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EC–1992: Implications for the Agrimonetary System and Commodity Markets

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Abstract: The system of exchange rates, border taxes, and subsidies—the agrimonetary system—is incompatible with the goals of EC–1992. This system has led to a breakdown in the concept of common pricing and to distortions in trade patterns and has created large administrative costs to the EC. Elimination of the agrimonetary system would reduce EC prices, production, net exports, and budget expenditures and increase consumption. Major changes to the system will probably be reserved for a date beyond 1992.

Introduction

Rapidly growing structural surpluses in a number of key commodity sectors, combined with rising budget outlays, sluggish world markets, and increased international tensions paved the way for some fundamental changes in agricultural policies in the 1990s. The importance of restructuring agricultural policies around the world was high on the agenda of the Uruguay Round of trade talks in the GATT. In addition, the 12 members of the EC have embarked on an ambitious and historic programme to eliminate national borders between their countries by the end of 1992. The goal of "Europe 1992," as the programme is known, is to achieve a true common market as envisaged by the EC's founders nearly 33 years ago. Until now, physical, technical, and fiscal barriers have prevented the EC from achieving greater economic efficiency.

The 1992 programme, which began in 1985, will continue until the end of 1992. All barriers that impede the free movement of goods, services, people, and capital among member countries are scheduled to be eliminated by 1992. The result will be a powerful trading bloc, whose sheer market size (in population) will exceed that of the USA. The new unified EC will have 320 million consumers with a purchasing power of $4,000,000,000,000 (Cecchini, 1988).

The EC's agrimonetary system refers to the mechanisms for fixing certain monetary sums—prices, subsidies, levies (taxes), and budget accounts—of the Common Agricultural Policy (CAP). Monetary matters have had a significant influence on the development of the CAP and on the EC's internal and external trade in agricultural products. Reluctance of EC member countries to allow exchange rate changes to be fully transmitted into their agricultural sectors led to the creation of a separate set of exchange rates for agriculture known as "green rates." These special exchange rates are used to convert policy prices denominated in European currency units (ECUs), the EC's monetary denominator, into each country's national currency. These special exchange rates have led to a breakdown in the concept of common pricing to a system of border taxes and subsidies (monetary compensatory amounts or MCAs) that distort trade patterns and create large administrative costs to the EC.

The EC's agrimonetary system is inconsistent with the goal of eliminating all internal barriers to trade by 1992. MCAs are currently collected at customs posts along the borders but are scheduled to disappear at the end of 1992. It would be unfeasible to maintain customs posts after 1992 for the sole purpose of collecting MCAs on agricultural products.

Alternatives to the Agrimonetary System

The present system cannot be operated without border posts, and its possible replacement with a system of direct payments would be politically difficult. The only alternative would seem to be to abandon price differentiation. To abandon the policy of differential prices would imply increased uncertainty for domestic producers, whose support price would change with each change in the ECU rate for local currency.

Whether or not the EC moves towards monetary union and succeeds in removing border posts, the issue remains of how to handle the "switchover coefficient." The switchover coefficient is the premium placed on the ECU used for agricultural purposes in 1984 in order to avoid creating more positive MCAs. At the end of 1990, the switchover coefficient stood at 13.7 percent, an indication of the inflationary tendency of the "green ECU" system. Removal of the switchover coefficient would immediately drop the price of most agricultural products by about 14 percent. This could be compensated by an increase in ECU prices by the same amount. But such an ECU price rise might be taken by the trading partners of the EC as locking in the hidden price increases due to green-ECU appreciation. As the EC has made considerable play of its policy to hold down ECU prices and even agreed in April 1989 not to increase them during the GATT negotiations, such an action would be unpopular. Removal of the switchover coefficient could also be accomplished by changing green rates, as the same national prices could be ensured by offsetting the lower value of the agricultural ECU. This would have the disadvantage of re-creating positive MCAs for strong-currency countries (i.e., exposing the hidden positive MCAs in the present system). Once again, those positive MCAs would have to be reduced over time to lead back to common prices. In spite of the difficulties, it is probable that the EC would like to remove the switchover coefficient and return to a "regular" ECU for agricultural price purposes.

Monetary Union and the Elimination of MCAs

In view of the many ways in which the present MCA system could be modified, it may be premature to speculate on the chosen method. Instead, one can put bounds on the outcome and discuss the likely implications of particular choices. In the next section, two such boundaries are explored. A "base"-case scenario presumes that the existing MCA system is retained, preserving the price relationships that exist at the moment. Rather than moving towards monetary union, national inflation rates keep their historical spread and exchange rates adjust accordingly. Though this scenario represents a *status quo* situation, it also sheds some light on the outcome if alternative policies substitute completely for the removal of MCAs, at least as far as the farm sector is concerned.

The second case considered is that of the removal, after 1992, of the MCA system and the switchover coefficient. This is accomplished in stages and completed by 1996. The assumptions are made that monetary union is also reached over the same time period and that inflation rates converge. The impact on agriculture from the harmonization of prices is such that this eventuality is unlikely; some form of transition or compensation seems more likely. But it is useful to establish the bounds of the problem. And a system of uniform prices, with ECU prices translated for all commodities at market exchange rates, would seem to be the only fully satisfactory solution to the problems of the green-money system.

Adjustment to the EC's Agrimonetary System

The impact of changes in the agrimonetary system will vary from country to country in the EC. To analyse these impacts, one needs a way of quantifying the implications of policy change by country and commodity. The estimates given below were developed using CAPFRAME, a series of national models for the agricultural sector of EC countries in use in the US Department of Agriculture (Josling, 1990). CAPFRAME allows for a consistent series of projections of prices, market balance, financial flows, and policy impacts for each of 11 member states (with Belgium and Luxembourg treated as one economy). Commodities include wheat, barley, maize, beef, and dairy products, and the projections extend annually to the year 2000.

Two simulations were run using CAPFRAME: a base run that preserved the present MCA system and assumed no further shift towards monetary union, and a European Monetary

Union (EMU) run that assumed a movement from 1992–96 towards locked currency values, common inflation, and the dismantling of the MCA system. It is reasonable to assume that the actual outcome will fall somewhere in between these two extremes.

The results indicate that removal of the MCA system will have a negative impact on farmers in strong-currency countries. Gainers include consumers in those countries, farmers in countries with very weak currencies, and taxpayers in the EC as a whole. The extent of these changes is detailed below.

Price Effects

The agrimonetary system governs the level and spread of support prices in various countries and for various commodities. These prices will be affected by the removal of this system in three ways: the abandonment of the switchover coefficient (i.e., the use of an unadjusted ECU), the removal of MCAs relative to that monetary ECU, and the removal of green rate divergences among products. Table 1 shows the percentage change in producer price in local currency for five commodities: wheat, barley, maize, beef, and milk. For the EC as a whole, cereal prices could be lower by between 9.6 percent (maize) and 7.9 percent (wheat), beef prices could be 10 percent lower, and milk prices could be reduced by 8.6 percent.

The price impact is felt most by farmers in strong-currency countries: Netherlands, Germany, Belgium-Luxembourg, and Denmark. Price falls for cereals, beef, and dairy products of the order of 10–15 percent in these countries can be attributed to the removal of the MCA system, including the switchover coefficient. A second group of countries is affected less, experiencing prices lower by 5–10 percent as a result of the removal of the system. This group includes Spain, France, Italy, and the Irish Republic. At the other extreme, UK farmers enjoy higher prices with the removal of the MCA system. The negative MCAs predicted in the base-case scenario are larger than the benefits from the artificially high ECU value implied by the switchover coefficient. UK prices are higher by between 4 and 7 percent in the EMU case scenario. Greek farmers also gain, but the benefit varies by commodity with little change implied by changes in the cereals régime.

Market Balance Effects

The impact on production levels (Table 1) follows from the anticipated price changes. Cereal production goes down in all countries except the UK and Greece, with the impact on individual cereals being governed by the relevant cross elasticities. Wheat production in the Netherlands appears to be most vulnerable to the price changes, down 11 percent relative to the base-case scenario. Wheat production could increase by 5 percent in the UK, offsetting the decline in other countries. For the EC as a whole, production is estimated to be lower by less than 1 percent for cereals. More significant decreases are anticipated in beef, with an overall decrease in production of about 5 percent in the EMU/no-MCA case. In the dairy sector, removal of MCAs under these circumstances could reduce milk output by about 5 percent in most countries, with a 3-percent increase in the UK, leading to a decrease of 2.4 percent for the EC as a whole.

Consumption generally increases with the lower real prices expected from the removal of the MCA system (Table 1). This is particularly noticeable for beef, where increases of 6–11 percent are indicated for the strong-currency countries, and of 5–6 percent for the EC as a whole. Consumption of dairy products also increases, but by a lesser extent, from 3–4 percent relative to the base case in the strong-currency countries and just over 2 percent for the EC. Cereal consumption changes are less clear cut. Food use increases marginally (as price elasticities of demand are low in this sector), but use for feed is drawn in two different directions. Lower livestock prices tend to cut feed use, but lower cereal prices encourage the substitution of cereal for non-cereal feed. Thus, maize consumption increases by up to 7 percent in the strong-currency group, while barley use for feed declines in the same countries. Overall use of wheat is stable; that of maize increases by 1.2 percent, and overall barley use could decline by 1.8 percent.

Table 1—Impact of European Monetary Union, 1996

	France	UK	Neth.	Bel./Lux.	Germany	Italy	Ireland	Spain	Portugal	Greece	Denmark	EC–12
	On Net Producer Prices (percent of base case)											
Wheat	–9.7	7.8	–15.3	–12.2	–13.3	–8.1	–8.1	–8.7	–9.7	–0.4	–10.9	–7.9
Barley	–9.7	7.8	–15.3	–12.2	–13.3	–8.1	–8.1	–8.7	–9.7	–0.4	–10.9	–8.6
Maize	–9.7	7.8	–15.3	–12.2	–13.1	–8.1	–8.1	–8.7	–9.7	–0.4	–10.9	–9.6
Beef	–11.4	3.6	–14.6	–12.2	–13.0	–8.6	–9.9	–9.7	–9.7	15.3	–10.9	–9.9
Milk	–9.7	7.0	–14.6	–12.2	–13.0	–8.6	–8.1	–9.7	–9.7	15.3	–10.9	–2.1
	On Production (percent of base case)											
Wheat	–0.5	5.0	–11.0	–0.9	–4.1	–1.4	–3.9	0.3	–0.7	0.0	–0.6	–0.2
Barley	–1.2	1.7	0.0	–2.2	–1.1	–0.3	–2.5	–0.7	–0.5	0.0	–1.1	–0.6
Maize	–0.5	0.0	–0.8	–0.6	–0.7	–0.5	–0.8	–4.5	–0.5	0.0	0.0	–0.8
Beef	–4.2	0.9	–5.5	–7.8	–6.0	–6.8	–9.6	–2.7	–2.1	4.3	–3.2	–4.7
Milk	–2.3	3.0	–4.7	–5.1	–4.7	–1.5	–1.9	–2.9	–3.0	17.1	–4.8	–2.4
	On Consumption (percent of base case)											
Wheat	–0.1	0.2	3.4	0.7	–0.7	0.7	–1.1	0.6	0.1	0.2	0.9	0.2
Barley	–1.9	–0.2	–1.0	–1.5	–3.6	–2.7	–3.4	–0.8	–0.2	6.4	–2.9	–1.8
Maize	0.0	0.1	3.2	1.2	0.2	0.2	–1.3	4.3	0.0	1.6	1.5	1.2
Beef	8.3	–1.8	11.3	9.2	9.5	6.3	6.0	5.5	5.7	–7.7	6.6	5.6
Butter	2.4	–0.8	4.0	2.6	3.4	1.9	1.3	1.8	1.5	–2.9	1.2	2.3
	On Net Trade (1,000 t from base case)											
Wheat	–171	800	–189	–27	–418	–176	–11	–14	–5	–3	–44	–259
Barley	–16	173	10	4	264	64	3	20	0	–48	47	521
Maize	–72	–1	–61	–13	–16	–50	1	–380	–4	–25	–1	–620
Beef	–216	34	–59	–48	–257	–179	–36	–49	–12	26	–13	–810
Butter	–23	5	–16	–5	–35	–4	–3	–1	–1	1	–4	–84
	Net Economic Benefits of Policies due to EMU (million 1982 ECUs)											
Wheat	–307	31	12	4	–32	41	6	15	6	–3	–29	–144
Barley	–53	12	15	16	67	13	0	68	1	–3	–18	199
Maize	–82	–7	30	15	18	13	1	51	6	–8	1	164
Beef	69	33	–57	5	–82	394	–59	118	16	–33	–27	402
Milk	66	–75	–85	45	194	240	–54	109	11	23	–53	372

Lower production and stronger demand affects net trade (Table 1). The EC wheat export volume is estimated to decline marginally as a result of increased imports into the Netherlands, Belgium-Luxembourg, and Italy, counteracted by greater surpluses in the UK. France's net exports of wheat decline by 171,000 t and total EC net exports drop 259,000 t, less than 1 percent. In the case of barley, the level of net exports from the EC could rise, led by increases in exports by Germany and the UK, as feed consumption falls. This is more than offset by the increased maize imports into the EC–12 (620,000 t), up 54 percent as a result of the dismantling of the MCA system. The increase in imports is noticeable in the Netherlands and Spain, while French exports decline. Beef imports also increase (810,000 t) for the EC as a whole as a response to EMU and lower prices implied by the removal of MCAs. Such imports could climb by over 80 percent, with increased sales into France, Italy, Spain, and Portugal. Lower exports from Denmark, the Netherlands, Germany, and the Irish Republic contribute to this outcome. In the case of dairy products, higher imports of butter into Germany, Belgium-Luxembourg, Spain, and Portugal, coupled with fewer exports from the Netherlands, the Irish Republic, and Denmark, reinforce the trend for the EC–12 to reduce net exports to the world market.

Financial Implications

The economic implications of the EMU/no-MCA scenario are summarized here. The combination of lower prices and lower production gives a reduction in farm receipts for all commodities. At the EC level, this drop is greatest for beef, milk, and maize. But this masks the differences among countries. The other side of the coin is that consumers could find expenditures on farm commodities reduced by EMU and the removal of MCAs. Expenditures on wheat for both food and feed decline moderately, with somewhat larger decreases in spending on barley and maize for feed. Consumer expenditures on beef decline by 4 percent and on dairy products by about 8 percent.

The financial aspects of the change in trade volume are reflected in the reduction in export earnings and increase in import expenditure. Export earnings for wheat decline by 9 percent and spending on imports of maize rises by 46 percent. The EC could spend over 70 percent more on beef imports: extra spending on butter imports and less earnings from skim milk powder exports could also be expected. This will also lead to a decrease in the expenditure on export subsidies. Budget spending could be cut considerably for wheat (161 million ECUs, at 1982 prices) and barley (63 million ECUs). Together with smaller changes in levy revenue and export subsidies on other commodities, the saving to the financial cost of farm programmes is estimated at 276 million ECUs.

In terms of net economic benefits and costs of the elimination of the EC's agrimonetary system, EC farmers lose in real income to the advantage of cereal users and taxpayers. Net changes in farmer benefits, consumer cost (including costs to feed compounders through higher ingredient prices), and the net cost to EC taxpayers are presented in Table 1. The beef sector reaps the largest net benefits (402 million ECUs in 1996), with Italy and Spain enjoying the largest increases, while Germany and the Irish Republic realize the largest net losses. At the other extreme, the EC's wheat sector actually show a net loss of 144 million ECUs, as producer losses offset gains to consumers and budget savings. Most of this is due to adjustments in France, the EC's largest wheat producer and exporter.

Conclusions

The EC agrimonetary system, which began as a simple mechanism for converting agricultural prices, subsidies, and levies from a common accounting unit to the national currencies of the member countries, has evolved into complex web of rules and regulations that has created market distortions, not only among countries but also among commodity sectors within countries. The use of agricultural (green) exchange rates that no longer reflect market

exchange rate changes has led to a breakdown in one of the EC's fundamental goals, common pricing. It has also led to a system of border taxes and subsidies (MCAs) that distort trade flows and to large administrative costs to both businesses and government to implement the system.

Elimination of the agrimonetary system with its green rates and border taxes/subsidies by 1992 will prove to be an extremely difficult task. The price differences that currently exist among countries as a result of the green rate system imply significant adjustments. A decision to harmonize at the highest price level would imply price increases for all countries. Harmonization at less than the highest level would imply price reductions for strong-currency countries such as Germany and the Netherlands and price increases for others. Price reductions will be strongly resisted and will likely require some form of compensation.

While the move to a common currency called for in the plan for full economic and monetary union would eliminate the agrimonetary system and its distortions, the political barriers to achieving full integration are formidable and will prevent it from occurring until well after 1992. The higher-than-expected cost of German economic and monetary union, which began on 2 July 1990, has caused some EC member countries that were pushing for a fast-track approach to EC economic and monetary union, particularly Germany, to shift their position more in line with the British go-slow approach. A more reasonable and likely solution to the agrimonetary dilemma in the near term is a tightening of the current arrangements, including a faster alignment of green rates with market rates, a gradual elimination of green rate differentials between commodities, and direct payments or tax credits made by national governments in place of MCAs.

Note

[1]US Department of Agriculture and Stanford University, respectively.

References

Cecchini, P., *The Benefits of a Single Market*, Commission of the European Communities, Luxembourg, 1988.

Josling, T.E., "CAPFRAME: Framework for Evaluation of the European Community Common Agricultural Policy (Software Documentation)," unpublished, 1990.

Discussion Opening—*Colin Brown* (University of Queensland)

The EC agrimonetary system has long been a source of concern. In discussing the paper by Gardiner and Josling, which examines the impacts of a possible demise in the agrimonetary system as the EC moves towards greater monetary and political union, several issues are worth raising.

Does the removal of border posts beginning in 1993 necessarily imply that the MCAs can no longer operate? Different VAT rates will also exist after 1992, with VAT settlement simply transferred from the border to the individual firm level. A system of MCAs paralleling or indeed tied to these VAT settlements could well operate.

Do the results in the paper adequately describe the main impacts on the various interest groups affected by changes to the agrimonetary arrangements? For instance, would inclusion of oilseeds and Mediterranean products in the analysis alter the impression from Table 1 of relatively large benefits to the southern member countries from a removal of the agrimonetary arrangements? Other inclusions such as sugar and intensive livestock, however, may exert

the opposite effect. Furthermore, given the heterogeneity of EC agriculture, the farm-level effects and thus the reactions to the agrimonetary changes are not necessarily reflected in the commodity price changes of Table 1. Large cereal farmers in the Paris basin can be expected to react adversely to the lower effective cereal prices. However, the responses of their Danish counterparts will be tempered by the lower feed costs for the substantial intensive livestock production that characterizes the large cereal farms in Denmark.

What can be inferred from an analysis that compares the complete removal of the agrimonetary arrangements against the *status quo*? The results presented in the paper are based on the removal of MCAs relative to the monetary ECU, the removal of green rate divergences among commodities, and the abandonment of the switchover coefficient. But the first of these agrimonetary changes needs to be distinguished from the latter two, as in the context of this paper it reflects more the effects of a convergence towards monetary union rather than any fundamental changes to agrimonetary arrangements. Conversely, the remaining part of the results attributable to the commodity differentials and the switchover coefficient assumes no policy adjustment or compensatory measures. The results are qualified in the paper as being an upper bound of likely outcomes from a removal of the agrimonetary arrangements. For any noticeable effect to arise, however, implies that the agrimonetary system provides an institutionalized and relatively obscure method of support. Clearly there may have been elements of this in the past, given the complexity of the system. But with the much greater scrutiny of the agrimonetary arrangements in recent times, it is difficult to envisage situations in which offsetting compensation would not be sought by those groups adversely affected. Thus, whether the results reported in the paper are realized will depend on the more general issue of the resolve of the EC to lower agricultural commodity support.

Where MCAs may differ from other support measures is the tendency by EC agricultural ministers to use them as bargaining tools in the annual price rounds of the EC Council. Removal of the extent of this political manoeuvring may well alter the negotiated level of support. Another tangible effect of the agrimonetary system is the substantial administration costs alluded to in the paper. The extent to which the costs of administering these complex arrangements has eroded the relative benefits the measures are intended to provide is a topic worthy of further discussion.

[Other discussion of this paper appears on the following page.]

General Discussion—*Geraldo S.A.C. Barros, Rapporteur* (Universidade de São Paulo)

Discussion on the first paper by Mahé and Roe centred on the model used for the analysis. The possibility that equations in the model were overidentified given that the number of policy instruments exceeded the number of weights for particular groups was raised and explained in terms of the nature of the instruments considered. The relationship among weights for various groups across countries was also raised. It was also suggested that converting the model to a dynamic model may greatly enhance insights from the model.

The paper by Marchant, Neff, and McCalla raised some lively discussion on the direction of the link between dairy policies in the USA and EC and whether other participants in world dairy trade need to be considered. A further important omission from the analysis identified in the discussions was the need to consider cross-commodity linkages in both the USA and the EC. The strategic position of dairy policies in US agricultural policies *vis-à-vis* the dairy support arrangements in the EC, which are just one element of the CAP, was also raised.

Discussion on the paper by Gardiner and Josling was constrained by the absence of the authors. However, a comment was made that the removal of the switchover coefficient may be a non-issue given that it is only an administrative or accounting device.

Participants in the discussion included J. Beghin (North Carolina State University), N. Devisch (Belgian Farm Organization), T. Haniotis (Commission of the EC), J. Kola (Agricultural Economics Research Institute, Finland), and K. Thomson (University of Aberdeen).