

Featured Article

The Political Economy of Agricultural and Food Policies: Recent Contributions, New Insights, and Areas for Further Research

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Abstract *This article reviews innovative research that has emerged in recent years, both in the general economics literature and as applied to agricultural and food policies. There have been important innovations and new insights in these fields, particularly regarding the micro-foundations of political decision-making, the impact of political institutions and ideology, and the role of the media. Data have also improved substantially. However, there are still important gaps in our understanding. Further research should focus on capturing interactions between explanatory variables, more refined measurement of (political) institutions and reforms, the effects of international agreements, broader representation of agents, more explicit modeling of crises, discontinuous effects, and the interaction of multiple policies.*

Key words: Political economy, agriculture, food policy, protection, mass media

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Introduction

Several important recent international developments have brought the political economy of agricultural and food policy (back) to the top of the international trade and development agenda. The failure to reach agreement in the World Trade Organization's (WTO) Doha Round of trade negotiations has, again, brought to the forefront the important role that political considerations continue to play in agricultural policy and, thus, in international trade and relations. Despite a strong decline of the agricultural sector in terms of employment and output in rich countries, agriculture and agricultural policy remains disproportionately important for rich countries in their trade negotiations—even to the extent that they are willing to let WTO negotiations collapse over disputes on agricultural policy.

The global food crisis has also drawn attention to the failure of agricultural policies to stimulate investment and productivity growth in

developing countries where farmers have been taxed for decades. At the same time, the crisis has created international tensions, as the use of export bans and trade constraints has worsened price fluctuations on world markets and the concomitant negative effects for many poor countries and households. International tensions have further risen as food importing countries claimed that food price increases were exacerbated by rich country subsidies of agricultural production for renewable energy purposes. On the other hand, biofuel exporters claimed that their production, and thus farm incomes, were being taxed by import tariffs on biofuels designed to protect domestic agricultural interests, most notably in the United States and the European Union (EU).

These are all symptoms of widespread policy and international governance failures, both in developing and developed countries. For example, despite decades of economists arguing against agricultural subsidies and tariffs, political factors continue to dominate agricultural policy-setting (including trade policy) in both rich and poor countries. Political considerations are crucial to understanding the positions of both developing and developed countries in their trade negotiations, as well as the constraints on the ability to reform unilaterally or to reform as part of a broader trade negotiation outcome.

The political economy of agricultural and food policy is a timely issue, not just from a policy perspective, but also from the perspective of developments in the literature. Looking back, the 1980s and the first half of the 1990s were a very active period in the field of political economy regarding agricultural protection and policy distortions. This research was triggered by a combination of factors. First and foremost, there was the following puzzling question: why was agriculture supported in rich countries and taxed in poor countries? At the same time, studies were being fueled by emerging general theories of the “new political economy” coming out of the University of Chicago (with important contributions by Stigler 1971; Peltzman 1976; Becker 1983), the public choice school of Buchanan and Tullock (1962), and the influential work of Downs (1957) and Olson (1965). Another factor was the arrival of new data, in particular the dataset assembled as part of the World Bank study organized by Krueger, Schiff, and Valdes (1991). Thus, the combination of an intriguing question, a rich set of new general theories to apply, and fascinating data all led to the development of a vast body of literature on the political economy of agricultural trade and distortions in the 1980s and the first part of the 1990s (see, next section).

When going through the literature, it is clear that research interest in the political economy of agricultural policies waned in the latter 1990s, and research activities in this field became less intensive. However, it appears that some of the conditions that sparked an intense interest in the political economy of agricultural policies in the 1980s, and yielded a rich harvest of interesting findings, are once again present. First, there are new and innovative datasets available, in particular for institutional and political variables, and on agricultural policy distortions. Second, there have been important new developments concerning political economy in other parts of the economics profession which have potentially important implications for the political economy of agricultural policy distortions. Third, there are important new questions to be addressed, for example, how have important institutional and political reforms in the 1980s and the 1990s affected

agricultural policy distortions? How have changes in international organizations and international trade agreements affected agricultural policy distortions? Examples of these developments over the past two decades include effects of the Uruguay Round Agreement on Agriculture (URAA), the establishment of the WTO, the North American Free Trade Agreement (NAFTA), EU enlargement, etc.

My objective here is to review some of these recent contributions, to explain some of the new findings and to point out remaining gaps in our knowledge, as well as promising areas for further research. I have neither the space (nor the intention) to review the entire body of literature,¹ but will focus on a selection of those developments that appear particularly relevant for studying the political economy of agricultural and food policies. This includes the availability of new datasets, new general theoretical insights, as well as progress in empirical research in terms of making a more rigorous link between theory and empirical tests. More specifically, I will first provide a brief summary of the key insights of the earlier literature to put the newer developments into a broader perspective. This is followed by a review of new data and new insights from the literature wherein I discuss changes in the political economy of trade policy literature and its implications, as well as new insights on the role of political institutions, ideology, and inequality on the impact of crises and discontinuous changes. Finally, I review new insights on the political economy of information and the role of the mass media. In the final section of the article, issues for further study are identified.²

A Brief Summary of the Earlier Literature

Empirical evidence on agricultural protection/taxation that emerged from numerous studies³ in the 1980s and the 1990s can be summarized by three patterns: the “development pattern,” the “anti-trade pattern,” and the “relative income pattern.”⁴ The “development pattern” refers to observations on both the positive correlation between agricultural protection and average country incomes across countries, and on the historically-observed shift from taxation to the protection of agricultural

¹There are a number of books and survey articles that provide a good overview of these recent developments. This includes Acemoglu and Robinson (2006); Dewan and Shepsle (2008a,b); Gawande and Khurshina (2003); Grossman and Helpman (2001); Persson and Tabellini (2000; 2003); Rausser, Swinnen, and Zusman (2010); Roland (2000); and Weingast and Wittman (2006).

²I do not discuss a series of important new contributions on the issue of instrument choice in agricultural policy. This issue is addressed in greater detail by de Gorter. This should not be interpreted as either a lack of interest in or lack of suggested importance of this issue. In fact, major progress is to be made in the empirical work in this area. For example, some of the empirical applications reviewed in this article use nontrade barriers (NTBs) as their dependent variable, for example, Ehrlich (2007). However, none of these has a choice of instruments. Further, in several countries, and notably in the EU, the entire policy debate over the past 20 years has been about the choice of instruments much more than about the level of support. EU Commissioner Fischler succeeded in keeping the budget for agriculture, if he could make the expenditures less trade distorting and more in line with environmental objectives. The policy changes were essentially a major change in instrument choice.

³See, de Gorter and Swinnen (2002) for an extensive summary and review of the literature, and Binswanger and Deininger (1997) for a review focusing on developing countries.

⁴See, Anderson and Hayami (1986), Honma and Hayami (1986), and Lindert (1991) for countries of North America and East Asia; Bates and Krueger (year), Schiff and Valdes (year) for developing countries; Tracy and Swinnen (year), Banerjee and de Gorter (year) for the evolution of protection in Western European countries; and Gardner (1987) for the United States.

producers that countries make as they develop economically. The “anti-trade pattern” refers to the observation that import-competing sectors (products) tend to be more assisted (or taxed less) than sectors producing exportable products. The “relative income pattern” refers to the observation that protection increases when farm incomes (or incomes in particular sectors) fall relative to the rest of the economy, for example because world market terms of trade shift against the commodity, because of exchange rate fluctuations, because of technological innovations that reduce incomes gained from producing a specific commodity, etc.⁵

There was a consensus among economists that these global patterns of agricultural policies could not be explained with economic arguments, but that they are consistent with predictions from political economy theories. While a large variety of arguments and variables have been included in the models, and at the risk of over-simplifying the insights gained from the literature, one could argue that the political economy explanations put forward in the 1980s and the 1990s to account for these observations on agricultural protection have focused importantly on (economic) structural factors. In particular, several studies have explained how changes in structural conditions in an economy, for example, either those coinciding with economic development, or those associated with different commodities for a given level of development, have an impact, for different groups in society, on (a) the costs of distribution and distortions associated with protection, (b) the intensity of political activities, and (c) the ability to organize politically and influence the government.⁶

As average incomes increase in an economy, changes in the structure of that economy affect the distribution and the size of political costs and benefits of agricultural protection, and thus the government’s political incentives in decision-making. For example, the declining share of food in total consumer expenditures reduces consumer opposition to agricultural protection, as well as the opposition of capital owners in other sectors who oppose the (wage) inflation pressures that accompany agricultural protection’s increased food costs. Another factor that coincides with economic growth is a declining share of agriculture in total employment. With a declining number of farmers (in relative terms), the per unit costs of increasing farm incomes through protection decreases for the rest of society. This causes consumers to become less interested: as their costs of political participation become larger than the potential benefits, they may become “rationally ignorant voters” on agricultural policy (Downs 1957). In contrast, farmers and agribusinesses with large vested interests continue to have a strong interest.

Further, with economic development, incomes in the rest of the economy typically grow faster than in agriculture. This creates political incentives, both on the demand (farmers) side and the supply (politicians) side, to exchange government transfers for political support. When farm incomes from the agricultural market decline relative to other sectors, farmers look for nonmarket sources of income, for example government

⁵Notice that these technological innovation effects can come both from within agriculture and from outside. It is well-known that innovations in agricultural research in the presence of a price-inelastic demand for food may lead to a decline in farm prices to the extent that they hurt farmers (Alston and Pardey 1996).

⁶For example, see, Anderson (1995) and Swinnen (1994) for theoretical analyses of the impact of these structural variables on agricultural policy.

support, either because the return to investment is larger in lobbying activities than in market activities, or because the willingness to vote for/support politicians is stronger because the impact on utility is relatively stronger. For similar reasons, governments are more likely to support sectors with a comparative disadvantage than sectors with a comparative advantage.⁷ These explanations are consistent with observations of agricultural protection being countercyclical to market conditions.

Political economy theories predict that exports will be subsidized less (or taxed higher) than imports because of differences in the price elasticities of demand and supply, thus affecting the induced distortions. The distortions (deadweight costs) and transfer costs of policy intervention typically increase with the commodity's trade balance, that is, when its net exports increase. Other factors are differential effects on government revenues and differences in the comparative advantage position of the sectors. Therefore, in many countries protection of the sector is found to decrease with increases in the trade surplus.

With a declining share of agriculture in total employment, studies drawing on Olson's collective action hypothesis have argued that this makes farmers' political organization less costly and is, therefore, likely to increase the effective lobbying of farmers.

Recent Developments in the Literature

As these arguments became more established and the puzzling question of why agriculture was subsidized in rich countries and taxed in poor countries had apparently received an answer, interest in the field of political economy of agricultural distortions began to wane in the latter part of the 1990s.

Nonetheless, some important new research has taken place over the past decade. Several projects have been implemented to collect better and more data on policies and their determinants, and new empirical studies have begun to use these new datasets. New theoretical and empirical studies have focused on issues beyond the structural factors that were the focus of much of the earlier research. Recent research has contributed to better micro-foundations for political economic decision-making, stronger links between theory and empirics, and a strong focus on issues such as political institutions, ideology, inequality and the role of the media. An important development is that a closer link has been made between theory and empirics. Much of the older empirical literature estimated reduced-form econometric models that were only loosely linked to theory. More recent studies, however, have attempted to make a stronger and more rigorous link between theoretical predictions/models and empirical tests.

Applications to the political economy of agricultural and food policies have benefited from important developments in the general political economy literature. This includes extensions of the Grossman and Helpman (1994; 1995) model in the field of the political economy of trade policies; by Acemoglu and Robinson (2001; 2006) and colleagues on the interactions between institutions and policy-making; by Baron and

⁷The relative income hypothesis in agricultural policy is developed formally in de Gorter and Tsur (1991) and Swinnen and de Gorter (1993).

Ferejohn (1989) on decision-making rules and the role of agenda-setting; by Roland (1994; 2000) and colleagues on the political economy of transition; by Shleifer and colleagues on the role of bureaucracies and corruption in policy-making; by Persson and Tabellini (2000; 2003) on the “political economics” of fiscal policy and macro-economic policy and on the role of constitutions; and by Strömberg (2004a,b) and colleagues on the role of mass media in politics.

In this article I cannot review this entire body of literature. Instead, I focus on a selection of those developments which appear particularly relevant to the study of the political economy of agricultural policy distortions. First, I discuss some of the new datasets that have been assembled. Second, I discuss major changes in the political economy of trade policy literature and their implications for understanding agricultural and food policy. Next, I review new insights on the roles that political institutions, ideology, inequality, crises and discontinuous change have in agricultural and food policy. And finally, I present new insights on the political economy of information and mass media’s role within it.

New Datasets

There are now much better data series available on key variables than there were fifteen years ago. This is particularly the case for institutional and political variables, where data series have been created or improved, notably the Database on Political Institutions (DPI) project under the auspices of the World Bank (Beck et al. 2001), as well as other data initiatives such as Carey (2009) and new databases with governance indicators (Kaufmann, Kraay, and Mastruzzi 2003). Another major innovation on the data side is the dataset compiled on agricultural distortions by the World Bank (Anderson and Valenzuela 2008). This new dataset provides a much wider and longer series of data on indicators of agricultural and food policies than has ever been available.

In the 1980s and 1990s the vast majority of empirical studies on agricultural protection were either cross-sectional studies, or studies based on panel data with relatively short time periods. While these studies yielded important insights, the observed relationships masked strong occasional fluctuations in protection levels, generally coinciding with periods of general macroeconomic depression and severe food shortages. These fluctuations of support to agriculture are clearly visible in the few studies using long term time-series data and econometric analyses, such as Anderson and Hayami (1986), Gardner (1987), Swinnen, Banerjee, and de Gorter (2001).⁸ These fluctuations demonstrate how sensitive and responsive agricultural protection (income transfers) can be to external changes. However, these historical studies focus on a single country, making it difficult to generalize.

An important contribution of the new Anderson and Valenzuela dataset is their use of a much larger dataset based on pooled time-series and cross-section data for testing the relative importance of these theories. Another potential advantage/contribution is that the more extensive dataset will allow for better insights by distinguishing between the “observational equivalence” of competing explanations. For example, the

⁸*Related studies are Lindert and Tracy (year).*

negative relationship between the share of farmers in the economy and agricultural protection is explained both by the increased effectiveness of political organization argument and by the reduced cost of redistribution argument. Distinguishing between both explanations was constrained by data limitations in previous studies.

I will review insights of studies using these new datasets related to specific issues in the following sections. For example, the improved data on political institutions have allowed new testing of several hypotheses, which was not possible before. Integrating measures of political regimes and ideology in the econometric models is now possible since indicator data on these variables are now available for a wide group of countries. In combination with the new Anderson and Valenzuela dataset, this has allowed new research on measuring the effects of, for example, ideology and political regimes on agricultural and food policies. In addition, the pooling of cross-section and time-series data allows for better econometrics in general.

The Growth of the Grossman-Helpman Model in Trade Policy

The widespread presence of trade distortions has long puzzled economists and also stimulated a vast body of literature on the political economy of such distortions. This literature is closely related to studies on the political economy of agricultural policies and has served as a source of inspiration, since many of the distortions in agricultural markets are trade distortions. Rodrik (1995) surveys the earlier literature, exploring the political support function approach of Hillman (1982; 1989), the tariff-formation approach of Findlay and Wellisz (1982), and the campaign-contribution approach of Magee, Brock, and Young (1989).

Theory. The literature on the political economy of trade policy was transformed by Grossman and Helpman's (1994) article "Protection for Sale," where they develop a formal model in which special interest groups make political contributions in order to influence a government's choice of trade policy. As in a menu auction (Bernheim and Whinston 1986) the interest groups bid for government protection by providing political campaign support. These contributions are assumed to be "truthful" in the sense that each interest group's contribution function varies with tariffs in the same way that their profit function varies. Politicians determine the optimal policy by maximizing their own utility, which is a weighted function of political contributions collected and social welfare. In equilibrium, interest groups pay contributions in accordance with the political strength of their rivals. An interest group that faces no competition from other groups captures the entire surplus from lobbying, whereas if all voters are represented and all sectors are organized, then free trade prevails and the government captures the entire surplus from the political relationships.

While the Grossman-Helpman (GH) model has attracted a substantial amount of criticism, it has now become a standard model in this field,⁹ which is somewhat remarkable, given the fact that the predictions of the original model were not consistent with some of the empirically observed relationships on trade distortions, including the basic patterns of

⁹For example, see, Ethier (2006).

agricultural policies (as summarized above). For example, the GH model does not predict that protection is countercyclical to market incomes, nor does it predict that sectors in (relative) economic decline will be protected.

According to two authoritative surveys of the political economy of trade literature, Rodrik (1995) and Gawande and Khrishna (2003), two important characteristics of the GH model make it very useful. Rodrik argues that the main attraction of the GH model is that it provides clear-cut micro foundations for lobbying and its effects in a tractable and fairly general setting. According to Gawande and Khrishna (2003), another major advantage of the GH model is its usefulness for empirical applications: it allows the researcher to go beyond structural econometric models and to empirical specifications closer to the theory.

To solve the inconsistencies of the original GH model with empirical observations, various authors have modified the basic structure of the GH model to make theoretical predictions from adjusted versions of the model more consistent with reality. For example, two recent articles by Freund and Ozden (2008) and Tovar (2009) integrate individual preferences for loss aversion. The implication of these adjusted models is that policies will deviate from free trade to favor loss-making industries. In both studies, the augmented GH models do predict offsetting protection that emerges from the political game to compensate for declining world market prices and favors loss-making and import-competing industries. In her empirical research, Tovar finds support for this theory, and the estimates of the loss aversion parameters are very close to earlier general estimates obtained by Tversky and Kahneman (1992) with experimental data.

Earlier, Baldwin and Robert-Nicoud (2007) expanded the GH model to explain the support that goes to declining industries by incorporating an asymmetry in the ability of interest groups to appropriate the benefits of lobbying. In an expanding industry, policy-created rents attract new entries that erode those rents. In declining industries this is not the case. Since the sunk costs of market entry create quasi-rents, profits in declining industries can be raised without attracting entry, as long as the level of quasi-rents does not rise above a normal rate of return on the sunk-capital. The result is that losers lobby harder and government policy reflects this.

Cadot, de Melo, and Olarreaga (2004) adjust the GH model to make it more consistent with empirical observations by introducing factor-market rivalry and input-output linkages. These extensions of the model give rise to counter-lobbying, which yields results that suggest protection escalates with the degree of processing, and that rich countries protect agriculture more than industry, whereas poor countries do the reverse. The importance of downstream linkages is also emphasized by Francois, Nelson, and Pelkmans-Balaoing (2008), using a computable general equilibrium (CGE) extension of the GH model.

In summary, while the initial GH model has made an important contribution in terms of providing better micro-foundations for the political economic models in areas such as trade policy, a variety of adjustments and extensions of the basic model have now made it consistent with empirical stylized facts. These extended GH models are therefore very important contributions, which provide important insights not just for trade but also for agricultural and food policies as a whole—such as why we have an anti-trade policy bias and why agriculture is protected as a sector in decline.

Empirical Analyses. The empirical literature on the political economy of trade policy has focused strongly on testing the implications of the factor endowments and sector-specific model (Mayda and Rodrik 2005). The early empirical work, at least until the late 1980s, mostly involved the estimation of correlations between trade policies and various political economy factors, conjectured to be relevant in determining trade policy (Gawande and Khrishna 2003).

More recently, developments in the theoretical literature have been accompanied by new empirical studies for two reasons. First, the growth in importance of the GH model in the theoretical literature induced a response in the empirical literature, with authors trying to estimate its predictions. Second, as mentioned above, one of the major advantages of the GH model in empirical work is that it allows the researcher to go beyond the structural econometric models that characterized most of the empirical work in the 1980s, and also to relate the empirical specifications more closely to the theoretical models.

However, there are several problems with empirical analyses based on the GH model. First, the estimated importance of lobbying is very small. For example, studies by Goldberg and Maggi (1999), Gawande and Bandyopadhyay (2000), and Cadot, de Melo, and Olarreaga (2004) estimate that the weights associated with lobbying are very low, and that the weights attached to general welfare in the politician's objective function is much higher than expected. This surprising empirical result has induced several researchers to search for adjustments to the empirical specifications, thereby reducing estimates of the domestic welfare weight in the political objective function. For example, alternative assumptions have been made by Lopez and Matschke (2006) and Lopez (2008) concerning the import demand functions, by Mitra, Thomakos, and Ulubasoglu (2006) with respect to political organization schemes, by Gawande and Li (2004) on the effectiveness of lobby contributions, by Facchini, Van Biesebrouck, and Willmann (2006) on rent capture, and by Francois, Nelson, and Pelkmans-Balaoing (2008) who use a CGE approach to assess the weights indirectly.

Second, empirical estimation of the GH model requires data on lobbying. This makes estimating the model interesting for the United States, where data on lobbying through political action committees (PACs) are available (see, Bombardini, 2005). However, this is typically not the case in other countries, which makes such estimation more problematic. Nonetheless, there are studies which have tried to estimate the GH model for other countries (e.g., Gawande, Sanguinetti, and Bohara [2005] on Mercosur; Mitra, Thomakos, and Ulubasoglu [2006] on Turkey; and Belloc and Guerrieri [2008] on the EU). However, where data on actual lobbying are not available, lobby activities are typically measured through proxy indicators in these studies. These proxies tend to be quite ad hoc, basically assuming that industries that fulfill certain criteria are lobbying more actively, which seems to be rather a step back from the objective of more accurate econometric work.¹⁰ For example, the Gawanda, Sanguinetti, and

¹⁰There is some theoretical foundation here. Olson's seminal work focused on how variations in the characteristics of companies and sectors affected their ability to organize for lobbying activities and its subsequent success in influencing governments. More recently, Mitra (1999) made lobby formation endogenous in the GH framework, but only as a discrete (0–1) process, which does not account for

Bohara (2005) study on Mercosur takes industries whose imports surpass the sample mean as actively lobbying for protection. Belloc and Guerrieri's work on the EU uses size of the firms as an indicator, with larger firms assumed to be better at lobbying.

In summary, while there appears to be considerable enthusiasm in this literature on the benefits from the GH model for more careful econometric work, these benefits appear limited, for broad applications, to empirical political economy analyses of agricultural policies. Actual data on lobbying are typically not available outside the United States. Not surprisingly, the only GH applications in agriculture, as far as I know, are to U.S. agricultural policies by Gawande and Hoekman (2006) and protection of U.S. food industries by Lopez. In other countries, the use of proxy variables means that the studies have to rely on indicators used in earlier structural models, or worse. In fact, the two general applications of the GH model to the EU, by Belloc and Guerrieri (2008) and by Francois, Nelson, and Pelkmans-Baloing (2008), both assume, *ex-ante*, that agriculture enjoys a "privileged position for historical reasons" and give agriculture an *ad hoc* dummy with a high value for lobbying—which does not exactly reflect careful analysis or progress on this issue. Hence, the promise of empirical applications of the GH model to yield important insights for agricultural policy is constrained by the lack of availability of data that are required, particularly on lobbying.

The Impact of Political Institutions, Ideology and Inequality—and their Interactions

Political Institutions. While the importance of political systems for policy, and thus agricultural policy distortions, has long been emphasized, for example as in the seminal work by Buchanan and Tullock (1962), the past decade and a half has witnessed a growing set of studies that analyze the impact of political regimes and ideology on policy-making. While developments in the empirical literature are possibly most relevant, I start first by discussing briefly some theoretical developments.

Persson and Tabellini (2002; 2003) have made important recent contributions, both theoretically and empirically, in analyzing the relationship between electoral systems and economic policy. To relate some of these more general insights to agricultural policy-making, consider the political regime, the "constitutional choice," in the framework of providing the degree of "insulation" afforded to policy-makers (see, Aghion, Alesina and Trebbi 2004). As such, the political regime determines to what extent the government, once appointed, can rule without *ex post* control, or not, as well as what type of majorities it needs to ensure passage of legislation, and whether groups have veto power, etc. A crucial factor is (information on) the nature of the politicians who will form the government, that is, the ruler's preferences: will they implement policies which are good or bad for social welfare if given the authority to rule without control (Rausser and Roland 2009)? Another factor is how different mechanisms translate voter preferences into controls on government, majority formations, and hence, policies. These issues not only relate to the differential effects of

heterogeneity within a sector. Bombardini (2005) extends this and shows, through both theory and empirics, how US firms of different sizes have different incentives to participate in lobbying.

democracy and autocratic regimes (Acemoglu and Robinson 2006), but also between different electoral systems, such as proportional versus majority-rule systems (Rogowski and Kayser 2002; Roelfsema 2004), and the autonomy given to bureaucrats and implementing institutions (Prendergast 2007).

To illustrate the importance of the latter issues for agricultural policy, I draw on a recent application of these issues to decision-making with respect to agricultural policy in the EU. Pokrivcak, Crombez, and Swinnen (2006) show how agricultural policy reforms are determined by a complex interaction of majority voting rules, changes in the external environment, and the preferences of the European Commission, which is the agenda-setting bureaucracy in Brussels. Policy changes are not possible unless external changes are sufficiently large (what the authors call the “status quo bias”), and the influence of the bureaucracy is crucially dependent on the voting rules (an example of the more general principle on insulation discussed above). However, when external changes are sufficiently large and the voting rules are closer to simple majority-rule (instead of requiring unanimity among voters), the preferences of the agenda-setting bureaucracy can determine a pro-reform or anti-reform outcome of the policy process.

In terms of empirical predictions, it is intuitive that the greater insulation of decision-makers implies that they can follow their private preferences to a greater extent. However, this in itself has little predictive power, since there is no direct relationship to be expected between the preferences of rulers and the nature of the political regime on issues such as protectionism (O’Rourke and Taylor 2007). One would expect that there may be more variation in policy choices under dictatorial regimes than under democracy, *ceteris paribus*, if dictatorial leaders are less constrained in setting policies. This is consistent with Olper’s (2007) findings, that his regression model works better in democracies than in dictatorships, because governmental response to pressure from interest groups is stronger in democracies. This may also be the reason why early studies with simple relations between agricultural policy and political regimes in cross-sectional studies find limited impact (Beghin and Kherallah 1994).

That said, several empirical studies do find an impact of political institutions on trade and agricultural policy. For example, Banerji and Ghanem (1997) and Milner and Kubota (2005) find that authoritarian regimes do have higher trade protection and greater labor market distortions. In a related approach, Masters and McMillan (2000) and McMillan (2001) find that governments that have a lower discount rate (that is, those that are less likely to lose power in the future, which presumably includes more autocratic regimes) are less likely to tax agricultural exports in Africa.

Using the new Anderson and Valenzuela dataset on agricultural policy distortions, Olper, Falkowski, and Swinnen (2009) find a significant positive effect of a transition from an autocratic to a democratic regime on agricultural protection. However, they also find that the reverse political transition, that is, from democracy to autocracy, has no effect on agricultural protection. In addition, Olper and Raimondi (2009) further distinguish between different types of electoral systems. There has been substantial recent theoretical work in this area, in particular by Persson, Roland, and Tabellini (2009), seeking to understand how various electoral rules (proportional vs. majoritarian; presidential vs. parliamentary)

affect policies. Olper and Raimondi (2009) find that, within democratic regimes, agriculture is significantly more protected under proportional electoral rule than under majoritarian. However, they do not find a difference between presidential and parliamentary electoral systems.

Ideology. An interesting approach to disentangling some of the problems regarding the interactions between political institutions and preferences of autocratic rules is proposed by Dutt and Mitra (2005). These authors focus on the impact of ideology and allow the ideology variable to interact with an indicator of the structure of the economy, that is, its resource endowment, as well as an indicator for political liberties, to measure the conditional impact of ideology. Interestingly, they find that the more left-wing a government is, that is, it attaches higher weight to the welfare of workers/labor, the more protectionist it is in the case of capital-abundant countries, but the less protectionist it is in the case of capital-scarce countries. The authors interpret their results as follows: dictators who have consolidated their power may not face any electoral threats and may have fewer incentives to formulate trade policies according to their ideological affinities. However, if they do decide to favor their core constituent groups, they face fewer constraints in implementing redistributive trade policies.

However, an extension of this model to agricultural policy seems to be too simple, since increasing food costs through agricultural protection hurts both workers and industrial capital. Hence, rulers who support either “labor” or “capital” would both oppose agricultural protection – as they have done in reality (see, Swinnen, forthcoming 2009, on the history of agricultural protection in Europe). In this sense, distinguishing between right-wing versus left-wing rulers may not yield robust or useful results. For example, right-wing dictators may be more inclined to support agriculture if it is dominated by large-scale farms and estates, which are typically supporters of right-wing rules. Conversely, the dictators may be less inclined to support agriculture if it is dominated by small farms and peasants, a potential revolutionary group. Left-wing regimes may do the opposite.

The first studies trying to econometrically estimate these effects on agricultural policies, while also taking into account some of the interaction effects with political regimes and structural conditions, are those by Olper (2001; 2007), who finds that, on average, right-wing governments are more protectionist than left-wing governments in agriculture; however, left-wing governments may support agriculture in more unequal societies. This is consistent with studies by Bates, who found that socialist governments in Africa have tended to impose lower commodity prices on farmers, and also by Swinnen (forthcoming 2009), who finds that right-wing governments in Europe, such as those dominated by Catholic parties and conservative parties, as well as the Nazi party in Germany (1933–1945), have tended to support farm interests and increase protection.

A recent study from Dutt and Mitra (forthcoming 2009), using the Anderson and Valenzuela dataset, also finds empirical evidence for an important interaction between political regimes, ideology and economic development.

Inequality. A series of recent studies have emphasized the importance of inequality, both indirectly through its effect on political institutions

(Acemoglu and Robinson 2006), and directly on government policies, including trade policy (Dutt and Mitra 2002) and agricultural policy (Olper 2007). Olper (2007) finds that agricultural protection is negatively related with inequality. This is counter to the traditional Olson-type argument, that large farmers are better at overcoming collective action problems. In contrast, La Ferrara argues the opposite, that is, that inequality may cause collective action problems, which could explain why protection is negatively correlated with inequality. Historical evidence for this exists in Europe: extensive inequality in England, Germany and France weakened the pro-tariff demands of large grain farmers at the end of the 19th Century, as they were opposed by small farmers, often livestock producers. In France, large and small farms were even organized in different unions and associated with different political parties (Swinnen forthcoming 2009).

However, the impact of inequality also appears to be conditional on other factors. Olper (2007) finds that the inequality effect is conditional on the ideology of the ruling government. Left-wing governments, while on average supporting agriculture less, tend to support farmers more in unequal societies. Dutt and Mitra (2002) find that the impact of inequality is also conditional on other factors: a rise in asset inequality is likely to have quite different effects in a labor abundant economy compared to a capital abundant economy; these findings appear robust in both cross-sectional and time-series regressions.

A longer time perspective on the impact of inequality is offered in articles by Acemoglu and Robinson (2001; 2006), who demonstrate, both theoretically and empirically, the dynamic interaction between the initial structural conditions of a country, its constitutional design, the nature of the government and the redistributive policies it implements. In societies with highly unequal distributions of assets (such as land), governments tend to be politically unstable, moving back and forth between (left-wing) revolutionary pressure from the poor trying to redistribute wealth through political change, and land reforms and (right-wing) dictatorships trying to protect the concentrated resources of the rich. In more equal societies, redistribution can occur within a more stable democratic setting. Hence, these studies indicate that inequality not only affects redistribution directly, but also indirectly via the political system. As far as I know, nobody has tested these complex interactions of institutions and redistribution as they pertain to agricultural policy.

These new insights are important for several reasons in terms of studies on agricultural policies. First, many earlier studies on the political economy of agriculture either did not include inequality, or change in inequality, as an explanatory variable, or did not focus on it as a major variable; these recent studies demonstrate it to be an important variable. Second, the studies confirm that the impact of variables may well be conditional on the structure of the economy, a finding consistent with that of other studies, for example, Swinnen et al. (2000) who show that the impact of economic development on some agricultural policies is conditional on the level of development. Third, when studying agricultural distortions in the global framework provided by the Anderson and Valenzuela dataset, where poor countries are included, it appears to be important to look at inequality in various assets, including land. This is done by both O'Rourke and Taylor (2007) and Olper (2007).

External Changes, Crises and Discontinuous Policy Change

A review of the most dramatic changes in agricultural policy distortions that have occurred in recent decades reveals that these have been triggered by “external changes.” For example, it is well known that budgetary problems played an important role in stimulating agricultural policy liberalization in Sweden and New Zealand in the 1980s. Similarly, regime changes in China, Eastern Europe and the former Soviet Union triggered important changes in their agricultural policies. In fact, one could even argue that the objective of these governments was not to change agricultural policy per se, but that overall changes implied a change in agricultural policy as well.

Furthermore, in many cases external change was not in itself enough, but it took a “crisis” to trigger (major) policy reforms. Crises may be needed to overcome the inherent status quo in the political-institutional equilibrium that exists in a society and to break the power of interest groups that are entrenched in institutions as they exist in a society (Rausser, Swinnen, and Zusman 2010). Blanchard and Willmann (2007) show, with a dynamic political economy model, that in a democracy there may be two steady states: one protectionist and one liberal. They also find that shifting from one steady state (the protectionist) to the other (the liberal) is politically feasible only with sufficiently radical policy change.

Moreover, there is increasing evidence that dramatic policy reversals require the combination of a change in political regimes and a crisis. This was the case in China in the mid-1970s, where the combination of widespread hunger in the countryside and the death of Mao allowed major reforms to occur (Rozelle and Swinnen 2009). It was also the case in Europe at the end of the nineteenth and early twentieth centuries when the combination of enhanced political rights and a dramatic rural crisis caused major changes in agricultural policies, including land reforms (Swinnen 2002). Similarly in Africa, important changes in agricultural policies in the 1980s and 1990s followed the combination of fiscal crises and democratization (Bates and Block 2010).

Mass Media and the Political Economy of Information

There is a rapidly growing literature on the economics of the mass media, which has led to a series of important new insights in an area which, for a long time, was neglected by economists (Mullainathan and Shleifer 2005). An important part of this literature concerns the role of the mass media in political markets and its effect on public policy-making, which can occur through several mechanisms.

First, access to mass media empowers people politically: a more informed and politically active electorate increases the incentives for a government to be responsive (Besley and Burgess 2001; Besley and Pratt 2006; Strömberg 2004a). This influence has been found for different types of government programs and different countries, for example, unemployment programs and disaster relief in the United States (Eisensee and Strömberg 2007; Strömberg 2004b). Several studies have identified important media effects in the area of agricultural and food policies, such as those leading to better governance and less corruption in public food provision and calamity relief in India (Besley and Burgess 2002), and in rural

educational spending in Uganda and Madagascar (Reinikka and Svensson 2005; Francken, Minten, and Swinnen 2009).

Second, mass media can affect policy-making by creating a “bias” in the provision of information.¹¹ Media bias can result from the preferences of owners, editors, or journalists. It can also result from falsehoods or from information hidden or distorted by sources, or journalists eager for a scoop or under pressure to attract attention, or it can result from consumer preferences (McCluskey and Swinnen forthcoming 2010). For example, the media’s incentives to appeal to a larger audience and to be attractive to advertisers may induce editors to moderate their political messages (Gabszewicz, Laussel, and Sonnac 2001). Special interest organizations also face a trade-off between advertising in “friendly,” that is, biased media versus advertising in less biased media and thereby reaching a large audience for its advertisements (Petrova 2006).

Biased information will affect agents’ behavior in economic and political markets. This is important for various agricultural and food policy issues. For example, Marks, Kalaidzandonakes, and Konduru (2006) find that the vast majority of consumers receive information about food and (bio)-technology primarily through the popular press and television, which makes them the dominant source of information on these issues. Media coverage of food safety crises significantly affected consumer behavior and their attitudes towards policy (Verbeke and Ward 2001; Verbeke, Ward, and Viaene 2000). Yet studies find a bias towards “negative coverage” in mass media in a variety of food policy areas, such as food safety (Swinnen, McCluskey, and Francken 2005) and trade policy and globalization (Swinnen and Francken 2006). Marks, Kalaitzandonakes, and Konduru (2006) find that reporting on globalization was positive early on, but switched to more negative coverage in recent years. McCluskey and Swinnen (2004) argue that mass media information distribution on biotechnology affects the information provision and consumer acceptance of biotechnology.

Third, the tendency of media to target large audiences due to scale economies will also affect political equilibria. Mass media can play an important role in agricultural policy by altering the political economy mechanisms through which small special interest groups influence policy. The literature on the political economy of agricultural policy identifies group size (the number of farmers versus the number of food consumers in the economy) as an important causal factor. As I argued above, group size plays an important role because it affects collective action costs and because it affects per capita costs and benefits of agricultural policy, which in turn affect political outcomes in the presence of voter information costs, or if political activities are proportional to the size of the potential policy costs and benefits. Recent articles in the media economics literature claim that mass media can play an important role in public policy, precisely by altering these political economy mechanisms (Stromberg 2001; 2004a; Kuzyk and McCluskey 2006). In fact, Oberholzer-Gee and Waldfogel (2005) argue that the link between group

¹¹Media bias can take various forms, and there is no generally accepted definition (Baron 2006; Gentzkow and Shapiro 2007; Groseclose and Milyo 2005; Sutter 2001). However, a survey by the American Society of Newspaper Editors (ASNE) in 1999 revealed that 78% of the public believed there was bias in news reporting.

size and political mobilization depends on the structure of media markets. In a series of influential articles, Strömberg (2001; 2004a) has shown that competition among mass media leads to the provision of more news/information to large groups such as taxpayers and dispersed consumer interests, altering the trade-off in political competition, and thus influencing public policy. Strömberg refers to this outcome as “mass media-competition-induced political bias.”

Olper, Falkowski, and Swinnen (2009) analyze empirically whether there is evidence that such impact of the mass-media exist on global agricultural and food policies by combining data on mass media penetration with data on agricultural and food policies from the new World Bank dataset. Based on a sample of 60 countries, the authors find that mass media does have a substantive impact on food policy. In developing countries, agricultural taxation is reduced by the presence of mass media, while in rich countries agricultural support is reduced. An implication of their findings is that by increasing government accountability, competition in the mass media market reduces distortions in agricultural food policies.

Areas for Further Research

The review thus far has highlighted some important new insights. That said, there are still important areas for further research to enhance our understanding in this field.

First, the type of interaction effects used in the studies listed above may require further refinement. Models need to incorporate sufficiently complex interactions between ideology, economic structure, and protection to understand better how this web of interactions affects agricultural and food policies. Consider, for example, food policies of the most extreme left-wing regimes. Communist dictators such as Stalin in Russia, Mao in China, and Hoxha in Albania all heavily taxed agriculture, while farmers were subsidized under the Communist regimes of Brezhnev in the Soviet Union and in most East European Communist countries in the 1970s and 1980s.

Second, the political institution variables require further improvement. For example, Swinnen, Banerjee, and de Gorter (2001) find how some of the changes in voting rules in Belgium had effects on agricultural protection, while others had no effect. In particular, those changes in electoral rules which disproportionately benefited people involved in agriculture (such as extending voting rights to small farmers and tenants in the early twentieth century) induced an increase in agricultural protection, while electoral changes (such as extending voting rights to women) did not affect agricultural protection. Rather, they increased voting rights both of those in favor of and of those against protection.¹²

Third, an area where substantial improvements could be made is in analyzing the impact of international organizations and international trade agreements on agricultural policy distortions. While this issue has received considerable attention over the past decade, for example, the URAA effects, the establishment of the WTO, NAFTA, EU enlargement, etc., there has been little econometric work on this issue. Most experts

¹²See, Thies and Porsche (2007) for a recent attempt to use more detailed political institutional indicators.

seem to agree that while the URAA may have constrained the growth of agricultural protection, it has done little to reduce it, at least in the countries that were members of the General Agreement on Tariffs and Trade (GATT) during the trade negotiations (see, various chapters in Anania et al. 2004). Bagwell and Staiger (2002) and Dutt and Mitra (2007) derive hypotheses that countries with a comparative advantage in agriculture who join the WTO will exhibit a larger fall in agricultural protection levels.

However, there are several problems with identifying the impact of the WTO on agricultural policy in econometric analyses. I identify at least five and I use examples from Europe to illustrate their empirical relevance. First, the impact of the WTO on agricultural distortions should not be expected to be identical across countries, because the respective countries start from different positions. For example, among the transition countries, the impact of the WTO on their agricultural policies differs strongly depending on whether they were part of the WTO before 1995 (Anderson and Swinnen 2008). Second, the WTO impact may have been more important for the instruments than for the level of support. For example, the URAA and ongoing WTO negotiations triggered an important change in the instrument choice in the EU in recent decades, but much less changed in the level of protection. Third, the impact may be strong but indirect, or may be due to an interaction with other changes. For example, the URAA per se did not require (much) policy reform in the EU. However, interaction of the WTO constraints with (the anticipation of) EU enlargement did trigger important agricultural policy changes in the late 1990s (under the Agenda 2000 reforms). Fourth, the impact may be anticipated and thus occur prior to the agreement. For example, it is generally agreed that the 2003 Reform of the Common Agricultural Policy (CAP) was influenced by the anticipation of there being agreement in the Doha Round agreements and the ongoing WTO discussions.

Fifth, there is also room for substantive improvement regarding the agents that are included in political economy models. Many (agricultural) political econometric models effectively focus on producers (farmers), consumers and taxpayers. Some recent models have tried to include politicians' preferences by including an "ideology" variable. However, this needs to be improved in order to correctly measure influences.

The relationship between farmers, agribusiness and food companies (or alternatively, between raw materials and processed products—food and nonfood products based on agriculture) is sometimes mentioned but seldom tested in studies.¹³ However, it is clear that all over the world these companies play an important role in agricultural policy negotiations and debates, and that their interests are often aligned with those of the farmers, but not always. In some cases there is very little relationship with farmers (think of the banana regime in the EU). Moreover, these organizations differ strongly from farmers when considering their capital/labor ratios, the votes they can muster, and their ability to organize. For example, while farmers may be many and dispersed, food processing, and agribusiness companies are often few and concentrated, and hence more easy to organize. They are also typically more capital-intensive than farms and their share does not necessarily decline with economic

¹³Exceptions are studies such as Lopez (2008), who focuses explicitly on the U.S. food industry.

development—and certainly much more slowly than that of primary agriculture. This implies that the predicted relationships based on the structural relationships would likely be quite different.¹⁴

Similarly, the role of other bureaucratic organizations, such as the European Commission, is mostly not captured, although they may play an important role (Prendergast). For example, many people involved in the reforms of the EU's CAP over the past decade highlight the very important role that (then) Commissioner Franz Fischler played in pushing through reforms in 2003, arguing that the reforms would have never occurred without his leadership (Pirzio-Biroli 2008).

Related to this is an important issue that has received little attention in the literature—the role of political or bureaucratic entrepreneurship. While there is a growing body of literature in economics and econometrics on the role of entrepreneurship, this is not the case in formal political economic studies. While the role of individuals may be acknowledged and emphasized by political scientists in narrative analyses of policy reform, this is typically not the case for more quantitative approaches.

Political entrepreneurs may also play a role in organizing interest groups and making their preferences more influential. For example, politicians played a key role in organizing farmers in rural Europe in the late nineteenth and early twentieth centuries as they tried to set up farm organizations that were closely associated with certain political parties. More recently, some (politically “savvy”) African leaders have been using (rural) interests either to ensure their political survival, such as Mugabe in Zimbabwe, or their rise to power, such as in the post-Mao political struggle in China when the reformers around Deng Xiaoping took over control of the Communist Party, aided by the success of the property rights reforms (Rozelle and Swinnen 2009).

Next, insights concerning the role of crises have improved, but have not yet been integrated into econometric studies. A first issue is the importance of the choice of which “crisis” and which “external change” to include as explanatory variables. While authors pursuing single country or regional econometric analysis may be well aware of key external factors that need to be incorporated, it is much harder to select such variables for studies using the entire (global) dataset. For example, some reform packages are well-known, such as those triggered by the financial (institutional/political) crises affecting the global setting, for example, the financial crises in Latin America in the 1980s and in Asia in the 1990s, the liberalization reforms after the political changes in the Soviet Union in the 1990s, and the structural adjustment programs in Africa in the 1980/90s. But what about less well-known cases that are evident from reading many country-studies (Anderson 2009, forthcoming 2010; Bates 1989; Moyer and Josling 2003; Orden, Paarlberg, and Roe 1999; Swinnen 2008)?

Another issue is that crises may cause “large” and discontinuous changes in policy, which may have important implications for econometric model specification. From a dynamic perspective, one could think of the pre- and post-crisis periods. During the pre-crisis period, there may be an “undershooting” of policy adjustments since institutional constraints prevent the adjustment of policies to pressures for change. Inversely,

¹⁴The importance of vertical linkages and differentiation is emphasized, for example, by Cadot, de Melo, and Olarreaga (2004).

during the post-crisis period there may be an “overshooting” of policy adjustments. This seems to have occurred, for example, in the transition countries of Eastern Europe, where the extreme liberalization of trade policies in the early 1990s in the wake of the dramatic changes in institutions and politics led all agricultural and trade policies to be wiped out. In the mid-1990s, there was a gradual increase towards moderate levels of protection (Anderson and Swinnen 2008).

Notice that such discontinuous policy effects can also occur without institutional changes and may be triggered by external changes such as market developments, with a fixed institutional framework. These effects are shown by Pokrivcak, Crombez, and Swinnen (2006) for EU decision-making. External changes in, for example, prices (a similar effect could occur with changes in preferences, such as the growing importance of environmental considerations in society in recent decades), will only trigger changes in agricultural policy if they are beyond a certain threshold level. This threshold itself depends on the prevailing decision-making rules (a voting majority in the EU framework). Hence, this implies that changes in the external environment may not lead to policy adjustments for a certain period (when the changes are below the threshold level) and when they do occur, they may induce large shifts in policy. Hence, these effects are not linear. In order to trigger policy change, changes in external/influencing variables need to overcome a certain threshold level.

Finally, an area which definitely requires better analysis is the interaction of various types of policies. Agricultural and food policies may be elements in broader reform packages and may be used to get other (more important?) reforms approved. For example, agricultural protection may be part of a “social contract” to invest strongly in innovation and research and development (R&D) throughout the economy, thereby stimulating productivity growth and restructuring. Thus, agricultural protection is used to cushion the blows for the least mobile, as has been suggested in earlier articles by Rausser (1982) and de Gorter and Zilberman (1990), and for which there exists empirical evidence (Swinnen et al. 2000). The compensation package may even be within the agricultural sector: what if subsidies in some sectors are part of a broader set of reforms, for example, the so-called package deals in CAP decision-making in the EU.

Notice also that the sign of the effects will differ between the first group of changes and the second. Agricultural policy reform as part of a broader reform package could work in favor of a reduction of distortions, for example, a “change in paradigm” such as in Eastern Europe, the Soviet Union, and China, or counter to a reduction of distortions, for example, as part of a (compensation) package deal. There is even a broader problem here. Not including the right estimation framework not only causes bias in the estimation model (allocating explanatory power to variables which are not influential in reality, or vice versa) but also bias in the normative interpretation of the results.

In summary, while there have been important innovations and new insights in the political economy of food policies, there is ample room for further research to enhance our insights. In this final section I have identified a series of areas where further research is needed, including: better model specifications to capture interactions of various explanatory factors; more refined measurement of (political) institutions and reforms;

estimating the effects of international agreements; including more agents and their activities in the models; a more explicit modeling of the effect of crises; allowing for discontinuous effects; and incorporating the interaction of several policies, either as complements or substitutes.

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