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Abstract

Economic analysis appears to universally condemn market intervention in favour of farmers as

inefficient and therefore well worth reform. Practical experience, however, indicates that such lessons

are hard to learn and implement. Part of the reason appears to be that economic analysis seldom clearly

identifies the real costs and benefits of reform, and seldom explains these sensibly to the relevant

constituencies. Furthermore, economic analysis rarely explains why the protectionist measures were

adopted in the first place, or explores the dependencies that these policies generate. Without these

explanations, and without reform strategies that take full account of them, policy reform will continue

to be reluctant, slow and frequently counterproductive.

This paper reconsiders the evolution of farm policies and the economic assessment of their costs and

benefits, and draws conclusions as to the general shape of reforms likely to reconcile economic

efficiency with political acceptability. In so doing, it re-phrases conventional economic arguments in

terms which seem to accord better with sensible intuition, which may prove more accessible and

credible to policy makers and advisors. It concludes with a substantial challenge to the agricultural

economics profession.

Keywords: policy dependency; policy reform; cost/benefit analysis; political negotiations;

liberalisation

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1. Introduction – the genesis of the policy dependency problem

Economic analysis seems to prove conclusively that farm support programmes that operate through the price mechanism for products (coupled support) are inefficient – they cost more than they deliver. Yet it seems extremely difficult for societies to give up attempts to introduce such programmes, or to give these programmes up once they are adopted. The public choice literature provides one explanation of this apparent contradiction. In essence, the competitive market is governed by consumers, who earn their incomes and spending power through production. Producers and production, in this story, are simply a means to an end – if they do not serve the consumption demands (and thus also savings opportunities) efficiently, they can be expected to go to the wall.

But, as the public choice discipline points out, such competitive markets require government – to establish and police property rights, enforce laws of contract, outlaw theft and regulate currencies, if nothing else. The long arm of the law is necessarily attached to Adam Smith's invisible hand. But governments are also used to repair inequities generated by the market system, to protect the many losers at the expense of the fortunate and fewer winners. The more democratic the government system, the more likely are these demands to be met, simply because there are likely to be more losers than winners. The resulting mixed economic system contains within it the seeds of its own destruction, curbed only by the limited willingness of the winners to pay. The logic of policy dependency can be explained through the co-evolutionary histories and patterns of farm policies with the economic systems in which they are embedded (e.g. Harvey, 1995). These histories exhibit three critical dependencies.

2. Three Critical Policy Dependencies: an overview

2.1 Strategic Dependency

Without government, producers have to compete, in a life that is frequently nasty, brutish and short. Marketing and management strategies to manage and, if possible, take control of the market are the only apparent recipes for prosperity and replication. But with government, an alternative route to producer prosperity is opened up – persuasion of the government to act in producers' rather than consumers' interests. There are three major conditions that determine the extent to which governments are likely to respond to these pressures.

First, the more the sector is (like agriculture) subject to inevitable relative decline as economic progress occurs, simply by Engel's Law, the greater the pressure for support and protection. Second, the more coherent are the production systems and sectors with electoral constituency sympathies, and the more fundamental are the products of the system to survival and prosperity, the more likely it is that government support for the sector will be forthcoming – that the winners will be willing to pay. Classic examples of this condition in the developed world prevailed following WWII. Recent memories of food insecurity (especially in Europe and Japan) bred domestic policies aimed at self-sufficiency. Third, the more atomistic is the sector, and thus the more reliant individual firms are on the vagaries of the market place (as opposed to their own marketing management capacities), the more benefits the people in it are likely to gain from efforts at political persuasion rather than market manipulation. Since production necessarily involves specialisation, producers (however atomistic) will be more concentrated than consumers. It follows that producers' individual gains from market protection will outweigh individual consumer and taxpayer losses, incurred as a result of the protection. It will thus pay producers to exert more effort in persuading the political system of their just deserts than consumers and taxpayers can be expected to spend on opposing such protection.

On all three counts, substantial support and protection of the farm sector is practically inevitable as development occurs. Furthermore, both the nature and the extent of support are also predetermined. Support will naturally be coupled, and will naturally gravitate towards market protection. Any other support system will contradict the market mechanisms which both gave birth to the pressures for support, and which precondition coherent, and thus sustainable responses to such pressures. The extent of support is also predetermined. Economies blessed with or cursed by major peasant sectors (the old world) will tend to generate greater levels of support and protection than those without such sectors (the new world). But the extent of support depends on the willingness of the payers to bear the costs. Importing economies and sectors will generate higher levels of protection than exporting economies, simply because protection of the latter is clearly counter-productive, and support is necessarily at the expense of the taxpayer, whose interests are more strongly represented and deployed than those of the

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de Gorter and Tsur (1991) explore the formal calculus of this condition (as populations shift from being predominantly agrarian (rural) to predominantly industrial (urban), and propose that political support (for redistributive policies) depends on both per capita <u>relative</u> incomes and the extent of <u>redistributed</u> incomes. This calculus is consistent with many of the observed features of support over both time and space.

consumer. The patterns of farm support around the world, both across space and over time, well demonstrate this logic.

This is the first major dependency – the *strategic dependency* - the egress of economies from an agrarian to an industrial condition, especially when coupled with democratic government, will naturally generate pressures for agricultural support and farm market intervention. These pressures will be stronger the more rapid the pace of development, the larger the farming-dependent population (and thus the greater the structural shift required in the move from the agrarian to industrial condition), and the more vulnerable the local population feels their food supplies to be.

2.2. Support Dependency

Progress towards liberalisation of the farm sector thus depends on sufficient decline in the importance and electoral dominance of the sector and its sympathisers (those who have recently exited the industry) to offset its natural political (and thus market) advantage. That is, liberalisation depends on sustained economic progress away from its agrarian roots. The offsetting pressure, sustaining support, is generated only by the degree of previous support and the extent to which this support has been captured in the wealth of the supported sectors and its dependents. The greater are both these, the more difficult liberalisation will prove. This is the second major dependency – the support dependency – the greater the levels and history of support, the more dependent will the farm and farm supply chain become on continuing levels of support, and the greater will be the resistance to its removal. It is this dependency which gives rise to the "conservative welfare function" (Corden, 1974, also Winters, 1987b and MacLaren, 1992), in which political systems will generally seek to prevent, and certainly seldom initiate, changes which significantly reduce the current welfare of any substantial and identifiable group in society. The more coherent and organised the group, and the more substantial the threatened welfare reduction, the more resistant the political economy is likely to be to genuine policy reform. We return to this dependency below, since it is the essential link between the conventional economic analysis of policy effects and the nature of the policy system itself.

2.3. Programme Dependency

The birth and development of policy intervention necessarily involves the emergence of bureaucracies and political establishments whose continued existence is dependent on the policy. While some more advanced economic analyses try to take account of the transactions costs involved in policy

implementation, these analyses typically only pay lip service to the substantial political and bureaucratic vested interests in policy continuation. However, it is difficult to imagine these groups willingly conniving at their own critical evaluation and elimination, or actively seeking radical policy reform without very substantial pressure from other parts of the economic polity. The typical response to pressures for policy reform is for the existing policies to become infested with immunising stratagems (à la Popper, 1959), by which reform pressures are absorbed through modification of existing policies rather than their wholesale replacement (still less, elimination). Policies tend to become more and more complex, and thus more difficult to change.

The consequences are already becoming apparent, especially in the EU. Economic progress is also likely to generate increased demands for "rurality" as people demand more and better space and landscapes within which to both work and play. Provision of such ruralities is frequently associated with visions of historic production systems, practices and structures, delivering a new argument in favour of support and protection of at least the more 'backward' (and frequently less prosperous) sections of the agrarian sector – multifunctionality is bred and nurtured as a sustainable reason for farm support systems, again more vigorously proposed and defended in the old world than the new, preconditioned as it is by the preponderance of a native peasant class and associated structures, including the programme dependencies. The general logic of the interaction between the joint pursuits of social goods (correcting for genuine market failures through resource transfers) and of rents (pursuit of self-interest by the participants in the policy system) has been well explained by Rausser, 1982.

It is in the nature of support systems, as with market systems, that the more adventurous will find more effective ways of farming and cultivating them than the less adventurous. Sectoral support will remain and be encouraged, albeit more indirectly, despite all good intentions, and will continue to reward the few at the expense of the many. The circle of support does not naturally become more virtuous. The answer does not lie in designing ever more rigorous and targeted support systems, even though such targeting and rational design is clearly necessary somehow to solve public good and externality problems. The answer lies in breaking the support and programme dependencies generated and encouraged by the evolutionary history of the farm support policy systems. For this, it is necessary to reconsider the nature of these dependencies.

3. Some Basic Analysis: the nature of support dependency

Josling, 1969, was amongst the first to bring the importance of policy transfers (as opposed to deadweight efficiency costs) to our attention. The implications of the simple partial geometric analysis of farm policy have now become so familiar that we tend to treat such analysis with contempt. However, the analysis is worth re-visiting.

Consider, first, the simple economics of an import protection policy, Figure 1, drawn for a large country, as illustrated by the European Union (in the "good old days"). Other things being equal, importing political economies are likely to choose import protection in favour of the alternative of deficiency payment or direct subsidy support (Figure 2), despite the higher economic costs of so doing. The obvious reason is that the former generates tax revenues while the latter spends them. Furthermore, *ceteris paribus*, those import-protecting countries are likely to demonstrate higher levels of protection than their subsidising counterparts. The major offsetting force to such natural tendencies is the effect of the policy on the rest of the world. The losses imposed on the rest of the world tend to be greater, and certainly more transparent, under the import protection system than under the subsidy alternative, especially given the relative levels of support provided under each alternative. There can be little doubt that the UK chose the subsidy alternative in preference to import protection (before joining the EU) precisely because of the perceived importance of her commonwealth trading partners (predominantly agricultural exporters) and her strong links with the USA. Her European neighbours were considerably less constrained by such commonwealth family ties.

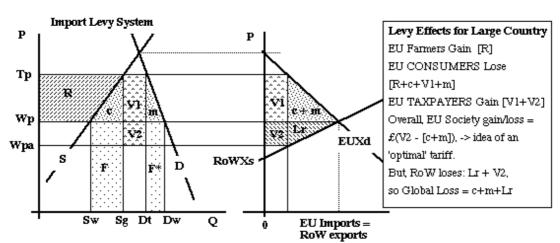


Figure 1. The simple economics of an import levy

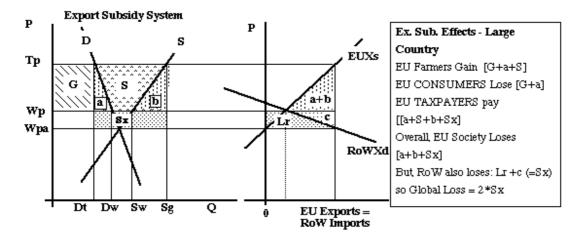
DP Effects for Large Country Deficiency Payment System P EU Farmers Gain [R] EU CONSUMERS gain [G+Tx1 Gp ĸ EU TAXPAYERS Lose [R+c+Tx1+Tx2]G Tx: G Overall, EU Society gain/loss = Txl Wpa **EUXd** [G-c], -> idea of an 'optimal' RoWXs EUXd(g) subsidy. \mathbf{D} But RoW loses: Lr +G so Global Loss = c+LrQ Sw Sg $\mathbf{D}\mathbf{w}$ EU Imports =

Figure 2. The simple economics of a deficiency payment

As such support policies become entrenched, so the process of economic development also tends to shift developed country supply curves substantially to the right, in excess of growth in domestic demand, classically exemplified in the EU, so that traditional importers tend to become exporters (Figure 3).

RoW exports

Figure 3. The simple economics of an export subsidy



The consequences of the move to an export status are abundantly clear. The losses suffered by the culprit country now become self-evident, in either increasing tax costs or mounting surpluses, thus provoking strong support limiting pressures at home, again well illustrated by the EU case. Furthermore, the exasperation of trading partners grows, exerting growing external pressure on the domestic policy. The timing of the Uruguay Round (UR) was not accidental. Such a round had to

await the development of competing and subsidised exports from both sides of the Atlantic. The gains to be obtained from a collective, negotiated agreement were also clear – the global losses sustained under an export subsidy regime are significantly greater than those of the equivalent import protection regime. Under such circumstances, some positive outcome to the UR was bound to happen.

The surprise of the UR, and of domestic EU policy reform, according to this logic, was not that it happened, but that it was so modest. Had it not been for the happy collapse of the Berlin wall, dramatically altering Germany's national interests in the structure and extent of farm support (by converting the country from a natural importer to an natural exporter), it might well be that the round would still be underway, such is the apparent resistance to genuine policy reform.

A substantial part of the explanation of this resistance lies in the relative magnitudes of the gains and losses associated with reform. Obvious though the social costs of farm policy maybe in principle, as illustrated in the figures above, quantitative estimates of the social costs turn out to be distressingly small, in comparison with trade revenues, or with the major transfers involved (e.g. as classic examples, Tyers and Anderson, 1992; Winters, 1987). This fact is not surprising. Elasticities of both supply and demand for farm products at the farm gate are typically low, making domestic welfare losses (the triangles) very small. Trade volumes compared with total supplies and demands are typically sufficiently small to make reasonable estimates of elasticities of excess demand and supply curves high (see, e.g. Josling, 1977, Harvey, 1997b).

Of course, the social costs of policies illustrated in the above diagrams are only partial. Firstly, policy itself is not a costless exercise, generating considerable transaction costs. Not only do tax cost require revenue-raising interventions, imposing additional costs on society (e.g. Alston and Hurd, 1990, Ballard and Fullerton, 1992, Browning, 1987; see also, Fullerton, 1991), but the mechanics of intervention themselves also require resources. It is difficult to imagine that these costs amount to less than 10% of policy transfers, and easy to suppose that these transaction costs are considerably greater for more complex policy systems, as generated through more resilient and longer-standing policy systems.

Partial estimates of social costs and benefits also ignore the second round effects elsewhere in the economies affected. General equilibrium models try to take account of these effects (e.g. Winters, 1987, for an early review). These models are difficult to simplify sufficiently for non-experts to appreciate fully (and thus believe). However, the partial social costs of a policy can be considered as if

they were withdrawals from the circular flow of income, since they represent foregone consumption possibilities. The general equilibrium effects can therefore be approximated by applying the Keynesian multiplier (typically little larger than 2 in most modern economies) to the partial estimates, which thus underestimate the general economic costs by a factor of around 2.

It is only when intervention policies themselves insulate and protect domestic markets from world market forces that the relevant excess supply and demand elasticities become low enough to generate significant (but still typically small) world price effects. In fact, it is this very point that makes the extent of support policies self-limiting, as perhaps demonstrated in the UR. The more protective domestic policies become, the greater the spill-over effects on the world market, and the higher become the consequent reflected costs to domestic interests (especially taxpayers), particularly for exporting countries. Perhaps the modest UR agreement represents a political economy equilibrium, in which the interactive effects of domestic protection and support are just sufficiently modified to justify continued domestic support. Maybe export subsidies can be eliminated eventually, but they are almost bound to be replaced by near-equivalent domestic support systems (witness the recent developments of both EU and US policies). To hope otherwise requires that the near universal support dependency culture be broken or dissipated.

4. The support dependency culture

The producers' surplus, identified by the conventional partial analysis of policy, is the analytical key to support dependency. Producers' surplus, if defined over a short run supply curve, is quasi-rent – returns to production factors engaged in the farm product supply chain over and above those necessary to retain these factors within the supply chain. The normal workings of competitive markets bid these quasi-rents into long run costs, capitalising the rents into the values of the chain-specific factors. The extent to which particular factors attract the rent transfers of policy depends on their specificity to the farm product supply chain. The more inelastic is the supply of these factors to the chain, the greater the extent to which their values will be increased by farm product support. By the same token, the balance of producers' surplus (not accounted for in long run rents of farm specific factors) is dissipated in transfer earnings - merely offsetting incomes that would have been earned elsewhere in the economy in the absence of the policy.

As a consequence of this inescapable logic (the physics of the economic system), new entrants to the supply chain, obliged to pay their entrance fee that is equivalent to the policy induced rents, are no

better off with the policy than without it. The only gainers are those who owned the chain specific assets prior to the introduction of the policy, who benefit from a windfall policy gain in the value of their assets (including any specific labour and management assets). Otherwise, all the policy can possibly succeed in doing is to raise the costs of the chain, by raising capital and factor costs.

This logic is captured, at least in part, by a general equilibrium formulation of the policy analysis. Here, any social gains from policy reform only appear as gains in consumers' surplus. There is no general equilibrium counterpart to the producers' surplus of partial analysis. In effect, GE models include the effects elsewhere of the release of excess transfer earnings from the supported sector, thus reducing the downside effects of policy liberalisation, and increasing the estimate of net social benefits compared with partial counterparts. However, any sector specific factors in GE models (which do not transfer to other sectors, such as land) will suffer a decline in rents and income, which translates into an offsetting decline in consumption, limiting the net social gains indicated by the models.

Conventional reports of partial analyses of policy reform are obliged to account for the reductions in producers' surplus. Typically, these estimates are interpreted, at least by policy makers and advisors, as reductions in farmers or farm incomes, and thus (as the partial logic requires) as reductions in producers' welfare. Since these results conform exactly to sensible intuition of the effects of policy reform, it is hardly surprising that such estimates encourage policy inertia. While GE model estimates can be presented so as avoid this particular trap, they become less credible to policy makers simply because they then appear to ignore the downsides of policy change – the reductions in farm incomes. Once these reductions are elaborated, the trap opens again, and is made deeper for non-economist policy makers by the apparent complexity of the GE model itself.

Such interpretations, however, ignore the first principle of applied welfare economics – the principle of compensation. Since these reductions in income (policy rents) are translated through the market mechanisms into the capital values of the underlying assets, they can (and arguably should) be compensated. Once such compensation is complete, the arithmetic of policy reform looks completely different. As a recent example, consider the results of a partial analysis of elimination of EU dairy policy (Colman *et al.*, 2002), as represented in Table 1.

As can be seen from the table, considerable effort was made in this study to augment the traditional partial and comparative static estimates of the consequences of policy elimination. Both transactions costs and the general equilibrium effects have been included, while (perhaps even more contestably)

estimates of the potential dynamic effects (stemming from release of the benefits of structural and technical changes at the farm level, and liberalisation of dairy marketing chains) have also been included. Nevertheless, the overall social gains still only amount to 23% of the losses estimated for producers. These figures can hardly be expected to convince congenitally sceptical policy-making and policy interested audiences. This is barely surprising, since they ignore the consequences of possible compensation.

Table 1. Costs & Benefits of Eliminating EU Dairy Policy (\(\mu bn \), real terms, 2010)

Interest Group and Source.	¤bn.
Producers	-9.94
Consumers	6.57
Taxpayers	3.71
Net Partial Static Benefit	0.34
Transaction Cost (@ 10% of SB transfer payment))	0.37
General Equilibrium effect (@ multiplier of 1.2)	0.14
General Static Net Benefit	0.85
Dynamic gains	1.42
Overall Net Benefit of Elimination	2.27

Source: Colman et al., 2002.

Consider the following suggestion for EU dairy policy reform, which echoes the principles of the recent Australian reform of dairy policy. Abandon all present instruments of dairy policy in the EU, including quotas, immediately, and compensate producers with a lump sum payment, representing the loss in the value of the dedicated factors associated with dairy production. In the case of dairy quotas, most of this value is already associated with quota ownership. This compensation payment can be funded through taxpayer spending on the current policy (mathrow3.7bn.) augmented by a temporary tax on all dairy products consumed in the EU equivalent to the annual consumer cost of the present policy (mathrow6.6bn.).

At a 5% real discount rate (reflecting the commercial risk associated with the anticipated continuation of the present policy), the producers' surplus estimate in Table 1 amounts to α 76bn. over 10 years (which is, incidentally, a considerable over-estimate of the current market value of dairy quota). Provision of this lump sum would fully compensate producers for the reductions in values of their policy-enhanced assets. It could be fully financed by an amortisation of the current consumer and tax costs of the present policy, at 3% (reflecting the lower social opportunity cost associated with public

funds) over 9 years. From year 10 onwards, EU society would be unambiguously better off by ¤12.2bn per year – the heaven of an unambiguously welfare improving policy change.

The conventional partial welfare arithmetic, conducted on annual flows, completely ignores the potential benefits to be realised from a longer-term re-allocation of society's "fixed" resources – the land and capital which attracts and accumulates the producers' surplus or rents accruing from policy intervention. Even general equilibrium representations of the economic system only partially capture the benefits of this reallocation, since the re-investment possibilities are inevitably restricted to a given set of input/output relationships, themselves preconditioned by the price relatives ruling under policy intervention. The dynamics of factor markets are typically excluded from general equilibrium models.

5. Liberalisation – breaking the addictions of farm policy

Compensation, according to this logic, is the critical feature of any sensible policy reform. The fundamental economics dictate that there is a price for which the current apparent beneficiaries of policy support can be persuaded to give up their rights to continued support. Unless this price is paid, policy will not change other than by dictatorship. Even then, compensation for policy-induced reductions in asset values is more than simply an equity question; it also has efficiency implications. Given reasonably competitive quota transfer arrangements and associated capital markets, there is no reason to suppose that the present population of farmers is not largely made up by those who consider they have a comparative advantage in farming. Given an inelastic supply of these people, an uncompensated change will result in a considerable transition period (and associated economic costs) during which at least some (the more productive) of these displaced farmers seek the means and opportunities through which to resume their preferred occupation. It is ineffcient to make it more difficult than necessary for them to do so.

A major conclusion from economic analysis is that any compensation for policy elimination must be fully decoupled, otherwise it simply degenerates into conventional production related support. Fully decoupled, in the limit, means that the market outcome achieved with decoupled compensation should be indistinguishable from that with an uncompensated change. However, this strict condition is an ideal that cannot be met in practice. <u>Any</u> form of compensation will affect the capacity of present producers to adjust, and thus will affect the market outcome in some way.

The most nearly fully decoupled form of compensation possible is a once-and-for-all lump sum payment (e.g. Tangermann and Swinbank, 2000) that is, for all practical purposes, production neutral. Once distributed, neither the decision to continue farming or not, nor the decisions about what and how to farm, should be affected by the lump sum payment. In effect, the lump sum payment simply compensates the owners of dairy farm assets for the fall in their value occasioned by the policy change. Otherwise, it has no effect on the disposition of these assets, which are freely tradeable and thus convertible into what ever sector and practice the owner wishes.

This freely tradeable and convertible character of compensation is the only practical and sensible definition of 'fully decoupled. Such a lump sum payment would clearly provide, in readily liquid form, the capital reserves necessary for adjustment to the new unsupported and unprotected market. Adjustment problems would be very substantially eased by such compensation, most likely to a greater extent than any alternative form of compensation. The justification is twofold: first, compensation provides the necessary capacity for the current industry participants to adjust to a liberalised world; second, it recompenses owners of dedicated assets for policy (socially) induced reductions in their value – the value of these owners' pension funds. Without the second component, policy reform will remain seriously difficult, if not impossible.

But such compensation does not deal with programme dependency. This dependency of bureaucrats and politicians typically results in substantial efforts to re-cast compensation ideas into continued payments, justified on new grounds (e.g. environmental or multifunctional) for continued support for an identifiable constituency, as closely related to the farming sector as possible. In turn, programme dependency is re-inforced by any vestiges of traditional strategic dependency – the apparent sociopolitical need to support sectors which are disadvantaged by economic progress and growth.

6. Conclusions

Identification and acknowledgement of the dependency culture of farm support policies is likely to be a necessary step in breaking the addiction, but it is unlikely to be sufficient. As is obvious from other areas of social and individual behaviour, breaking dependencies requires a commitment on the part of the addict to breaking the habit. While the economic (support) dependency can be broken relatively easily, as the Australian and New Zealand examples clearly show, removing the strategic and

programme dependencies is likely to be far more difficult (as the European and American examples show). Support groups for detoxification are typically regarded as valuable. The WTO provides exactly such peer group pressure and encouragement for the breaking of habits. But for these to work, addicts must be willing to cooperate and commit to such groups. So long as the victims remain convinced that they are better off with the habit than without it, such cooperation and commitment will be lacking. Cultivation of cooperation and commitment requires that the nature of the dependency be recognised and respected, rather than vilified. Too much economic analysis is presented either as vilification of the habit of support, or as ignoring the nature and basis of, particularly, strategic and programme dependency, if not of support dependency itself (as demonstrated by the tendency to dismiss compensation as a "mere" equity or political expediency issue).

Strategic dependency promises (or threatens) to be the critical barrier to further liberalisation of farm policy, both domestically and thus also internationally, as well evidenced by developed countries propositions of multifunctional justifications, as well as by the demands by developing and transition countries for continued special treatments. It is fundamentally irrational to ignore the strong strategic pressures for farm sector support, especially amongst developing and transition economies. Much more intelligent thought and analysis is required to develop sensible support policies to cope with this problem. Simply asserting that such policies cannot work, and are economically inefficient, and should therefore be illegal – the basic argument of the liberalising tendencies – is deeply insufficient: political economies in the process of industrialising cannot be expected to accept such arguments. While integrated rural development and adjustment assistance programmes might appear to provide efficient palliatives for this strategic pressure, the evidence from developed country histories is that they are insufficient. Some more general and more visible support system for the declining sector appears necessary to buffer the socio-political pressures of economic development. The profession of agricultural economics needs to recognise this, and devote some effort to designing and promoting sensible policies to cope.

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