

Political Economy of Subsidies, Procurement, and Price Controls

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Abstract

The tools of the developing world governments provided agricultural subsidies, public procurement systems, and price controls that still have the potential to spark some of the most politically charged and economically devastating reactions from the people they serve. This chapter provides an extensive overview of the political economy processes and their impact on the design and implementation of these interventions in a very varied set of developing economies, exploring the role of distributional coalitions, electoral politics, bureaucratic interests and institutional path-dependencies. Based on evidence from South Asia, Sub-Saharan Africa, the Middle East and Latin America, the chapter argues that the persistence of high cost, low efficiency food policies is not solely a consequence of technical ignorance but a reflection of sound political motives in some contexts, especially in states that lack social protection, have high rural poverty, and are characterized by weak state capacity. It builds a four-pillar analytical framework, based on principal-agent theory, collective action problems, institutional path dependence and distributional coalition theory, to understand the lifecycle of food policy instruments. It delivers detailed insights into the architecture of subsidy programs, governance problems in the procurement system (such as high leakage rates and fiscal waste reported in India, Egypt, Pakistan, and Indonesia), and welfare implications of retail price control structures. Special focus is given to the political environment that facilitates or hinders reform, such as civil society, technocratic capacity, and international financial institutions. The chapter ends with a sequenced roadmap for reform with a focus on fiscal sustainability, poverty targeting and market development, yet recognizes that reformers must face political feasibility challenges.

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1. Introduction and Political Economy Framework

1.1. Setting the Stage: Why Food Policy is Always Political

Food security is an economic, moral and political issue. The right to adequate food, as defined in the Universal Declaration of Human Rights, Article 25, (United Nations, 1948) and developed in the International Covenant on Economic, Social and Cultural Rights, requires normative responsibilities of States (United Nations, 1966). But these means of realizing that obligation are always influenced by technical efficacy and targeting considerations as well as by political considerations of electoral survival, coalition survival, and distributive bargaining. Political economy is thus not a separate issue from food policy, but an integral part of policy determination.

The total annual value of direct budgetary support to agriculture in developing countries was higher than USD 700 billion per year between 2000 and 2022, and was also complemented by USD 300 billion or more in implicit subsidies, through below-market input prices and favorable credit (OECD, 2023). Most of this spending is poorly directed, unfinanceable and vulnerable to elite capture; but reforms have not occurred. It's important to know why, and to dig deeper into the political economy of who benefits, who decides, and who pays the costs of food policy.

This chapter is organized as follows. In Section 1, the analytical framework is developed. The discussion of the agricultural subsidies in Section 2 is in detail. The public procurement systems are analyzed in Section 3. Price controls and market regulation are discussed in Section 4. Section 5 presents pathways for reform and Section 6 provides conclusions and recommendations.

1.2. Analytical Framework: Four Pillars

Principal-Agent Theory

The principal-agent theory can serve as a basic framework to explain the governance failures in food policy. The principal-agent theory offers a basic framework to understand governance failures in food policy. Government (principal) delegation to bureaucracies, state enterprises or local government officials (agent) allows for rent-seeking, corruption and goal displacement due to information asymmetries. He has, for instance, documented the diversion of rice from the subsidized Public Distribution System (PDS) by middlemen in India, where up to 47% of the subsidized rice is diverted before reaching the recipient households, because of the difficulty in monitoring the actions of the agents in the millions of fair price shops. The way in which accountability mechanisms are designed (whether as digitization of supply chains, community monitoring or beneficiary verification) directly influences the extent to which agent opportunism can be limited (Dreze and Khera, 2015).

Collective Action Problems

The theory of collective action Olson (1965), formulated and then adapted to the case of agricultural policy (Bates, 1981, 2008) and others, accounts for why small groups who are well-organized can secure policy benefits for themselves at the expense of large and diffuse populations. Large farmer unions, grain traders and the food processing conglomerates are well coordinated, politically active and well able to carry on the lobbying effort over the long term. The poor food consumers, by contrast, are far more numerous, and have classic "free-rider" issues in trying to organize to defend their interests. That means that, while subsidies are supposed to be targeted at the poor, they are often directed to relatively prosperous farmers (due to above-market procurement prices), to wealthy intermediaries (due to licensing rents), and onto the general taxpayer.

Institutional Path Dependence

Path dependency theory offers insights into the remarkably persistent nature of food policy instruments despite changes in their economic justification (North, 1990; Pierson, 2000; de Krom and Muilwijk, 2019). There are several ways in which institutions produce 'lock-in' effects: they develop constituencies that resist change; they mold the interests and capacities of the bureaucracy in a way that makes other options seem precarious; and they become institutionalized in legal and administrative processes that are difficult to unwind. The Indian case of fertilizer subsidies, which was introduced after the Green Revolution, and Egypt's case of bread subsidies, which was introduced in the context of Nasser's Arab socialist project, are illustrative of such phenomenon in that they have been institutionalized for decades and have powerful path dependencies that make change difficult even for well-intentioned reformers (Birner & Resnick, 2010).

Distributional Coalition Theory

Distributional coalition theory draws on Olson's later work (1982) and its application to food policy by Pinstrup-Andersen (1988) and Kherallah *et al.* (2002). These individuals look at how organized interests capture the rents created by policy distortions and spend the resources over time to maintain the distortions. In many developing nations, the political opposition to agricultural price controls and procuring systems brings together a group of large farmers (as their incomes benefit from minimum support prices), urban workers (who benefit from low retail prices), food processors (because their raw materials are cheap) and bureaucratic agencies whose budgets and employment rely on program management. This coalition is a heterogeneous group, but they have a stake in the maintenance of the policy regime which makes reform politically costly even if it is economically desirable.

Key Analytical Insight

It is not only because of the continuation of economically inefficient food policies in developing economies. It was either because of technical ignorance or institutional weakness. Such policies may have logical political purposes such as delivering,

It makes a difference to key constituencies that are visible, immediate and tangible in terms of benefits; and those costs, fiscal drain, are also felt. The answers to questions like what is market distortion? What counts as investment crowding-out? or who wins and who loses from investment crowding-out? are vague, remote, and hard to see politically. Superior policy design is not enough, however, for effective reform; a political strategy for managing must be in place as well. The distributional coalition supporting the status quo (Birner & Resnick, 2010; Pinstrup-Andersen, 1988).

1.3. The Impact of Development Aid on the Food Security Position

A considerable amount of empirical research has been carried out to establish the impact of electoral cycles on food policy. There is a large amount of empirical literature that establishes the impact of electoral cycles on food policy. They identified positive relationships between rising allocations of fertilizer subsidies and the 12 months before a national election in the twelve nations in Sub-Saharan Africa. In the twelve countries in Sub-Saharan Africa, they discovered that there was a 2.3 times greater chance of an increase in fertilizer subsidy in the 12 months leading up to a national election than in non-election years. In South Asian democracies, wheat and rice procurement prices have been revised up in election years and down after the poll and, in general, the price of wheat and rice was revised upwards during election periods (Varshney, 1998). The patterns mirror the importance of food prices and agricultural incomes in elections in mostly rural developing nations and highlight how the political business cycle influences food policy design.

2. Political Economy of Agricultural Subsidies

2.1. Typology and Scale of Agricultural Subsidies

Agricultural subsidies in developing economies are a diverse set of measures, including support for inputs such as fertilizers, seeds, pesticides, and energy (for irrigation and farm machinery); credit subsidies (rates of interest on agricultural loans that are lower than market rates, offered by state banks); minimum support prices (MSPs) (which are the minimum prices paid to farmers for their output, in the event that the market price is lower); and support for output. Summarizes the fiscal incidence of these measures in selected developing economies Table 6.1

Table 6.1: Agricultural Subsidy Expenditure in Developing Counties (2021–2022)

Subsidy material	Year	Agriculture Subsidy (GDP %)	Country
Wheat support price	2022	1.4%	Pakistan
Energy and Rice	2022	1.2%	Indonesia
Irrigation and Fertilizer	2022	1.1%	Bangladesh
PROAGRO/ PROCAMPO	2022	0.9%	Mexico
Fertilizer and food public distribution system (PDS) 35 kg of rice and wheat per month	2022	2.8%	India
Fuel and bread	2021	1.9%	Egypt
Fertilizer	2021	0.6%	Nigeria
Input Vouchers	2021	0.4%	Ethiopia

Source: World Bank (2023); IMF Fiscal Monitor (2023); national ministry of finance documents.

Table 6.1 India's subsidy bill alone cost only 65 billion USD only in the year of 2021-22 that contains food, fertilizers, irrigation, and power for agriculture which was approximately equivalent to 2.8% of India GDP (Ministry of Finance, Government of India, 2022). TAMWEEN was an Egypt's food subsidy system (FSS) that was 1.9% of GDP approximately in 2021 that provided the cooking oil, bread, and other essential commodities through rationing card system (IMF, 2022).

2.2. The Political Economy of Fertilizer Subsidies

The Fertilizer Subsidy Complex in India

The Indian Government's fertilizer subsidy program is one of the most widely researched subsidy policies for agricultural inputs in the developing world. The Government of India has been running a policy that the retail price of fertilizers is capped at a controlled price and the difference between the controlled price and the cost of production is paid directly to the manufacturer by the government, and the subsidy bill goes through the Fertilizer Industry Coordination Committee (FICC) and finally to the Department of Fertilizers. This mechanism resulted in an EXHUSTER cost of INR 1.62 trillion (USD 20 billion) in 2021-22, with urea accounting for more than 60% of the cost (Comptroller and Auditor General of India [CAG], 2022).

This program is a complex political economy. On the demand side, the beneficiary coalition is made up of some 150 million cultivator households, whose salience in Indian democracy is tremendous and most of the states' assemblies, and a significant plurality of the Lok Sabha, are agriculturally dependent. On the supply side, the fertilizer industry, especially domestic urea producers, has the advantage of assured volume demand and effectively socialized costs of production, pushing up the cost of competing with free trade which creates an industrial lobby with strong reasons to oppose the reform of the fertilizer industry. In the past, it has been enough to defeat even technically sound proposals for reform (Gulati & Banerjee, 2015).

Africa's Fertilizer Subsidy Landscape

The situation in Sub Saharan Africa is very different. However, the average application of fertilizers in the region is still low at 17 kg/ha, which is lower than the average global application of more than 130 kg/ha, due to both the cost and market access issues (FAO, 2022). In response, several African governments have adopted input voucher programs and targeted fertilizer subsidies. Moreover, the Farm Input Subsidy Program (FISP) in Malawi, which was established in 2005 with the aim of supplying subsidized fertilizer vouchers to farmers, is often mentioned as a best-practice example – almost tripling maize production in three years (Dorward & Chirwa, 2011). Later assessments have shown, however, that targeting some beneficiaries has been significantly skewed politically, and that vouchers have been disproportionately distributed to households that are connected to networks of ruling party members (Dorward & Chirwa, 2011).

The Nigeria fertilizer subsidy scheme is an example of large-scale elite capture. These 'briefcase' agro-dealers, who were politically connected, used to confiscate an estimated 90% of the subsidized fertilizer before it reached the smallholder farmers before the Growth Enhancement Scheme (GES) reforms of 2012–2015 (Jayne & Rashid, 2013). Partially this was corrected by the introduction of direct electronic distribution of the GES, which was however still impeded by weak registry infrastructure and political pressures on the distribution logistics.

2.3. Why Subsidies Persist: A Political Economy Diagnosis

Several reinforcement mechanisms are brought to light in the literature that maintain inefficient subsidies. First, subsidies are self-generating because as their price is raised, their benefit goes to relatively few households, whereas the fiscal savings accrue to taxpayers, spreading across many. Second, subsidies are self-generating because as their price is raised, the benefit will go to relatively few households while the fiscal savings will go to taxpayers and spread across many. The asymmetry is a characteristic property of policy traps, as has been shown (Bates, 1981; de Gorter & Swinnen, 2002).

Second, the implementation of subsidy programs is carried out by bureaucracies that have significant self-preservation interests. Various agencies with institutional interests in the continuation and expansion of the program include those involved in fertilizer distribution, licensing of the fair price shops and in procurement operations. The Department of Food and Public Distribution has 40,000-plus civil servants in India at the center and millions more for the state food corporations (Dev, 2024). These bureaucracies are a formidable internal voice of the status quo.

Thirdly, the information context of subsidy programs is often created not through independent evaluation, but by both the government and its target groups. Beneficiary-level impact data is often not collected, when it is, it is selectively published, and the counterfactual (what the poverty situation would have been without the other fiscal interventions) is by construction unobserved, making it difficult to rally a political coalition to a change on efficiency grounds.

2.4. Distributional Incidence: Who Really Benefits?

An interesting fact that has become common in empirical literature is that the distributional incidence of agricultural subsidies in developing countries is significantly regressive despite their apparent poverty alleviation and food security goals. Employing nationally representative household survey data, Jacoby (2016) showed that in India, the value of the fertilizer subsidy received per household was 3.6 times as high for the wealthiest quintile of the rural households as for the poorest, capturing the link between farm size, access to fertilizer, and the value of the subsidy received. This is like the results found in Pakistan (Dorosh & Salam, 2008), Egypt (Sdralevich *et al.*, 2014), and Nigeria (Jayne & Rashid, 2013).

The inconsistent political implication is that the population of these programs tends to be drawn from people who have above average political mobilization capacity, since those who receive low benefit from input subsidies tend to be the people with less capacity to mobilize. One explanation for this is that input subsidy programs in the middle-income developing countries are more resistant to reform, where agricultural production has increased and a prosperous farmer class has developed.

3. Public Procurement Systems and Food Security Governance

3.1. Architecture and Functions of State Procurement

Public procurement of agricultural commodities has multiple conflicting goals: price stabilization (floor prices for producers), food security reserve accumulation (for crisis response and buffer stocks) and welfare delivery (as a source of agricultural supplies for subsidized distribution programs). The institutional structures in which these goals are achieved vary greatly in different developing economies: from state-only monopoly in procurement (as in India's Food Corporation of India), to multiple competing agencies in decentralized open market operations. Table 6.2 represents procurement system data scale, storage capacity metrics, and leakage rates (documented) across five developing economies.

Table 6.2: Public Procurement Systems: Comparative Performance Metrics

Department	Annual storage (MT)	Country	Price premium	*Leakage rate
Directorate General of Food (DGF)	1.5-2 million	Bangladesh	+8-14%	18-24%
Ethiopian Grain Trade Enterprise (EGTE)	0.2-1.2 million	Ethiopia	+5-10%	12-20%
Food Corporation of India (FCI)	60-80 million	India	+18-25%	36-47%
General Authority for Supply Commodities	4-6 million	Egypt	+10-15%	20-28%
Pakistan Agriculture Storage and Services Corporation (PASSCO)	3-5 million	Pakistan	+12-18%	25-35%

Source: Comptroller and Auditor General of India (2022); IMF (2022); World Bank (2023); respective national audit authorities."), *Leakage: difference between officially procured and physically received volume by departments, which represents the system failure of governance measures.

3.2. Hurdles in the implementation of large-scale procurement.

3.2.1. Food Corporation of India: Scale, Inefficiency and Attempts for reform.

Food Corporation of India (FCI) is one of the largest State Food procurement and distribution corporation of the world. The FCI procures 60-80 million metric tonnes of wheat and rice from the farmers at Minimum Support Prices (MSPs) every year, stores the grain in more than 1,500 storage depots with a combined capacity of over 100 million metric tonnes, and distributes the grain to more than 813 million beneficiaries through about 535,000 fair price shops as per the provisions of the National Food Security Act, 2013 (Ministry of Consumer Affairs, Food & Public Distribution, Government of India, 2022).

This system has high running expenses. The Economic Cost of wheat in 2021-22 is around INR 27.04/ kg, while the Central issue price of wheat (the price at which the state governments procure wheat for NFSA) is INR 2/ kg, indicating a subsidy of approximately INR 25/ kg. This results in a structural fiscal deficit that is always greater than the fiscal allocation of the Central government, and the shortfall is made up for by borrowing, which the High-Level Committee on Restructuring of FCI (Shanta Kumar Committee) has noted to be unsustainable from 2015 onwards (Government of India, 2015). There are a few issues known as principal-agent failures within the FCI system. The Shanta Kumar Committee estimated diversion of foodgrains in PDS through ghost beneficiaries, spurious ration cards, and diversion between states and open markets at 36-47% of the foodgrains meant for the poor. Such diversions have been minimized but not eliminated by subsequent digitization initiatives like 'One Nation One Ration Card' and biometric authentication with Aadhaar.

3.2.2. Egypt's General Authority for Supply Commodities (GASC)

There are two parallel systems of food security in Egypt: one is the TAMWEEN rationing system, which supplies subsidized cooking oil, sugar, and selected commodities to some 70 million registered beneficiaries; and the other is the Baladi bread subsidy, which allocates a flat subsidy rate per loaf through some 17,000 government bakeries. International procurement is the preserve of the General Authority for Supply Commodities (GASC) while domestic distribution logistics are coordinated by the same entity. Egypt is the biggest wheat importer in the world.

The case of Egypt's subsidy for bread is of special interest. Since Nasser's time, the Egyptian government has had a policy that keeps bread prices low; the 1977 Bread Riots, triggered after a brief liberalization attempt during the President Sadat era, which resulted in the killing of dozens and in cities all over Egypt having to endure fighting lasting for several weeks, remain a constitutive memory for the Egyptian economic policy makers and makes bread price increases a gesture of the impossible that successive governments have been trying to achieve since then (Lorenzon, 2016). This path dependence is so deep that the fiscal reform efforts of the President Al-Sisi's government that have reduced energy subsidy levels within an IMF program for the period 2016-2019 maintained the subsidy on bread in its nominal form but rather compressed the supply chain and reduced the bread quality IMF, 2022).

3.3. Political capture-rent seeking in procurement

The rent generated in procurement systems is quite high: the rent is the difference between the fixed procurement price and the market clearing price, which is a transfer from the taxpayer to the farmer; the rent is the logistics companies are charging, which is a transfer to the farmer from the taxpayer, as a result of storage and transportation contracts; the rent is the rationing agent's or fair price shop's license, which is a valuable economic privilege for the holders. All these streams of rents give political capture an incentive.

PASSCO and provincial food departments' procurement of wheat has also been repeatedly found to be riddled with political favoritism in the awarding of storage and milling contracts in Pakistan, as reported in the Parliamentary Standing Committee's reports on wheat procurement in 2019-20 and 2020-21 in the country, which noted 'systematic irregularities' (Senate of Pakistan Standing Committee on National Food Security, 2021). The political economy of wheat procurement is further complicated by the federal structure of Pakistan: being a provincial subject, four provincial food departments are simultaneously engaged in wheat procurement in the same commodity market, which results in 'coordination failures' and opportunities for intergovernmental bargaining with the large traders, who can exploit such conditions through their strategic inventory management.

Governance Diagnosis: Procurement System Failures

1. There are three governance pathologies that hinder the effectiveness of procurement systems in developing economies: There are opportunities for leakage, ghost beneficiaries and contract manipulation due to information asymmetry between central agencies and field-level agents.

2. Political interference in price-setting and in listing beneficiaries leads to biased incentives and undermines the credibility of implementing agencies in the eyes of the public from a technical point of view.

3. Poor grievance and audit systems limit the transparency and accountability of procurement processes, and result in governance failures that remain even if they are identified by senior decision makers.

4. Price Controls, Market Regulation, and Distributional Effects

4.1. Theoretical Framework: Price Controls and Welfare

Price controls (both ceiling prices in the retail market and floor prices at the farm gate) are different types of food policy instruments from input subsidies or procurement (Samaratunga *et al.*, 2019). Price controls work directly interfering with the clearing mechanism of the market; the welfare effects of price controls depend on the elasticities of supply and demand, the efficient enforcement of the price controls, and the extent to which second-round effects on supply, quality, and market development are captured in the evaluation.

Basic welfare economics would suggest that a retail price ceiling below the equilibrium price will result in a consumer surplus gain (for consumers who are able to obtain the retail item at the controlled price) and a producer surplus loss (for producers who sell the item at the controlled price) while the dead weight loss will be the result of the quantity loss, defined as the difference between quantity demanded at the controlled price and quantity supplied. The practical application of the welfare calculus in developing country circumstances is much more complicated. In principle, price controls can benefit welfare in markets where it is difficult to find buyers and sellers, the number of firms is limited, and prices fluctuate quickly. In markets where it is difficult to find buyers and sellers, the number of firms is limited and prices fluctuate quickly, price controls can in principle benefit welfare by constraining monopoly rents and by providing price stability. The policy challenge is how to design interventions to achieve these benefits without producing the “supply”, “quality”, and “informal market” impacts that are counterproductive.

4.2. Evidence on Retail Price Controls in Developing Economies

4.2.1. Urban bias and distributional paradox

All three regimes of retail controls on staple foodstuffs (controlled food prices in Pakistan, bread subsidies in Egypt, and rice price ceilings in Indonesia) have a similar distributional feature: they benefit disproportionately the urban consumers who have better access to regulated markets and less reliance on their own production. This was a structural characteristic of political economy in low-income countries identified by Michael Lipton in his seminal analysis of ‘urban bias’ (Lipton, 1977) in development policy: urban constituencies, including the urban poor, public employees and the military, tend to be more concentrated, politically mobilizable and less able to cope with rising food prices, whereas rural smallholders were dispersed, less organized and more easily controlled through price adjustments to procurement.

The welfare paradox of retail price controls is that they benefit the highest consumers the most (those who live in cities), in terms of percentage of consumption of controlled staples, and they benefit the lowest consumers the least (those who live in rural smallholder households), both as consumers of controlled and as producers of controlled commodities, whose market returns are depressed by the price controls. The lowest quintile of households in Egypt received only 17% of the value of the subsidy on bread while the top two quintiles received 42% (Sdralevich *et al.*, 2014).

4.2.2. Restrictions on exporting as price controls

Price controls via export bans and restrictions are often overlooked in economic analysis but are a common feature of the price control toolkit. Governments that restrict or tax exports of basic commodities will keep the domestic price stable at the expense of lower returns to the farmers. More than 30 countries have implemented export restrictions or bans on wheat, rice, maize or vegetable oils during the 2007-08 global food price crisis (Martin & Anderson, 2012).

Table 6.3: Welfare Implications of Major Price Control Instruments in Developing Economies

Country	Cost	Long term effect	Short term effect	Policy
Pakistan & Egypt	Very high	Negative (producer discouragement)	Moderate – High	Price controlling (Bread)
Bangladesh & India	High	Positive (High production)	Low-Moderate	Support price at farm gate
Ethiopia & Nigeria	Moderate	Mixed (supply dependent)	Moderate (input access)	Price control (inputs)
Brazil & Mexico	Moderate	Neutral – Positive	High (Targeted)	Targeted vouchers of conditional cash transfer (CCT)
India & Indonesia	Low - Moderate	Negative (Farmer revenue)	Moderate (Urban residents)	Export restrictions

Source: Martin & Anderson (2012); Ivanic & Martin (2014); Sdravlevich *et al.* (2014); World Bank (2023). Note: Effects are indicative; magnitudes vary by country context.

An estimated 18-22 million metric tonnes of rice have not been exported due to export restrictions imposed in 2022 and renewed in 2023 to address production shortfalls projected due to El Niño in the country, which has led to price volatility in the world market and kept prices in the country well below export parity (FAO, 2023).

4.3. Social Inclusion and the Social Economy

One aspect of the price control analysis that is rarely discussed is the linkage between formal price controls and informal market development. If prices are controlled and the supply is not great enough to cope with the demand, an informal market exists in parallel, which enables the prices to move towards the free market level. Formal and informal controlled markets have been observed in various parts of the food economy in Egypt (unofficial bread trade is common around Baladi bakeries), in Pakistan (flour is sold officially at higher prices and at the same level in the shadow market around local mills), and Nigeria (black-market premia of 50-100% above official prices in fertilizer markets have been observed during periods of supply shortfall) (Lorenzon, 2016; Jayne & Rashid, 2013; Hatzenbuehler *et al.*, 2017).

The welfare consequences of this dual market are not clear. The controlled price is pure rent in well-connected households where they have access to formal channels. Poor households that cannot reach formal markets for any of a variety of reasons – be it geographic distance from rationing outlets; lack of documentation of eligibility; or informal exclusion by the shopkeeper because he or she prefers to sell to less poor customers – pay the market rate for food, the controlled price of which is irrelevant. Research in urban Bangladesh and rural Pakistan has revealed that the proportion of poor households who do buy from formal subsidized outlets is frequently less than 30%, and most of the poor buy from the market at uncontrolled prices (Ahmed *et al.*, 2013; Rashid *et al.*, 2014).

4.4. Price Stabilization vs. Long-Run Market Development

One of the key policy dilemmas, and an inherent conflict, is short-term price stabilization concerns (which tend to favor active policy making by government) and longer-term concerns regarding market development (which tend to argue for a reduction of policy intervention and growth of private sector storage, logistics and risk management capacity). Buffer stocks and preparedness to release stocks at a controlled price by governments crowd out the market and private sector's incentive to invest in the market and provide storage facilities. Several South and Southeast Asian economies have had their grain markets dependent for long periods of time on price controls that have hindered development of the private grain markets, and these have proven very difficult to unwind (Timmer, 2010).

5. Policy Reforms and Future Directions for Food Security

5.1. The Political Economy of Reform: Conditions and Constraints

Political barriers to food subsidy and price control reform are significant, in part because of the concentrated nature of the benefits. Political barriers to reform of entrenched food subsidy and price control systems are significant because of the concentrated nature of the benefits. The political economy literature suggests that

fiscal crisis (that makes a strong argument for budget rationalization), strong technocratic capacity in the reform agencies, supportive international financial institution (IFI) involvement (both technically and politically), powerful social protection alternatives that can reduce the welfare cost to the poor of subsidy dismantling, and political leadership with will to suffer short-term electoral costs for long-term fiscal stability are among the conditions associated with successful reform episodes (Williamson, 1994; Krueger *et al.*, 1988).

Most of these conditions do not exist at once in most developing economies and literature warns against universalist solutions. He showed that reform initiatives in times of extreme budget constraints, when there are insufficient social protection options, are likely to result in a decline in the welfare of the poor, and in political pushback against the reform. In other words, the sequence of reform – having alternative safety nets in place first before withdrawing subsidy – is not just a technical matter but a matter of political economy (Haggard and Kaufman, 1992).

5.2. The direct benefit transfer lesson from India and Brazil

The transition from in-kind food support to cash or vouchers transfers is the most important structural change in food policy in the 21st century developing world, driven by the development of digital payment systems, biometric identification and financial inclusion. Brazil's Bolsa Familia program, which at its peak served about 14 million families and combined cash transfers with human capital conditionalities, showed that a well-designed conditional cash transfer can improve poverty targeting, decrease fiscal costs, and be associated with improved nutrition, school attendance, and maternal health outcomes (Soares *et al.*, 2010). The targeting performance of the program (about 80% of benefits accruing to the bottom two income quintiles) was significantly better than other similar in-kind food support programs.

Fiscal savings from the initiative of Direct Benefit Transfer (DBT) in India, which was introduced in 2013 and seriously stepped up from 2017 with the linkage of Aadhaar biometric IDs with bank accounts of beneficiaries, are significant and well documented, due to two reasons: elimination of ghost beneficiaries and reduction of intermediary leakage. Muralidharan *et al.* (2016) had estimated that the leakages from biometric authentication in MGNREGS wage payments came down by 24.5% while the payments for genuine beneficiaries improved. The government claimed that it saved INR 140 billion per annum in the LPG subsidy program because cooking gas subsidies were transferred from direct to DBT, which resulted in the elimination of duplicate connections and ghost connections (Ministry of Petroleum and Natural Gas, 2022).

5.3. Change in the procurement systems (from command to market)

Procurement system reform is a technical and political process. As for the technical aspects, the evidence favors a shift from centralized command procurement towards decentralized approach through open market operations where the government agencies are market players, not price setters. In this model the government sets a price range in which it may purchase and sell, and the private traders may trade freely in the range, with the government only intervening at the extremes of the range to guarantee a price within the range. Rice pledging has been trialed in Thailand with limited success; BULOG in Indonesia has tried a similar scheme, but with less success, as market operations are difficult to separate from political pressure (Warr, 2011).

Politically, the procurement system needs to be managed because it involves balancing the interest of the farming sector that wants procurement prices to be higher than the market rates and the food industry that wants access to cheap government procurements. Reforms have usually needed some kind of transitional assistance or compensation for lost interests, such as continued provision of income support payments to farmers while market prices are allowed to move, or the development of commercial storage leasing to ensure that the former role of public procurement facilities is continued under private control.

5.4. The role of international institutions

World Bank, IMF and regional development banks have always had a dual role in food policy reform: as sources of conditional financing that generate short-term political space for reform, and as technical support

to redesign the programs. In the years following the Arab Spring in Egypt, Tunisia and Morocco (2010s), where the IMF has engaged in subsidy reform, the experience shows that international assistance is best targeted to financing the social protection alternatives that allow the political viability of subsidy reform by focusing on subsidies rather than just on the political/headline terms of subsidy reduction (Sdravovich *et al.*, 2014).

Major shifts in international attitudes and approaches to national food reserve policies were also triggered by the 2008 and 2010–12 global food price crises, resulting in new guidance on optimal levels and composition of emergency food reserves, the importance of separating physical buffer stocks and financial reserves for rapid market purchases, and the need for appropriate governance to ensure reserve management does not become a political patronage game (FAO, 2011). This guidance has been used to drive reform programs in Ethiopia, Rwanda, and a number of West African States, demonstrating tangible benefits in the effectiveness of crisis response (Murphy, 2010).

6. Conclusions and Recommendations

6.1. Synthesis of Key Findings

The chapter has built and applied a political economy approach to the study of agricultural subsidies, public procurement system, and price policies in developing economies. The following are the general observations that can be derived from this analysis.

Economically costly and poorly targeted food policy instruments persist for reasons that go beyond mere technical naivety or institutional naivety (Swinnen, 2018). These policies have coherent political functions because they provide clear and specific benefits to electorally important constituencies, while the costs - fiscal burden, price distortion, investment crowding out are diffused, delayed, and hidden from the political sphere. This is the political logic that no reform initiative can overlook and is likely to fail.

Second, food policy instruments are more regressive in their distribution than they would nominally appear to be. In all the reviewed country cases, the gains of subsidies, procurement price premiums, and retail price controls go primarily to better-off households, more politically connected communities, and to urban populations, compared to rural populations. These transfers may benefit the poor in name only and have little impact on their actual well-being.

Third, governance failures – leakage, "elite capture" and "principal-agent opportunism" – are not an incidental aberration of large-scale food policy programs in developing countries but a structural characteristic. The findings, of 20–47% of the value of the programs lost in the systems reviewed, are a huge loss of resources that could be added to the scope of well-targeted social protection, if recovered through better governance and finance.

Fourth, reform is politically feasible under specific conditions—fiscal stress, technical capacity, a sequenced social protection package, and political leadership—but it needs to be carefully crafted to build broad political support for addressing the interests of the distributional coalitions that support the status quo. Reform episodes are technical as well as political successes.

6.2. Policy Recommendations

Prepare recommendations for subsidy policy

Make sure that the discussion of subsidy reform is preceded by serious incidence analysis of current subsidy programs, based on nationally representative data from household surveys. Programs which are clearly regressive in incidence are better candidates for restructuring both on equity and fiscal principle. Move from universal price controls to targeted subsidy systems using vouchers delivered electronically and that cover specific groups of beneficiaries (e.g. poor smallholders, marginal farmers); to reduce leakage through the scheme or subsidy chain.

Create public accountability mechanism through developing independent fiscal monitors with responsibility to publish annual estimates of total subsidy expenditure, distributional incidence and leakage rates, which

can generate political momentum for reform across elections. Design exit ramps for politically entrenched subsidies by offering farmers and consumers a phase-in period of transitional income support that can be maintained as markets adapt, and then phase-out over a specified multi-year period.

The Government shall implement measures to improve the procurement process by addressing the key issues stated below:

- Move away from centralized procurement monopolies and change to price band stabilization mechanisms that allow for participation in the private sector market, thereby lowering the fiscal and governance burden on state agencies and retaining the price stabilization effect.
- Develop infrastructure for beneficiary registration, including biometric registries, address verification systems and income proxies, as a first step towards better targeting in distribution programs. These investments are always justified by the fiscal returns because of reduced leakage.
- Decentralize procurement processes to the local government level wherever administrative capacity exists, bringing accountability closer to the implementation, and allowing communities to monitor the quality of distributions.
- Build a professional cadre of food policy technocrats in implementing agencies, who are meritocratically appointed and on fixed terms to ensure a consistent level of implementation throughout election cycles.
- Substitute market-wide price caps with targeted subsidies for the poor (cash transfers, food stamps, or vouchers) that provide the price subsidy to poor households without constraining market prices from fulfilling their function of allocation.
- Create automatic stabilizer mechanisms for food prices, where market interventions by the government are based on predetermined thresholds on objective price indices, not on political judgment, and thus limit the discretion for election timing of market interventions.
- Strengthen regional food commodity reserves and price information systems (suggested by ECOWAS in West Africa and SAARC in the South Asian region) to minimize the need for single country price interventions that have regional spillovers and disrupt regional food systems. Evaluate and extend trade restrictions against domestic welfare impacts and notify WTO under an explicit sunset clause.

6.3. Looking Ahead: Food security in a changing world

Political economy of food policy in developing economies is changing rapidly due to the compounding pressures of climate change, demographic transition, digital technology and changing international trade rules. The price stabilization policy is becoming more important and there is also a premium on adaptive governance systems because climate change is exacerbating production shocks. Demographic pressure (with an estimated 1.2 billion additional people in developing economies by 2040, mainly in urban areas, is putting political pressure on the political economy from rural agricultural interests to urban consumer interests, thus creating political space for food subsidy reform. Digital technology is now improving the potential for targeted social protection delivery, as, in the past, such delivery has been less feasible than universal subsidies due to informational and logistical problems.

The enabling trends are offset by the risks of food price volatility as a consequence of climate change, its political salience, and possibly the creation of new constituencies for price stabilization; of geopolitical disruptions in global commodity trade, their impact on the credibility of market-based solutions in the eyes of policy makers; and of political polarization, which could narrow the technocratic space for policy reform.

That point, which is the core of this chapter, is that simply designing technically good instruments is not enough to create sustainable, equitable, and fiscally responsible food security policy in developing economies; it is necessary to understand the political economy context in which policy is made. However technically sound the reforms are, they will fail if these are not considered, as they will be influenced by the distributional coalitions, institutional path dependencies and electoral incentives that define food policy. The ones who involve these realities have a much better chance of succeeding in creating lasting improvements in food security for the world's most vulnerable people by designing pathways of reform that carefully

manage the vested interests, coordinate transitions and create coalitions of political players to bring change about.

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