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A cacophony of policy responses

Evidence from fourteen countries during the 2007/08 food price crisis

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Abstract

Phenomenal increases in food prices in 2007 and 2008 caused governments around the globe to panic. During the chaos which ensued, most developing countries responded to the crisis with a convoluted array of policies intended to stabilize domestic markets, placate consumers and other stakeholders, protect the vulnerable and, occasionally, address long-term food security concerns. However, there was a great deal of variation in the extent of intervention and the types of policies selected. Even among particular policy types, there was tremendous heterogeneity in timing, scale, implementation mechanisms, and other features. Utilizing a newly compiled sample of fourteen country-level case studies, this paper assimilates available evidence to compare the specifics of crisis responses. In this regard it differs from other policy response studies which focus more on policy types and titles, ignoring the details.

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1 Introduction

This paper is a synthesis of all policy responses reported in fourteen country studies undertaken by a project on the political economy of food price policy.[1] Drawing from the rich accounts supplied by case study authors, it provides an overview of each country's crisis response including details as to the magnitude, timing, and other policy particulars. Although this paper is primarily intended as a synthesis, it also examines differences in policy responses across countries and, where available in the case studies, presents evidence concerning the factors which mitigated or enhanced policy effectiveness.

The remainder of the paper proceeds as follows. Section 2 lays out the framework used to classify policies and countries. Section 3, which covers policy responses, is divided into three subsections according to policy type—price policies, output policies, and safety nets. Each subsection in Section 3 is further divided according to country type. In this way the paper reviews price policies for each of the three country types—interveners, observers, and dabblers—then output policies, and lastly safety nets. Finally, Section 4 provides concluding observations.

2 Analytical framework

In order to facilitate comparison between different countries and the policies each pursued, this paper has been structured around policy type—increasing production, reducing or stabilizing prices, or protecting vulnerable groups—and country category. The three policy types loosely follow Wiggins et al. (2010; see section 2.2, 'Policy Response Framework' and accompanying table), but with at least one notable exception. Wiggins et al. only consider short-term policy responses. To provide as much detail as possible regarding crisis responses, this study includes all policies. More than just comprehensiveness, this approach is justified in that policy is not made in a vacuum and implementing one policy may influence a government's will or ability to implement others. A final point regarding short-term versus medium-term and long-term responses is that some policies defy such classification. Short-term production subsidies may have long-term impacts; furthermore, without the benefit of hindsight it is difficult to determine whether a policy intended to be temporary actually was.

Countries have been organized into three broad categories according to the degree to which they responded to the crisis. The first and largest category, consisting of Egypt, Ethiopia, Kenya, Malawi, Senegal, Zambia, China, and India, will be referred to as the interveners. This designation represents the willingness of each of these eight countries to go to extraordinary lengths to manage food prices. The second category of countries, consisting of only South Africa and Brazil, will be referred to as the observers; authorities in both countries took note of developments in food markets, contemplated taking action, but, believing existing social safety

[1] The project 'The Political Economy of Food Price Policy' was co-ordinated by Cornell University, UNU-WIDER, and Copenhagen University. The country studies are available at: http://www.wider.unu.edu/research/current-programme/en_GB/Political-Economy-of-Food/

nets sufficiency, ultimately decided to do little more than continue monitoring developments. The third category of countries defies categorization as either interveners or observers and will be referred to as dabblers. Bangladesh,[2] Mozambique, Nigeria, and Vietnam responded to the crisis, but are distinct from interveners in that these countries' responses were more restrained. It is an open question why these countries demonstrated more restraint than their intervening counterparts, though it may be due to political economy concerns (Watson 2013) or underlying structural factors (Baltzer 2013).

3 Policy responses

3.1 Price policies

Following Wiggins et al. (2010) price policies refer to measures intended to reduce or stabilize food prices. Price policies can be implemented at the border (e.g. export bans and tariff adjustments) or within the domestic market (e.g. price controls and untargeted subsidies). This is a departure from typical policy classifications and is intended to capture the economic rationale behind these policies during the crisis period. To present all of the policies as concisely as possible, this paper has divided price policies into four subcategories: supply management measures; export bans; tariff and VAT adjustments; and price controls, broad subsidies and monetary policy (see Table 1).

Interveners

Interveners, more than any other group, responded to the crisis with measures designed to control prices (see Table 1). Each of the eight countries in this category responded with price policies, and nearly all of them responded with at least one price policy from each of the four price policy categories making price control the most common response among interveners. Despite this tremendous effort, prices almost invariably spiraled out of control—China and India being the two exceptions. Underlying structural factors and domestic market conditions account for much of the price behaviour experienced in the present sample (Baltzer 2013). Lack of market integration, for example, mitigated transmission and poor harvests reduced the ability of many interveners to effectively manage prices. As discussed by Baltzer (2013), these factors were possibly compounded by grain substitution and the resulting spillover of price hikes from one grain market to another. In addition, many of the intervener case studies implicate the strategic behaviour of market participants as exacerbating price movements and reducing policy effectiveness. This behaviour, especially hoarding, has also been recognized in the broader literature (Timmer 2009; Jayne and Tschirley 2010). A final factor discussed by case study authors as to why policies succeeded or failed to control prices is the actual effectiveness of the policy itself. Many case authors fault poorly formulated policies, lack of funding, flawed

[2] As will be demonstrated later in the paper, Bangladesh is somewhat of a borderline case and responded in many ways more like an intervener. It was ultimately included among dabblers rather because it failed to implement broad untargeted subsidies or price controls and because its export ban was more symbolic than real. All other interveners either put into place binding export restrictions, price controls, untargeted subsidies, or some combination of the three.

implementation, or poor timing or co-ordination for the lack of anticipated results. Where evidence is available in the case studies that such factors were at play, it will be woven into the discussion which follows.

All of the interveners in our sample engaged in activities to manage grain supply (see Table 1). Many authors report both release of reserves into the market and increased procurement. In most cases it is unclear if these actions were undertaken simultaneously so that increased procurement neutralized the downward price pressure exerted by releasing additional grain, or if release and procurement were sequentially co-ordinated. In many cases it is also unclear that the supply increase was of sufficient quantity to have more than a marginal price effect. Finally, although each intervener responded with some form of supply management, there is great variation in the instrument used. In fact, considerable diversity in the details of policy responses is apparent within and between all policy categories and subcategories and is an overriding characteristic of crisis responses in the present fourteen country sample.

Interveners such as Ethiopia, Kenya, Senegal, and Zambia report having attempted to procure grains from abroad. Kenya and Zambia looked to South Africa and Senegal signed a five-year contract to import Indian rice. Ethiopia’s 2007 and 2008 wheat imports came from multiple sources, especially Romania, Bulgaria, Ukraine, the United States (US), and Italy (Admassie 2013). Nzuma (2013) reports that Kenya’s imports suffered major delays, perhaps because the government suspended plans to import maize then later reversed its decision. Senegal’s procurement appears to demonstrate long-term thinking in an environment of rising and volatile food prices. However, the Senegalese government entered into the agreement with India in March 2008 when international prices were near their peak and may have paid a high price for precaution. In contrast to many other interveners, Huang et al. (2013) report that China’s supply management response was well co-ordinated. The Chinese government first increased foreign procurement by entering into futures contracts in late 2007, and soon after put into place an export ban. By buying on the futures market before banning exports, China may have protected itself from the rise in international prices many have attributed to such trade restrictions. Huang et al. also report China released a significant amount of grain from reserves, though release apparently did not keep pace with procurement as stocks increased substantially over the crisis period (Baltzer 2013). Similarly, although Ganguly and Gulati (2013) report India released large quantities of rice and wheat, procurement must have outstripped release as stocks increased for both grains, especially for wheat which rose by an extraordinary 8.9 per cent (Baltzer 2013).

Admassie (2013) reports that Ethiopia released emergency wheat reserves directly to consumers through consumers’ associations organized at local levels and to flour mills, although it is unlikely the quantity was sufficient to influence overall domestic price (though it is conceivable that such release significantly lowered local prices). Ethiopia also distributed significant quantities through other channels (ibid.). Egypt is somewhat of a special case in that the government is the largest buyer of domestically produced wheat during normal years and also a major distributor, still Ghoneim (2012) reports that procurement rose significantly in 2007-08 to 2.5 million tons, up from 1.8 million in 2006-07. Finally, Malawi increased domestic procurement efforts through its National Food Reserve Administration (NFRA). Chirwa and Chinsinga (2013) implicate procurement efforts as *exacerbating* rather than ameliorating Malawian maize price increases.

Table 1: Intervener price policies

Country	Supply Management	Export Bans	Import/Export Tariffs & VAT	Price Controls, Broad Subsidies & Monetary Policy
Egypt	Wheat procurement increased from 1.8 million tons in 2006/07 to 2.5 million tons in 2007/08	Export ban on rice (April 2008)	Export tariff on rice (late 2006), increased in 2007 and 2008; suspension of rice import tariffs (Apr. 2008)	Food subsidies doubled between 2006/07 and 2008/09, mostly for baladi bread; 15-22 million people added to ration card system (Jan. 2008)
Ethiopia	Informal suspension of WFP local procurement; increased imports	Export ban on teff, wheat, maize, and sorghum (Dec. 2006); later expanded to all cereals (Jun. 2008)	VAT and turnover tax suspended for all major food items and cereals (Mar. 2008)	Price ceiling on certain foods; enforced by task force with mandate to close shops and arrest non-compliant traders Release of at least 5,000 Mt of emergency wheat reserves to mills; sales to urban mills at subsidized prices Loose monetary policy leading up to crisis; tighter during crisis with reserve requirements increased from 5% to 10% in 2007 then 15% in 2008; liquidity requirements for commercial banks increased to 25% (Apr. 2008)
Kenya	Increased efforts to build stocks through aggressive importation	Export ban on food crops (Oct. 2008)	Wheat import tariff reduced from 35% to 10% (Jun. 2008); maize import tariff suspended VAT on wheat and maize flour suspended	Maize sold to millers at Ksh 1,750 per 90 Kg bag, Ksh 200 below the gvt's. producer price

Table 1: Intervener price policies (continued)

Country	Supply Management	Export Bans	Import/Export Tariffs & VAT	Price Controls, Broad Subsidies & Monetary Policy
Malawi	National Food Reserve Administration increased procurement efforts	Maize exports banned (Apr. 2008) and no export licenses issued in 2007/08 season		Maize ceiling increased (2007/08); to maintain the ceiling, large private traders temporarily banned from domestic market (Aug. 2008) Macro policy dampened inflation, contributed to relatively stable exchange rates
Senegal	Five-year contract with Indian gvt. to procure 600,000 Mt. of rice annually (Mar. 2008)		Import tariff on wheat (5%) and rice (10%) suspended (July/Aug. 2007) 18% VAT for all levels of bread production chain lifted July/Aug. 2007)	Price ceiling for wheat & baguettes (Nov. 2006); price ceiling for scented broken rice (July 2007); rice subsidy given to distributors to maintain the ceiling (Apr.-Jul. 2008)
Zambia	Gvt. maize imports from South Africa	Maize exports banned (Jan.-Aug., 2008-2009); wheat exports banned (Jun. 2009)		Large-scale maize millers subsidized at 50% (Dec. 2008), later reduced to 40% (Mar. 2009); total subsidized sales of app. 120,000 Mt
China	Release of wheat, rice, and maize reserves (late 2007); increased foreign procurement through futures contracts (late 2007)	Food and feed exports banned (late 2007)	Suspension of maize export subsidies (Nov. 2008); 5% export levy raised on food grains Suspension of VAT rebates for maize; VAT removed from rice & wheat	Loosening of monetary policy in late 2008, more as a result of the financial crisis
India	Wheat procurement doubled in 2008/09 to 22.7 million Mt. Large quantities of rice and wheat released from stocks.	Wheat exports banned (Feb. 2007); exports of common rice banned (Oct. 2007), but no effect on existing contracts	Zero import duty on selected food items	Reserve ratios lowered and money supply increased at a rate of about 20% in 2006/07 and 2007/08

Source: country studies from the ‘Political Economy of Food Price Policy’ project.

In an effort to manage prices, seven out of our eight interveners banned exports (see Table 1). Only Senegal failed to put a ban in place, which would be surprising given its other policy measures and the government's apparent determination to control food prices, except that Senegal is not typically a rice exporter and ban was thus unnecessary. Among the earliest interveners to apply bans are Ethiopia, India, and China. Ethiopia's ban came in late 2006, prior to the steep run-up in international prices. This is likely a reflection of domestic conditions, namely high general inflation rooted in loose monetary policy (Admassie 2013). The latest intervener to ban exports was Kenya which apparently did not ban exports until October of 2008, months after international prices had begun a precipitous decline. The timing of this response is perplexing, especially given Kenya's extremely high domestic prices and trade position (Baltzer 2013). Perhaps then the Kenyan ban was mostly symbolic in nature. Nonetheless, Nzuma (2013) implicates the ban as reducing producer and consumer welfare, a possibility which is echoed by other case study authors regarding their own countries' bans.

Of the seven interveners which implemented bans, four (Egypt, Kenya, Malawi, and Zambia) note that such measures were problematic and suffered reduced effectiveness, especially due to informal cross border trade or strategic behaviour by the private sector (e.g. storing grain until the ban is removed). Neither the India nor China case study authors reported any such difficulties implementing export bans, nor does Admassie (2013) report difficulties with Ethiopia's ban. In the cases of India and China, border measure effectiveness was facilitated by state-controlled grain sectors, while in the case of Ethiopia the absence of problems may be due to domestic grain prices which were in some cases triple the international price, thus removing export incentives (Baltzer 2013).

Tariff adjustments and modifications to value added tax (VAT) likely played a minor role in protecting consumers from food price increases during the global crisis (Demeke et al. 2009; Baltzer 2013). Still, three-fourths of interveners used such measures in an attempt to insulate consumers, Malawi and Zambia being the two exceptions. Egypt and China imposed export tariffs on certain grains; in the case of Egyptian rice the tariff was put in place as early as late 2006. Ghoneim (2012) reports the tariff was increased in 2007 and 2008 before ultimately being abandoned in favor of a ban due to traders' ability to circumvent the tariff. The ban apparently suffered similar challenges (Ghoneim 2012). Four of the interveners included in our sample also reduced or eliminated import tariffs, though as discussed by Baltzer (2013) and elsewhere in the literature, tariffs were generally very low[3] to begin with and it may be that more interveners failed to lower import tariffs because they were already at zero (Malawian maize) or because they are self-sufficient (Zambian maize). Kenya is perhaps an exception, having considerably reduced wheat and suspended maize import tariffs from initially high levels. Kenya and Senegal combined import tariff adjustments with elimination of VAT and China combined elimination of VAT with its export levy and suspension of export incentives. While VAT reductions only covered a few specific food items in every other country, Ethiopia, the sole intervener not to combine changes in VAT with tariff adjustments, suspended VAT across the board for all major food items and cereals.

[3] See Baltzer (2013) Table 2 'Tariff waiver impact indicators' for initial tariff and import dependence levels before the crisis.

Interveners were much more likely than any other group to respond to the crisis with sweeping subsidies or price edicts (see Table 1). The two exceptions to this are India and China which both preferred the use of stocks to manage prices, perhaps because more than any other interveners they had stocks at their disposal. Among the remaining six interveners, Malawi responded with price controls, Kenya and Zambia with general subsidies, and Egypt,[4] Ethiopia, and Senegal with a combination of the two (although at least for Senegal the two approaches were sequential rather than combined—when price controls failed, general subsidies were implemented). With the exception of Ethiopia, which accompanied price controls with stringent enforcement measures (Admassie 2013), case study authors report major difficulties administering price controls. Egypt's hybrid subsidy and rationing system reportedly suffers from massive leakage and poor targeting; Malawi's price ceiling was put into place at an inopportune time for traders, moreover, the implementing agency lacked the funds necessary to defend the ceiling; and, among other obstacles, Senegal's implementing agency was also underfunded (Ghoneim 2012; Chirwa and Chinsinga 2013; Resnick 2013).

A total of five interveners are reported to have employed broad subsidies to mitigate price increases, and all but Egypt did so through subsidized sales to millers (see Table 1). Kenya, Senegal, and Zambia are each reported to have experienced difficulties with subsidized sales, especially the problem of millers receiving subsidies but failing to pass benefits through to consumers. Ethiopia reports only minor difficulties administering miller subsidies, and these were largely overcome by the appointment of a monitoring task force and measures to ensure the wheat was milled and sent to bakeries, and that bakeries sold at prescribed prices (Admassie 2013). Beyond facing implementation difficulties, general subsidies raise concerns over fiscal sustainability. Fiscal concerns are especially salient in the case of Egypt which embarked on a massive increase in subsidies and added up to 22 million people to its ration card system (Ghoneim 2012). As is discussed below, fiscal concerns are not limited to price policies.

Monetary policy is a blunt instrument and only four interveners are reported to have used it during the crisis—albeit each for different reasons. China and India were both responding more to the international financial crisis than the food price crisis and thus loosened monetary policy. This response aimed to keep interest rates low, credit markets primed, and to maintain an acceptable rate of overall growth. Admassie (2013) reports the remarkably high food prices seen in Ethiopia were partially a result of loose monetary policy, and Ethiopia eventually took measures to reduce money supply and reign in overall inflation, though not until 2009. Chirwa and Chinsinga (2013) note that Malawi's sound macroeconomic policy dampened inflation and helped maintain relatively stable exchange rates, though it is unclear which if any additional measures were taken as a direct result of the food price crisis or if they are referring to the existing policy regime.

[4] Egypt did not implement price controls per se, however, certain food items are subject to price controls under the ration card system. In this sense, and because heavy subsidies and the ration system was in place before the crisis, Egypt is a special case.

Observers

The Brazilian and the South African government believed existing safety nets were adequate to mitigate the negative impacts of food price increases and that interventionist responses would result in more harm than good (see Table 2). In light of this, the Brazilian government's decision to suspend rice exports in early 2008 appears problematic. However, Mueller and Mueller (2012) reports the ban only affected government stocks, which are equivalent to about 10 per cent of domestic consumption in recent years, and that a private sector ban was never considered. Given that Brazil is not typically an exporter and the ban only affected a fraction of consumption needs, it seems likely the ban was at most precautionary and possibly only symbolic. The only other price policy reported for either country is a loosening of monetary policy in Brazil. Similar to India and China, this response had little to do with food prices and much to do with the international financial crisis. South Africa is not reported to have implemented any price policies and the government appeared particularly wary of such responses (Kristen 2012).

Table 2: Observer price policies

Country	Supply Mgt.	Export Bans	Import/Export Tariffs & VAT	Price Controls, Broad Subsidies & Monetary Policy
Brazil		Suspension of gvt. rice exports (did not affect private trade)		Loose monetary policy with credit expansion and lowering of interest rates
South Africa				

Source: country studies from the 'Political Economy of Food Price Policy' project.

Dabblers

All dabblers responded to the crisis with measures to reduce or stabilize prices, though to a much lesser extent than interveners (see Table 3). Only two dabblers banned exports, just one used broad subsidies, and not a single dabbler responded with price controls. In addition, relative to interveners, dabbler responses tended to come later, were of a reduced magnitude, and were likely less distortionary overall.

Three of four dabblers used stocking policies to manage the crisis (see Table 3). Bangladesh and Nigeria are reported to have both released stocks and increased procurement efforts. Releases from Bangladesh were reportedly targeted and thus might be considered safety nets, however, the quantity released was so massive that prices were probably affected (Raihan 2013). Although Nigeria's release was relatively small, Olomola (2013) indicates it helped to reduce prices. Nigeria and Bangladesh reportedly experienced difficulties in their release and procurement efforts. Baltzer (2013) shows that, at least in the case of procurement, the obstacles must have been overcome as wheat stocks increased in both countries and rice stocks increased in Bangladesh. Vietnam can also be considered to have engaged in procurement, though the mechanism differed from all other countries (Hai 2013).

Table 3: Dabbler Price Policies

Country	Supply Management	Export Bans	Import/Export Tariffs & VAT	Price Controls, Broad Subsidies & Monetary Policy
Bangladesh	Targeted release of stocks through public channels; failed attempt to increase wheat and rice procurement	Banned exports of common rice (May 2008)	5% import duty on rice and wheat suspended VAT suspended for commercial importers (2007/08)	Tight monetary policy to curb inflation; the Taka/Dollar exchange rate remained relatively stable
Mozambique			Import tariffs for wheat, rice & maize reduced from 25% to 2.5% (early 2008)	Food & fuel subsidies increased by 967% in 2009
Nigeria	Release of 65,000 Mt of grain crops and garri; foreign and domestic rice procured (110,000 Mt) and sold at subsidized prices (May-Oct. 2008)		50% rice import levies suspended (May-Oct. 2008)	
Vietnam	Businesses ordered to procure all paddy rice at above-market floor price set by gvt. (2008 & 2009)	Lower rice export quota (Mar. 2008) followed by a 3-month ban on new contracts (Apr-Jun. 2008)	VAT suspended for most ag-related activities (Jun. 2008)	

Source: country studies from the 'Political Economy of Food Price Policy project'.

All dabblers with the exception of Vietnam, which is a net grain exporter, adjusted import tariffs in an attempt to mitigate price increases. Bangladesh had relatively low tariffs to begin with, but Nigeria suspended a considerable rice tariff and Mozambique reduced high tariffs for all of its major grains (Olomola 2013; Nhate and Massingarela 2013). While the Vietnamese government did not adjust import tariffs, it did reduce and later ban rice exports and also suspended VAT for most agricultural-related activities (Hai 2013). Bangladesh followed Vietnam in banning exports (of common rice, see Wiggins et al. 2010) and suspending VAT, however, given that Bangladesh exports limited quantities of rice, Raihan (2013) reports the ban had no effect. Finally, although Vietnam banned exports, its ban was fundamentally different than intervener bans in that it only prohibited new contracts and was only in place for three months, after which the government actually encouraged exports (Hai 2013).

In terms of price controls, monetary policy, and broad subsidies, there is little to report since dabblers predominately avoided such responses (see Table 3). Not a single dabbler implemented price controls, although Bangladesh is reported to have created committees to monitor prices (Raihan 2013), and only Bangladesh used monetary policy in an attempt to curb inflation. Mozambique is the sole dabbler which reported increased food subsidies. Unfortunately, it is only reported that food and fuel subsidies were increased and it is unclear whether these were targeted (and thus more of a safety net policy): it is also not clear how much of the subsidy increase was allocated to fuel and how much to food.

There is no single answer as to why dabbler price policy responses were more restrained than those of interveners. In terms of geography and crop importance, two of the dabblers in our sample are in Africa and two in Asia. Bangladesh and Vietnam are predominately rice economies while cassava dominates in both Nigeria and Mozambique (followed by maize in Mozambique and yam in Nigeria where maize, rice, and wheat play relatively minor but still important roles). In Bangladesh the more measured response may have something to do with the country's history of recurring food crises which have caused it to gradually refine its response over many decades (Raihan 2013). In Vietnam it may be more the result of a bumper crop and an economy consisting of many small rice producers which stood to gain[5] from price increases (Hai 2013). Nigeria's responses may have been tempered by the fact that it is a large producer and households are reliant on mostly non-traded foods such as yam and cassava. In the case of Mozambique it is difficult to point to a specific structural factor, though perhaps the importance of cassava played a role. Finally, although it is impossible to attribute moderate price policy responses to any single factor, it is noteworthy that all dabblers responded with major (and in some cases novel) initiatives to expand agricultural output, often with an eye to the long-term (see Table 6 and discussion).

3.2 Output policies

Output policies consist of measures taken to augment production. These include input subsidies, tax incentives, price supports, and transportation and market infrastructure among others. As with price policies, output policies have been organized into subcategories for the purpose of concise presentation. The three subcategories are input subsidies and tax incentives, price supports and farm credit, and other output policies (see Table 4).

Interveners

At the core of interveners' output responses were a combination of input subsidies and price supports. This is not surprising given that these programmes were mostly in place before the crisis and thus the main thrust of the response was consistent with historical precedent. Still, not all interveners' output responses were as readily predictable. In some instances the crisis engendered policies which are remarkable in that they represent discontinuity with past policies

5 Vu and Glewwe (2011) find mixed evidence regarding welfare impacts of price increases. Small increases may lower poverty while larger increases may cause poverty to increases slightly. On the whole, welfare impacts from price increases are positive since gains outweigh losses, but the positive welfare impact is not distributed evenly and most households suffer losses.

or include novel features. In the case of Senegal, for example, the crisis created an opening for a momentum shift in which policies that were already formulated were abruptly displaced by new and reportedly inferior ones. China, in contrast with Senegal's shift to inferior policies, achieved a retrenchment in expansionist biofuel policy which has long been sought in the US but without result. As will be discussed in more detail toward the end of this section, Kenya, Ethiopia, and India are also among interveners which pursued policies with noteworthy features.

As evidence that interveners were keen to expand near-term grain supply, nearly all of those in our sample increased input subsidies; the two exceptions being Egypt and Ethiopia (see Table 4). In the case of Egypt, Ghoneim (2012) relays that the government is routinely involved in input markets, providing subsidies for fertilizers, irrigation, and fuel. However, there were no adjustments as a result of the crisis. The Ethiopian government proposed a fertilizer subsidy, but it was never implemented. The remaining six interveners are all reported to have responded by increasing subsidies under existing programmes or by creating new programmes. This is in sharp contrast to output-enhancing tax and tariff incentives, which were only reported by two countries—Zambia and China. Finally, input subsidy increases for three interveners, Kenya, Senegal, and India were implemented as part of a larger programme to boost agricultural productivity. This is discussed further in the section on 'other' output policies.

Two additional approaches interveners used to boost output were increased price supports and expansion of farm credit (see Table 4). The latter was only implemented by two countries, India and Kenya, while five employed the former. Although India is not reported to have explicitly expanded credit, the government did waive a vast amount of outstanding agricultural loans and is thus still included in the credit category. Kenya's credit expansion was implemented in collaboration with multilateral partners and is noteworthy in that it included agricultural and business training. In terms of farm supports, there was a great deal of variation in the proportion of the increase. Unfortunately, interpreting such variation in proportional increases is complicated by differences in prevailing conditions across countries and grain markets, as well as by differences in initial support prices. In the end, what is clear is that price support increases were common among interveners and considerable in magnitude. On the one hand, Malawi more than doubled its (maize) producer price in the 2007-08 season and Egypt increased its wheat procurement price by approximately three-quarters. Zambia (maize) and India (wheat, maize, and rice), on the other hand, increased minimum support prices by only about a third. In the case of Zambia, Chapoto (2012) reports the initial increase in the 2008 season was only 16 per cent. However, due to competition from the private sector and the resulting inability of the government to meet its procurement targets, the price was later increased. Similar difficulties were experienced by other interveners including Malawi, Kenya, and Egypt.

Table 4: Intervener output policies

Country	Input Subsidies & Tax Incentives	Price Supports & Farm Credit	Other
Egypt		72% increase in wheat procurement price (2007/08); changed to setting maize procurement price before planting (2010)	Greater enforcement of limits on rice production area to try and boost wheat production in 2007/08; increase in storage capacity (2010)
Ethiopia			Establishment of the Ag. Transformation Agency to boost productivity; creation of a commodity exchange
Kenya	Inputs procured by the gvt. and sold at steep discounts (Mar. 2009); FAO and World Bank US$50 million input subsidy programme (May 2008)	Increased maize procurement price to Ksh 1,750 per 90 Kg bag (2008) and later to 1,950 US$5 million AGRA and IFAD supported expansion of ag. credit (2008)	Renewed efforts to improve irrigation NAAIAP (see input subsidies and discussion below)
Malawi	Fertilizer subsidy rate increased to 90% in 2007/08 (from 67%), then decreased in 2008/09	125% increase in producer price (2007/08) to MK45 per Kg	
Senegal	FAO programme provided US$1.5 million to buy inputs for vulnerable small-holders		Grand Offensive for Food & Abundance (GOANA) launched to move toward self-sufficiency & raise ag. investment (May 2008)
Zambia	Fertilizer subsidy rate increased from 50% to 75%; subsidy programme expanded from 120,000 to 200,000 farmers (Feb. 2008) Ag. equipment VAT zero rated (2009); customs duty removed from commercial trucks; tariffs suspended for certain inputs & equipment	Maize MSP increased by 16% and then 35% in 2008; further increases in 2009	25% gypsum import tariff suspended to promote domestic fertilizer production (2009)
China	Input subsidy increase; levy on phosphate fertilizer exports (Feb. 2008); 100% levy on all fertilizer exports (May-Dec. 2008)		Retrenchment of expansionist bio-fuel policies & new restrictions on land competition between food & fuel
India	Fertilizer subsidies increased in 2007/08 and again in 2008/09	Wheat MSP increased 30% (2007/08); maize, rice, & pulses by 30-50% (2008/09) Rs 600 billion debt waiver for 30 million farmers (Feb. 2008); expanded to 43 million farmers in 2009.	Nation Food Security Mission (NFSM) launched in 2007/08 to boost staple output Increased spending under the National Ag. Devt. Program, a portion of which aims to extend Green Revolution to East India

Source: country studies from the 'Political Economy of Food Price Policy' project.

As discussed above, many countries pursued policies which are difficult to classify. Although such policies were more common among dabblers than interveners, most interveners implemented at least one policy belonging to the category 'other' (see Table 4). These other policies can be further divided into two groups. On the one hand, many countries implemented relatively isolated policies aimed at a particular aspect of production. Egypt's enforcement of rice area limits and increase in storage capacity, Kenya's revived irrigation efforts, Zambia's efforts to promote domestic fertilizer production, and perhaps China's biofuel retrenchment belong to this group. The remainder of this section will focus on the second type of other policies—overarching policies consisting of multiple programmes intended to expand agricultural output.

Ethiopia, Senegal, Kenya, and India are all numbered among interveners which introduced wide-ranging programmes to enhance agricultural productivity (see Table 4). Ethiopia established the Agricultural Transformation Agency and Admassie (2013) reports this was accompanied by a whole host of initiatives intended to expand production—increased investment in research and development (R&D), extension services, and infrastructure development among others. Also among the country's crisis responses was the government's decision to provide incentives to foreign investors, particularly India and China. Admassie indicates this led to 3.5 million hectares changing hands with a similar amount planned to be exchanged in the near future. This is perhaps the most controversial response and a sizeable literature has developed debating the merits of so-called land grabs. Finally, Ethiopia's 2008 introduction of a commodity exchange is also noteworthy, although at inception trading remained limited (ibid.).

In Kenya, several of the responses reported by Nzuma (2013) fell under the country's larger National Accelerated Agricultural Input Access Programme (NAAIAP). A few of the features under what Sheahan et al. (2012) refer to as 'a comprehensive multi-million dollar fertilizer and improved seed subsidy and training programme' include: input subsidies, agricultural credit offered on favorable terms, and training on improved farming methods and business management. As is the case with numerous policy responses, it is unclear how much the NAAIAP was initiated in response to the crisis and how much it was a result of existing political momentum (ibid.). This theme receives further attention in subsequent sections and is treated comprehensively by Watson (2013).

The Senegalese government, led by Wade, responded to the crisis with the Grand Offensive for Food and Abundance (GOANA). In many ways GOANA represents continuity with past agricultural plans which also tend to emphasize output expansion and greater self-sufficiency (Resnick 2013). Although GOANA is included as a larger agricultural development strategy and reportedly realized some short-term success, it should be emphasized that the initiative received a tepid response from stakeholders and was deemed unsustainable by the national FAO director (Resnick 2013). Unfortunately, GOANA is also reported to have displaced what were considered by some as superior strategies which had been developed with stakeholder participation.

India is reported to have implemented a number of initiatives intended to increase productivity, food security and sustainability. These initiatives include the National Food Security Mission (NFSM), the National Agricultural Development Programme (NADP) and, somewhat later, the National Food Security Act (NFSA)—though these policies probably represent pre-crisis momentum more than crisis responsiveness. As discussed by Watson (2013), the government's response was in part conditioned by the right to food movement which preceded the onset of the crisis. This is particularly true of the NFSA. In the case of the NADP, Ganguly and Gulati (2013) applaud what appear to be novel efforts to expand the Green Revolution to East India and address sustainability issues. Nonetheless, the resources behind these efforts are apparently so inadequate that the whole affair is dubious (Ganguly and Gulati 2013).

Observers

Table 5: Observer output policies

Country	Input Subsidies & Tax Incentives	Price Supports & Farm Credit	Other
Brazil		Expansion of Ag. credit	
South Africa			Promotion of household & community production; investments in productivity enhancing infrastructure including irrigation and input packages

Source: country studies from the 'Political Economy of Food Price Policy' project.

As with price policy, observers' production response was trivial (see Table 5). Brazil reports expanding access to agricultural credit and South Africa investing in productivity-enhancing infrastructure. In the case of Brazil, credit expansion simply continues a trend begun in about 2000; the measures in South Africa were reportedly limited to areas of deep poverty and strategic political importance (Kirsten 2012). Beyond pre-existing safety-nets mentioned earlier in the paper and discussed in more detail below, the trivial output response may be because neither country experienced an acute shortage and, as middle-income countries, both have populations which depend relatively less on unprocessed grain as a part of their food basket. Another possibility is that they were counting on a natural production response as farmers themselves reacted to price signals. Finally, it also may be because both countries were operating under more stringent fiscal constraints. No matter the cause, output policy responses among observers were at most negligible.

Dabblers

Dabbler output policy responses were varied and identifying an overall strategy which defines the group is difficult (see Table 6). Bangladesh belongs more with interveners in that it too focused on expanding short-run production through a combination of subsidies and price supports. Besides Bangladesh, no dabblers are reported to have increased price supports (although Nigeria introduced minimum support prices in 2009). In addition, apart from comprehensive programmes which are discussed in more detail in the section other, Bangladesh is the only dabbler reported to have increased input subsidies. Despite wide variation in dabbler output responses, one pattern is clearly discernible: dabblers responded to the crisis with far-reaching policies which appear to address long-term concerns.

As noted above, only one dabbler increased input subsidies while two made tax or tariff adjustments to facilitate output expansion (see Table 6). Bangladesh increased fertilizer subsidies considerably and also targeted fuel and energy, the latter by instituting electricity rebates for agro-based industries. The other dabbler to promote agriculture through tax policy adjustment was Vietnam. The Vietnamese government continued a legacy of favorable tax arrangements for farmers, agricultural investors, and agri-businesses by making fresh tax reductions during and in the aftermath of the crisis (Hai 2013).

Price supports were used by Bangladesh alone while various forms of credit expansion were reported by three of the four dabblers. Nigeria extended concessionary credit to increase rice processing capacity and took measures to expand the pool of financing available to commercial farmers. Bangladesh shared Nigeria's objective of expanding farm credit but took the additional step of easing restrictions and facilitating credit access for importers. In the wake of crisis the Vietnamese government also acted to incentive agricultural investment; its efforts entailed making collateral-free loans available for agricultural activities.

All dabblers pursued policies belonging to the category other, and in most cases these policies appear to be significant in scope (see Table 6). The possible exception to this is Bangladesh's Endowment Fund for agricultural research and development—Raihan (2013) notes that R&D spending actually decreased between 2007 and 2009 despite the fund. In contrast to Bangladesh, the Nigerian government requested technical assistance from the United Nations (UN) Country Team which, together with a number of other multilateral organizations, apparently played a significant role in country's crisis response—at least on paper (Olomola 2013). Mozambique is similar to Nigeria in that it also developed a major strategy to address not only the crisis, but broader agricultural and food security objectives. A key difference between the two is that the Mozambique government is reported to have developed the strategy internally while Nigeria apparently received considerable outside input. Vietnam's other policies are distinct from those of the other dabblers in that they do not belong to one overarching programme, but are rather a collection of isolated policies which nonetheless demonstrate a certain degree of cohesion.

Table 6: Dabbler output policies

Country	Input Subsidies & Tax Incentives	Price Supports & Farm Credit	Other
Bangladesh	Fertilizer subsidies increased by 35%; 40% fuel subsidy rate; electricity rebates for agro-based industries Crude oil customs duty suspended; duty-free facility continued for farmers wishing to import fertilizers	MSP increased for wheat by 44%, paddy rice by 60%, and aman rice by 30% Expansion of Ag. Credit	Endowment Fund for Ag. R&D created (2007/08)
Mozambique			Plan for Action for Food Production introduced (PAPA, 2008); aimed to increase production & promote commercialization & increased processing; doubling of the ag. budget as a share of GDP Plan to increase storage to capture PAPA surpluses (Jul. 2008) Promotion of alternative transportation
Nigeria		Minimum Support Prices introduced in 2009 Credit to increase rice processing capacity made available on favorable terms; farm credit expanded	UN helped develop a framework to deal with food prices; new National Food Security document (2008) went beyond expanding output; gvt. created a special fund for ag. development Funds earmarked to complete 17 outstanding silo projects as well as 11 new silo projects
Vietnam	Favorable tax changes intended to promote ag. investment (Dec. 2010)	Expansion of Ag. Credit (Apr. 2010)	Investments to improve rural marketing (Jan. 2010); pilot ag. insurance projects (Mar. 2011); new storage & upgrades to existing (Sep. 2009) 3.8 million hectares set aside for rice, no urban or industrial encroachment through 2020 (Dec. 2009) New requirement to reimburse farmers for land taken for industry (Dec. 2009)

Source: country studies from the ‘Political Economy of Food Price Policy’ project.

The crisis is reported to have led to a number of significant changes in Nigeria, not least of which is the 2008 National Food Security Programme (NFSP) document. Olomola (2013) deems this document ‘a major paradigm shift’ in that it goes beyond output expansion, and it was reportedly accompanied by a whole host of policies aimed at modernizing the rural sector and promoting agricultural research and development. The government is also reported to have collaborated with multilateral partners to develop a second major strategy document, the National Food Crisis Response Programme (NFCRP). Although this was also accompanied by a number of initiatives to promote food security, Olomola criticizes the document’s omission of the more innovative features of the NFSP and notes that its implementation was marred by difficulties.

In Mozambique, the crisis led to the 2008 Plan for Action for Food Production (PAPA). Broadly directed at expanding output and promoting commercialization and agro-processing, Chapoto (2012) terms PAPA the ‘operational tool’ for the previously approved ‘Green Revolution Strategy’. With regards to novel features, PAPA appears to be more conservative than Nigeria’s approach, although it does include provisions to intervene in the value-chain, promote rural processing, and enhance the flow of goods. At the same time, Chapoto (2012) reports the adoption of PAPA entailed an ambitious doubling of the agricultural budget as a share of GDP (up to eight per cent). The immediate cause of this impressive funding growth may have been the food price crisis, however, even with this increase Mozambique’s agricultural budget remains below the ten per cent commitment made under the Maputo Declaration.

Vietnam is not reported to have unveiled a grand agricultural strategy as a response to the crisis, but the country did enact a number of legislative measures which are of note. Among these measures were policies to promote rural marketing, enhance the efficiency of rice exports, assist farmers in mitigating risk through pilot insurance projects, and to reduce post-harvest losses through storage expansion and upgrades. In addition, the government took measures to prevent industrial encroachment on agricultural land. These included a major set-aside programme of 3.8 million hectares dedicated solely to rice production until 2020, and a new requirement to reimburse farmers for land appropriated for industrial purposes. The majority of these measures came during 2009 and 2010 in the aftermath of the initial crisis.

3.3 Safety nets

Safety nets consist of cash or in-kind transfers which are targeted at specific vulnerable groups. These transfers may be conditional, such as programmes which require labour or school attendance, or unconditional. Safety net tables in this paper have been subdivided according to the conditionality of the transfer. For the purpose of presentation, school feeding and public sector wage increases have been included with conditional transfers even though they are not true conditional programmes.

Interveners

The crisis elicited a dizzying array of safety net policies and five of the eight interveners are reported to have made adjustments in an effort to mitigate the harmful effects of food price increases (see Table 7). Of those which did make use of safety nets, Egypt’s and Ethiopia’s were the most extensive followed by China's. In Senegal, safety nets were mostly donor-initiated and on a small scale, in China, Egypt, and Kenya they were mainly governmental, and in Ethiopia safety nets were a hybrid of the two. Lastly, three of the five safety net users reported experiencing factors which reduced policy effectives (Egypt, Kenya and Senegal), especially poor targeting.

Unconditional transfers were employed more widely than conditional transfers by all interveners, except perhaps Ethiopia which relied heavily on its Productive Safety Net Programme (PSNP) (see Table 7). In terms of the form of such transfers, Egypt's consisted of both cash transfers and subsidized sales through its ration card system. Ethiopia also used a ration card system, and like Kenya, sold grain at subsidized prices to poor consumers. Resnick (2013) reports that Senegal released reserves to the poor, and although these were given freely, the magnitude of the transfer was rather small and only in place for three months (see Table 7). China is the only intervener to rely solely on cash transfers and is also unique in that the increase in transfers was automatic based on the consumer prize index (CPI). All other interveners employed transfers in a more ad hoc fashion, retaining greater discretion as to the ultimate magnitude.

Two interveners (Ethiopia and Kenya) channeled resources to consumers through conditional transfer programmes, two increased public sector salaries (Egypt and Ethiopia), and two made adjustments in school feeding programmes (Ethiopia and Senegal) (see Table 7). Unlike Kenya's cash for work programme which was not implemented until 2009, Ethiopia's PSNP existed before the crisis, during which it was expanded to support 8 million people from an initial plan of 5 million in 2008 (Admassie 2013). An additional difference between the two countries is that Ethiopia's programme is several orders of magnitude larger than that of Kenya. School feeding played a relatively minor role in Senegal where a donor supported programme, established in 2008, covered about 80,000 children. Ethiopia's much larger school feeding programme was expanded during the crisis and reportedly benefited 482,000 students in 2008 (ibid.). It is also reported that the Ethiopian government made a modest increase in public sector salaries, though this was probably not enough to offset the rising food prices and may have increased inflationary pressure (ibid.). In Egypt, on the other hand, the salary increase is reported to be substantial. None of the other four interveners, Malawi, Zambia, China, and India, is reported to have responded to the crisis with conditional transfers, school feeding or increases in public sector wages.

Table 7: Intervener safety net policies

Country	Unconditional Transfers	Conditional Transfers, School Feeding, Public Wage Increases
Egypt	Certain vulnerable groups added to the ration card system: widows, divorced women, women heading households, and chronically sick persons; prices and quantities for ration card items adjusted Social pension doubled from LE 80/mo. to LE 160/mo. and coverage increased from 650,000 persons to 1 million from 2005-07 Education grant increased from LE 20/mo. per child to LE 40 (2008)	30% increase in public sector salaries compared to the usual increase of 10% (May 2008)
Ethiopia	Procured 520,000 Mt of wheat, 515,000 Mt of maize from intl. mkt and distributed through the Urban Food Rationing Programme and subsidized sales to flour mills (2008); release of wheat and maize reserves to the poor at subsidized prices (190,000 Mt of wheat in 2007) WFP and other NGOs channeled about 200,000 Mt of food into Ethiopia during the crisis; WFP provided food assistance to 11 million people in 2008 rather than the 1 million it had planned	PNSP coverage in non-PNSP areas increased from 4.6 to 6.4 million people (2008); PNSP daily wage increased from ETB 6 to ETB 10/day Expansion of existing school feeding programmes Public salaries increased
Kenya	Subsidized maize meal distributed to poor districts (Dec. 2008); cost for 2 Kg was Ksh 55 rather than the Ksh 72 market price	Ksh 15 billion Kazi Kwa Vijana cash for work programme launched to create 300,000 jobs within 6 months (Mar. 2009)
Malawi		
Senegal	Food vouchers for 17,400 households amounting to CFS 1.9 billion (2008, donor supported); 20,000 Mt. of rice distributed to vulnerable rural consumers through the AMR programme (May-Aug. 2008) Targeted cash transfers to mothers of children 0-5 yrs. through NETS programme (donor supported)	School feeding for 80,000 children in Dakar (2008, donor supported)
Zambia		
China	Semi-targeted food subsidies to urban consumers and students, vary at provincial level but considerable in size; automatic based on CPI	
India	No increases reported, though transfers are large and have increased over time	

Source: country studies from the ‘Political Economy of Food Price Policy’ project.

Observers

Table 8: Observer safety net policies

Country	Unconditional Transfers	Conditional Transfers, School Feeding, Public Wage Increases
Brazil	Bolsa Familia increased transfers	
South Africa	Comprehensive combination of safety net & welfare programmes in place before the crisis; no changes made as a response to the crisis	Targeted distribution of food parcels

Source: country studies from the 'Political Economy of Food Price Policy' project.

Both of the observers in our sample credit comprehensive and effective safety nets, which were in place before the crisis, as obviating the need for further responses (see Table 8). Brazil reportedly increased payments under Bolsa Familia in 2007 and 2008, though such increases were marginal. Mueller and Mueller (2012) argue that, due to other programmes and structural factors, marginal increases may have been all that were necessary. Bolsa Familia is also noteworthy in that it is reportedly well designed, avoiding the leakage so often associated with such welfare programmes. Besides Bolsa Familia, Mueller and Mueller report that the Programme for Food Acquisition was in place prior to and during the crisis. While it is unclear if the programme was ramped up to meet additional needs, an impressive 13 million people reportedly received benefits in 2009. South Africa apparently considered its safety net programmes adequate and made no extraordinary adjustments as a result of the crisis besides limited distribution of food parcels to (Kirsten 2012).

Dabblers

The solitary dabbler to have responded to the crisis with significant changes to safety net programmes is Bangladesh, which used a combination of conditional and unconditional transfers as well as scaling up of school feeding (see Table 9). In terms of conditional transfers, in 2008-09 the government scaled up the Test Relief programme which provides in-kind transfers in exchange for work. Raihan (2013) also reports scaling up of targeted food distribution (an unconditional transfer programme). The only other dabbler reported to have used targeted safety nets during the crisis is Nigeria, though this programme was aimed at education and healthcare rather than food security and was not a direct response to the crisis (Olomola 2013).

Table 9: Dabbler safety net policies

Country	Unconditional Transfers	Conditional Transfers, School Feeding, Public Wage Increases
Bangladesh	Targeted food distribution more than doubled from 372,000 Mt in 2005/06 to 786,000 Mt by 2008/09	Significant scaling up in the 2008/09 crop year of the Test Relief programme to 360,000 Mt of wheat and rice School feeding scaled up
Mozambique		
Nigeria	Conditional Cash Transfers (CCT) programme launched to provide N5,000/child to extremely poor households to send their children to school and participate in free gvt. health care programmes (Dec. 2008)	
Vietnam		

Source: country studies from the 'Political Economy of Food Price Policy' project.

4 Conclusions

In terms of the types of policies pursued and the specifics of formulation, timing, and implementation, the fourteen countries in our sample displayed remarkable diversity in their crisis responses. The eight interveners in our sample share in common a vigorous attempt to control prices, but the primary measures used range from price controls, to supply management, to broadly administered consumer subsidies, to trade policy, especially export bans. Dabblers' efforts to control prices were more limited and the most common crisis response in this group of countries was output expansion. Even among dabblers the primary means used to expand output varied. Bangladesh used price supports and input subsidies, Mozambique and Nigeria developed new comprehensive plans, and Vietnam employed a suite of isolated but interrelated policies which share features with many crisis responses without resembling that of any single country.

Despite such heterogeneous responses, some general observations can be made. First, with the exception of Brazil and South Africa, crisis responses in all countries exacted a high fiscal cost. Tariff reductions, VAT suspensions, and export bans all entail lost revenue. Even as revenues were declining, crisis responders were creating new programmes, expanding membership in existing programmes and increasing benefit levels. Egypt, for example, planned to spend LE9.5 billion in 2007-08 on food subsidies but expanded programming for a final cost of LE16.4 billion. In Ethiopia the World Food Programme (WFP) intended to assist 1 million people in 2008 rather than the 11 million it actually provided assistance to. India's crisis response is reported to have contributed to a more than doubling of the fiscal deficit between 2007-08 and 2008-09 and the cost to Senegal is estimated at around US$748 million. Soaring food, fuel, and fertilizer prices compounded these budgetary burdens even when governments took no additional actions. In Zambia, for example, Chapoto (2012) reports the 2008 fertilizer budget was initially approved for US$42 million but two months later price increases caused the cost to be inflated by an additional US$68 million. To make matters worse, many programmes are reported to have suffered reduced effectiveness due to factors such as poor targeting and corruption. This was reported widely enough that is receives separate treatment below.

All dabblers and interveners in our sample, with the notable exception of China, reportedly experienced difficulties responding to the crisis. In the case of China, Huang et al. (2013) report that the crisis response was comprehensive, well co-ordinated, and the policies had the intended impact. Among countries which experienced difficulties, there were a range of reasons given for reduced policy effectiveness. Government procurement efforts met with difficulties given the scarcity of grain on the market in Bangladesh and Nigeria while Malawian and Zambian efforts reportedly contributed to price increases. India had no trouble *procuring* grain, but reportedly had inadequate storage facilities leading to considerable waste. Kenyan fertilizer subsidies may have ended up in the hands of Ugandan farmers due to smuggling while Zambian fertilizer subsidies are reported to suffer from poor targeting, corruption, leakage, poor delivery, and other factors which mitigate their effectiveness. The vast Indian debt waiver is reported to have disproportionately benefited wealthier farmers just as Egyptian subsidies and ration card benefits apparently accrue more to the wealthy than the poor. Ganguly and Gulati (2013) note that Indian safety nets have generally not been very effective; subsidized maize meal in Kenya was designed in such a way that the intended beneficiaries could not access it; and Senegal's attempt to distribute rice was poorly targeted and experienced funding problems besides. Kenya, Senegal, and Zambia tried subsidizing millers and distributors but the benefits reportedly never made it to consumers. Nigeria released grain from stocks but it was captured by powerful intermediaries. Malawi and Senegal attempted administrative price controls—both failed. Export bans were problematic and some traders simply stored grain in anticipation of the lifting of the ban (Egypt and Vietnam) while others circumvented the ban by exploiting porous borders (Zambia and Kenya).

In seeking an explanation for the myriad failings outlined above, it is appealing to blame ad hoc responses and to prescribe more preparedness. Similarly, given that the only two countries in our sample not to have intervened in food markets credit safety nets, it is tempting to conclude that if more countries had such measures in place the crisis would not have elicited such drastic responses. However, judging by the experiences of countries like China and Ethiopia, it would be a mistake to conclude that safety nets alone prevent more interventionist responses. Furthermore, Brazil and South Africa are both middle-income countries with relatively lower poverty rates; for lower income countries with exceedingly high poverty rates safety nets present additional obstacles. And while it is true that many countries' ad hoc policies were problematic, more preparedness may not prevent countries from reacting to crises. Political and structural factors influence the extent to which governments are willing to be involved in food markets, as does historical precedent. Another, less recognized reason why governments may have intervened during the crisis is overestimation of the negative impacts. Initial food security impact assessments significantly overstated the problem and this sensationalism may have increased the pressure felt by developing country governments. Further research is needed to parse out the relative weight of these various factors and to build a more complete understanding of why governments continue to meddle in food markets despite evidence that such interference is welfare-reducing. In that regard, the current political economy study makes a solid contribution.

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