Median	-0.5	0.1	-0.2	2.6	-1.0	
Memorandum item						
Change in US$/euro rate (percent)	11.8	5.6	17.4			

Sources: IFS and IMF staff.

1/ Based on food price shock only
2/ Based on oil price shock only.

V. ROLE OF THE FUND

62. **The Fund is working actively with national and international partners in responding to the many challenges posed by the fuel and food price shocks**. Addressing the food and fuel crisis requires a cooperative approach involving the countries affected, donors, and international organizations. A multilateral approach to addressing this global problem enhances the effectiveness of the response and helps minimizes negative spillovers, laying the foundations for improved supply over the medium term and enhanced food security for all. In this context, the Fund's actions are being coordinated with the United Nations, the World Bank and other partners. For food, a comprehensive Framework for Action (CFA) has been prepared by the UN Task Force on the Global Food Crisis to help coordinate policies, and all parties participated in the UN Food and Agricultural Organization (FAO) High-Level Conference on World Food Security that was held in Rome in early June. The forthcoming G-8 summit in July will provide another opportunity for ensuring coordination among the parties involved. The World Bank Group has announced a New Deal on Global Food, which comprises a range of short, medium and long-term actions covering safety nets such as school feeding, food for work, and conditional cash transfers; increased agricultural production; a better understanding of the impact of biofuels; and action on the trade front to reduce distorting subsidies and trade barriers. At the Fund, extensive analytical work is underway on various dimensions of the recent price increases, with a view to adequately diagnosing the underlying sources of the price increases as well as their likely severity, duration, and impact. The Fund has provided advice and technical assistance to its member countries on appropriate macroeconomic responses, that reconcile short-term and medium-term considerations, as well as financial assistance (see Box 2).

63. **Financing can be useful and sustainable only if shocks are temporary or as a transitory measure for easing the burden of adjustment**. For permanent shocks adjustment is appropriate. While the observed surge in international fuel and food prices is likely to include an important persistent component, there is substantial uncertainty and policies should be cautious, reflecting the asymmetric costs of adjustment. Moreover, given their profound humanitarian consequences, including for real incomes and poverty, there can be a strong case for easing the burden of adjustment to higher food and fuel prices, in particular for LICs. However, especially for countries facing already high debt and debt-service burdens, the related financing would need to be in the form of grants or highly concessional loans, so as not to lead ultimately to unsustainable debt positions.

Box 2: IMF Support to Countries Facing Food and Fuel Price Shocks

The Fund's support for countries facing food and fuel price shocks is taking place on a number of fronts:

Policy advice in the context of surveillance: IMF country teams are helping assess the macroeconomic impact of recent shocks. Based on country-specific diagnoses, teams are offering policy advice—including through program reviews and Article IV reports—on issues related to fiscal space, monetary and exchange rates, and trade policies.

Technical assistance: In introducing policy responses such as tax and tariff changes or transfer programs, issues related to their appropriate design and implementation are often an important consideration. The Fund stands ready to assist countries address these challenges in its areas of expertise.

Financial support: The Fund is prepared to quickly disburse funds to countries facing balance of payments gaps, while recognizing that grants from other development partners may be better suited for some countries. The Fund's is delivering its financial support through a variety of instruments, to reflect country-specific needs (see Section V.D).

A. Fund Advice on Fiscal Space to Respond to Fuel and Food Price Increases

64. **To promote efficiency and sound fiscal policy, and avoid negative international spillovers, commodity prices should be passed through to consumers and producers**. Full pass-through of international prices to domestic markets allows for correct price signals, which enhance allocative efficiency; shields public finances from excessive costs and volatility; and mitigates the volatility in world prices. However, it can also result in significant drops in real household incomes, especially for low-income households, which need to be addressed through mitigating measures as appropriate.[15]

65. **In some countries where fuel and food prices have been kept artificially low, the existing substantial gaps with world prices may be difficult to eliminate quickly because of social considerations**. In such cases, it may be necessary to phase out subsidies gradually, while putting in place social safety nets to help mitigate the impact of price adjustment on the most vulnerable segments of the population. Poverty and social impact analyses should be used, whenever possible, to identify vulnerable groups and design offsetting measures. This said, if the pass-through can only be partial or gradual (for socio-political reasons), the

[15] While it could be argued that the pass-through of temporary price increases could be less than full (in countries that can afford it), it is often difficult to determine ex ante whether a shock is temporary or long lasting.

adverse budget and debt impacts may need to be addressed through compensating fiscal measures.

66. **The impact of higher fuel and food prices on the most vulnerable groups, particularly in low-income countries, should be cushioned**. On efficiency and equity grounds, the first goal of any response to large food and fuel price increases is to protect the poor and other vulnerable groups from higher prices with minimum disruption of food and fuel markets. Fund advice in this area is based on efficiency, effectiveness, and fiscal considerations (discussed below)—Appendix IV provides a summary of the pros and cons of mitigating measures.

- **Targeted transfer programs, preferably as part of an integrated social safety net, can reach the poor efficiently and effectively, but implementation can be challenging.** A growing number of countries are implementing conditional cash transfer programs—but this can take time and requires planning, targeting, and delivery capacity. Expanding the coverage of other targeted measures, such as targeted food distribution or school lunch programs, can also be effective in reaching vulnerable households. Agricultural subsidy programs can help if they are carefully designed and focus on increasing the productivity of small farmers.

- **Tariff reductions mitigate price increases, and at the same time they reduce inefficient trade distortions.** There is evidence, however, that tariffs are likely to be less effective than targeted transfers at protecting the poor.[16]

- **Consumption tax decreases and universal price subsidies are more problematic.** These measures are badly targeted, distort consumer choices among goods and result in over consumption of the tax-preferred good, are difficult to reverse, and engender administration and enforcement problems. Subsidies on products consumed mainly by the poor can increase the share of benefits going to poor households, but they also distort price signals. Studies have shown that fuel subsidies are a very costly way to protect the poor in developing and emerging-market economies.[17]

- **Ad hoc general increases in public sector wages to compensate workers for higher prices are not well targeted.** Public servants are rarely in the lower ranges of the income distribution. Moreover, their wages should be set according to wages in the private sector, which will already reflect price levels.

---

[16] See Coady, D., P. Dorosh, and B. Minten, "Evaluating Alternative Approaches to Poverty Alleviation: Rice Tariffs versus Targeted Transfers in Madagascar," IMF Working Paper No. 08/9.

[17] See Coady, D. and others, "The Magnitude and Distribution of Fuel Subsidies: Evidence from Bolivia, Ghana, Jordan, Mali, and Sri Lanka," IMF Working Paper No. 06/247.

- **Export restrictions are highly distortionary and reduce gains from higher prices for exports.** They provide perverse incentives for consumers and producers and exacerbate the problem by increasing world prices further.

67. **Policy responses adopted by governments to address fuel and food price increases have been varied.** Some of the measures implemented are more cost-effective and less distortionary than others. A number of countries may have moved to implement universal rather than targeted measures because they allow a quicker response. These countries should assess the efficiency of the measures as soon as possible and replace untargeted programs with more cost-effective measures. The Fund, the World Bank, and other multilateral institutions can assist countries in this regard.

68. **The policy challenge in many countries is to replace poorly targeted and expensive policy responses with more cost-effective mitigating measures.** In countries that do not have effective safety nets, a package of measures building on existing programs (e.g. school feeding programs, cash transfers to the most vulnerable populations, reduction in education and health fees, and public transport subsidies) should be identified. The coverage of these programs can be expanded and their targeting improved in the short term through the adoption of simple targeting methods focusing, for example, on (i) geographic characteristics of the poorest regions; (ii) categories of the most vulnerable populations such as the disabled and elderly living alone; and (iii) tax reductions and subsidies to products consumed mainly by the poor. Universal subsidies can then be gradually withdrawn as part of a reform strategy that simultaneously develops the design, targeting, and coverage of the safety net, accompanied by a public information campaign to secure broad-based political support.[18]

69. **The Fund can help governments assess mitigating measures, their cost, and fiscal policy options to accommodate the costs of policy responses without prejudice to the sustainability of financial positions**. Even the most efficient and effective policy responses to higher fuel and food prices can result in fiscal costs that governments need to assess. The available options to deal with the fiscal costs of policy responses depend in turn on individual countries' macroeconomic situation and their capacity to create fiscal space. The Fund's policy advice takes into account specific country circumstances regarding the scope and options for creating fiscal space.

- Countries without binding debt sustainability, financing, or macro-stability constraints have scope to loosen their fiscal positions to accommodate the costs of measures taken in response to higher fuel and food prices.

- In countries with fiscal constraints, governments should create fiscal space to offset these fiscal costs without jeopardizing the sustainability of their financial position or

[18] See S. Gupta and others, "Equity and Efficiency in the Reform of Price Subsidies (IMF, 2000).

the stability of the economy. Fiscal space can be created in a variety of ways, including by increasing revenue, reducing nonproductive spending, raising borrowing in a noninflationary and sustainable way, and securing higher external grants or concessional loans provided by donors.

- Countries that find it difficult to create fiscal space would need to limit the size and duration of the fiscal response and pass-through the increase in international prices to domestic consumers more rapidly. To the extent possible, this should be accompanied by strengthening and expansion of cost-effective social safety nets.

B. Fund Advice on Monetary and Exchange Rate Policy to Respond to the Price Increases

70. **The first-round effects of higher food and fuel prices on inflation should generally be accommodated.** In that way, relative prices can change without a forced decline in nontraded goods prices. If, as a result, inflation objectives are missed, the central bank should explain to the public that achieving these objectives in the face of such profound supply shocks would require an overly contractionary policy stance and, hence, lead to unnecessary slowing in economic activity ("output losses"). However, in countries that have recently adopted formal inflation targeting, and/or where policy credibility still remains to be established, the risk of undue output losses under monetary policy tightening may need to be balanced against risks of lower credibility if inflation objectives are missed.

71. **At the same time, monetary policy should be sufficiently tight to prevent the first-round effects of higher food and fuel prices on inflation from spilling over to higher prices of other goods and services** (second-round effects; as higher inflationary expectations may trigger a wage-price spiral). This is particularly important for countries where inflation has already been rising because of overly expansionary macroeconomic policies.

72. **To the extent that they are regarded as permanent, the food and fuel price shocks would call for a real effective exchange rate depreciation for net importers**. For countries with a more open capital account, the recommendation to allow for a depreciation might appear inconsistent with the recommendation to tighten monetary policy. However, to the extent that the food and fuel price shocks are regarded by investors as being permanent and hence cause the equilibrium real effective exchange rate to depreciate, a tightening of monetary policy will improve the odds that a larger part of the real depreciation is achieved through lower inflation rather than a nominal depreciation.

73. **In the countries most adversely affected by high food prices, there may be a tradeoff between exchange rate adjustment and higher inflation**. In particular, a depreciation can be expected to quickly feed through into even higher domestic food prices, and hence inflation, while having only a limited moderating effect on the trade deficit. Some of the most vulnerable net importers of food and petroleum products export only a few basic

commodities whose supply is inelastic in the near term. And the bulk of these countries' imports consist of oil, food, and goods tied to donor-funded projects. With an undersized domestic supply response and limited scope for substitution away from non-essential imported goods, and given the uncertainty in food and oil price projections and the high costs, in terms of higher inflation, of exchange rate adjustment, in many instances, there may be a strong case for a short-term mobilization of concessional financing to cushion the food and oil price increase.

74. **For some countries, membership in a currency union or other institutional arrangements (e.g., full dollarization) may prevent action on the nominal exchange rate altogether**. For these countries, the need for fiscal adjustment to facilitate the external adjustment (and to offset any increase in fuel and food subsidies) is clearly heightened.

C. Fund Advice on Trade Policies to Respond to the Food Price Increase

75. **Global food markets need to be kept open.** Restrictive trade policies, such as export bans or export taxes imposed by net food exporters tend to have unintended negative consequences at the domestic level, and at the global level. They push up world prices even further and hurt net importers. From a global perspective, maintaining free trade in commodities while fostering incentives for production and using efficient policies to protect the urban poor (e.g., targeted cash transfers) is a priority.

76. **An ambitious Doha Round conclusion, including on agriculture, can help broaden and stabilize international food trade.** While an ambitious Doha Round conclusion may not lead to lower food prices in the short term, it will foster efficient agricultural production in the medium and long term and boost global growth.

77. **As noted earlier, reduced tariffs on imported food can alleviate food prices pressures and improve efficiency**. However, many poor countries have narrow tax bases and rely on tariffs and other trade taxes for a large part of government revenue. In such countries, it is important to ensure that the revenue loss from tariff or trade tax reductions can be accommodated without destabilizing countries' macroeconomic policies.

78. **Also as noted earlier, subsidies or price controls can create trade distortions and pressures for smuggling.** Attempts to maintain domestic food prices below world levels through untargeted subsidies, price controls, or export restrictions create incentives for evasion of the controls or smuggling of food.

79. **Biofuel subsidies should be carefully re-examined, especially in developed countries.** There is growing evidence that the first-generation biofuels promoted by these policies are not cost-effective and environment-friendly alternatives to carbon-based fuels. Less ambitious and more trade-friendly biofuels policies would also lower pressure on food prices by reducing the competition with food for agricultural land and resources.

D. Balance of Payments Financing

80. **Fund financial support to help countries manage the impact of the fuel and food price shocks has already begun.** Financial support for low-income countries affected by the food and fuel price shocks requires concerted efforts by development partners, and should preferably take the form of grants in order to avoid risks to debt sustainability. Several international financial institutions have responded to the shocks. At end-May, the World Bank introduced a new $1.2 billion rapid financing facility to address immediate needs, including US$200 million in grants targeted at the vulnerable in the world's poorest countries. The new rapid response facility stands alongside other efforts by the World Bank Group to address the global food crises. Fund support is generally limited, but can be disbursed quickly, and may serve as a catalyst for grants and more concessional loans provided by others**.** The Fund's balance of payments support, depending on specific country conditions, is being delivered through a variety of channels:

- **Augmentation of existing PRGF arrangements**: With more than half of the vulnerable countries already having a PRGF arrangement in place (Appendix V), the augmentation of access under the existing arrangements provides a readily available vehicle for covering unexpected balance of payments financing needs. The Fund expects more requests for augmentation of PRGF arrangements during the coming months, including several cases of new requests for PRGF arrangements with access levels higher than initially planned. As of the end of June 2008, augmentations have been granted for Benin, Burkina Faso, the Kyrgyz Republic, the Central African Republic, Haiti, Mali, and Niger, and several other requests are in the pipeline.

- **Exogenous Shocks Facility**: The ESF can help provide quick access to concessional support for low-income countries facing short-term, shock-related financing needs. Modifications of this facility are currently under preparation by Fund staff in order to enable more rapid financing and streamline requirements for access. Several countries in surveillance-only relations with the Fund, or implementing PSI-supported programs, may express interest for the modified ESF.

- **New PRGF arrangements**: A longer-term facility such as the PRGF will be suitable for countries expected to have more prolonged balance of payments needs linked in part to the recent shocks. In this context, new PRGF arrangements (with a higher level of access than initially planned) were recently approved for Mali and Niger.

- **Stand-By Arrangements**: For middle-income countries, access to Stand-By arrangements remains available to help cope with financing needs including, if needed, through a draw-down of funds available under existing precautionary arrangements.

81. **The scope of Fund financing in individual cases will be guided by evolving external conditions**. Staff work on estimating financing needs will need to be re-visited regularly in the period ahead, to account for latest developments and in light of the unusual uncertainty surrounding the global outlook and the path of food and fuel prices. Moreover, given the wide-ranging international response to the current crisis, the determination of the size of Fund financing will also need to take into account other forms of external support that—depending on specific cases— may include in-kind food relief, bilateral grants, and funds from regional and multilateral development banks.

APPENDIX I

ESTIMATING BALANCE OF PAYMENT IMPACTS OF FOOD AND OIL PRICE INCREASES—UNDERLYING ASSUMPTIONS

Ex post impact estimates

82. **The impact of price increases on net oil / food imports of respective net importers between January 2007 and April 2008 was estimated by combining annual 2007 trade data with world price developments.** Food and oil trade value data reported for 2007 in the questionnaire returned by area departments—complemented by WEO and WDI data if missing—was used as a basis to estimate a monthly starting value for January 2007 and to identify net oil/food importers. To derive an estimate of the impact since then, the sum of estimated values for the following 16 months (applying the price index) was calculated. From this sum, a hypothetical counterfactual assuming stable prices was deducted. In this estimate, zero elasticity was assumed.

Ex ante base line

83. **Area department's projections for the Spring WEO and information on food trade in response to questionnaire to area departments constituted the baseline for our exercise**. For oil trade data only major revisions since the spring WEO submission were included: for example, Mauritania, Tunisia, and Vietnam were forecasted to become net oil importers rather than net oil exporters in 2008 shortly after the release of the WEO. To the extent possible, food trade data missing in the responses from area department was estimated based on data from the World Bank's Word Development Indicators. In this baseline, we aimed at covering as many countries as possible, meaning that for poor data some broad assumptions had to be made. These include:

- unchanged reserves accumulation or draw down of reserves in 2009 even if the 2008 has been updated by country desks

- a fixed volume share of food items in exports and imports of goods and services for those countries where projections were not available.

Price increase scenarios

84. **We estimate a hypothetical impact of a further increase in oil and food prices on international reserves as a measurement of its impact.** The price increase exercise compares the projections of 2009 reserves coverage of the baseline with a calculated alternative level of reserves coverage that would result from increased prices under a transparent set of broad assumptions. These include:

- We assume that each country draws on its central bank reserves to cover in full a rising oil and food import bill. In other word, we abstract from other policy responses like donor support, fiscal adjustment, and exchange rate depreciation.

- We assume that trade volumes are completely inelastic to oil and food price changes.

- Corresponding to the latest revisions of WEO projections, we assume that the net oil import bill in 2008 and 2009 change as follows in the modeled oil price increase: In 2008, this bill is modeled to increase by 17.9% (US$ 112 per barrel after revision compared to US$95 per barrel before). In 2009, this bill is modeled to increase by 23.0% (US$ 116.25 per barrel after revision compared to US$ 94.50 before).

- For the food price increase, we also assume a price in 2008 and 2009 that is 20 percent higher than projected in the baseline. In this exercise, we have not differentiated between different components of the food trade balance, even though price increases have diverged greatly across food items. We have not taken into account any potential differences between countries in the definition of food items.

- GDP and imports projections, which serve as denominators for the presented indices are also adjusted to reflect the effect of the price increases.

- Potentially offsetting or aggravating developments from correlated price increases are not included in the price increase scenarios.

Table 1.a Impact of Oil and Food Price Increases on the Projected 2009 External Position of PRGF-eligible countries

	Before Shock		Oil price shock		Food price shock		Combined shock	
Country [1]	CA [2]	Reserves [3]	CA [2]	Reserves [3]	CA [2]	Reserves [3]	CA [2]	Reserves [3]
10 Countries with low reserves after the upward revision in fuel prices								
Grenada	-32.4	3.2	-34.6	2.4	-33.0	2.9	-35.3	2.1
Honduras	-9.0	3.2	-11.3	2.5	-8.5	3.3	-10.9	2.6
Kenya	-3.8	3.0	-5.5	2.0	-4.5	2.6	-6.1	1.7
Kyrgyz Republic	-7.4	3.2	-11.2	2.1	-8.0	3.1	-11.9	2.0
Lao People's Dem.Rep	-15.5	3.5	-16.6	3.0	.	.	.	.
Niger	-14.0	3.3	-15.1	2.7	-13.7	3.4	-14.8	2.8
Sierra Leone	-5.9	3.7	-8.2	2.2	.	.	.	.
Solomon Islands	-13.9	3.3	-15.6	2.8	-14.7	3.0	-16.5	2.5
Tanzania	-10.1	3.8	-12.0	2.7	-10.2	3.7	-12.1	2.6
Zambia	-3.9	3.3	-5.1	2.5	-3.9	3.2	-5.1	2.5
3 Countries with low reserves after the upward revision in both fuel and food prices								
Cape Verde	-12.8	3.7	-15.0	3.2	-14.6	3.3	-16.7	2.7
Mongolia	-17.6	4.4	-21.0	3.1	-18.7	3.9	-22.1	2.7
Senegal	-11.1	3.8	-12.0	3.2	-12.1	3.2	-13.1	2.7
30 Countries with low reserves before the upward revision in food and fuel prices								
Bangladesh	-0.7	2.4	-1.7	1.9	-1.1	2.2	-2.0	1.7
Cambodia	-6.2	2.9	-9.3	2.0	-5.5	3.1	-8.6	2.2
Central African Rep.	-6.7	1.7	-7.5	1.0	-7.1	1.3	-8.0	0.6
Congo, Dem. Rep. of	-24.6	0.1	-24.7	0.1	-25.7	-0.3	-25.9	-0.3
Côte d'Ivoire	-0.5	2.7	1.1	3.1	1.7	3.9	3.2	4.2
Djibouti	-17.8	2.6	-20.0	2.0	-18.9	2.3	-21.2	1.6
Dominica	-23.9	2.7	-26.4	1.9	-25.0	2.3	-27.5	1.5
Eritrea	-5.5	0.8	-7.7	-0.4	-6.5	0.2	-8.7	-1.0
Ethiopia	-6.1	1.8	-7.1	1.2	-5.9	1.9	-6.9	1.3
Georgia	-13.2	2.2	-14.1	1.8	-14.0	1.8	-15.0	1.4
Ghana	-7.9	2.1	-10.7	1.2	-7.2	2.4	-10.0	1.4
Guinea	-9.8	1.1	-11.0	0.4	-10.4	0.7	-11.6	0.1
Guyana	-15.8	2.7	-19.8	1.9	-12.0	3.4	-15.8	2.6
Haiti	-2.5	2.7	-4.1	1.9	-3.7	2.1	-5.3	1.3
Liberia	-36.2	1.1	-41.3	0.3	-40.2	0.4	-45.2	-0.4
Madagascar	-16.7	2.9	-17.9	2.3	-16.6	2.9	-17.9	2.3
Malawi	-4.4	1.5	-5.8	0.9	-5.1	1.1	-6.4	0.5
Maldives	-19.2	-2.3	-22.5	-3.0	-17.4	-1.8	-20.6	-2.5
Mauritania	-12.0	2.0	-11.7	1.9	-12.5	1.9	-12.2	1.8
Nicaragua	-20.3	2.6	-24.2	1.6	-18.0	3.2	-21.8	2.2
Pakistan	-6.1	2.8	-7.4	1.7	-6.5	2.5	-7.8	1.4
Samoa	-6.8	2.3	-7.9	1.9	.	.	.	.
Sri Lanka	-4.9	2.6	-6.6	1.7	-5.4	2.3	-7.2	1.4
St. Lucia	-17.9	2.2	-20.2	1.5	-19.9	1.5	-22.2	0.9
St. Vincent & Grens.	-23.3	2.2	-24.4	1.8	-24.5	1.8	-25.6	1.4
Sudan	-5.6	2.9	-0.7	6.8	-5.7	2.7	-0.9	6.7
Tajikistan	-7.1	0.9	.	.	-8.7	0.2	.	.
Togo	-6.7	2.4	-11.7	0.9	-6.6	2.4	-11.6	1.0
Tonga	-17.2	2.2	-23.4	0.4	-20.9	1.0	-27.1	-0.7
Vietnam	-11.9	2.3	-11.9	2.2	-10.1	2.6	-10.2	2.6

Table 1.a continued. Impact of Oil and Food Price Increases on the Projected 2009 External Position of PRGF-eligible countries

	Before Shock		Oil price shock		Food price shock		Combined shock	
Country [1]	CA [2]	Reserves [3]	CA [2]	Reserves [3]	CA [2]	Reserves [3]	CA [2]	Reserves [3]
22 Countries with reserves covering more than three months of imports in goods and services before and after shocks								
Afghanistan, I.R. of	-3.1	9.0	-5.0	7.1	-3.9	8.4	-5.8	6.5
Albania	-5.5	4.0	-6.3	3.6	-6.3	3.6	-7.2	3.2
Armenia	-5.0	4.5	-5.4	4.2	-5.9	4.0	-6.3	3.7
Azerbaijan, Rep. of	39.2	6.9	46.7	16.6	39.1	6.8	46.6	16.5
Benin	-6.0	10.3	-6.9	9.2	-6.6	9.7	-7.5	8.6
Bolivia	8.6	16.5	8.3	16.1	8.6	16.5	8.4	16.1
Burundi	-12.2	4.4	-14.1	3.4	-12.4	4.3	-14.3	3.3
Cameroon	-0.4	6.5	1.7	8.1	-0.6	6.4	1.5	7.9
Comoros	-4.3	7.2	-5.8	6.2	-5.7	6.3	-7.1	5.3
Gambia, The	-10.9	4.0	-11.7	3.6	-11.5	3.7	-12.3	3.3
Guinea-Bissau	2.8	8.1	1.4	7.2	17.4	17.1	16.3	16.0
India	-3.4	10.1	-4.5	8.9	-3.3	10.2	-4.4	9.0
Moldova	-10.6	3.6	-12.8	3.1	-11.3	3.5	-13.4	3.0
Mozambique	-10.3	4.5	-11.6	3.8	-11.9	3.7	-13.2	3.1
Nepal	0.2	6.0	-0.8	5.3	0.0	5.9	-0.9	5.2
Nigeria	5.7	15.5	11.3	19.5	5.2	15.0	10.9	19.1
Papua New Guinea	1.7	6.7	4.6	7.6	2.3	6.9	5.2	7.7
Rwanda	-12.7	4.8	-14.1	3.7	-12.8	4.7	-14.2	3.7
São Tomé & Príncipe	-32.9	6.0	-35.4	5.1	-34.8	5.4	-37.3	4.5
Uganda	-9.3	6.1	-10.1	5.5	-8.6	6.5	-9.4	5.9
Uzbekistan	20.8	17.5	20.8	17.5	21.0	17.8	21.0	17.8
Yemen, Republic of	0.9	9.2	3.4	10.4	0.2	8.7	2.8	9.9
11 Countries with insufficient data								
Angola	11.8	5.9	23.6	14.1	.	.	.	.
Bhutan	2.3	10.8	1.4	10.3	.	.	.	.
Burkina Faso	-10.7	4.9	-11.9	3.8	.	.	.	.
Chad	-4.0	4.6	4.1	8.5	.	.	.	.
Congo, Republic of	10.9	14.3	22.8	19.8	.	.	.	.
Lesotho	4.5	6.8	4.4	6.8	.	.	.	.
Mali	-6.7	5.6	-8.4	4.3	.	.	.	.
Myanmar	2.0	3.8	2.0	3.8	.	.	.	.
Somalia	.	.	.	.	.	.	.	.
Vanuatu	-10.1	6.0	-11.1	5.5	.	.	.	.
Zimbabwe	.	.	.	.	.	.	.	.

Source: World Economic Outlook and Staff's calculations.

Notes: Severe shocks are highlighted in yellow (drop in reserves superior to 0.5 months of imports).

[1] *For some countries, projections and data may have changed significantly since the Spring 2008 WEO submission (e.g. Tonga).*

[2] *in percent of GDP*

[3] *in months of next years' imports of goods and services.*

Table 1.b. Impact of Oil and Food Price Increases on the Projected 2009 External Position of MICs

	Before Shock		Oil price shock		Food price shock		Combined shock	
Country [1]	CA [2]	Reserves [3]	CA [2]	Reserves [3]	CA [2]	Reserves [3]	CA [2]	Reserves [3]
10 Countries with low reserves after the upward revision in fuel prices								
Barbados	-7.5	3.3	-9.0	2.8	-8.4	3.0	-9.9	2.5
Guatemala	-5.4	3.4	-6.8	2.5	-5.3	3.4	-6.7	2.6
Jordan	-13.4	3.2	-17.7	2.2	-14.6	2.9	-18.8	2.0
Latvia	-10.5	3.2	-11.6	2.6	-10.7	3.1	-11.8	2.5
Malta	-5.8	3.8	-9.6	2.9	-6.6	3.7	-10.4	2.7
Paraguay	0.4	3.4	-1.0	3.0	3.6	4.4	2.2	4.0
South Africa	-7.9	3.4	-9.1	2.7	-7.8	3.4	-8.9	2.8
St. Kitts and Nevis	-28.3	3.4	-30.0	2.8	-29.9	2.8	-31.6	2.2
Swaziland	-1.6	3.3	-4.8	2.4	-1.1	3.4	-4.3	2.5
Ukraine	-9.7	3.4	-11.0	2.8	-9.5	3.5	-10.7	3.0
18 Countries with low reserves before the upward revision in food and fuel prices								
Antigua and Barbuda	-14.6	2.1	-16.8	1.4	-15.7	1.7	-17.9	1.1
Bahamas, The	-13.8	0.9	-15.5	0.4	-14.8	0.5	-16.5	0.0
Belarus	-7.7	1.5	-7.5	1.5	-7.9	1.5	-7.7	1.4
Belize	-4.3	2.0	-5.7	1.5	-3.1	2.4	-4.5	2.0
Czech Republic	-2.8	2.2	-3.6	2.0	-3.0	2.1	-3.8	1.9
Dominican Republic	-3.9	2.3	-5.7	1.4	-4.5	2.0	-6.3	1.0
Ecuador	3.9	2.4	7.1	4.0	5.0	3.1	8.1	4.6
El Salvador	-5.3	2.5	-7.2	1.7	-5.6	2.4	-7.5	1.6
Estonia	-11.2	1.9	-11.4	1.9	-11.6	1.9	-11.8	1.8
Fiji	3.9	0.8	1.8	-0.2	3.7	0.7	1.6	-0.3
Hungary	-5.1	2.3	-7.0	1.8	-4.2	2.5	-6.1	2.0
Jamaica	-11.9	1.9	-15.3	0.9	-12.7	1.7	-16.1	0.7
Lithuania	-8.8	2.7	-9.8	2.3	-8.7	2.7	-9.8	2.3
Namibia	10.0	2.6	8.3	1.9	8.9	2.1	7.1	1.4
Panama	-9.8	2.7	-10.7	2.2	-10.0	2.6	-10.9	2.1
Qatar	40.7	2.5	48.5	9.4	40.5	2.3	48.3	9.3
Seychelles	-41.4	1.0	-42.2	0.9	-44.4	0.5	-45.3	0.4
Slovak Republic	-4.7	2.9	-6.1	2.5	-4.9	2.8	-6.3	2.5

Table 1.b continued. Impact of Oil and Food Price Increases on the Projected 2009 External Position of MICs

	Before Shock		Oil price shock		Food price shock		Combined shock	
Country [1]	CA [2]	Reserves [3]	CA [2]	Reserves [3]	CA [2]	Reserves [3]	CA [2]	Reserves [3]
41 Countries with reserves covering more than three months of imports in goods and services before and after shocks								
Algeria	20.6	41.0	28.5	48.2	19.8	40.5	27.8	47.6
Argentina	-0.5	9.2	-0.3	9.3	1.0	10.9	1.2	11.0
Bahrain, Kingdom of	18.6	6.5	24.3	8.0	18.4	6.4	24.1	8.0
Bosnia & Herzegovina	-15.3	4.4	-17.0	3.9	-17.0	3.9	-18.7	3.4
Botswana	8.3	27.9	6.8	26.2	7.6	27.5	6.1	25.8
Brazil	-0.9	12.6	-1.3	11.6	-0.6	13.1	-1.0	12.2
Bulgaria	-18.9	5.8	-20.6	5.1	-19.1	5.7	-20.8	5.0
Chile	-1.3	4.4	-2.3	3.9	-1.0	4.6	-1.9	4.1
China	10.0	17.6	9.4	16.9	10.0	17.6	9.4	16.9
Colombia	-4.3	6.0	-3.4	6.9	-4.3	6.1	-3.3	6.9
Costa Rica	-6.1	3.7	-7.3	3.1	-5.1	4.1	-6.4	3.5
Croatia	-8.7	4.6	-9.5	4.3	-8.9	4.5	-9.7	4.2
Egypt	-0.5	6.6	-0.1	6.7	-1.0	6.3	-0.6	6.4
Equatorial Guinea	1.5	10.1	17.8	19.3	1.2	9.9	17.5	19.1
Gabon	14.3	7.7	23.0	14.1	13.7	7.2	22.4	13.7
Indonesia	1.2	6.0	0.7	5.5	1.1	6.0	0.7	5.4
Iran, I.R. of	8.4	15.8	12.7	20.2	8.6	16.0	12.8	20.4
Kazakhstan	-1.0	3.4	5.2	6.8	-1.0	3.4	5.2	6.8
Lebanon	-10.2	7.4	-12.9	6.5	-11.2	7.1	-14.0	6.2
Macedonia, FYR	-6.0	4.0	-8.1	3.4	-6.8	3.7	-8.9	3.2
Malaysia	11.1	7.8	11.6	7.8	11.7	7.9	12.2	8.0
Mauritius	-5.8	4.4	-8.4	3.6	-6.3	4.3	-8.9	3.4
Mexico	-1.6	3.3	-1.2	3.5	-1.8	3.2	-1.3	3.4
Morocco	-0.9	8.1	-3.3	6.8	-0.7	8.2	-3.0	6.9
Oman	10.8	8.7	19.1	13.5	10.4	8.5	18.7	13.3
Peru	-0.3	12.9	-0.3	12.7	-0.3	12.9	-0.3	12.7
Philippines	1.0	5.2	-0.5	4.4	0.9	5.2	-0.6	4.4
Poland	-5.7	3.5	-6.5	3.1	-5.5	3.5	-6.4	3.1
Romania	-13.0	4.6	-13.5	4.3	-13.1	4.5	-13.6	4.2
Russia	2.9	18.0	5.5	20.5	2.6	17.8	5.3	20.3
Saudi Arabia	24.0	26.8	32.7	32.8	23.6	26.6	32.4	32.6
Serbia, Republic of	-15.8	5.8	-17.8	4.8	-15.8	5.8	-17.7	4.9
Suriname	-0.6	4.1	-0.4	4.1	-1.0	3.9	-0.9	3.9
Syrian Arab Republic	-5.5	9.0	-5.1	8.7	-5.4	9.0	-5.0	8.8
Thailand	1.3	5.8	-1.7	4.8	2.3	6.0	-0.7	5.1
Trinidad and Tobago	12.5	8.4	17.4	10.7	12.3	8.3	17.2	10.5
Tunisia	-2.7	4.4	-2.6	4.3	-2.7	4.4	-2.6	4.3
Turkey	-6.3	4.2	-7.6	3.2	-6.2	4.2	-7.5	3.3
Turkmenistan	28.1	38.7	31.0	41.0	27.8	38.6	30.8	40.8
Uruguay	-0.8	6.5	-1.7	5.6	0.8	7.8	-0.1	6.9
Venezuela, Rep. Bol.	5.0	5.3	10.2	10.2	4.8	5.0	9.9	10.0
3 Countries with insufficient data								
Kuwait	42.3	5.5	48.6	13.8	.	.	.	.
Libya	38.5	37.8	47.8	43.4	.	.	.	.
United Arab Emirates	26.0	7.4	32.8	10.8	.	.	.	.

Source: World Economic Outlook and Staff's calculations.

Notes: Severe shocks are highlighted in yellow (drop in reserves superior to 0.5 months of imports).

[1] *For some countries, projections and data may have changed significantly since the Spring 2008 WEO submission.*

[2] *in percent of GDP*

[3] *in months of next years' imports of goods and services.*

Appendix II. Fiscal Response Figures and Tables

Figure 1. Fuel Tax Rate Changes Since 2006

Figure 2. Food Tax Rate Changes Since 2006

Figure 3. Fiscal Impact of Tax Decreases and Spending Program Changes
(as a percent of GDP)

Table 1. Pattern of Fuel Tax Decreases by Tax and Country Characteristics

		Tax reductions				Year of reduction			
	Number of Countries	Import	VAT	Sales	Excise	2007	2008	Countries w/changes	Percent of countries
Income group									
High-income OECD	18	2	1	0	3	3	2	4	22
High-income non-OECD	15	1	1	0	0	2	1	2	13
Upper-middle income	49	7	4	0	5	7	11	12	24
Lower-middle income	43	7	4	0	2	8	7	11	26
Low-income	34	1	3	0	6	4	5	8	24
IMF department									
AFR	44	5	3	0	5	6	7	9	20
APD	20	6	4	0	1	4	8	8	40
EUR	38	1	2	0	3	5	0	5	13
MCD	27	4	1	0	3	6	5	8	30
WHD	30	2	3	0	4	3	6	7	23
Net oil trade balance									
Non exporter	138	17	12	0	15	21	24	34	25
Exporter	21	1	1	0	1	3	2	3	14
All Countries	159	18	13	0	16	24	26	37	23

Note: The count for total changes may differ from the sum of 2007 and 2008 because the same country may have tax changes in both years.

Sources: Country authorities and staff estimates.

Table 2. Pattern of Food Tax Decreases by Tax and Country Characteristics

		Tax reductions				Year of reduction			
	Number of Countries	Import	VAT	Sales	Excise	2007	2008	Countries w/changes	Percent of countries
Income group									
High-income OECD	18	17	0	0	0	16	1	17	94
High-income non-OECD	15	5	1	0	0	4	1	5	33
Upper-middle income	49	20	10	2	0	7	19	23	47
Lower-middle income	43	19	4	1	1	10	14	19	44
Low-income	34	15	7	0	0	12	10	20	59
IMF department									
AFR	44	18	8	1	0	5	17	21	48
APD	20	8	4	1	0	3	7	9	45
EUR	38	29	4	0	0	31	1	31	82
MCD	27	12	3	1	1	5	11	12	44
WHD	30	9	3	0	0	5	9	11	37
Net total food trade balance									
Large importer	19	10	5	1	1	4	9	12	63
Small importer	99	47	12	1	0	32	24	28	28
Small exporter	28	15	4	0	0	11	7	9	32
Large exporter	13	4	1	1	0	2	5	6	46
Net cereal trade balance									
Large importer	104	46	16	3	1	21	37	51	49
Small importer	38	20	3	0	0	21	2	22	58
Exporter	17	10	3	0	0	7	6	11	65
All Countries	159	76	22	3	1	49	45	84	53

Note: Large food importer: net imports greater than 3 percent of GDP; large food exporter: net exports greater than 4 percent of GDP; large cereal importer: net imports greater than 0.2 percnt of GDP.
The count for total changes may differ from the sum of 2007 and 2008 because the same country may have tax changes in both years.

Sources: Country authorities and staff estimates.

Appendix III: The Survey Questionnaire and Response Quality

The survey requested information on the nature and cost of tax and expenditure policy responses to higher fuel and food prices. Responses with quantification of fiscal costs have been received from 146 countries. Information from the recent World Bank survey of its country economists on policy responses to higher food prices was used to cross-check responses from IMF country teams. Much of the follow-up has focused on identifying the fiscal cost of specific policies that were identified.

Table 1 provides a summary of the survey responses:

- **Although the response rate has been high, it has varied across area departments.** Out of a total of the 187 countries, 146 (78 percent) have provided quantitative responses to at least some of the fiscal questions. The response rate was lowest in the European (58 percent) and Asia and Pacific (63 percent) Departments. Response rates in the African, Middle East and Central Asia, and Western Hemisphere Departments were over 84 percent.

- **FAD staff has followed up with all of the country teams where clarification on policy changes and fiscal costs was necessary (over half of responding country teams).** Replies have been received from almost all of these follow-ups and updated information is being incorporated when received.

Table 1. Survey Responses by Area Department

	AFR	APD	EUR	MCD	WHD	Total
Total Number	44	32	45	32	34	187
Submission received	44	24	42	31	31	172
(percent)	100%	75%	93%	97%	91%	92%
Submission with BOP only	0	0	10	4	0	14
Submission with fiscal data	44	24	32	27	31	158
Qualitative information only	1	4	6	0	1	12
Quantitative information	43	20	26	27	30	146
Quantitative data on food	39	17	20	24	27	127
Quantitative data on fuel	39	18	20	22	25	124
Quantitative data on subsidies	24	14	8	20	17	83
Quantitative data on transfers	16	9	7	12	17	61
Quantitative data on other spending	21	11	12	19	14	77

Note: Total countries include all member countries except Federated States of Micronesia plus Aruba, Netherlands Antilles, and West Bank & Gaza.

Appendix IV

TABLE 1. POLICY RESPONSES TO FOOD AND PETROLEUM PRODUCT PRICE INCREASES

Policy Instrument	Advantages	Disadvantages
Food Taxes and Tariffs		
Import Tariffs on Food	Countries that have import tariffs on food can reduce or eliminate these to decrease domestic food prices. Import tariffs distort trade patterns and lost revenue can be recouped using more efficient revenue raising instruments as part of a broader reform of the fiscal system. Similar treatment should be applied to all sources of import for a given food in order to avoid distorting trade patterns.	Poor domestic producers can be adversely affected. Higher urban income groups typically receive a relatively large share of the benefit since they consume a relatively large share of total food consumption. Revenue losses need to be recouped elsewhere in fiscal system. Lowering tariffs may be problematic for countries that are part of customs unions.
VAT and Sales Taxes on Food	Countries with existing VAT or sales taxes on food consumption can reduce or eliminate these taxes to decrease domestic prices of food. VAT exemptions are preferable to zero rating on administrative and enforcement grounds.	Revenue losses may need to be recouped using other taxes that could be more distortionary. Higher income urban groups typically receive a relatively large share of the benefit. Difficult to undo since so many households benefit. May lead for request for preferential tax rates for other sectors and is inconsistent with Fund advice to broaden the tax base by eliminating sectoral exemptions and preferential rates. Price and revenue implications of VAT exemptions are difficult to identify when intermediate inputs are subject to VAT.
Export taxes or quotas	Possible if country is an exporter of important food items.	Such taxes and quotas are highly distortionary and reduce the gains from higher prices for exports. Lower prices provide perverse incentives to producers who should be encouraged to increase food production. Exacerbate problem by increasing world prices further.

Policy Instrument	Advantages	Disadvantages
Fuel Taxes and Tariffs		
Fuel Taxes (VAT, excises, import taxes)	Most countries (especially fuel importing countries) generate substantial indirect tax revenues through fuel taxes, especially on gasoline and diesel. Reducing these taxes can lead to domestic fuel prices increasing by less than world prices. Governments often directly control prices and so can enforce domestic price changes quickly. Governments can adjust the mix of ad-valorem and specific taxes to mitigate the impact of increasing world prices.	Fuel taxes are typically seen as an efficient way to raise revenues and reducing them may mean that these revenues have to be financed through more inefficient tax instruments, by cutting back growth-enhancing public expenditures or pro-poor social expenditures, or through inflationary financing that has adverse growth consequences. Higher fuel prices would provide the correct incentives for more efficient use of fuel, encourage lower consumption, and thus mitigate the impact of higher prices on the balance of payments. For fuel exporters, lower prices redirect fuel to domestic consumption and reduce the economic gains from exporting fuel when world prices are high. Higher income households receive the bulk of the benefits of lower fuel taxes since they account for the bulk of fuel consumption.
Food and Fuel Subsidies		
Universal Food Subsidies (Including price controls)	May be possible if there are marketing boards, a few large domestic producers/importers, or if all consumption is imported. If government has sufficient capacity to enforce passthrough of the subsidy, it will lead to an immediate decrease in the domestic price.	Higher income groups typically receive a relatively large share of the subsidy. Can involve a very large fiscal cost, necessitating offsetting fiscal measures, possibly including taxes.
Import Subsidy on Food	May be possible where importers are already regulated or imports are controlled by a few large suppliers. May lead to an immediate decrease in food price.	Import subsidies can be highly distortionary and higher food demand exacerbates adverse terms of trade effect of higher import prices. Financing subsidy bill may involve increasing other distortionary taxes. Higher income groups typically receive a relatively large share of the subsidy. Domestic producers lose at time when increased investment in agriculture should be encouraged.

Policy Instrument	Advantages	Disadvantages
Targeted Food Subsidies	Some countries may have access to existing food subsidy programs that are targeted to low-income groups (e.g. ration programs or geographically targeted programs). Increased budgetary pressures may focus attention on need to improve targeting. If well targeted, a high proportion of the subsidy benefit will go to low income groups.	Can be costly if government is involved in procuring and distributing foods. Require adequate capacity to design and implement well-targeted programs. Alleviate current poverty, but unlikely to have any impact on future poverty through enhancing income earning opportunities.
Fuel Subsidies	Some countries sell fuel domestically at prices below import cost or the export price. This is especially true for kerosene in importing developing countries but also often true for other products in exporting countries.	Subsidies distort domestic fuel consumption patterns and do not provide sufficient incentives to become more energy efficient. For example, low kerosene or diesel prices result in substantial substitution from diesel to kerosene or from gasoline to diesel. For fuel importers, subsidies increase domestic fuel consumption and exacerbates the adverse impact of higher import prices on the balance of payments. For fuel exporters, subsidies similarly reduce the gains from exporting at higher world prices. Fuel subsidies crowd out higher priority public capital expenditures and pro-poor social expenditures. The bulk of fuel subsidies accrue to higher income households that consume the bulk of total fuel consumption. Low kerosene prices can result in the redirection of kerosene to the transport sector with resulting shortages, especially in poor remote rural areas.
Transfer Programs		
School Feeding Programs	Countries with existing programs can increase subsidy and expand coverage. Can be well targeted if focused on public schools and primary school children. Provide incentives for enrolling children in schools and can improve student participation in learning process.	Does not cover poor households without children attending schools participating in the program. Can be costly if government involved in procuring and distributing foods.
Fee Waivers	Countries with school registration and attendance fees or health clinic fees can reduce or eliminate these fees. Eligibility can be restricted to those attending public facilities and even geographically to poorest areas. Can provide incentives to attend schools and health clinics.	May result in large undercoverage of poor if these do not access education and health service facilities. Poor without children do not benefit from lower school fees.

Policy Instrument	Advantages	Disadvantages
Public Works Programs	Countries with existing public works programs can increase coverage and nominal wages paid.	Requires capacity to design and implement such programs and expand within short time scale. A substantial amount of budget can be absorbed by administrative, managerial and input costs. Typically these programs are concentrated in poorer localities and thus do not cover poor in other localities. When payment is in food this can increase administrative cost of the program. Not effective at targeting the working poor, disabled, or women with very young children.
Targeted Cash Transfers	Some countries may be able to expand existing targeted safety net programs with broad coverage of poor. The level of transfer and/or the coverage of poor households could be quickly expanded (or indexed). If transfers are in cash then these may be less administratively costly to deliver and do not distort prices. Transfers can be conditioned on household investments in human capital (e.g. attendance at school, training, health clinics, agricultural extension programs)	These require an administrative capacity to design and implement well targeted programs. Often not easy to scale up coverage of these programs in very short term. Takes time and resources to design and implement or to expand coverage
Other Policies		
Agricultural Input Subsidies	Countries can subsidize the import of agricultural inputs such as fertilizer and pesticides. These are intended to stimulate domestic production of foods and reduce reliance on imports.	Typically the larger farm holders gain most from these programs and price subsidies can be fiscally costly without addressing the underlying objective of increasing agricultural productivity.
Wage and pension adjustments	Countries often increase minimum wages, civil service wages or state pensions where these are not automatically inflation indexed. Where they are indexed, additional adjustments are not required.	These policies do not typically benefit the poorest households since they typically work in the informal sector.

Appendix V. Balance of Payments Effects and Fund Relations

Table 1. Low-Reserves and High Impact Low-Income Countries and Fund Relations (as of June 26, 2008)

	Low-reserves Countries 1/	High Impact Countries 2/	Countries with Progams	Augmentations 3/
Afghanistan			PRGF	
Albania			PRGF	
Armenia				
Bangladesh	√	√	ENDA	
Benin		√√	PRGF	√
Burkina Faso		√	PRGF	√
Burundi		√		
Cambodia	√	√		
Cameroon			PRGF	
Cape Verde	√	√	PSI	
Central African Republic	√	√	PRGF	√
Chad				
Comoros		√√		
Congo, Dem. Rep. of	√		SMP	
Congo, Rep.			SMP	
Cote d'Ivoire			EPCA	
Djibouti	√	√		
Dominica	√	√	ENDA	
Eritrea	√	√√		
Ethiopia	√	√		
Gambia, The			PRGF	
Georgia	√			
Ghana	√	√		
Grenada	√	√	PRGF	
Guinea	√	√	PRGF	
Guinea-Bissau		√	EPCA	
Guyana	√	√		
Haiti	√	√√	PRGF	√
Honduras	√		SBA	
Kenya	√	√		
Kyrgyz Republic	√	√		√
Lao PRD	√	√		
Liberia	√	√√	PRGF	
Madagascar	√	√	PRGF	
Malawi	√	√	PRGF	
Maldives	√	√		
Mali		√	PRGF	√
Mauritania	√		PRGF	
Moldova			PRGF	
Mongolia	√	√		
Mozambique		√√	PSI	
Nepal		√		
Nicaragua	√	√	PRGF	
Niger	√	√	PRGF	√
Nigeria				
Pakistan	√	√		
Rwanda		√	PRGF	
Samoa	√	√		
Sao Tome and Principe		√√	PRGF	
Senegal	√	√√	PSI	
Sierra Leone	√	√	PRGF	
Sri Lanka	√			
St. Lucia	√	√√		
St. Vincent and the G.	√	√√		
Sudan			SMP	
Tajikistan	√	√	SMP	
Tanzania	√	√	PSI	
Togo	√	√	PRGF	
Tonga	√	√√		
Uganda		√	PSI	
Vietnam	√			
Yemen		√		
Zambia	√	√	PRGF	

1/ Reserves coverage of less than 3 months after the oil and food price shock.

2/ Change in reserves coverage by more than 0.5 months of imports as a result of either shock.
Two "√√" indicates high impact for both the food and fuel price shock.

3/ Includes new arrangements with higher access than planned initially.

Table 2. Low-Reserves and High Impact MICs and Fund Relations
(as of June 11, 2008)

	Low-reserves Countries 1/	High Impact Countries 2/	Countries with Progams	Precautionary
Gabon			SBA	√
Macedonia		√	SBA	√
Paraguay			SBA	√
Peru		√√	SBA	√

1/ Reserves coverage of less than 3 months after the oil and food price shock.
2/ Change in reserves coverage by more than 0.5 months of imports as a result of either shock.
Two "√√" indicates high impact for both the food and fuel price shock.