Explaining Inefficient Policy Instruments

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1. Introduction

The purpose of this paper is to provide an overview of the literature on the political economy of policy instrument choice and relate it to the experiences in agriculture. This paper identifies two key bodies of literature that are at the core in explaining inefficient policy instruments:

(1) Enforcement and commitment problems for promises of policies by politicians, and of voting by individuals
(2) Information and agency problems between various participants in the political process

The theories are based on explicit politic-economic models in a rational actor framework. The models generally make prior assumptions about what policies are available without explaining these choices by either basic policy transactions costs or political economy models.

The analysis is extended to include the fact that often times instrument choice is a discrete 0,1 occurrence in response to a crisis and therefore is path dependent. Policy persistence is also widespread and so reasons for a status quo bias are provided. Furthermore, policy changes are often bundled economy wide and so are not specific to agriculture. Finally, we analyze how effective trade agreements have been in improving policy instrument choice.

It is important to note that one cannot always analyze the politics of policy instrument choice alone. There is no dichotomy between means and ends because ends are themselves the means to a more final objective (e.g., re-election). Choosing a policy objective and choosing a policy instrument are therefore not separable processes. The politics of who gets the transfer and the level is simultaneous with the politics of policy instrument choice. As noted by Becker (1985): “a satisfactory analysis of the choice of method must consider whether the influence function itself depends on the methods used.” For example, farmers are powerful but why are there inefficient policy instruments? Or is policy instrument choice
really independent of being powerful? For ease of exposition, we assume one group has more political power to begin with and then explain policy instrument choice.

It is also difficult to draw the line between explaining inefficient policies versus inefficient institutions (economic, political and legal) that generate these inefficient policy instruments. The focus here will be on policies and generally assumes institutions are exogenous. The political models evaluated in this paper revolve around distributional conflicts that invariably generate inefficient policy instrument choice.

Before we can develop a theory of inefficient policy instrument choice (for example, why are price supports used over lump sum transfers?), we must agree not only as to what is most efficient but also be able to rank alternative policies in terms of their efficiency in order to assess the trends in agricultural policy instrument choice worldwide. This is particularly important for ranking transfer efficiency, as the political roots of most agricultural policies are to transfer income to farmers.

The paper is therefore organized as follows. The next section provides a ranking of policies as to their transfer efficiency and determines the standard of evaluation, given that no policy is perfect in achieving its goals. The third section explores why political competition does not ensure that an efficient policy instrument is chosen. The following two sections explain the two key theories: enforcement and commitment problems in Section 4, and information and agency problems in Section 5. Section 6 presents the important Grossman-Helpman model of inefficient policy choice that falls outside these two general theories. Section 7 describes how policy instrument choice in agriculture is often a discrete outcome in response to a crisis and therefore becomes path dependent, resulting in a status quo bias. Section 8 describes how trade agreements can affect policy instrument choice. The final section gives some guidance as to the outstanding issues.

2. Determining the standard of evaluation

The basic tradition in economics is that an optimal government policy to remedy market failures (including the achievement of income distribution goals) is to maximize social welfare subject to constraints. Observed policies often appear to deviate from the optima. Taking international trade as an example, any restriction is inefficient (unless there is a non-economic goal or if a country wishes to exploit its terms of trade, an issue I return to later). Among trade restrictions, there have been a series of complex non-tariff import restrictions like voluntary export restraints, minimum price agreements and tariff rate import quotas. Meanwhile, domestic price support policies have been extremely complex with a myriad of provisions with loopholes and opportunities for adjusting behavior. Environmental
regulations including those under the rubric of “multifunctionality” have also generally been inefficient. Biofuel polices are an example with a piecemeal proliferation of excessively costly methods of intervention (Koplow, 2007). Furthermore, there is widespread evidence of an overall underinvestment in public goods with a bias for particular types (e.g., credit subsidies).

Because farm income goals has been the primary reason for agricultural trade and price support policies, especially in rich countries, a key question is what is the most efficient way to transfer income to farmers? Standard economic theory prescribes lump-sum transfers. Some argue this is largely irrelevant for actual policy and prone to theoretical criticism because in order to operate this redistribution mechanism, the government would need to have knowledge of every single agent's preferences and endowment. But attempts to implement lump sum transfers inevitably destroys the incentives to acquire skill or reveal it in one’s work as agents have no incentive to truthfully reveal that information. Because the government is not omnipotent, it will never be able to implement such a scheme (Hammond 1979, Mirrlees, 1986). There are also other unavoidable ‘political transactions costs’ like the transactions costs of administration, monitoring and compliance. To develop a political model that explains inefficient policy choice, ideally the policy availability set is also endogenous. Furthermore, because of the considerations above, the predictions of a non-political model may very well coincide with the political model. The task of explaining inefficient policy choice is therefore very complex.

There is also the problem of endogeneity. Two different cases are relevant. First, some policy instruments are more vulnerable to rent-seeking. For example, Tullock (1983), assuming imperfect information, argues that direct income payments, while more efficient in a standard economic analysis, generates unique incentives to rent seek and thus results in more redistribution and ultimately inefficiency. Alston (2007) lends credence to this view by showing how decoupled payments have been inferior to complete elimination of policy interventions. Second, there can be false attribution of deadweight costs between two policy instruments (Swinnen and de Gorter 1998). For example, the current debate over biofuel policies has proponents arguing these policies increase the price of corn and thereby reduces tax costs of farm subsidy programs. But the setting of loan rates and target prices themselves are affected by biofuel policies. Higher corn prices (and prices for related crops) give politicians an incentive to increase price supports compared to a situation of no biofuel policies and lower crop prices with burgeoning taxpayer costs. For example, the recent House Farm Bill proposes an increase in loan rates and target prices for several crops. Estimates of
the welfare effects of one policy assuming other policies are unaffected can be seriously biased.

To summarize, because lump sum transfers are incentive incompatible, incur political transactions costs and can involve policy endogeneity, it is very difficult to decide on what the appropriate reference point for efficiency is. The standard of evaluation for efficiency is inevitably the first best in a second best world (or what is least bad). This is not an easy task to resolve. We now turn to some resolution of this issue.

Towards a ranking of efficient policy instruments

Before we can develop a political model explaining inefficient policy choice, we need to agree in principle as to what is efficient and be able to rank alternative policies in terms of their inefficiency. The approach taken in this paper is that there is a general ordering of policy efficiency, all the issues described above not withstanding. But before presenting this, let us assess the traditional literature on transfer efficiency.

The traditional approach is to compare individual policies in a general welfare theoretic framework along the lines of Gardner (1983). Even if the analysis includes multiple policy goals, interest groups and policy instruments, the two most important issues outstanding that cause disagreements among economists as to what policy is more efficient are (1) the marginal excess burden of taxation (MEB); and (2) a country being able to exploit their international terms of trade.

The issue of the MEB of taxation and its role in assessing the efficiency of alternative agricultural policy instruments was first considered by Munk (1977, 1980, 1987, 1989, 1991, 1993) who argues producer co-responsibility levies and trade policies involving consumer transfers are more efficient than decoupled payments. This is what is known as the “double dividend” hypothesis in the environmental economics literature: you get to transfer monies to farmers at low cost because the deadweight costs of distortions in the agricultural market are low due to inelastic demand and supply while at the same time saving taxpayers costs, allowing for a reduction in general income taxes and thereby in the associated deadweight costs. This point was also highlighted by Gardner (1983) and analyzed further, among others, by Alston (1990; 1991; 2007). The savings in the excess burden of wage taxes were purported to be 20-50 cents on the dollar (and as high as $1.50 on the dollar - see Feldstein, 1999).

The international terms of trade argument for government intervention has a long history in agricultural economics (see for example Schmitz et al., 1981). The overall conclusion in this literature is that by incorporating the MEB of taxation and the international
terms of trade effects, decoupled payments are not necessarily the most efficient policy instrument.

Taking current biofuel policies as an example, this same literature may deem these efficient because they cause a spike in food prices that transfer income to farmers, thereby lessoning the need for taxpayer funded decoupled farm subsidies while at the same time improving the terms of trade in corn exports, oil imports and ethanol imports (de Gorter and Just 2007). The approach taken in this paper departs from the traditional literature in that trade policies are always deemed inefficient and that the MEB of taxation should not be taken into account in most situations, especially for rich countries where the transactions costs of general taxation is not very large.

Trade policies are inefficient because each country’s policy interventions are self-defeating as it reduces world prices, causing other countries to react by increasing policy interventions to compensate. This leads to ever spiraling decline in world prices. The penultimate section of this paper shows how international trade agreements can help in overcoming these negative terms of trade effects in agriculture and shows how in general it is in each country’s best interest not to try to exploit international terms of trade. We therefore now turn our attention to the reason why the MEB of taxation should not be considered as a major factor in assessing the efficiency of alternative policy instruments in agriculture.

Why the MEB of taxation should not be a major factor

There are several problems with including the MEB of taxation in assessing the efficiency of alternative policy instruments in agriculture. First, if the MEB of taxation is included, then one also has to take into account the effect of the relative food price distortion with all other goods in economy (OECD 1994). This means the MEB of taxation is inappropriately modeled because it brings in a general equilibrium effect in a partial equilibrium framework. The inefficiency created by a relative price distortion in agricultural prices relative to all other goods in the economy was first formalized by Bovenberg and de Mooij (1994). The burgeoning literature after this called it the “tax interaction effect.” Increased commodity prices magnify the deadweight costs of the pre-existing distortion (wage tax) because the commodity price spike reduces real wages and so discourages work. The labor supply curve shifts left and this generates a rectangular deadweight costs (the tax base erodes as consumers substitute away from the taxed good). This requires a higher tax to maintain tax revenues. Subsequent research has shown the tax interaction effect is indeed important. For example, Browning’s (1997) analysis of a monopoly finds that the tax interaction effect is 5-15 times the deadweight costs of a monopoly using standard partial
equilibrium analysis. The empirical research by Goulder and Williams (2003) also finds that the tax interaction effect often dominates the Ramsey pricing effect of a spike in commodity prices.4

Second, there are two distortions associated with an income tax: the ‘distortionary effect’ which is the welfare difference between a distorting tax and a lump-sum tax; and a ‘revenue effect’ which measures the welfare cost (gain) in disbursing the tax revenues. The MEB of taxation is based purely on compensated responses or the ‘distortionary’ effect. Estimates derived by Fullerton (1991) concludes that the ‘revenue effect’ can be large, resulting in a 75 percent reduction in the MEB of taxation when these income effects were included.5

Third, once the marginal deadweight costs of consumer transfers in the agricultural market reaches the MEB of taxation, the optimal policy for any further transfers requires both taxpayer and consumer transfers. Once the consumer ‘catch-up’ tax has been reached; the complexity of now including decoupled payments introduces other possible sources of inefficiency.6

Finally, consumer transfers necessarily require trade restrictions that negate the mutual gains from policy disarmament worldwide.7 We turn to that issue in the penultimate section of the paper.

The conclusion we therefore draw is that the first best policies to achieve farm income goals have the feature of no direct market interventions (free trade with no market price distortions). This necessarily means no international terms of trade improvements (except that experienced by all countries that all move to free trade) and the sole use of taxpayer financed transfers to farmers. The traditional model of transfer efficiency that compares production quotas involving consumer transfers with taxpayer financed payments does not apply, even if the MEB of taxation is high. Consumer transfers with import barriers and export subsidies are deemed inferior to taxpayer financed buyouts or decoupled payments (OECD 1994, 2001; Dewbre et al.), regardless if the MEB of taxation is high or low.8 Even if the MEB is high, the decrease in U.S. GDP is sufficiently low that it will not significantly adversely affect other countries exports. The effect would be too indirect.

Ideally, governments would unilaterally eliminate all inefficient agricultural policies and replace them with policies that target the market failure. For income distribution goals, a one-time unconditional payment is preferred, a subsidy buy-out, to all engaged in farming or deemed in need of compensation as an annuity (bond) that is non-transferable to the farmer’s successors, and non-renewable (Beard and Swinbank, 2001; Swinbank and Tranter 2004,
Tangermann, 1991; Swinbank and Tangermann, 2001). However, the decoupling experience shows that there can be problems not only because of the design of programs and their implementation but also for political constraints. This indicates that with anything short of an ideal decoupling scheme, some distortions will continue. Features that will increase the effectiveness of a less than ideal decoupling scheme include:

- Make payment program transitory and for adjustment purposes only.
- Strict payment limitations per farm and based on income rather than current or historical production.
- Require no constraints on input use.
- Implement credible and time consistent policies with no changes in the eligibility rules, payments or eligible sectors or farmers.
- Discontinue all other coupled programs.
- Bind payments and time frame in the WTO to prevent backsliding.

**Why does a competitive political market not ensure efficiency?**

A counterargument to the political economy literature on inefficient policy instrument choice is that competition in the political market place will ensure the most efficient policy instrument will be chosen (Stigler 1981; Wittman 1989; Becker 1976). Becker (1976) argues “The methods used to accomplish any given end tend to be the most efficient available, in the public as well as the market sector (most efficient firms and political parties survive)…”

Market failures are Pareto efficient; if available, private individuals or institutions would correct for market failures. All observed policy instruments are therefore efficient and are expected to be chosen. If losers fail to oppose the policy, then it was not worthwhile and if gainers strategically increased the political costs, then the losers should have anticipated this.

Most political economy models, including the revealed preference models with a policy criterion function, assume governments are efficient in achieving policy goals (Bullock 1995). For example, both the collective action model of Becker (1983) and the politician-voter model of Swinnen and de Gorter (1993) assume full information and certainty on policy effects by all economic agents involved. Competition between collective
action lobby groups in Becker (1983) and between politicians in Swinnen and de Gorter (1993) ensures that the most efficient instrument is used.

There is a weaker form of the hypothesis that governments tend to choose efficient policy instruments (Becker 1958; Gardner 1987). Becker (1958) argues that there is relatively little to choose between an ideal free enterprise system and ideal political democracy but ignorance of voters and the large scale required of political organizations are two forces producing imperfections. Acemoglu (2003) argues that politics is special because of the complex interaction between politicians, voters, lobbies, legislatures and the bureaucracy.

There is empirical evidence of a tendency (over a long period of time) towards more efficient policy instruments in agriculture. The EU moved from open-ended price supports and export subsidies to producer co-responsibility levies, production/acreage controls and now to decoupled payments. There have been major reforms in developing countries beginning in the 1980s. Similarly, there have been developments in United States with the freezing of payment yields and base acres in the 1985 Farm Bill and the move to decoupled payments in the 1996 Farm Bill. The tobacco and peanut production quota buyouts are also evidence of a change towards more efficient policies. In Canada meanwhile, the Agricultural Stabilization Act, the Western Grain Stabilization Act and subsidies under the Western Grain Transportation Act have been terminated, and the National Tripartite Stabilization Program and the Gross Revenue Insurance Program are being phased out in favour of a more general income insurance plan for all farmers. At the same time, there has been a move toward trade liberalization in agriculture in the Doha negotiations while developing countries have unilaterally reformed domestic agricultural and trade policies in the past two decades. In developed countries, domestic subsidy policies too have in general become less complex and more decoupled. The switch from a coupled towards a decoupled program is undertaking a significant step in the right direction of a more efficient policy instrument choice.

Empirical tests for policy instrument efficiency in agriculture have been undertaken and the conclusions are mixed (Gardner 1987; Beghin and Karp 1991; Bullock 1995). The outcome is found to depend on the number of interest groups, policy goals and the set of policy instruments used or available.

The challenge is to identify what specific “transaction costs” would systematically prevent a competitive political market place from ensuring the choice of efficient policy instrument choice. The literature rules out efficient methods of redistribution and takes it for granted that rent-maximizing behavior by rulers or the government will result in inefficiencies. Andersen (1995) argues that trade policy is used over a more efficient subsidy
because the latter has more concentrated costs on politically powerful group (urban capitalists). But why do politicians and powerful social groups not make a deal with the rest of the society to choose the policies and institutions that maximize output (or social welfare), and then redistribute part of the gains to themselves? We now discuss two general theories on why this does not occur.

3. **Enforcement and commitment problems**

Political promises are not formally legal contracts because contractual penalties are not enforceable by third parties. Governments or candidates may renege on their policy promises while citizens may renege on their promised votes (Acemoglu 2003). Political enforcement mechanisms (like elections) are imperfect. Equilibria under self-enforcement constraints are typically inefficient (Powell 2004).

Political and economic trades between various individuals and groups are inter-temporal, and need to rely on contracts and promises. Contracts and explicit promises by “the state” are non-enforceable. Allocation of political power creates an inherent commitment problem, undermining the potential to reach efficient outcomes. The commitment problem is twofold:

1. Politicians (incumbent or rival) cannot make commitments to bind their future actions
2. Voters cannot commit to politicians in the future, because the latter no longer possess the political power to enforce such promises

As a result, efficiency considerations are not separable from distributional conflicts.

Incentive-compatible promises can make up for lack of enforceable contracts, but generally fall short of achieving the efficient outcome. Political and economic forces will sometimes push towards more efficient social arrangements. If the relationship between the state and the citizens is repeated, there may be some amount of commitment based on reputation, supported by the threat of future punishments. The possibility of commitment via constitutions or other institutions can substitute for a reputation-based commitment enforcement of contracts. The extent of distributional conflict between various groups in society will also affect the outcome (Acemoglu and Robinson 2001b).

The inefficiencies do not arise because of political transactions costs mentioned earlier but because of the political-economic interactions between politicians, voters and interest groups.

For developing countries, Robinson and Verdier (2002) argue clientelism is key to induce voters to support its candidates. Patronage occurs for those who do support and there is an appeal to the collective interest in an effort to elicit votes. The hypotheses are that
farmers with no power are taxed or in democracies, the farmers are not swing voters (instead perhaps ideological voters) or cannot solve the collective action problem. Institutional factors condition the outcome. For example, the fewer the constraints on the exercise of power, the worse policy will be. Situations that have more clientelism will generate less favorable agricultural policy.

**Application of the enforcement and commitment theory to agriculture**

In one of the more important papers on inefficient redistribution, Acemoglu and Robinson (2001a) argue that inefficient redistribution policies in agriculture like price supports are enacted to encourage newcomers in order for farmers to maintain future political power. Choosing policy objectives are therefore not separable from choosing policy instruments.

Inefficient policy instruments are necessary to be consistent with the incentive compatibility constraint of the government. Because politicians cannot commit today to future policies and over some range, political power increases with group size, inefficient redistribution may arise as a way to expand or maintain the size of a group in order to sustain its future political power (not just reward those already engaged in the industry). To begin, Acemoglu and Robinson (2001a) assume farmers have sufficient political influence to induce a transfer from the government (could be lump-sum). Two categories of inefficient redistributive policies are identified:

1. “Inefficient targeting” distorts the extensive margin — policies that encourage people to enter a sector where their productivity is low
2. “Inefficient conditioning” distorts the intensive margin — policies that affect the marginal production decision and encourage production beyond an efficient amount

Acemoglu and Robinson (2001a) explain that lump sum transfers would not encourage entrants or discourage exit so “inefficient targeting” explains inefficient policy choice like open-ended price supports. But Acemoglu and Robinson (2001a) also argue that politicians do not want many more people to enter the sector and reduce per-capita transfers. Thus, subsidies conditional on acreage or production controls) are implemented. There is a trade-off between “inefficient conditioning” and “inefficient targeting”. Acemoglu and Robinson (2001a) appeal to Becker (1985):

“…subsidized groups try to limit the entry of additional members because that dilutes the gains of established members… acreage restrictions encourage fewer farmers than output subsidies do…”
There are two problems with Becker’s (1985) conclusion. First, an acreage restriction or output subsidy is dominated by an acreage payment per existing farm or by a decoupled payment per existing farmer. Second, it is not altogether clear that for the same level of transfer, restrictions on output/acreage receiving support results in higher efficiency and lower farm numbers. Indeed, the opposite is expected for the many piecemeal programs in agriculture that have evolved over time. In fact, de Gorter, Just and Kropp (2008) shows that infra-marginal support can even be more distorting than a fully coupled subsidy in achieving a farm income goal.

Acemoglu and Robinson’s (2001a) theory is that open-ended price supports are inefficient and that governments use infra-marginal support policies (defined to include quotas, bases, acreage restrictions, farm payment limits, etc.) that are at the same time more efficient and prevent dilution by reducing the number of farms receiving support. Price supports are deemed economically efficient and politically effective because it attracts newcomers (or prevents exit) and so helps maintain the political power of farmers. But Acemoglu and Robinson (2001a) argue further that subsidies conditional on production or acreage controls may be useful to limit entry so farmer wealth is not diluted.

The analysis by de Gorter, Just and Kropp (2008) get exactly the opposite results from that of Acemoglu and Robinson (2001a). There are three primary reasons for this divergence. First, exit deterrence where higher support for only part of a farmer’s output induces high cost farms into the industry (or prevent exits). This increases inefficiency and farm numbers simultaneously. Second, cross-subsidization occurs where farmers have an incentive to expand output beyond the level receiving support (taxpayer or consumer financed) even though the market price is below average costs of production. Losses on marginal output are offset by profits on infra-marginal output. Farms move down the average cost curves to capture increasing returns. Third, there is a situation where both exit deterrence and cross-subsidization occurs where farms are unprofitable at the infra-marginal output level even with support but find it profitable to produce where price is below costs of production but only because of the support on the supported part of total output. Although the de Gorter, Just and Kropp (2008) theory argues that infra-marginal support results in aggregate inefficiency, what is important for politicians is that inefficiency per farm may be lower where the objective is to maximize political support.

The political controversy over policy instrument choice in the history of U.S agriculture has been a storied one but the same debate surfaces over the decades: should there be some form of limitation on production (farms) receiving support, should it be taxpayer or
consumer financed, and how should (restricted) support be delivered. For example Benedict and Stine (1955) writing about U.S. peanut policy 1933-1953 conclude that “Nearly all the various price-support measures have been used or tried in the programs related to peanuts”.

The controversial Brannan Plan in 1949 sought to replace production quotas with a more flexible standard of farm income, expanding the sectors covered by support, and establishing a ceiling as to how much a farmer could receive. The plan failed and the status quo prevailed.

The same controversy occurred with the Cochrane supply control proposal in 1962 which had many features of extending quotas to other sectors and limiting the payments per farm. It too was defeated but there seems to always be a political tendency to spread the benefits to more farmers and limiting the payments per farm. This provides credence to Acemoglu and Robinson’s (2001a) theory except the type of policies they deem part of “inefficient conditioning” should be reversed and made part of “inefficient targeting” and vice-versa. This makes their model more powerful in explaining the choice of inefficient policy instruments in agriculture. Using OECD data, the trend in world agriculture is towards more support (both consumer and taxpayer financed) that has limitations or is infra-marginal (de Gorter, Just and Kropp, 2007). Examples of infra-marginal support programs in agriculture abound:

- U.S. marketing allotments, marketing and production quotas, base acres, price discrimination with marketing orders, restrictions on payments and eligibility, counter cyclical payments, MILC for dairy, CCPs, etc.
- EU “maximum guarantee quantities” – MGQs was probably one of the biggest infra-marginal subsidy program of all times, converted to base acres and placed in the Blue Box in the URAA, co-responsibility levies, base acres, environmental cross-compliance and “multifunctionality” payments, etc.
- Production quotas in Canada, the EU and United States with restrictions on transfers between farms and provinces/countries/counties (e.g., 20 percent of quotas sales held back for entrants)

5. Information and agency problems

The basic premise is that politicians or lobby groups deceive voters or withhold information from ‘rationally ignorant voters’. Because of incomplete and asymmetric information, politicians have the incentive to obfuscate. Although the benefits of an inefficient policy are concentrated, the policy may have external effects whereby perceived benefits spread to other voters. An example is current U.S. biofuels policy where the
concentrated benefits to farmers and ethanol producers are justified in terms of reduced
dependence on oil (especially from the Middle East) and enhanced national security while
reducing local pollution and global warming, and accelerating rural development.

Obfuscation of information increases politicians’ re-election chances by increasing
the costs of program evaluation. The question arises as to why competing politicians do not
inform voters and the exploit gains. One reason is that property rights to program benefits and
their costs are poorly defined in political marketplace. For example, geographic
representation and the role of a legislature results in vote trading, facilitated by special
interest politics and obfuscation (Shepsle, Weingast and Johansen 1981; Bayliss and Rausser
2001). Uncertainty, concealed costs and disguised transfers maintains the political strength of
the vested interest group. Politicians and bureaucrats divulge selective information in order to
both create and maintain a constituency.

Coate and Morris (1995) offer a very interesting model with politician-voter
information asymmetries. Voters are postulated to face two types of uncertainty: policy
uncertainty where one option is that an efficient policy may be chosen; and politician
uncertainty where there is uncertainty about the type of politician. Uncertainty and
asymmetric information between the effects of policies and the predisposition of politicians
has rational governments implementing disguised transfer mechanisms with concealed costs.
Policy and politician uncertainty results in a concern by politicians about reputation and so
inefficient instruments are chosen.

There are many variations of the commitment/information themes. Models are varied,
including models with lobbying, elections, the legislature or bureaucracy. The importance of
congressional committee structure is emphasized by Weingast and Marshall (1988). Foster
and Rausser (1993) find commodity policy involving deadweight costs is chosen over lump
sum transfers because the effect of cost-reducing public research has differential effects
across a heterogeneous group of farmers. Farmers as a group can lose from public research,
but price supports forestall the farmers’ blocking coalition, thus assuring the political
feasibility of welfare-enhancing public research expenditures. Hence the political need to
compensate a minimum blocking coalition from vetoing efficiency-enhancing government
policies results in the choice of commodity policy over what appears to be more efficient
instruments.

Chambers (1992) uses principles of mechanism design under asymmetric information
to uncover the link between the choice of farm policy tools and the redistributional
preferences of agricultural policymakers. In examining motivations underlying the choice of agricultural policy mechanisms that differ across sectors, he determines that supply control mechanisms favor high-cost producers and taxpayers, while mechanisms favoring overproduction favor low-cost producers. Farmers are assumed to have more information as to the policy effects, and Chambers (1992) shows how different government objectives (for example budget concerns and the interests of different segments of farm sectors) are reflected in the choice of agricultural policy instruments.

- de Janvry and Sadoulet (1993): land reforms - governments first modernize farms which allows landlords to reinforce political power (game-theoretic with lobbying and path dependency).
- Besley and Coate (1995): efficient policies would affect the identity of who is in power.
- Becker and Mulligan (2003): if level of redistribution is endogenous, then politicians commit to using inefficient methods in order to reduce total redistribution.

6. The Grossman-Helpman theory of inefficient policy choice

Grossman and Helpman (1995; 1996) specify a principal-agent model where government welfare is a weighted average of economic welfare and contributions from lobbies. Lobbies employ truthful payment schedules so the government maximizes welfare of principals and agent taken together. Government welfare is therefore a function of the policy through the latter’s effect on the welfare of the polity and in contributions received. A Pareto efficient policy results if all groups are lobbying because free trade is the choice as politicians are no worse off but everybody else is. This means the model has a prisoner’s dilemma for lobbies only. If the lobbies could commit to an ex ante political institution, it would not be for lump-sum transfers but for an inefficient instrument. The government views lobbies as perfect substitutes and so a lobby cannot affect government by withholding. The government wields a credible threat to cut any lobby out of a deal at no cost to itself.

If there is only one lobby, the government cannot bestow benefits on another lobby and get its contribution. The one lobby therefore gets the entire surplus. If there are two lobby groups or more, then the government gets the entire surplus in the form of contributions. If
competition amongst lobbies is intense, the availability of an efficient instrument makes credible the government’s threat to join forces with rival lobbies. It is therefore possible for lobbies to be better off with an inefficient policy instrument that ties the hands of government. This generates an equivalent outcome to basic models of lobbying by Becker (1983) or of politician-voter interaction by Swinnen and de Gorter (1993) but for different reasons. In both the Becker (1983) and Swinnen and de Gorter (1993) models, replacing an inefficient policy instrument with a more efficient one allows lobbies and politicians to achieve better results while using fewer resources in lobbying. In the Grossman-Helpman model, efficient policies result because government attaches some weight to social welfare.

If all voters are organized by a lobby, lobbies must contribute more to get free trade with an output subsidy (efficient) than with trade policy (inefficient) because a lobby must contribute the difference between what the government and other lobbies can achieve in the absence of the lobby’s participation and what they get if it does lobby. Rival lobbies and government can achieve higher welfare without subsidies so the lobbies’ contributions will be higher and net welfare of the lobby lower if the political regime allows for an efficient policy instrument. Therefore, extent of political competition determines preferences for alternative policy instrument types. If there is little competition, then lobbies want to extract resources at the expense of underrepresented majority and so an efficient instrument is desired.

The Grossman-Helpman result on inefficient policy choice occurs outside their model in that lobbies have an incentive to favor institutional change that restricts the ability of governments to choose an efficient policy instrument. This begs the question why lobbies would not favor instead institutional change to overcome the prisoner’s dilemma facing them. Furthermore, some argue that the inclusion of more interest groups was a reason for why agricultural policy reform in Australia was successful, a result that contradicts the prediction of the Grossman-Helpman model. Nevertheless, research by Acemoglu and Robinson find in developing countries that a more competitive political system generates lower quality institutions and policy choice it reduces flexibility for politicians to undertake policy reform.

7. **Discrete policy changes, path dependency and the status quo bias**

A distinguishing feature of agricultural policies is that once a policy is put in place, there is inertia in the political system with respect to changing the instrument, with changes made often only incrementally over long periods of time. This reflects both the path dependency of policy instrument choice and a bias for the status quo. The introduction or removal of policy measures has often been abrupt and major, and infrequent, often in response to a crisis. The crisis in the great depression initiated U.S. farm policy while the
aftermath of WWII instigated the EU’s agricultural policy. Meanwhile, marketing boards in Africa are holdovers from colonial times.

This means there is a need to explain the persistence of a policy instrument. One possible explanation is that the capitalization of program benefits means the benefits of the policy are only captured by incumbents at the time of the policy was introduced. This imposes severe harm on newcomers and so over time, the program does not benefit the people the program intended to help. Eliminating or reforming the policy instrument will harm those who bought the rights to the program benefits in the form of high asset values.

Coate and Morris (1999) reject the usual proposition that policy persistence arises from powerful interest groups defending current policies. Instead, they develop an agency model with lobbying where once a policy is introduced, agents make investments in order to benefit from them. This action increases their willingness to pay in the future and forego support for policies which provide temporary efficiency. This translates into political pressure to maintain the status quo. Implementation of a specific policy increases the political effectiveness of beneficiaries.

Acemoglu and Robinson (2001a, 2001b) argue that inefficient instruments serve in effect as commitment device because it may be harder to reverse than a lump-sum transfer. Dixit (1996) offers a theory where policy actions are durable; once implemented, they are not easily unwound. Vested interests defend the status quo because of the irreversible investments due to the policy. Buyouts are not available because of political transactions costs. Democratic political processes a bundle of political positions so path dependent inefficiency or lock-in results.

Orden, Paarlberg, and Roe (1999) describe the “process establishment” such as producer associations and legislative committees that represents fixed institutional capital in U.S. politics that is most likely to be overcome only by some exogenous event. Psychology offers another explanation for the status quo bias. An important augmentation of the political support function for voter resistance to change is to incorporate Thaler’s (1991) theory of the endowment income effect where people demand more to give it up than to acquire it. Another possibility would be to include prospect theory (Kahneman and Tversky 1979) for politicians, support from voters, and voters’ economic welfare. This would imply that the slope of the political support function is much steeper for losses. Loss aversion (where losses loom larger than gains) is a common psychological bias, independent of endowment incomes, so symmetry and reversibility of policy instrument choice does not hold.
Fernandez and Rodrik (1991) develop a theory of status quo bias whereby a future gain from an institutional reform is uncertain, and the distribution among various social groups is difficult to predict relative to the obvious loss of the specific group. Opposition to reform tends to be strongly organized while support is only weakly so. Their paper shows that some gainers or losers from reform cannot be identified ex ante. Many policy reforms that are politically sustainable ex post will not be adopted ex ante even though agents are risk-neutral, rational, and forward-looking. Uncertainty prevents reform and so large reform is needed to overcome the status quo bias.

Basu, Jones, and Schlicht (1987) argue that developing countries continue to be trapped in economic stagnation and poverty under a dysfunctional system because of ‘structural’ and ‘inertial’ institutions or policies. The former are institutions bound and demanded by competing forces in response to transaction costs while the latter are institutions as products of history or origin (the importance of policy path dependency).

De Janvry and Sadoulet (1989) offer an explanation for the limited success of land reforms, which fail to be redistributive because governments first modernize large farms, which allows landlords to reinforce their political power. This allows them to receive credible commitments of non-expropriation if they modernize or lobby to externalize the cost of modernization such that expropriation with compensation becomes no longer feasible. De Janvry and Sadoulet (1989) use a game-theoretic framework between landlords and government by integrating lobbying with government behavior to show that policy change is a path-dependent sequence of events. Governments have a short-term political horizon and high discount rate for economic gains such that future losers block policy change.

Not only are policy changes often discrete, there are also often bundled (economy wide) rather than focusing on agriculture alone. New Zealand is a case in point where an economic crisis precipitated micro and macro reforms where all agricultural policy interventions were abandoned, all service sectors where de-regulated, free trade was implemented, FDI was encouraged and the exchange rate was allowed to float freely. Similar outcomes occurred in Latin American countries in the past two decades.

8. Impact of trade agreements on policy instrument choice

International organizations like the WTO can be used strategically by political actors in domestic political battles and in changing the politics of other countries. The WTO can provide greater policy leverage vis-à-vis potential opponents in the domestic polity. A WTO negotiation allows for issue linkage where liberalization in one sector that is conditional on
liberalization elsewhere mobilizes exporters. The WTO also allows for legal framing where tariffs and subsidies are subject to international law (the WTO’s Dispute Settlement Body and Agreement on Subsidies and Countervailing Measures. Both issue linkage (that broadens the negotiation) and legal framing (that deepens the negotiation), while independent forces, increase the stakes and change the aggregation of domestic interests (Davis, 2003).

Historically, GATT rules on agriculture, however, were shaped around U.S. farm policy. But agriculture is slowly moving away from being an exception. It is debatable how much trade liberalization has occurred in the WTO specifically. But the WTO has allowed for a more inclusive distribution of bargaining power where before WTO negotiations on agriculture were a gladiatorial contest between the United States and the EU. During the Uruguay Round, the CAIRNS group surfaced and the G-20 has made a large impact in the Doha Round negotiations.

A major incentive for large and small countries alike is to enter trade agreements that lower or eliminate trade distorting policy interventions to capture the mutual gains from policy disarmament, thereby escaping the prisoner’s dilemma and also lowers adjustment costs (Bagwell and Staiger 1999; Grossman and Helpman 1995). This eliminate terms of trade effects of all countries policies. The incentive is even more pronounced for small countries so that the threat is removed of a large country exercising their power to affect their terms of trade. Another major incentive for entering a trade agreement is that governments are more able to make credible commitments. This assures their private sector because it can retaliate if the plan is not executed. This solves the time inconsistency problem and so locks in reforms by tying the government’s hands.

Trade agreements also facilitate bargaining and cooperation by reducing transaction costs, creating forums and side payment opportunities for international bargains through contracting, coercion or persuasion. Issue linkage through trade agreements has liberalization in one sector conditional on liberalization elsewhere. This mobilizes exporters and changes the internal political dynamics. Finally, information-gathering provides transparency and facilitates a reputation mechanism to support cooperation and legitimacy, sometimes by constructing norms that permeate domestic politics.

There are three categories of processes in how trade agreements affect policy instrument choice in agriculture. First, negotiating rounds like in the WTO or regional agreements like NAFTA reduced agricultural tariffs. The implication is that this forced policy re-instrumentation. For example, increased U.S. peanut butter imports resulted after NAFTA, thereby putting pressure on the two-price plan. A similar development occurred for Canadian
Meanwhile, the expansion of the EU through the accession of southern and eastern European countries induced changes in the policy instrument choice to the better. The WTO introduced disciplines on domestic support as well with the delineation of the green, blue and amber boxes. This induced change in the United States and EU towards green box type policies.

The second way in which trade agreements can induce the choice of more efficient or less trade-distorting policy instruments is through the dispute settlement procedures. Again, examples abound such as the WTO Panel on cross-subsidization of exports with EU sugar policy induced a wholesale change in EU sugar policy. The fear of countervailing duties disciplines the Canadian beef and hog sectors choice of policy instruments.

The third way international trade agreements generate better policy instrument choice is through accession. China had to undertake many economic reforms before joining the WTO like southern and eastern European countries did before joining the EU. Because Mexico faced U.S. pressure to reform agricultural policy before joining NAFTA (even though the policy instruments used by the United States may have been more trade distorting), we describe this in more detail as a case study.

**Mexico’s Experience**

Mexico’s dominant political party had electoral support of millions of maize peasants so for political reasons felt compelled to continue subsidizing maize farmers but in a different way. NAFTA therefore provided pressure for Mexico to change their policy instrument choice. The option Mexico chose was decoupled payments based on historical acreage. There was a problem however as there were no land titles so some economists declared the option dead on arrival. But decoupled payments were nevertheless introduced but not before complementary institutional reform that introduced land titles. Hence, NAFTA is an example of not only putting political pressure for changing the policy instrument but also for inducing a change in institutions. There are studies that provide a counterargument where opening up to trade in countries with weak institutions can make policies and institutions worse (Rodrik; Segura-Cayuela 2006).

Mexico’s reform had much promise because there was, unlike in the United States, a time limit and there was to be no updating of the base. In addition, income distribution improved (again, unlike in the United States) because of:

- A minimum payment of one hectare (1.9 mil. farmers or 30 percent of total number of farmers had less than one hectare)
- A maximum payment on 100 hectares
Land reform that allowed renting and so improved efficiency

Small farmers not benefiting from old support prices because:
- Many were net buyers
- Maize was often sold at distressed prices at harvest
- Small peasant agriculture was not well integrated with the market so they could not take advantage of price supports in the first place

However, there have been problems with cash payments in the case of Mexico because of its vulnerability to corruption. Furthermore, the payments are no longer transitory and there has been some backsliding with the introduction of new price supports. This lends credence to Tullock (1989) where rent seeking may be higher with a seemingly more efficient policy instrument and to Alston (2007) where transitory cash payments are found to be inferior to wholesale policy reform because the former get locked into same status quo bias.\(^\text{13}\)

Guyomard, Mahe, Munk and Roe (1993), Coleman and Tangermann (1997), Patterson (1997), Anania (1997), Paarlberg (1997) and Coleman et al. (1996) analyze how policy-making at the international level affects domestic policy choices during the Uruguay Round of negotiations on agriculture. Each of these papers uses some version of Putnam’s (1988) concept of linked games to allow for the influence of autonomous international (supranational or intergovernmental) organizations. For European agricultural policy, Paarlberg (1997) argues that international agreements have little impact while Patterson (1997) concludes they have some influence. Coleman and Tangermann (1997) determine, however, that European Union domestic policies were shaped by international policy-making. Johnson, Mahe and Roe (1993) specify political preference functions for the European Union and the United States governments with weights for each interest group and simulate policy games. Several possible policy actions by each government are modeled to predict optimal negotiating strategies. Kennedy, von Witzke and Roe (1996a,b) develop a two-stage non-cooperative and cooperative game theoretic approach to analyze the U.S. and EU actions in the Uruguay Round on agriculture. Each country chooses policies based on a political preference function and Pareto optimal reform results in the cooperative game.

8. **Concluding remarks on decoupling**

This paper provides an overview of the literature on the political economy of policy instrument choice. Before developing theories of inefficient policy instrument choice, a resolution of outstanding disagreements in the literature as to what is efficient had to be resolved. The disagreements center on the MEB of taxation and the international terms of
trade effects. For various reasons, we concluded that neither should be a major consideration in ranking the efficiency of alternative policy instruments.

We then explore why political competition does not ensure that an efficient policy instrument is chosen. This leads us to two key theories based on political economic models that provide powerful and relevant explanations for inefficient policy instrument choice in agriculture: enforcement and commitment problems for promises of policies by politicians, and of voting by individuals; and information and agency problems between various participants in the political process. We also evaluate the important Grossman-Helpman model of inefficient policy choice that falls outside these two general theories.

The analysis is extended to include the fact that often times instrument choice is a discrete 0,1 occurrence in response to a crisis and therefore is path dependent. Policy persistence is also widespread and so reasons for a status quo bias are provided. Finally, we show how trade agreements have helped improve policy instrument choice.

The literature has several shortcomings. The models generally make prior assumptions about what policies are available without explaining these choices by either basic policy transactions costs or political economy models. One cannot always analyze the politics of policy instrument choice without explaining the gainers and losers of policies and what levels of intervention are chosen. It is also difficult to draw the line between explaining inefficient policies versus inefficient institutions (economic, political and legal) that generate these inefficient policy instruments.

The paper gave examples of how governments tend toward taxpayer financed decoupled agricultural policies, which is a step in the right direction in improving the efficiency of policy instrument choice. But the reforms have been slow and decoupled type payments are concentrated mostly in the grains and oilseeds sectors. The degree of decoupling is a continuum, with payments based on land constraints or input use, historical entitlements or on individual characteristics not related to farming being considered far less distorting than the traditional measures of border protection and direct input and production subsidies (OECD 1994, 2001). But there is no fully decoupled agricultural support measure in theory or in practice. But the reality is more complex, not only in the economic impacts of decoupled payments on producer behavior but also the characteristics of the programs themselves in their implementation.

Abler and Blandford (2005) identify five general categories of mechanisms for how decoupled payments influence output, even though they are not linked to current farm-level production. Payments, especially if they are large, can reduce farmers’ aversion to risk
through the ‘wealth effect’. Depending on how payments are disbursed, the variability of farm income can also be reduced, thereby reducing risk facing farmers that leads to increased output (the ‘insurance effect’). Decoupled payments can affect farmers’ investment and exit decisions through relaxing constraints facing them in capital and labor markets. Direct payments allow banks to make loans that they otherwise would not and allow farmers with specialized skills to stay in agriculture. Because eligibility rules have changed, expectations about future policies and dynamic considerations affect current production decisions because producers develop expectations about future assistance based on past government actions. Payments help farmers cover short run production costs, slowing structural change in agriculture.

Although the experience is that perfectly designed decoupled payments can distort trade which can be exacerbated if decoupled programs are implemented imperfectly, the evidence still corroborates the OECD (1994, 2001) finding that taxpayer funded decoupled payments are more efficient than traditional forms of market interventions. The primary motivation for decoupling is to compensate farmers for the move to free markets by providing transitional adjustment assistance. This also makes the programs politically more palatable and transparent. Ideally, compensation programs would be universal (open to all sectors in the economy, not just agriculture) or at least non-sector specific within agriculture. A simple and minimally distorting scheme would be a one-time unconditional payment to everyone engaged in farming or deemed in need of compensation that is nontransferable, along the lines of one-time buyouts.

However, because a one-time buyout is an unlikely outcome (unless it is well targeted in one sector), specific attention should be given to time limits, harmonization with other support programs, government credibility, and constraints on input use. Unless these aspects are properly addressed, decoupled programs are likely to have the same detrimental effects as other subsidy programs.

Most important, programs should be strictly limited in duration. The United States had (at least implicitly) one in the 1996 Farm Bill but violated it three years later. Mexico’s reform had a time limit, which so far has not been extended. A time limit helps to ensure that payments are made for adjustment purposes only. If there are other (coupled) support programs, the decoupled program may not eliminate the incentives to overproduce. In the United States, for example, coupled support programs have been maintained or new ones added.
To maintain government credibility and reduce uncertainty, eligibility rules need to be clearly defined and not allowed to change. The time period on which payments are based, the level of payments and the sectors covered should all remain fixed. Updating bases and adding crops create a government credibility problem, making the decoupling policy time inconsistent. If governments have the discretion to change eligibility criteria and payments as market conditions change, these commitments will not be viewed as binding. Farmers, meanwhile, will change their production decisions to reflect this, thus undermining decoupling. Support to specific sectors within agriculture should be in the form of taxpayer-funded payments. There should be no requirement of production. Land, labor, and any other input should not have to be in “agricultural use.” Experience shows the difficulty of designing effective decoupling schemes. But strict criteria are required to minimize inefficiencies. One way to improve the performance of decoupling schemes might be to have the WTO specify the conditions.
References


Endnotes

1 For a survey, see Bullock et al.(1997).

2 This is above and beyond the issues outlined earlier that lump sum transfers are incentive incompatible, incur political transactions costs and can involve policy endogeneity.

3 There is also a philosophical reason why a country should not be able to exploit their terms of trade (see de Gorter, 1992).

4 Parry (1997) finds production quotas as first best for agriculture but assumes no trade and that decoupled payments have no impact on the price of land.

5 It can even be negative with a back-ward bending labor supply curve.

6 Furthermore, consumer transfer schemes like production quotas generates cross-subsidization and deters exit, both of which increases the social costs of the transfer (de Gorter, Just and Kropp, 2008).

7 Policy instruments associated with consumer transfers like production quotas and two-price plans inevitably introduce more rent-seeking deadweight costs than a simple decoupled payment or a taxpayer financed one-time buyout policy.

8 This paper therefore concurs with the general conclusion of the OECD (1994, 2001) that taxpayer financed payments for historical entitlements is by far more efficient than most other traditional farm policy interventions.

9 Or have agriculture fall under universal social programs like welfare assistance, job retraining programs, trade adjustment assistance and the like.

10 The quota buyout experience in the United States for peanuts and tobacco has had their problems nonetheless. The peanut quota buyout was equal to the capitalized value of the quota but other coupled and decoupled programs were introduced in its place. The tobacco buyout exceeded the capitalized value.

11 The political debate leading up to the current versions of the U.S. Farm Bill repeated the same factors described by the Acemoglu and Robinson (2001a) thesis. Take Senator Harkin for example, who, although only partially successful, lead a very powerful coalition to eliminate decoupled payments because “land no longer producing crops should be ineligible for subsidies” and it was “never intended to be a permanent part of our agricultural programs”. It was created by 1996 Farm Bill to end federal controls on what farmers grow, he argued. He claimed ‘bases’ should be updated in order to save millions of dollars that would be spent on other ways. Instead, Senator Harkin favored “a smarter, fairer counter-cyclical system that places a strong focus on paying farmers when they need the help...It would be based on revenue, not just what we did in the past that was based upon price...Because if you didn’t have the crop, then you didn’t get it. Our new deal is going to look at not the price or the crop, but the revenue based on it.”

Senator Harkin’s coalition wanted to make bases smaller, give subsidies to farmers who are farming, and extend subsidies to farmers not receiving any subsidies now. This is exactly the prediction of the Acemoglu-Robinson model. About $1.3 bil. was given to dead farmers in 1995-2001 (truly a decoupled program that economists would favor!) but politicians want live farmers and without zip codes in Hollywood or Bermuda in order to develop a political base and get votes.

12 An argument can be made that the issue linkage aspect of the WTO has impeded liberalization by ‘legalizing’ protection levels and thereby make matters worse as it becomes a forum for national governments to match other countries’ subsidies. The WTO in some ways has also become a means to legislate lax disciplines like the AMS. Perhaps reliance on legal framing would be better by allowing countervailing and anti-dumping codes to discipline domestic support.

13 This argument is related to the theory of Becker and Mulligan (2003) where cash payments increases rent seeking so there is a trade-off.