

Chapter 9. Political economy assessment of reform options.

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9.1. Introduction

This final chapter draws the previous analyses together and considers the political economy implications of elimination of dairy quotas in the EU. It begins (section 9.2) with a summary and interpretation of the major results of the analyses of the previous chapters. The major elements of the costs and benefits of quota elimination are outlined and summarised here (Table 9.1). Section 9.3 examines the major caveats and offsetting considerations to these estimates. It is these considerations that both underpin the estimates and inform the design of a transition policy to move the industry from the present support policy to a more liberal situation. Section 9.4 examines the principle elements of the adjustments the sector would be expected to make to a free trade (no-policy) situation, and identifies the critical factors affecting farmers' capacities to cope with such a change. Against this background, Section 9.5 outlines the major considerations relevant to the design of a transition policy – the issues of phasing in reform, and of compensation for producers or quota owners. This extended section considers the options available for phasing policy change and compensating producers for the change, including the arguments for continued coupled support. Section 9.6 summarises the practical options and provides an assessment framework for their evaluation. The final section offers some general conclusions about the nature of policy reform. The key points made in this assessment are summarised at the end of the chapter.

9.2 Summary and interpretation of the major quantitative results

Gains from EU dairy policy reform and elimination of quota

Removal of dairy product price support and elimination of dairy quotas in the EU would have relatively minor effects on long run supplies and product market balances both within the EU and in the rest of the world, including the CECs (Chapters 3 and 4). These results reflect the informed assumptions made about the relative inelasticity of both supply and demand for milk and milk products around the world, and are in broad agreement with other independent estimates of the responsiveness of the world dairy market (Chapter 3).

The consequence of this inelastic market response is that both local and world prices change substantially as a result of changes in market intervention. Domestic market prices within the EU are projected to fall considerably (as the rents currently accruing to quota or dairy asset ownership are eliminated) while world market prices rise. The resulting free trade equilibrium raw milk prices in the EU (scenario 6) lie above baseline world prices and 25% below baseline (supported) EU prices.

It is these price changes that trigger the substantial changes in economic welfare, with producers losing and consumers, users and processors gaining. In short, continuation of the current policy (the baseline), rather than following a programme of radical reform resulting in the elimination of all support measures, will generate the following costs and benefits (Chapter 3). EU dairy producers are projected to be better off under the baseline by $\text{€}4.4\text{bn}$ compared to Scenario 6 (complete liberalisation), over and above the direct payments of $\text{€}5.5\text{bn}$ decoupled aid from taxpayers. EU milk consumers and processors are $\text{€}6.6\text{bn}$ worse off. The net cost in social welfare of the current (baseline) policy, in static terms, is $\text{€}2.2\text{bn}$ per year. Adding an estimated 10%

efficiency and resource cost to the transfer payment (≈5.5bn) increases this static cost of the current policy to ≈2.7bn (Ch. 3.).

The EU would save ≈2.7bn per year if the current policy were to be completely eliminated. The gainers from policy elimination (consumers and taxpayers) could afford to completely compensate the losers (farmers) and still leave the economy as a whole ≈2.7bn better off. Even this impressive figure is an underestimate of the true costs of the present policy, or, conversely, the gains to be made by eliminating the present policy, for three major reasons.

- i. This estimate is partial. It ignores the second round effects in other sectors of the economy resulting from an improvement in economic efficiency generated in the dairy sector. In effect, improving economic efficiency releases scarce economic resources for other purposes. As these released resources are used, so they will generate additional gains for society not included in the partial estimate. The likely size of these second round effects can be judged by considering the efficiency gain as if it were an addition to the injections into the circular flow of income of the EU economy. Such injections increase total national (EU) income according to the value of the multiplier applying to the circular flow. This multiplier is typically assumed to be of the order of 1.2 to 1.7, depending on the rates at which withdrawals and induced injections to the flow depend on the levels and rates of change of national income. Hence, the general rather than partial estimate of the comparative static gain would be a minimum of ≈3.2bn per year.
- ii. The comparative static result ignores the dynamic benefits which would accrue as the market is liberated to take better advantage of available technologies and management practices, to deliver a mix of products and services better fitted to consumer preferences and willingness to pay. These dynamic gains, including the gains made throughout the economy as adjustments are made to market signals in both resource and goods markets, are at least as large as, and almost certainly much larger than the comparative static gains estimated here. There are two major grounds for this assertion
 - a. The continual process of structural and technical change within the dairy sector generates improvements in efficiency of the order of 1 to 2% per year (Chapter 6), worth ≈250m. - ≈500m at liberalised dairy prices. However, so long as the market is protected and production is controlled through quota, the benefits of these improvements are effectively locked in the dairy sector, rather than being released for more productive and preferred uses (see next section). In the event that the existing quota policy has resulted in some 'pent up' and unexploited efficiency gains, the dynamic gains might well be even larger, at least in the first few years following reform. Estimates in Chapter 6 show gains of as much as ≈1.6bn, though gains of this extent are likely to be one-off following reform, and may take longer than one year to fully materialise.
 - b. Even more importantly, so long as the present support policy continues, the dairy product market will continue to be skewed in favour of the intervention products (butter and SMP), for which demand is static or declining. Liberalisation will encourage innovation and adaptation in this market towards higher valued products (Chapter 3). Deregulation is also likely to encourage farmers themselves to pursue their own market

competitiveness by differentiating their own products from those of their peers. Although regulation and protection does not completely eliminate pressures and incentives for the dairy product market to develop in these directions, it both restricts and discourages such developments (as noted in Chapter 7 above).

The average rate at which the general economy is able to improve productivity and more closely match products with consumer demand is about 2 to 3% per year. Artificially encouraging the dairy sector to meet administrative (intervention) markets and limiting the competitive forces of free trade restrict the growth rate in the sector. This discouragement might be worth as much as 2% of the total consumer value of the dairy sector (≈1.3bn. at liberalised prices), as farmers and others throughout the dairy marketing chain adapt and innovate their activities to better fit market opportunities.

- iii. A very important part of the gain from liberalisation occurs in the world market rather than the EU. World dairy prices rise as a consequence of EU liberalisation and the rest of the world is better off as a result.¹ Although this gain to the rest of the world has not been estimated here, its likely size can be approximated using the estimates of this study. The EU (as presently constituted, excluding the CECs) accounts for 25% of world dairy production. Presuming that the gains elsewhere bear a similar relationship to the size of the industry as have been estimated for the EU (point (i) above), then this gain to the rest of the world may be as much as ≈8bn. per year. By the same token, so long as EU policy remains as it is, the rest of the world remains less well off than it could be by this amount, and can therefore be expected to continue to pressure the EU to change its policies

In the light of these considerations, Table 9.1 shows a summary of the estimates of the costs and benefits of the present policy – equivalent to the potential gains available from eliminating the policy. The “low” and “high” estimates in this table represent the 2007 versus 2010 estimates of partial static costs and benefits,² and the lower and upper bound estimates for the general equilibrium and dynamic costs as outlined above.

¹ It may seem counter-intuitive that price reductions can generate social gains in the EU, while the opposite occurs in the world market. The logic is as follows. Over-production in the EU relative to domestic demand, resulting from protection and support of the EU market, depresses world prices and thus depresses production in the rest of the world. In effect, there is a misallocation of total resources at the world level, which denies the world the possibility of achieving its optimum level of social welfare (maximum consumption value given the available resources). Considering the world as a whole, the effect of EU support is to drive a wedge between the total world supply price and the total world demand price, the difference being made up by either subsidy from governments or uncompensated losses to producers compared with the free trade situation. Only a part of these subsidy or producer loss costs are paid for in the EU. The rest are paid or borne elsewhere in the world.

² The 2007 results can be regarded as ‘low’ estimates on the grounds that these results are for conditions under which EU production does not expand, and hence depress market prices, since quotas are still in force in 2007, though all other market support is eliminated and the EU trades at free-trade world prices. The 2010 results are the ‘high’ static estimates, since these are predicated on a particularly inelastic world excess demand condition, and consequent substantial

Table 9.1. Annual Costs and Benefits of the Present Policy
(€bn, real terms, basis 2010)

| Interest Group and Source. | Low | High | Mid Point |
|--|-------------|-------------|------------------|
| Producers | 7.2 | 9.9 | 8.6 |
| Taxpayers | -5.5 | -5.5 | -5.5 |
| Consumers | -4.0 | -6.6 | -5.3 |
| Transfer Cost (@ 10% of transfer payment)) | -0.6 | -0.6 | -0.6 |
| Net Static Cost | -2.9 | -2.7 | -2.8 |
| General Equilibrium effect (@ multiplier of 1.3 – 1.7) | -1.4 | -2.7 | -2.1 |
| General Static Net Cost | -4.3 | -5.4 | -4.9 |
| Foregone Dynamic gains | | | |
| From the farm sector (1 - 2% of revenue) | 0.3 | 0.5 | 0.4 |
| From the dairy marketing chain (1 - 2% of retail sales) | 0.7 | 1.3 | 1.0 |
| Total Dynamic costs | -0.9 | -1.8 | -1.4 |
| Overall Costs of Present Policy | -5.2 | -7.2 | -6.2 |
| Partial Static Cost to the Rest of the World (inc. CECs) | -8.6 | -8.1 | -8.4 |

The overall conclusion is that the present policy is costing the EU economy €5bn. to €7bn per year. Using the mid point estimates in Table 9.1, consumers and taxpayers are spending €10.8bn a year to provide a benefit to dairy producers of €8.6bn a year, and in so doing are costing the rest of the economy a further €4bn a year in foregone second round and dynamic effects.

In particular, it is worth noting that the dynamic costs of the current policy completely swamp (even at lower bound estimates) the partial static gains that might accrue from preserving quota restrictions on output. These possible gains emerge in the face of an illiberal and protected world dairy market (the difference between the net static cost under the low versus high assumptions in Table 9.1), as explained in Chapter 3. Preserving quota restrictions on production might appeal to those wishing to preserve the *status quo* as far as possible, and might be supported on the grounds that the world dairy market is yet far from a level playing field. However, doing so denies the rest of the economy the very considerable potential of dynamic efficiency gains both within the farm sector and throughout the dairy product supply or marketing chain.

Nevertheless, a number of reasons might be advanced to account for this apparently irrational policy, either because these estimates are unreliable or because they omit consideration of other important factors.

9.3 Caveats and Offsetting Considerations

9.3.1 Realism of the estimates and difficulties of transition

The presumption that the EU dairy sector is fundamentally competitive with the rest of the world will strike many in the industry as counter-intuitive. Nevertheless, it is both consistent with virtually all professional assessments of the world dairy market (as indicated in Section 3.4 above) and also with the simple logic of the market

The European dairy sector supplies highly perishable products to a surrounding large, rich and discerning consumer market. Substantial processing is required to convert these products into storable items (most of which suffer from declining demand in rich markets). The sector has some of the world's most productive land, blessed with a generally reliable and benign climate. Its farmers and labour force are skilled and well trained, and its farm structure is improving all the time. It is serviced with a sophisticated and efficient supply chain for its inputs and services, and marketing chain for its products. It is embedded in a large, diverse and rich consumer market. In contrast, competing suppliers are far removed from the European market, have distinctly limited supply capacity and frequently less reliable climates and land capabilities.

It is impossible to reason that the European dairy sector is inherently disadvantaged by virtue of where it is and the resources it has at its command. It is inconceivable that the rest of the world is capable of or willing to supply most or even a major fraction of Europe's dairy demands. Furthermore, there is a growing world market for many of the European speciality dairy products, which is currently restricted both by restraints on European subsidised exports and by other countries protective policies. Both the logic and practice of world markets ensures that world prices would rise sufficiently to make the European dairy production profitable at levels of production close to European self-sufficiency without protection, as agreed by virtually all professional analysts.

However, the history of market support has affected the ways in which the industry has developed. Dairy farm numbers have been falling throughout the European Union, as farmers have become larger and more efficient in an effort to match their incomes with those available elsewhere. As a result, milk production has become more efficient at a rate of between 1 and 2% per year, as farmers adjust their production scales, systems and production practices in an apparently continual process of business improvement. This process of technical and structural change will continue regardless of the level or system of support.

The present policy, however, increases the costs of adjustment and structural change within the industry, by making it more expensive than otherwise for farmers to enter the industry or expand their businesses. Both new entrants and expanders have to pay for or acquire the right to produce (the quota). The more profitable is milk production, the more valuable becomes the quota. In those countries where quota redistribution is administered rather than determined through quota trades, the value of dairy support has been capitalised in the value of dairy cows, milking equipment and dairy land.

This increase in the value of dairy farm assets increases the costs of entry into the industry, leaving new entrants no better off than without the support. New entrants increasingly outnumber those who were in production at the outset of the policy. The policy also increases the economic costs of existing dairy farmers, by increasing their opportunity costs of continuing in dairy production compared with doing something else. On the other hand, the support encourages peoples' feeling of security in the industry, while the increased capital value of assets increases the leverage of existing producers in their expansion ambitions.

Dairy farmers will generally remain in their chosen occupation until and unless the returns offered by their next best alternative become more attractive. Increasing dairy

revenues through subsidy will encourage these farmers to expand their business and encourage others into the industry (either directly as farmers, or more typically, as lenders and suppliers). This increasing demand for dairy assets will increase their price, increasing the costs of dairy production, and thus eliminating the incentive to expand or enter. Improvements in farm incomes due to support are temporary, as both history and economic logic demonstrate. Competition in the industry soon results in the revenue increase being capitalised in the value of dairy farm assets (including quota rights), or being spent on increased costs of production. In either case, market competition ensures that total production costs will increase to match the supported increase in revenue. In effect, the benefits of support are frozen in a higher cost dairy sector. Those who have had to purchase or rent their farm assets since the introduction of the present policy, as well as continuing new entrants to the business, are no better off with the policy than they would have been without it.

Furthermore, the continued uncertainty about the future of the present policy, encapsulated in the temporary basis of the quota itself, adds to the difficulties faced by producers. They cannot be sure of the value of their quota assets, or of the appropriate prices to pay for acquisition or lease of additional quota. Future business conditions depend critically on the total quota limitation and on the level of associated support prices. Since these policy settings are under continual pressure, both from within the EU and from trading partners, the policy itself generates considerable uncertainty about future conditions.

In short, both producers and processors seeking to expand or improve their business become increasingly frustrated in their ambitions the longer the present policy persists. At the same time, those who benefit most from the existing policy (the original owners of quota) are becoming smaller in number as the policy persists. One important implication is that producers do not realistically expect present policy gains to persist indefinitely. The relationship between annual quota rents and their capital values (buying prices) in the UK typically suggests an expected persistence of the policy of about 5 years.

The implication of this logic is clear and important. The net present value of the mid point estimate of the producer gain in Table 9.1 above is $\pounds 66.4$ bn, calculated at a 5% real discount rate over 10 years (reflecting the commercial risk associated with the anticipated continuation of then present policy). It is a sum of this order that would be required to fully and completely compensate the owners of dairy farm assets for the elimination of the present policy.

To put this very considerable sum into perspective, it could be financed over 7 years by the current annual spending of both consumers and taxpayers on the policy ($\pounds 10.8$ bn), amortised as an annuity at a 2% real interest rate, reflecting the substantially lower risk associated with public finance compared with commercial rates. Thereafter, from year 8 onwards, the EU would be better off by this $\pounds 10.8$ bn per year, as well as gaining the general equilibrium and dynamic gains of an estimated $\pounds 4$ bn per year.

The transition from the present situation to one of free trade needs to be carefully considered (below) to ensure that the adjustment is as frictionless as possible. However, the history of this sector already shows it to be capable of very substantial ongoing adjustment, despite the fact that the policy of restriction of supplies and support for intervention products has distorted the ways in which these adjustments

have been exploited. The analysis of Chapters 5 and 6 above strongly suggests that the EU dairy farm sector already has the capability to be competitive at free trade world prices. As stated in Chapter 6 above (p 97), “there is significant capacity for cost reduction caused by structural change unleashed by liberalisation in each of the six countries studied. These results suggest that the dairy farm sector will not be devastated by the level of price reductions projected by INRADM.” Especially given some system for at least partially compensating the losers, there can be little doubt that such a transition is possible and can be made to be relatively painless compared with adjustments which will happen regardless of the policy.

9.3.2 CEC accession

EU expansion to include the Central European Countries (CECs)³ would potentially alter these conclusions. In this study, accession is assumed to occur in 2005 for all ten countries (Chapter 4). These countries differ very significantly in the extent to which their prices and markets are already closely harmonised with the EU. In total, CEC production is about 25% of the EU, and the ten are net exporters (with the exception of cheese, which, as a group, they import). The potential effects of accession depend on whether harmonisation of policies between them and the EU would substantially alter this baseline trade position.

Six different policy scenarios involving different arrangements for harmonising price support, paying compensation and applying quota in these countries have been examined here, as reported in Chapter 4. Although there are very substantial differences between the CEC countries, all of these scenarios imply an average reduction in CEC milk prices. However, the trade position of the CECs is relatively unchanged by these different policy scenarios. As in the EU, the responsiveness of supply and, especially, demand to price changes means that policy change has most effect on prices rather than quantities traded.

In other words, the common fear that CEC dairy production could swamp the EU market is unsupported by these estimates, according to the ESIM representation of the potential of CEC supply and demand. If CEC production is more responsive to emerging market conditions than is supposed here, the implication is that there will be very substantial pressures on the EU to increase and redistribute quota following accession. Even then, the EU results strongly suggest that present EU dairy production would be competitive.

As a result, accession considerations do not add any significant caveats to the EU assessment of policy reform. Even at the budgetary level, none of the various scenarios result in a major change in the EU tax cost of the policy, with a single and obvious exception. If compensation payments for policy change are applied in the CECs as in the EU, then the cost would be an extra $\text{€}1\text{bn.}$, with 50% of this spending accruing to Poland. On the other hand, if the EU decides to reform dairy policy to eliminate quota, this would avoid potentially difficult negotiations with the CECs about both the initial setting and application of quota in these countries, and also over redistribution of quota between countries as their industries seek to adjust to the common market. This would be an added advantage of EU reform.

³ Ten of these countries are considered in this study, using the multi-commodity ESIM model. They are Poland, Hungary, Czech and Slovak Republics, Estonia, Slovenia, Bulgaria, Romania

However, if the EU decides to pursue reform with the option of decoupled compensation payments (see below), then the question is raised as to whether or not the acceding countries should be eligible for such compensation. The results reported here show that CEC prices generally fall as a consequence of accession, so some compensation might well be justified, contrary to the conventional (European Commission) argument that these countries will not experience any adverse policy change for which they should or need be compensated. However, if so, the results shown here point strongly towards decoupled rather than coupled payments.

9.3.3 Cross Commodity Effects

The effects of dairy reform on other parts of the farm sector, particularly on beef and cereals, might offset gains to be made within dairy. For instance, expansion of the dairy sector following quota elimination might increase beef supplies sufficiently to generate both increased tax costs of the beef regime and reduce producer surplus in the beef sector. On the other hand, increases in dairy production might generate increased demands for feed grains and alter the economics of the cereals sector.

There may be some substitution between dairy and beef production by farmers leaving dairying but remaining in farming. Farmers giving up dairying frequently change to beef production, at least in the first instance. However, the present support arrangements for the beef sector largely depend on headage payments, which are pre-defined at existing numbers of eligible livestock and grazing land, while the total available land area for production of either beef or dairy cattle is essentially fixed in physical terms. Hence, individual farmer changes from dairy to beef are likely to be offset by changes in land and cattle allocation in the other direction, as existing dairy herds are increased in size.

In any event, the changes in the overall size of the dairy sector are projected here to be very modest as a consequence of reform. The projections do not involve any substantial shift of land or livestock out of the dairy sector, at least overall, though there may be significant shifts between regions. The offsetting consequences in other parts of the farm sector will therefore be correspondingly small, though they may be substantial in particular localities.

9.3.4 Other Objectives of support

Nevertheless, it may well be objected that dairy support meets other socially important objectives which have been ignored here. What of the small dairy farmers, of rural employment, of protection of the rural environment, especially in disadvantaged areas?

Any or all of these considerations might well be considered sufficiently important to warrant public intervention and support. However, none of them point to the need or expense of a generalised and universal support system for the whole of the commodity sector. Furthermore, it is impossible to tell to what extent any of these problems might be exacerbated by dairy policy reform before the event. Some of them may well be alleviated. For instance, a lower cost dairy industry might well result in more extensive use of grassland, at least in some areas of the country. A more liberalised market would be expected to generate opportunities for diversification and differentiation that would improve rural employment and activity.

Both these possibilities are supported by the analysis undertaken in this study. Chapter 6 reports an assessment of the employment consequences of reform. It points out that the *status quo*, as represented in the baseline, implies a loss of some 20% of rural employment associated with conventional dairy farming practice. Complete liberalisation (scenario 6) only adds some 3.3% to this exodus from dairy by 2010. As pointed out there, this reduction might well be offset as farmers seek to move their supply and marketing practices closer to the final market to capture part of the marketing chain's value added.

On the environment, the analysis reported in Chapter 7 notes that encouragement of diversification and extensification implicit in liberalisation “will deliver environmental benefits in England and Wales the form of further reductions in applied N, decrease in animal waste and increases in biodiversity and the number of floral species.” This chapter, though, also notes that the effects may be in the opposite direction in Scotland and Northern Ireland, where cow numbers are expected to increase following liberalisation.

However, as pointed out in Chapter 7, it would be more socially responsible to tackle these problems with specific and targeted policy instruments as and when they arise than to continue to indulge in the current universal, expensive and restrictive commodity based policy. The savings generated by eliminating the present policy would be surely more than enough to cover the costs of such targeted policies.

9.3.5. *International Trade Negotiations*

The results of this study clearly demonstrate that the substantial changes in producers' and consumers' welfare consequent on elimination of dairy policy depend heavily on the world market conditions. The more liberalised are the rest of the world's dairy policies; the less dramatic will be the consequences of policy reform in the EU. This points strongly to the advantages of pursuing domestic reform within the context of multilateral trade negotiations.

The continued existence of protective policies elsewhere in the world clearly results in world trading prices substantially below their free trade level. Although the level of imports available at these distressed prices will always be small, their effect on a liberal importer's market price can be substantial. There is some justification for an otherwise liberal economy to protect itself from other protective policies. It is this fact, of course, which generates the pressures and interests in MTNs as a means of international collective action to restrict and prevent protective policies. The clear international pressures are as strongly in favour of decoupled support and compensation policies, as are domestic EU interests.

9.4 **Efficient Adjustment Conditions**

9.4.1 *Consequences of reform*

The fall in the incentive price facing producers would be expected to lead to some reduction in production intensity (lower dairy cow yields), as the feed and other variable costs are reduced to match the lower output price.⁴ However, the bulk of the

⁴ Although it is sometimes suggested that farmers will respond to lower prices by increasing

supply response to elimination of price support would appear through adjustment changes in herd sizes and numbers.

As projected in Chapters 5 and 6, elimination of market price support will significantly reduce the number dairy farm businesses. In the UK, as reported in Chapter 5, dairy farm numbers are expected to fall by 36% between 2001 and 2010 under the full liberalisation scenario, compared with a fall of 29% in the baseline. As also reported in Chapter 5, past rates of exodus have been at similar rates - 31% during the 90s and 27% during the 80s.

In other words, the rates of structural change projected as a consequence of policy reform are not substantially different from those that can be expected in any event. As always, with or without policy reform, those farmers with the greatest opportunities for earning a living (from their own labour, management and capital) will leave the dairy sector sooner than those with lower opportunity costs. Others will expand to exploit their perceived comparative advantage within the industry.

However, the opportunity costs of all farmers' capital assets would be reduced by uncompensated policy reform, so the rate of change might prove more rapid than otherwise immediately following reform. It would also tend to be somewhat more traumatic, since farmers would need to become accustomed to a reduced earning potential and asset base than they enjoy under the present policy.

There are two groups of farms and farmers that would be especially affected by policy reform.

- i. Heavily indebted farms. Uncompensated policy elimination would technically bankrupt a substantial number of dairy farms – especially those with presently large debt to equity ratios reflecting recent purchase on loan capital of dairy farm assets (including quota). There is no necessary presumption that these bankrupted farms would be either mostly small or mostly inefficient. Rather, given that they have managed to convince lenders of the potential viability of their farms, there is every reason to suppose these vulnerable farms to be reasonably efficient. It can make little economic sense to drive them out of business. In fact, it would not be expected that their creditors would necessarily seek to drive them out of business. It may well be the least cost option for these creditors to accept the loss on their loans and renegotiate the terms with the debtors to minimise the loss. This, certainly, is the experience revealed in New Zealand following the rapid and largely uncompensated policy reform (e.g. Chamberlin, 1996).
- ii. Presently commercially unviable farms. Farm business records regularly reveal that a significant proportion of existing businesses do not make an economic

cost less than the old level to produce. Otherwise, such a response is simply a recipe for bankruptcy. New levels of output can only be cheaper to produce if the expansion of output exploits some previously unexploited economies. If so, this raises the question of why producers were content to under-perform under the higher prices. If the answer to this question is that these producers were not yet at their optimum or most profitable level of production, and were still adjusting their business, then the increase in output is not a response to the price fall. Rather, in this case, these producers are adjusting their business as they would have done anyway, with the necessity to adjust to an optimum profit level now made more immediate and urgent by the fact of the price reduction, though, by the same token, their ability to adjust is now

return even with support. Yet these farms contrive to survive. Reduced returns, and substantially reduced future prospects would drive at least some of these farms out of business as well. But such farmers would be obliged to either give up or improve their efficiency sooner or later anyway, since continued losses are unsustainable. Policy reform would merely precipitate necessary adjustment for these farmers. However, their capacity to adjust might well be compromised by policy reform, depending on how the transition process is managed. Their forced early exit might prove to be especially traumatic, especially if their intended pension fund (the value of their assets) is substantially undermined by the reform.

9.4.2 *Efficient and Effective Adjustment Conditions*

Efficient and effective adjustment of the industry requires three essential elements.

- i. Freedom to enter and exit the industry, as well as to adjust the size of business to its optimum level and system of production, which requires the elimination of quota controls on production levels.
- ii. The appropriate incentives (prices) to signal the market competitive production levels. These appropriate prices are the free-trade prices, given that there are no significant market failures (such as production externalities) associated with dairy production that are not otherwise accounted for with targeted, specific and separate policies. This condition requires that all present market price support and protection instruments be removed, ideally throughout the world, as well as in Europe.
- iii. The capacity of the present and potential populations of dairy farmers to make the appropriate adjustments. This capacity is assumed always to exist in the comparative static theory (and the models which reflect this theory) through an upward sloping supply curve, capable of generating some supply even at low prices. However, in practice, this capacity to adjust is likely to be strongly influenced by the way in which the policy reform is designed and structured. In turn, this capacity can be further broken down into three essential components; *Capability, Confidence; Capital.*

9.4.2.1 *Capability to adjust.*

The existence of positive quota rents strongly suggests that at least some present dairy farmers have the capability to produce at substantially lower prices than the present supported prices, otherwise they would not be able to afford to pay rents for the quota. However, it is possible that observed market prices (rents or capital values) of quota are distorted. This is clearly the case where, as in Germany and the Netherlands, the cost of purchasing quota is fully deductible against income tax. It is also likely to be the case especially when future prospects for the dairy sector are considered to be buoyant.

As with all markets, the quota market represents a negotiation between buyers and sellers. In conditions of fixed total supply (markets for a stock rather than a flow), the negotiation is between current owners and those who would like to expand their current holdings (which may be zero at present). Such markets are always in disequilibrium, as current owners continually encounter changes in their circumstances, leading to the decision to sell. Typically, only 2% or so of the total

stock changes hands in any one year. By definition, the buyers will always have a higher valuation of the stock (the quota) than the sellers, and the successful purchaser will have the highest valuation of the stock. In buoyant markets, with strong demand for additional quota, there is a possibility that the successful purchaser will have an unrealistically high valuation of the stock (at least as evidenced by subsequent events). In this case, observed market rents can over-estimate the real difference between underlying total costs of production and the market price for milk, as buyers seek to secure the necessary quota to legitimise their expansion plans.

For instance, the Manchester Dairy Model, which determines equilibrium quota rents, generally predicts rather lower equilibrium quota rents than are observed in the UK quota market, especially during those periods when dairy farming is generally considered profitable. Thus, the capability of the existing producers to make the necessary adjustments might well be overestimated by observed market rents or prices for quota (as noted in Chapter 5).

9.4.2.2 Confidence to make adjustments.

The lack of confidence in an unsupported agriculture is, perhaps, the major constraint to policy reform. The history of support in Europe has bred a conviction that agriculture without support in Europe would be unviable. It is, however, difficult to reconcile this belief with the obvious facts of European dairy potential (as pointed out above). Coupled with the economic logic of the market, these facts practically guarantee that much of European dairy farming would and could survive and prosper in a free trade environment.

Persuading the majority of farmers of this has not yet been possible. However, as the current farming population becomes more separated from those who benefit from the support (the asset or quota owners), so more farmers are beginning to recognise that conventional support systems are not to their benefit. Their basic confidence in the future of their businesses depends critically on their evaluation of future market prospects for the industry, and on their abilities to adapt and adjust their businesses in the light of emerging opportunities. So long as there is continual pressure on support prices, and continual erosion of the value of their assets and quota, this confidence will be compromised, whatever future dairy policy is followed. Continued restraints on production, and the additional costs of expansion associated with quota, undermine confidence in the future. The potential benefit of the quota value itself (for owners) is compromised by the temporary nature of quota legislation and continual threat to the policy.

On the other hand, elimination of quota and price support will clearly lead to considerable market adjustment. Market prospects will become more uncertain as these adjustments take place. Confidence in future prospects will be more difficult to generate the longer, more variable and uncertain is the market adjustment process.

9.4.2.3 Capital to make adjustments.

Given sufficient capital, most farmers will be confident of their ability to survive and capable of making adjustments to their own business to improve their returns and the value of their business. It can be argued that an efficient capital market should provide for the necessary capital funds for the prosecution of viable business plans. However, capital markets are not strictly perfect. Not only are their substantial capital transactions costs, but also the market is plagued by asymmetric information and

consequent adverse selection, moral hazard and principal agent problems. Such problems already make it difficult for those convinced of their own abilities and comparative advantages in the industry to obtain the necessary capital at sustainable borrowing costs. Further erosion of asset values for existing farmers, as a result of any uncompensated radical policy reform, would substantially reduce their ability to adjust and respond to changing market and policy conditions.

9.5 Design of the Transition Policy: Phasing and Compensation

9.5.1 Introduction

It is clear that elimination of quota and associated price support mechanisms will generate considerable problems of adjustment for the dairy sector. The design and implementation of the transition policy used to effect this elimination is of critical importance. There are two key elements to the design of a transition policy: phasing and compensation.

9.5.2 Phasing: The Role of Time in the adjustment process

Substantial changes in farm business practice commonly occur at times of generational change or ownership change – in exactly those conditions when individual incentives and capacities to adjust are changed. At the farm level, structural change is quantum in nature – it either happens or it does not. But, when viewed from a distance (at the level of the sector or industry) such quantum changes appear continuous, and take time to accumulate. Given an underlying capacity to adjust, the stronger the incentives to adjust, and the greater the freedom to make adjustments, the faster adjustment appears to happen. But it is only if additional time also generates stronger incentives or greater capacities and energies to adjust that more time of itself will make a difference to the rate of adjustment. If stronger incentives or additional capacities do not result, then additional time, of itself, will be of no benefit.

9.5.3 The Logic of Phasing Policy Change.

Thus, the presumption that phased introduction of major policy change necessarily improves adjustment response, or reduces the costs and trauma associated with the change, is subject to serious question. It is helpful to distinguish between two very different types of phasing programme.

- i. Delayed – which announces but then delays the introduction of a substantial policy shift to a known and certain future date, at which point the full change is implemented.
- ii. Gradual – which introduces the policy change gradually over a period of time, in the case of quota elimination by gradually reducing the gap between support prices and free-trade world prices, thus eliminating the rent associated with quota ownership.

A delayed change may well be justified to allow accumulation of capacity to adjust, providing that the policy change is regarded as sufficiently irrevocable to dissuade people from using scarce effort and resources to try and revoke the reform policy itself. Since change of any sort tends to be resisted, opportunities to prevent or remove the causes and incentives for change will always be attractive. Activity to

undermine the policy change will also necessarily reduce confidence that the change will actually occur and reduce adjustment capacity as a result.

The “boiling frog syndrome” may apply: slowly heat the water and the frog will die, not realising that the gradual increase in temperature is a threat or incentive to change; on the other hand, drop a frog into boiling water, the sudden change will cause it to hop out and survive. Gradual reductions in support prices may not be an efficient reform strategy. The necessary incentives and freedom to adjust are only provided in full on completion of the policy change. Until this point, the signals for adjustment are necessarily muted and very possibly noisy, resulting in inappropriate and costly adjustment.

The capability to adjust depends on the development of efficient production systems, operated by those with a demonstrable comparative advantage in the business. Improvements in capabilities are occurring all the time, as businesses become better at what they do. However, this improvement is necessarily slowed if freedom to enter or exit the business is restricted. So long as quotas remain in place, this improvement in capability will be slower than otherwise. On these grounds too, gradual introduction is not necessarily helpful.

While the passage of time can allow for the accumulation of capital to power change, it can also lead to the dissipation of existing capital as necessary change is delayed or avoided. In particular, if gradual change consists in phased reduction of support prices prior to the elimination of quota, capital reserves will be depleted during the phased programme, rather than augmented. The apparent alternative of phased elimination of quota (by gradual expansion) prior to reduction in support levels will clearly encourage excessive and expensive expansion, rather than efficient adjustment to a no policy condition.

On the other hand, gradual change allows farmers to get used to the idea of less support and more freedom over production decisions, thus improving confidence. In addition, gradual change might also help producers adjust their expectations and asset valuations to more realistic levels. However, these adjustments again depend critically on the market signals generated during the phased introduction being consistent with the full adjustment path. Given the uncertainties of the future, it is practically impossible to ensure this consistency. The incentives to adjust also depend on the confidence producers have in the continuation of the phased programme to full elimination of quota. Failure on either count will offset the apparent advantages of a gradual change, and very possibly completely eliminate such advantages.

9.5.4. The Role of Compensation.

The extent and level of any compensation will clearly affect the capacity of the existing population of dairy farmers to adjust and adapt. Furthermore, the existence and form of compensation will affect the extent and direction of structural change and the consequent supply response. In this sense, there is no such thing as an ideally decoupled payment to producers.

The quantitative analysis of this report demonstrates that continued support of dairy farmers revenues (via fully coupled payments) is not economically justified (scenarios 1 – 4 generate a net social loss, Chapter 3). However, uncompensated policy change is not strictly justified by positive economics either. By the logic of revealed preference, existing policy has been judged socially preferable to the free market; otherwise it

would not have been implemented. For a policy change from this position to be judged socially justified according to welfare economic principles, it is not enough that the gainers should be able to compensate the losers. Unless the compensation is actually paid, the welfare effects of the policy change cannot be assessed independently of an interpersonal comparison that judges the gainers more deserving than the losers. Economics is no more suited to making this judgment than common sense and humanity.

Furthermore, given reasonably competitive quota transfer arrangements, there is no reason to suppose that the present population of dairy farmers is not largely made up of those who consider they have a comparative advantage in dairy production. Given an inelastic supply of these people, an uncompensated change will result in a considerable transition period (and associated economic costs) during which these displaced dairy farmers seek the means and opportunities through which to resume their preferred occupation. It can make little economic sense to make it more difficult than necessary for them to do so.

In any event, practical politics strongly suggests that some form of compensation will be necessary in order to obtain the necessary agreement to the change. Otherwise, it is difficult to explain why the change has not already happened. In its simplest terms, elimination of quota and price support will reduce the values of assets associated with dairy production, and will, as a consequence, undermine the pension and redundancy funds of the family businesses involved. The political noise raised by this threat will drown the cheers of the gainers. Policy change is very unlikely to be politically practical without some form of compensation.

9.5.5 The Concept of fully decoupled compensation

A major conclusion from the analysis in Chapter 3 is that, if there is to be compensation for reductions in price support, both dairy farmers and society at large will benefit if the compensation is fully decoupled. Fully decoupled, in the limit, means that the compensation should not affect the final balance achieved between supply and demand – the market outcome achieved with decoupled compensation should be indistinguishable from that with of an uncompensated change. However, this strict condition is an ideal that cannot be met in practice. Any form of compensation will affect the capacity of present producers to adjust, and thus will affect the market outcome in some way. Any form of compensation, in other words, is strictly coupled to some degree.

The most nearly fully decoupled form of compensation possible is a once-and-for-all lump sum payment (Beard and Swinbank, 2001, Tangermann and Swinbank, 2000) which 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 unregulated and unprotected market. Adjustment problems would be now

substantially eased by such compensation, most likely to a greater extent than any alternative form of compensation (see below).⁵

The basis for the determination of lump sum eligibility is most obviously the present quota entitlement. There is no logical reason for considering any other base (such as grassland areas or livestock numbers) if the intention is to provide a production-neutral compensation payment. Indeed, tying such payments to existing livestock numbers or grassland areas runs the risk that producers will adjust these factors in order to qualify for additional payment, thereby compromising the production neutrality of the payments. This risk could be minimised by fixing payment rates on the basis of some historic (and thus fixed) level of grassland area or livestock numbers, but the added complexity and cost of policing and implementing such a base achieves no additional benefits over and above a quota base, and is therefore difficult to justify. The issue of cross-compliance, however, may qualify this conclusion and is dealt with below.

9.5.6 Fiscal Consequences of fully decoupled payments.

The total liability to compensation has already been estimated above (section 9.3.1) as ≈ 66.4 bn. This EU total can be diminished by the EU deciding to only honour a fraction of it, on the grounds that:

- Individual member states are responsible for at least some of the liability, since they were each party to the original decisions, and remain ultimately responsible for the funding of the policy;
- Larger farms are rich enough and undeserving enough to be asked to look after themselves;
- There are insufficient funds at the EU level to meet the full liability, so member states will have to contribute to the cost anyway.
- New policies designed to pay farmers directly for their contributions to maintaining and improving rural environments could replace at least some of the present support payments and limit the losses to producers.

The total EU liability for compensation could be limited as follows.

- Establishing central EU criteria for compensation, as an upper bound of quota ownership to be recompensed, or an upper bound to the fraction of quota value to be recompensed. This option raises considerable difficulties, which include getting agreement on these central and uniform bounds, and the suitability of common rules for widely differing economic and political circumstances across member states.

⁵ Notice, too, that the condition that payments should be freely tradeable and convertible to be considered fully decoupled also answers the question about the appropriate recipient of such payments. So long as the right to the payment is freely tradeable and convertible, it does not matter. Arguments between owners and leasers will be settled through the normal workings of the contractual market place and need not concern the administrators. (The issue of coupled or conditional payments is dealt with below). However, from a practical point of view, lump sum compensation may be easier to justify if paid to owners rather than users (providing the quota rental market is reasonably competitive). This might also allow for discrimination between owners in different circumstances as to the extent of compensation paid, so that those judged less deserving might be compensated to a more limited extent.

- A second option involves establishing an overall limit to EU budget responsibility for compensation, which is then allocated to each member state on the basis of existing quota distribution between countries. Member states would then establish their own rules and procedures for fully decoupled lump sum compensation. This would allow individual member states to decide for themselves the extent to which they wish to honour the total (national) liability, including the possibility that some would choose to ‘top-load’ the EU allowance to enable payments to be raised above the common level. It would also allow member states to decide for themselves the ways in which they choose to limit their liabilities – by only paying a fraction of each and every entitlement, or by paying some (smaller and less advantaged) in full, while limiting compensation to the rich, large and advantaged quota owners, whoever these might be decided to be. Since the lump-sum payment is production neutral, these national variations would not compromise the single European market. While such national variations might well raise questions about equitable treatment of individuals in the EU, these would not be different from existing questions about unequal rates of social security, unemployment benefits, or even property prices, wage and tax rates.

9.5.7 Problems with Lump Sum Compensation

Despite this logic, however, a lump sum is typically regarded politically as being inferior to continued payments, if not impossibly impractical. The reasons for this antipathy are not well elucidated, but seem likely to involve one or more of the following.

- Lump sum payments are too expensive to the public purse. This objection is difficult to understand, given that continued payments can always be converted via the capital market into a lump sum. However, the objection might be the result of:
 - Implicit recognition that continued payments are subject to erosion through time, with politicians preferring to keep this fact disguised from the affected constituency – the farmers;
 - Procedures of public and national budget accounting, which do not properly distinguish between current and capital accounts and expenditures.
- Lump sum payments involve complete loss of political control – once a lump sum is paid, there is no further political leverage or control over its effects or consequences. Lump sum payments completely deny the possibility of attaching compliance conditions to the receipt of continuing compensation payments (see below).

In contrast, the analysis here (see section 9.3.1 above) does not suggest that the cost is a necessarily impossible obstacle. It could be met at within the consumer and taxpayer costs of the present policy over a period of 7 years.

9.5.8 Practical Alternatives to a Lump Sum Compensation Scheme

a. A Fixed Term, Fixed Annual Payment (Annuity) Scheme

Given such political resistance to lump sum payments, an alternative option is a compensation scheme that provides a definite and finite (fixed, time-limited, and

possibly decreasing) stream of future payments to current owners of quota (at an annual rate per litre of base quota entitlement). This is the dairy sector equivalent of Professor Tangermann's CAP Bond.

Each recipient would then be able to convert this stream of payments, if they so wished, into a lump sum via existing capital markets. Notice that this feature of the payment stream would be a necessary condition for the payment to be regarded as fully decoupled. Attempts to restrict producers' ability to convert the annual stream into a lump sum – thus also allowing them to sell their entitlements to anyone else – would contradict the necessary conditions for the payments to be regarded as strictly production neutral. [The issue of compliance measures to encourage or force producers to behave in certain ways in return for compensation payments automatically couples such payments, and will be returned to below.]

This option would allow for the more gradual introduction (phasing) of the reform, with market support being progressively phased out, over a fixed and certain period, while annual annuity payments are progressively phased in, despite the arguments above that the justification for such a phased introduction are questionable (as noted above).

b. An Annuity Option Scheme

A further alternative would be to provide an option to producers of a single lump sum payment from FEOGA in lieu of the stream. Such an option could be negotiated via a bid and offer system, whereby quota owners bid a lump-sum equivalent to the Intervention board (or other administering authority) and the authority taking a view on whether or not to accept this bid. This option, in effect, allows the producer to take advantage of the better capital market terms available to the government than is possible for the private investor. Given individual variations in perceptions of the compensation deserved or needed, it also offers the possibility of reducing the overall commitment to compensation, since those willing to accept lower rates than the estimated 100% could be satisfied first. It also returns some power and control to the authorities over who, why and where the offer of a lump sum rather than a fixed and finite stream of compensation payments should be sanctioned as socially desirable. However, such restrictions on either payments or conversion possibilities automatically changes the payments from being fully decoupled to being at least partially coupled.

c. Australian Scheme

The Australians have recently reformed their own dairy quota scheme to eliminate all quota limitations and dairy support instruments. They have levied a temporary or transitional consumer tax on all dairy product consumption (equivalent to the present gap between domestic and world prices, and approximately equivalent to the annual consumers loss associated with the current policy). This tax then finances a finite stream of fixed direct payments to producers, on the basis of their quota ownership, over the life of the transition policy (8 years in the Australian case). All previous support and quota instruments are eliminated at the beginning of the transition period. During this transition, neither consumers nor producers are substantially affected compared with the previous quota/support policy. The overall balance of public finances is also maintained (so that there is no question of any additional resource cost associated with additional public funding). In fact, elimination of previous

The differences between this Australian option and the present market support system are worth highlighting:

- The temporary consumer tax/producer subsidy system allows for an efficient transition from the market support system to one of no support;
- The explicit consumer tax element of the policy provides ongoing pressure for completion of reform, counteracting tendencies of the political system to seek extensions of the annual payment stream;
- Given the ubiquity of the VAT system, transactions costs are likely to be significantly lower compared with the existing support price procedures and quota implementation and policing systems.

9.5.9. *Coupled Compensation*

Fully coupled compensation has been revealed as being socially unjustified by the both the quantitative and qualitative analysis in this study. The present quota policy is demonstrably superior in political-economic terms to one of unlimited fully coupled support without quotas, which is one of the major reasons why quota control was introduced in the first place.

Nevertheless, it is frequently suggested that a form of continued and indefinite revenue support is a necessary part of any farm policy reform. Again, the rationale for this is not always well elucidated but appears likely to include the following perceptions.

- i That a large part of the dairy sector, or even European agriculture generally, is incapable of surviving international competition without internal support. This argument is often associated with a demand for the maintenance of the existing level of dairy (or, more generally, grassland) output. It is frequently accompanied by assertions that such maintenance is necessary to limit the fall in rural employment and preserve the rural economy and/or way of life, at least in some regions. This belief, however, is largely unfounded according to the logic and results of this study, which indicate that the European dairy sector would remain at approximately its present size without support, once fully adjusted. Nevertheless, some regions may be adversely affected, at least until local economies adjust to the new reality of unsupported dairying. In these particular cases, some targeted and specific ameliorative policies may be justified.
- ii A more political argument is that present political alliances and support cannot be preserved without some form of continued government support to the industry. While this may well be true, it again betrays an unwarranted lack of confidence amongst both the constituents (farmers) and their representatives that the industry is capable of survival and prosperity without continued support.
- iii Desirable environmental or rural development outputs are inextricably linked to continuation of dairy farming, at least in some regions. This, however, seems ironic, in the light of both (i) the introduction of the 'second pillar' into reform of the CAP and (ii) the present insistence of the EU that the CECs develop their own integrated rural development programmes, rather than seek to rely on being granted direct payment eligibility. Both these strands of

present policy development imply recognition that environmental and rural development objectives cannot be properly met through direct payments tied to or based on commodity production.

Arguments in favour of continued support often conflate these arguments, and suggest that some form of 'compliance' is sufficient to justify continued indefinite payments. That is, producers in receipt of continued payments should be obliged to do something socially positive in return. In one sense, this assertion has very substantial merit. According to the arguments above, one socially positive thing they could do in return for a limited and finite payment stream (or lump sum) would be to agree that dairy price and market support is no longer either necessary or justified.

However, compliance arguments typically jump to the conclusion that social obligations can best be enforced if the payments are directly linked to some aspect of current production structure or practice. Typically, the suggestions made refer to some form of continued area or headage payment. Examples include continued coupled payments based on:

- ♦ Head of livestock
- ♦ Dairy grass and forage area
- ♦ Grazing livestock grass and forage area (as part of a wider scheme applying to all grazing livestock)
- ♦ Either of above applied as national schemes or with regional differentiation (LFA/mountain area/other remote or fragile area ring fencing)
- ♦ The above applied at regionally differentiated stocking rate restrictions (thus including an implicit headage rate) reflecting regional variations in the environmental and ecological benefits of grassland

In other words, these payments need to be explicitly coupled to some aspect of present production in order to achieve their intended effects on either the environment or on rural development.

Once the concept of a coupled payment is adopted, however, the real difficulties begin. What particular conditions are to be attached to these payments? The answers must depend on what particular objectives are being aimed at with these payments – preservation and enhancement of particular environmental or ecological features; maintenance of employment levels; preservation of existing farm sizes and production practices? The Agenda 2000 Dairy Premium is a case in point. This is based on quota available on holdings at the start of each year but scaled back to the 1999 total national quota level. As a consequence, dairy farmers are encouraged to maintain their historic level of quota in order to continue to receive the premium. The incentive price facing dairy farmers for the production of milk is the market price (including any support element) plus the dairy cow premium paid per quota litre of milk, there being no point in holding quota unless one is producing milk. Hence the treatment of these payments in INRADM as being fully coupled. But, as noted by the Court of Auditors, there are no social objectives associated with these payments, so they cannot be economically justified.

Furthermore, allowing free trade in quota removes the potential benefit of compliance – that producers only receive support so long as they continue to do as before – since quota transfer allows producers to change their locations and practices of production. On the other hand, administration of quota transfer (as in France) rather than allowing a free market in quota rights does allow the authorities to enforce some compliance

with production conditions (both in type and location) as a condition of the allocation of quota rights. In this case, though, the value of generalised sector support (as at present) will simply be reflected in the values of dairy cows, land and other fixed assets. These values, in turn, will also reflect the relative profitability of different production practices in different regions. Cows and other fixed assets will tend to move to those areas and production systems offering the greatest return. Simply trying to alter this natural relocation and reallocation of dairy farm assets according to market returns by pre-determining the allocation of quota rights will not be effective unless the specific returns to production in specific regions, or by particular production methods is additionally rewarded. Otherwise, the normal workings of the dairy asset markets will result in an outflow of these assets from those areas and production systems that are relatively unprofitable.

It is a well-known principle of policy design (due originally to Tinbergen, 1959) that a number of different objectives require at least as many different instruments for their achievement. In other words, a single instrument (the direct payment, on a particular base and condition) cannot hope to achieve a number of different objectives simultaneously. It is difficult to see what particular objective might be best met by a specific payment tied to, for instance, grassland areas (with or without stocking rate restrictions). No doubt such a payment would encourage the maintenance of some form of grassland area – that being the basis of the continued payment - but, to what effect? Without being particularly specific about the production practices to be followed on and with this grass, the environmental or ecological outcomes would be extremely variable depending on the conditions and circumstances of the particular area and farmer. The more specific are the compliance conditions, the more onerous and costly becomes the administration and policing. Given the highly interactive and dynamic systems generating environmental outcomes, the higher the likelihood of unintended (and potentially malign) consequences. Direct payment coupled with dairy farming can only be justified if there are direct and identifiable external benefits (i.e. benefits neither paid for nor contracted for in the product markets) uniquely but generally associated with dairy farming itself, wherever and however it is practiced. The authors know of no such uniquely identifiable and general external benefits applying to the sector as a whole.

The only sensible conclusion to draw from such considerations is that instruments intended to achieve particular outcomes are best designed to pay for those specific outcomes directly, rather than attempting to encourage them indirectly. For instance, if traditional hay meadows are the desired outcome, then a policy instrument which pays for traditional hay meadows will be a better (more efficient and more effective) instrument than a generic payment for areas of grass or numbers of cattle.

Those seeking linkage of future compensation payments to one or more of the above alternative bases need to specify the particular social objectives they are seeking to achieve with such payments. They need to explain why such payments are the best way of making progress towards their particular objectives. In particular, they need to demonstrate the administrative practicality, feasibility and cost of such schemes in relation to the value of their likely outcomes. Unless all these factors are explained, arguments in favour of continued support with compliance conditions are impossible to assess or justify.

9.5.10 Concluding Remarks on Transition Policy design

This analysis, although strictly qualitative, has been conducted within a conventional economic framework. Those who remain unconvinced of the legitimacy of this explanation and understanding of the ways in which markets work will also be unconvinced by this analysis. However, the authors know of no alternative framework for analysis or coherent discussion of the effects and consequences of policy reform. Nevertheless, many would like to reform or adjust the policy so as to leave as little of the real world affected as possible, apart from the particular part of the world with which they are concerned. For many agricultural politicians, this ambition frequently consists of the following argument (presented here in caricature).

Surely it is possible to redirect public spending on dairy policy (and agricultural policy generally) so as to leave farmers no worse off than before yet better meet the changed demands of the general electorate for better environments and sustainable rural economies. It stands to reason that converting existing payments to farmers to ones that are conditional on present farming practices (where obviously beneficial to the rural environment and rural activity) would meet these ambitions.

Sadly, the real world is a different and more complex place. The principal errors in the caricature argument are as follows.

- 1 There is no logic or guarantee that the present public spending total is equivalent to the amount the electorate are willing to pay for environmental or rural development benefits which do not otherwise materialise through the normal workings of the market place. The present spending is a legacy of an historic (and failed) attempt to support farm incomes, not of one to improve the environment. In any event, the direct public spending on this account is only a fraction of the total support – the bulk of support is supplied by consumers paying more for farm products than they otherwise would, not to mention the rest of the world suffering lower international prices than otherwise.
- 2 Those who are best able to supply environmental or rural development goods and services are not the same people who currently benefit from agricultural support. The production of CARE (conservation, amenity, rural and environmental) goods and services is different from, though variously and differently connected to the production of agricultural commodities. Different people and businesses would need to be encouraged to different things to provide CARE products rather than commodities, so the distribution of public support will need to be different – there would necessarily be some (potentially large) losers as well as gainers. It is simply mendacious to pretend otherwise.
- 3 It is far from clear what particular CARE goods are required – they are problematic precisely because the invisible hand of the market does not supply them. Many of these CARE goods are public goods – once provided for one, they are provided for all, regardless of whether any one individual actually pays for them or not. There is, therefore, a strong tendency for people to free-ride on others' contributions to their provision, with the result that not enough is paid and not enough provided for the public good. But, calling them “public” does not mean that government is necessarily better placed to decide what and how much

of each to provide than the market. The fundamental problem remains – how much are people actually willing to pay for which CARE goods? Political democracy is no better at answering this question than the market place. The latter is subject to free-riders; the former to special interest exploitation and consequent abuse.

9.6 Summary & Evaluation of Reform Options.

9.6.1 Preliminary Remarks.

It is now possible to draw the principal threads of the discussion together in a summary of the possible reform options. These options can then be evaluated in terms of their likely contribution to the development of an efficient and competitive industry. It is worth emphasising that such an industry would, by definition, be capable of providing sustainable incomes to those involved. Given specific and targeted policies to pay for the provision of CARE goods and services, it would also be producing both private and public goods (CARE goods) in the amounts and at the prices the general public are willing to pay. The conditions for such a competitive and efficient industry are: freedom; incentive; capacity (capability, confidence and capital). It is against these concepts that the various policy options can be judged.

9.6.2 The Logical Reform Options.

The basic components of possible policy reform can be identified as follows:

- Quota elimination
- Price support elimination
- As a sudden change or phased in gradually,
- Begun now, or delayed, with prior notice,
- With coupled or decoupled compensation, which could be lump sum or fixed payments for a finite period.

Some of the possible combinations and permutations of these central elements have already been discounted as inferior options compared with the *status quo*. In particular, the previous analysis has demonstrated the inferiority of the options of:

- Eliminating quota without eliminating price support measures. Eliminating price support makes quota as a production control redundant, and is a necessary precursor to removing quota;
- Coupled support (on the condition that any evident and identifiable market failures and externalities are corrected directly through other and substantially unrelated means). Nevertheless, this option is retained in the following assessment, on the grounds that it is one of the most popular and frequently suggested reform options.

The gradual introduction of lump sum payments is clearly nonsensical. Likewise, the notion that any policy change could and would be introduced without prior notice can be fully discounted, if it is accepted that quotas have a current life to 2008. If it can be imagined that the mid-term review might bring the termination life of quotas forward then the list of viable policy options is as follows:

- Introduced immanently or with a delay:
- Introduced abruptly at a fixed future date or gradually phased in by that date.

- Introduced with or without (fully decoupled) compensation,
- Which may be a lump sum or fixed payments over a finite period.

9.6.3 *Policy Option Evaluation – a qualitative judgement.*

These essential options can now be evaluated against the conditions for a competitive industry. One such qualitative judgement, based on the analysis of the previous section, is illustrated in Table 9.2, where crosses are negatives and ticks positives.

The basic logic on which these judgements are made can be briefly summarised as follows. The ‘no compensation’ options are expected to generate the strongest incentives for change, other things being equal, but to disadvantage the capacities to change relative to the compensated options. The more immanent and abrupt the change, the greater the freedom to change is expected to be, since delay and phased introduction implies some residual quota control in the meantime. Delay and/or phased introduction will tend to mute the signals and incentives for change, though delay may improve the capability and confidence aspects of capacity to change and adjust. Finally, the indefinite coupled compensation option necessarily restricts freedom to adjust, and blurs the incentives. Furthermore, it mutes the capabilities of the efficient dairy producer because it creates an uneven playing field, and reduces confidence in both abilities to compete without support and in the future status of the market (since the supplies from producers compliant with the continued coupled support is inherently uncertain). Without the detail of the specific coupling and compliance conditions attached to this option, it is impossible to be sure of the effects on the capital asset values in the industry. However, the very fact that such values are conditional in continued compliance means that capital leverage and capacity to use asset values to facilitate change and adjustment is necessarily compromised.

Table 9.2: Qualitative Evaluation of Policy Options

| Policy Option | Freedom | Incentive | Capability | Confidence | Capital |
|-------------------------------|----------------|------------------|-------------------|-------------------|----------------|
| Immanent & Abrupt: | | | | | |
| + No Compensation | | | XXXXX | XXXXX | XXXXX |
| + Lump Sum Comp. | | | | | |
| + Finite Stream C. | | | | | |
| Delayed & Abrupt: | | | | | |
| + No Compensation | | | XXXX | XXXX | XXXX |
| + Lump Sum Comp. | | | | | |
| + Finite Stream C. | | | | | |
| Gradual (Phased): | | | | | |
| Immanent + No C. | | | XXX | XXX | XXX |
| Immanent + Finite C. | | | | | |
| Delayed + No Comp. | | | XX | XX | XX |
| Delayed + Finite C. | | | | | |
| Indefinite coupled support. | XX | XXX | XXX | XXX | XX |

There is, no doubt, considerable room for further analysis and debate of these specific judgements of the policy options, especially about the particular weights accorded the

various elements in Table 9.2. However, the basic analytical framework within which the effects can be identified – the behaviour of the competitive market place – is not in substantial doubt. The basic workings of this market system are well, if not yet very widely, understood. A wider understanding of market mechanisms is very probably the single most limiting factor on sensible and sensitive policy change.

9.7 Conclusions

The purpose of the present exercise is to evaluate all possible (not necessarily likely) policy options for their potential contribution to a competitive and efficient industry (as defined above). The justification for this approach is simple. Unless the unlikely options are identified, addressed and discussed, they can never hope to become likely.

Inconsistent and unsustainable policies result either from disagreements about their intentions and resulting conflicts between objectives, or, even more importantly, because of misunderstandings of the nature of the market systems and interactions these policies seek to modify. The current EU dairy policy is an archetypical example. It has demonstrably failed to either maintain dairy farm incomes above what they would otherwise have been, or to prevent the rationalisation and restructuring of the industry, or to provide identifiable and unambiguous environmental or social benefits. Both the history and the underlying logic of the interactions demonstrate this conclusion. But the present policy has generated persistent habits of both thought and actions – that the policy is necessary and that the industry cannot survive without it. These present habits will self-perpetuate until or unless they are challenged and demonstrated to be misconceived or inconsistent with present realities. This study has provided the challenge and demonstration.

The essential and fundamental prerequisite for acceptance and eventual adoption of reform is the conception of the reform – its underlying logic and rationale, and hence its necessary character. The well-known adage that “the devil is in the detail” conceals far more than it reveals. The devil is only in the detail when those responsible for developing and negotiating the detail disagree about, or remain unconvinced or misinformed of the conception. The devil (or god) is in the conception – life is in the detail. This report is fundamentally about the conception. So long as the conception of reform is consistent, coherent, well understood and, above all, accepted, it cannot be beyond the wit of sensible people to design and implement the necessary detail. To believe otherwise is to condemn all policy and social management to perpetual failure. It is surely possible to do better.

Summary of Main Findings.

1. Under the present policy, consumers and taxpayers are spending $\text{€}10.8\text{bn}$ a year to provide a benefit to dairy producers of $\text{€}8.6\text{bn}$ a year; a net annual cost to the EU economy of $\text{€}2.2\text{bn}$ (section 9.2).
2. In so doing, the policy is costing the rest of the economy a further $\text{€}4\text{bn}$. a year in foregone second round and dynamic effects (section 9.2).
3. This policy is also costing the rest of the world a minimum of $\text{€}8\text{bn}$. a year, leading to continued international pressure on the current policy (section 9.2).
4. There is no reasonable ground for doubting that the EU dairy sector is capable of surviving and prospering without continued policy support (section 9.3.1).
5. The benefits of dairy sector market support have been capitalised into dairy farm assets, leaving incomes from farming virtually unaffected by the support policy (section 9.3.1).
6. The total capital loss suffered by owners of dairy farm assets from elimination of the current policy could be financed by 7 years of the current annual spending of consumers and taxpayers on the present policy (section 9.3.1).
7. The effects of dairy policy elimination on other commodities, or on the environment, or on rural employment could all be considerable offsets to these potential gains. However, these effects would be insubstantial at the EU level. Furthermore, specific regional or local effects could be more effectively and efficiently ameliorated by targeted and specific policies rather than generalised dairy sector support. It would be easy to finance such specific policies with the long-term savings to be made from the present policy (sections 9.3.3 and 9.3.4).
8. Rates of structural change consequent on policy elimination are not projected to be substantially different from those that would occur in any event. However, uncompensated policy reform would reduce the opportunity costs of adjustment at the farm level. The rate of adjustment may well be faster under such reform, and possibly more traumatic for those leaving the industry (section 9.4.1).
9. Two types of farm would be especially affected by uncompensated reform: the heavily indebted and the currently commercially unviable (section 9.4.1)
10. Efficient and effective adjustment of the dairy farm sector requires three essential components: a) freedom to adjust (absence of quota); b) appropriate incentive prices (free trade prices); c) capacity to adjust (section 9.4.2).
11. Capacity to adjust depends on: a) capability; b) confidence; c) capital (section 9.4.2).
12. The key elements of any transition policy covering adjustment to eventual policy elimination are: phasing; compensation (section 9.5).
13. Phased policy adjustment does not necessarily improve any of the three essential elements of the capacity to adjust, and may well undermine such capacities (section 9.4.2).
14. Phasing policy change is not necessarily or logically superior to a radical once-and-for-all change, given appropriate decoupled compensation (sections 9.5.2 and 9.5.3).

15. Appropriate finite compensation is economically justifiable and politically necessary (section 9.5.4)
16. Complete and ideal decoupling is impossible. The nearest practical equivalent is a once-and-for-all lump sum payment, based on fixed quota ownership, c.f. points 4 and 5 above, which is freely transferable between people and businesses (section 9.5.4).
17. Such lump-sum compensation would meet many of the requirements for efficient and effective adjustment (section 9.5.5).
18. The full fiscal responsibility for this compensation could be shared between the EU and member states, and could be achieved in a number of different ways (section 9.5.6 – 9.5.8).
19. Popular political acceptance of the advantages of coupled support (or compliance) has little logic or evidence in its support (section 9.5.9)
20. The overall conclusion is that radical policy reform, including fully decoupled lump-sum compensation or its equivalent, is possible, practical and socially responsible, generating a net gain of at least $\text{€}5.2\text{bn}$ per year, growing to a gain of $\text{€}12.4\text{bn}$ a year after a transition period of 7 years).
21. It is frequently asserted that the ‘devil is in the detail’. A principal message of this study is that the devil is in the conception of the policy; life is in its detail. It cannot be beyond the wit of present policy makers and bureaucracies to design and implement appropriate transition arrangements to encourage and assist the development of a more responsible, efficient and effective industry (section 9.7).

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