



Rabobank

Price fighters

Increased demand in emerging markets, combined with a series of failed harvests have sent food prices through the roof (see table 1). Galloping food prices not only increase the costs of living, but also fuel public unrest. This begs the question whether public unrest will take the form of silent discontent, or whether it will result in destabilizing riots. To answer this question, we analyze the link between food price inflation and public unrest. Following that, we also consider how, when and why relatively uneventful protests explode into full-blown political crises and which countries are at risk. We conclude with a short discussion on the role of governments in preventing destabilizing protests.

The poor suffer most

Even though the steeply rising food prices are a global phenomenon, not everyone is affected in the same manner. As agricultural markets are still relatively protected, those living in surplus countries (i.e. countries where food production exceeds consumption) do not bear the full burden of higher global food prices. In contrast, people living in countries that rely heavily on food imports are affected more severely, especially when the government does not implement food subsidies. And, while the rich spend only a small percentage of their income on food, for the poor, food consumption takes up a large share. Hence, their costs of living are going up considerably. To illustrate, World Bank estimates show that due to the increased costs of living, the number of people living in poverty increased by 44 million between June 2010 and December 2010. To make matters worse, high food prices are complemented by high fuel prices. Higher fuel prices not only add to the costs of living directly, but do so indirectly, by driving up the transportation costs of food items.

Table 1: Global food price rises

Price rises in % in the period of 1Q10 to 1Q11

Maize	74%
Wheat	69%
Palmoil	55%
Soybeans	36%
Beef	30%
Bananas	23%
Sugar	21%
Soybean meal	18%
Rice	-2%

Source: FAO, 2011

From price hikes to public unrest

Since the poor are hit hardest, it would seem logical that they are also the most likely to protest the price hikes. Simply put, starvation should be a great motivation for protest. But this apparent logic does not hold up. For decades the poor have been starving in silence. However, even though price *levels* may not directly motivate protests, the *transition* to higher prices may. In light of increased food prices, maintaining the same calorie intake (and quality of calories) means having to cut spending on other goods. This adjustment is painful and is likely to inspire unrest. Even if people have accepted their low-income fate, coping with a steep reduction in real income remains difficult.

What could make this transition even harder are high levels of price volatility. Volatility reduces a person's ability to foresee price movements and thereby their ability to deal with its effects.

Another reason why food price inflation could inspire public unrest is a general feeling of *unfairness*. There is a multitude of factors to trigger such a feeling. For instance, the sense of betrayal is aggravated when politicians not only fail to put their words into action, but also appear to benefit from this lack of commit-

ment. A clear example were the latest protests in Kenya. Protesters did not demand lower prices, but instead insisted that taxes on food and fuel should be removed, as they only benefit corrupt politicians. The fact that the elite was allegedly benefitting from the inflation triggered the unrest.

Combining both the *unfairness explanation* and the *transition explanation*, we obtain a more complete picture of the link between food prices and social unrest. We argue that the interaction between increasing and/or volatile food prices and (other) social injustices provides the main explanation for the initial unrest. In some cases the focus will lie on the increased costs of living, while in other cases the pre-existing social injustices will hold more explanatory power.

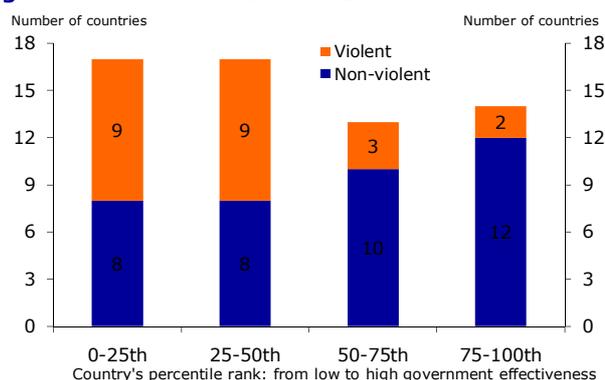
From public unrest to public outrage

Under certain conditions food price inflation can trigger more than discontent alone. In countries with fragile political and social systems, discontent over food prices could easily snowball into much more destabilizing protests.

The International Food Policy Research Institute (IFPRI) studied the most recent food protests. It researched protests in 61 countries during 2007-2008 food price increases and categorized the government effectiveness and the nature of the protests, see chart 1. The chart includes both developed and developing countries. IFPRI found that for countries with a low score on the policy effectiveness index, the number of violent protests, as a share of total protests, is much higher.

Of course, policy effectiveness is not the only indicator that affects the impact of food price rises on political and social stability. The Political Instability Task Force (PITF) analyzed previous episodes of political instability, to find that regime type, demographics, economic freedom and corruption are all important in explaining political instability.

Chart 1: Food protests by type and government effectiveness 2007-08



Source: IFPRI 2011

Especially fragile governments are at risk, as are extremely corrupt governments. In addition, a large young population increases the risk of social uproar, especially when a large percentage of this population is unemployed. For these groups the opportunity costs of organizing protests is relatively low.

Based on these indicators the PITF created a political stability index that ranks countries according to the probability of increased social unrest. In countries that rank high (i.e. are more risky), the effect of increased public unrest due to higher food prices is bound to be greater. For instance, the chance that rising food prices trigger destabilizing protests is much greater for Zimbabwe than in, for instance, Chile.

Countries at risk

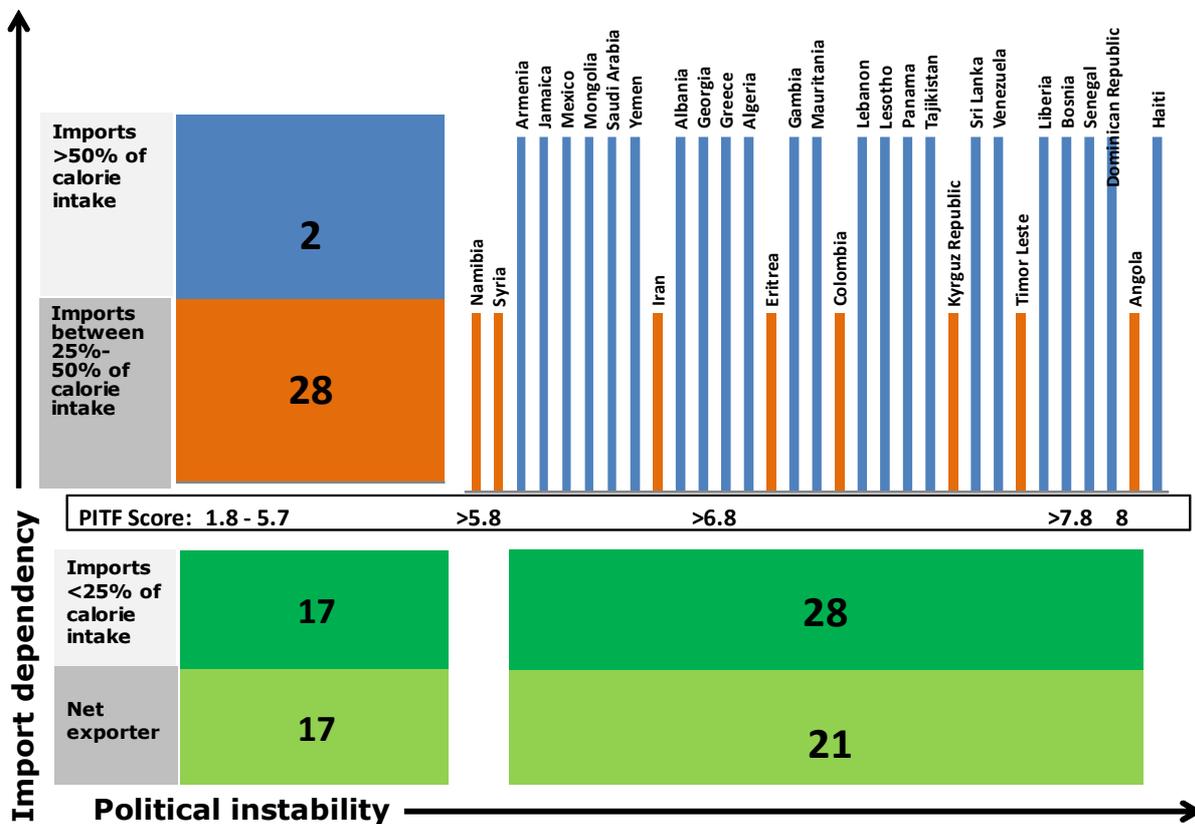
To estimate which countries are most vulnerable to the combined effects of food price inflation, fragile institutions, the lack of economic freedom and unfavorable demographics, we constructed a risk diagram, see diagram 1. First we estimated the impact of food price inflation, using the ratio of total net food imports (measured in calories) to total calorie intake per country. The rationale being that countries that import a large percentage of their total calorie intake are regarded more vulnerable to changes in global food prices. To get an idea of the underlying political and

social conditions in each country, we employed the scores from the PITF index.

By combining these sources we are able to group the countries that at least import 25% of their calorie intake, into four categories. The first category, displayed in the lower left box, includes countries that are net exporters, or import less than 25% of their total calorie intake and for which political risks are low (i.e. countries that scored below the mean of 5.8 points -out of 10- on the PITF index). Moving to the right we find countries that are equally import dependent, but less politically and socially stable and therefore score worse on the PITF index (between 5.8 and 10 points). Moving up, we find countries that import over 25% of their calorie intake. Again, political and social conditions are worse for countries located more to the right. Accordingly, the upper right box contains the countries that are most prone to food price induced political and social instability.

Comparing our risk diagram to the reality in the analyzed countries, we find that in the last six months, food protests have occurred in many of the 'high-risk' countries. Moreover, in most cases rising food prices triggered grievances over pre-existing political, social and economic injustices. For instance in Algeria, food price inflation motivated anti-government protests. Meanwhile, in Haiti, high food prices fuelled widespread discontent over the country's precarious economic and political situation. In contrast, for some countries in the upper right quadrant the short-term risks could be lower than suggested by our diagram. In those countries, governments are successful in intervening in a timely manner. For example, in Venezuela and the Dominican Republic food price subsidies are likely to keep public unrest at bay, at least in the short term. Other countries, such as Mauritania, learned their lesson during the 2007-08 food crisis and stood ready to provide emergency relief.

Diagram 1: Countries at risk



The numbers in the coloured squares indicate the total number of countries in that category

Another group of countries is wrongly excluded from our diagram. These are countries that suffer from food price inflation, but are not large food importers. For these countries high food prices are often related to domestic issues, such as a failed harvest. Examples are Kenya, Uganda, Cameroon, India, Bangladesh and Indonesia. In all these countries food riots are commonplace. Finally, some countries in the high risk quadrant have not yet experienced heavy political and social unrest. These countries at high risk of unrest include Tajikistan, Bosnia, Panama, Kyrgyzstan and Liberia.

How to prevent a crisis

All around the world, governments are implementing food subsidies to battle rising and volatile food prices, in hope of preventing riots. This strategy makes sense in the short run. As mentioned above, some governments have indeed avoided riots by preventing prices from going up. However, in the long run, subsidies will put pressure on public budgets. In time, when prices fail to come down, subsidy expenditures will ultimately become unsustainable and governments will be forced to cut them. History shows that subsidy cuts cause as much turmoil as the high food prices they were meant to prevent.

We therefore argue that any government attempting to avoid a full-blown political crisis should address the underlying issues. In many cases this would imply that governments should first of all improve their own effectiveness and institutional quality. Next to that, pro-poor growth and social development should be on top of their to-do lists. Finally, governments could also address the trigger (i.e. food price inflation) by raising agricultural productivity and thus securing a stable food supply (and more stable prices).

Of course, these measures require substantial political will and resources. Given the poor track record of many of the high-risk countries we should not expect any miracles.

Conclusion

Galloping food prices are likely to trigger public unrest in many countries. Whether they will also trigger anti-government protests depends on a country's institutions, its level of economic freedom, its level of corruption, as well as its demographic make up. Combining these factors with each country's dependence on food imports we are able to show which countries are most at risk of experiencing destabilizing protests. Yet, even high risk countries are not by definition doomed. By providing a combination of emergency relief and food subsidies and by implementing the necessary political and economic reforms they could create political stability. Whether they are willing to do so is much less certain.

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