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THE ECONOMIC CONSEQUENCES OF THE IMPLEMENTATION OF THE EURO FOR THE AGRO-FOOD SECTOR

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THE ECONOMIC CONSEQUENCES OF THE IMPLEMENTATION OF THE EURO FOR THE AGRO-FOOD SECTOR

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Foreword

The introduction of the single European currency as part of the process of economic and monetary union on 1 January 1999 could have wide-ranging implications for the way the EU's common agricultural policy operates and for the agro-food sector as a whole. This paper, prepared by Yves Le Roux and Jean-Christophe Bureau of INRA, France, as consultants to the Secretariat, examines the economic implications of the euro for the agro-food industry. It outlines the main economic costs and advantages of the single currency, discusses changes in the agri-monetary system, and analyses the impacts on farm incomes and prices, the rural economy, and intra-EU and international trade flows. It was declassified in October 1999 as a consultant's report under the responsibility of the Secretary-General.

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THE ECONOMIC CONSEQUENCES OF THE IMPLEMENTATION OF THE EURO FOR THE AGRO-FOOD SECTOR

Introduction

Until the end of 1998, the European Currency Unit, or ECU, played an important role in the Common Agricultural Policy. It was the unit of account in which institutional prices and payments, as well as special import duties, export refunds and other trade measures were set. Yet, based on a basket of currencies, the ECU did not display all the usual features of a currency and played a minor role in international trade and the capital market, and remained a largely abstract concept for consumers and enterprises since most transactions were still conducted in national currencies.

On 1 January 1999 the ECU was replaced by the euro. With the United Kingdom, Sweden, Denmark and Greece remaining outside for the time being, the euro became the common currency of eleven countries in the European Union on that date, when euro conversion rates for their national currencies were set irrevocably. Monetary policy, exchange rate policy and loan issues are now in euros. In 2002, the euro will completely supersede these eleven currencies, including banknotes and coins.

The disappearance of eleven currencies[1] and the creation of a new one common to some 290 million people is bound to have an impact on the economy and trade in Europe and across the world. Every sector, including the agro-food industry, has been affected since the euro was introduced, but the impact will be even greater once the national currencies have disappeared. In the European Union, the advent of the euro means that Member States will be giving up some instruments of economic policy, and will probably have to embark on fundamental tax and social security reform. Firms will find themselves in a larger market with lower transaction costs, where competition will be sharpened by greater price transparency. In the rest of the world, the euro may eventually become important as an invoicing and reserve currency. For countries outside the EU, the impact of the euro will largely depend on its position against the US dollar and the yen, and on the stability of the new international monetary system.

The advent of the euro will have specific implications for the agriculture and food sector. Within the European Union it heralds the end of the agri-monetary system, at least in the form it took up to the end of 1998. The introduction of the euro will lead to changes in producer prices and payments, and entail interim measures which will mean further expenditure for the EU agriculture budget; at the same time the single currency will generate savings under other budget headings. In the short term, the impact on farm incomes in EU Member States will depend on the arrangements each country makes when institutional prices and direct payments are set in euros. In the longer term, the euro/dollar exchange rate is likely to be the most decisive factor for agricultural trade, prices and incomes. The future euro/dollar parity, and how volatile it will be, are still unanswered questions.

This report looks at the various implications that the advent of the euro will have for the farm sector and agro-food trade in OECD countries. The first section describes the macro-economic effects and the possible consequences for rural development. The second addresses the more specific repercussions on the agriculture and food sector. Next comes an analysis of the impact of the euro on agricultural prices and incomes. After a brief presentation of the agri-monetary system and its effects on European agriculture, the

new arrangements effective since the introduction of the euro are presented. Issues regarding the effects of economic and monetary union on future EU Member States are raised in Section 4. The final section considers the effects on trade within and outside the EU, focusing on two major issues, the position of the euro against the US dollar and the stability of currencies and world prices.

1. Macro-economic effects of the single currency in the European Union and implications for rural development

A larger, more unified market. The introduction of the euro will have numerous macro-economic effects in the European Union. These have already been widely addressed[2] and this paper will be confined to the more significant ones likely to affect the agro-food sector and rural development.

One of the main reasons for economic and monetary union (EMU) is to facilitate intra-EU trade. The single market, introduced in 1993 for all goods but in practice dating much further back for agricultural products, was still segmented because of the different currency areas within the Union. The euro does away with substantial transaction costs, providing considerable savings for firms and consumers in the euro-area (Euroland). It eliminates the costs stemming from exchange-rate uncertainty and the need for hedging operations in intra-EU trade, as well as lowering the risk premia built into interest rates.[3]

The market will accordingly be wider for firms in the euro-area and this may lead to economies of scale. The wider market will also help in allocating capital and other factors of production where the returns are highest. Overall, resource allocation should improve. Taken together, this should push up productivity and push down production costs for goods as a whole. A wider capital market, also with lower transaction costs owing to reduced exchange risk, should lead to structurally lower interest rates than if monetary union had not taken place. The advent of the euro will also result in greater price transparency, which will increase further once the new currency is in use by the general public and firms, and information will circulate more rapidly throughout the European Union. Competition will in turn be keener. All these factors are expected to help bring down prices and enhance consumer welfare.

Pressure for a more integrated Europe. The single currency may accelerate the harmonisation of taxes and social legislation in the EU. The phasing-in of economic union required convergence in the main macro-economic indicators (inflation rate, government deficit, debt ratio, exchange-rate stability). Furthermore, the advent of the single market in 1993 has already led to the streamlining of technical, health and, to a lesser extent, environmental regulations.

However, there has been no harmonisation of taxes or wage costs. Major disparities persist with regard to tax on earned and investment income, value-added tax and duties on goods such as spirits and tobacco. More importantly, wage costs relating to social security cover and pensions (whether funded or not funded) still vary substantially from one country to another. Given the risk of competition being distorted, and the increased scope for economic agents to relocate or simply register in other countries, the medium-term trend is that EMU will add pressure to harmonise social and tax legislation.

New economic policy constraints. One consequence of the single currency is a loss of autonomy in that countries are no longer able to implement their own monetary policies. If a recession or cyclical shock occurs, EU Member States can no longer use exchange-rate instruments, making adjustments necessary in the price of primary inputs (real wages and land prices). On the other hand, the euro will make fiscal policy instruments more effective (see Box 1). There is, however, less fiscal policy leeway owing to the limits that the Stability and Growth Pact places on budget deficits, which may have externalities for other countries.[4]

Box 1. Monetary union and macro-economic policy in the euro-area

For the eleven countries involved, the introduction of the euro irrevocably fixes exchange-rate parities. Euro-area countries can no longer play one currency against another to absorb an economic shock. That being so, a shock could conceivably push up real prices and therefore be quite costly in macro-economic terms, first because it would take the economy off its optimum growth path and second because the variability of real prices, as of inflation, has adverse welfare effects.

By and large, the leading macro-economic problems that the creation of the single currency may pose relate to asymmetric shocks in the euro-area.

The theory of optimum currency areas describes how an economic shock can be absorbed in a country or region belonging to a monetary union (or, more generally, a country whose exchange rate with its partners is fixed).[5] This assumes that the area is to some extent uniform (in terms of growth, jobs, etc.) or that there is sufficient flexibility for the necessary adjustments.

In this regard the euro-area is probably not the archetypal optimum currency area. A recession in a particular country, or a crisis in a particular industry, cannot be tackled with a local expansionary policy because of the new limits on fiscal and monetary policy tools. Recourse to supply-side adjustments is hampered by the marked inertia of certain factors of production. Labour mobility is lower in the European Union because of rigidities and cultural and linguistic obstacles to migration between Member States. This constitutes only a limited alternative to exchange-rate flexibility.

If local or sectoral shocks are to be prevented from triggering a recessionary spiral (downward pressure on wages, compounded by wage rigidities in Europe, would have adverse effects on employment), they would have to be more easily absorbed by major transfers from other countries and sectors. But the institutional situation in the European Union does not easily lend itself to such transfers. In the United States the federal budget has a strong stabilising effect when a particular State goes into recession, and generally restores the balance across regions unevenly exposed to business cycles, via lower taxes and social transfers.[6] This is not the case in Europe, where countries retain their autonomy over social policymaking. The EU's budget is very small (less than 1.5 per cent of Community GDP) and its structural funds, limited and not particularly flexible, cannot play the stabilising role that the federal budget does in the United States (Sala-i-Martin and Sachs, 1991). However, in the interests of all Member States, the single currency will naturally entail closer co-ordination on fiscal policy in the early stages and, eventually, on social policy.

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Conversely, economic and monetary union increases the impact of domestic fiscal policy. This is because a variable exchange rate system makes countercyclical policy hard to implement. For instance, an expansionary budget policy to combat a recession leads to a rise in imports and pushes up interest rates, promoting currency appreciation which destroys much of the benefit of such measures. These effects, in particular "crowding-out"[7], are attenuated with monetary union, since capital mobility allows government deficits to be funded without a significant rise in interest rates. Furthermore, because such fiscal policies are more effective, the public finds them more credible. This further increases their effectiveness, given the importance of people's expectations about inflation and interest rates.

More effective fiscal policy instruments mean that government funding can help to adjust to a particular macro-economic shock in a country belonging to a monetary union. If there is a recessionary supply-side shock, for instance, cutting employers' social security contributions might give more scope to adjust real wage costs to the new supply-side environment, thereby limiting the scale of unemployment and the external deficit caused by the initial shock, should wage rigidities prevent this from occurring spontaneously (Bensaid and Ponty, 1991). Nevertheless, to do so the Member State must have sufficient fiscal policy leeway. But as discretionary fiscal policies have externalities for the other members of the union, in terms of inflation and interest rates, the Stability Pact places heavy constraints on government deficits. This makes it all the more important that the countries concerned have low structural deficits when tackling macro-economic shocks, so that they can make transfers on a large enough scale to derive the full benefits of more effective fiscal policy, without being restricted by the Stability Pact.

The euro may heighten the impact of regional or sectoral crises on rural development. The potential constraints of the euro on the absorption of asymmetric shocks may have consequences at regional level in the European Union. If a region's economy is largely reliant on a specific commodity, which is subsequently hit by a crisis originating outside the region (e.g. falling world prices, a health problem, sudden competition from a new producer abroad), fixed parities and the constraints of fiscal discipline may mean that the region takes longer to come out of recession (*Caisse des dépôts et consignations*, 1998).

For example, areas that rely heavily on a particular commodity may, if demand collapses, experience greater and more prolonged shocks once the euro has been introduced. This might be the case in smaller countries, or those with a relatively undiversified economy, since there is no longer scope for currency depreciation. If the shock occurs when the country's budget is balanced, the Stability Pact may allow enough fiscal leeway to curb recessionary effects in a particular region, since fiscal policy tools will have become more effective with the advent of the euro (see Box 1). But if the shock occurs when the country's margin for manoeuvre under the Stability Pact is already limited, the impact on the region can only be attenuated if a greater role is given to the Community budget or interregional stabilisation mechanisms.

These repercussions, and their impact on rural development, should not be overestimated. Even before the introduction of the euro, rural areas heavily reliant on a particular commodity were seriously affected by falling prices. The item itself was seldom important enough to the national economy for the macro-economic consequences to generate a corresponding monetary adjustment. Nevertheless, there is a possibility that the launch of the euro and the constraints of the Stability Pact might prolong the recessionary effect of shocks on mining areas, for instance, or those heavily reliant on a commodity that is a major national resource. For instance, the fact that the exchange rate of the Finnish *markka* is now fixed against the other currencies might make it harder for some of Finland's timber producing areas to adjust, should a serious shock hit the timber or pulp market. This does not call the euro into question, but shows that interregional transfer mechanisms such as the European structural funds are more necessary than ever.

The advent of the single currency could lead to a greater role for structural funds on rural development, such as the European Agricultural Guidance Fund (EAGGF-Guidance and some elements of the Guarantee Fund) and the European Regional Development Fund (ERDF), and to Community initiative programmes like INTERREG. To prevent economic shocks from having a lasting effect in some areas, these funds should perhaps be supplemented with more countercyclical transfers or made more readily redeployable.

2. Effects of the euro on agricultural and food enterprises in the European Union

For farmers. Europe's agricultural producers, like all enterprises, will find their economic environment substantially transformed by the disappearance of the eleven Member State currencies. The euro should mean an end to currency adjustments in the European Union; in the past these changes, sometimes massive, have had a considerable impact on the relative competitiveness of producers. Some farming sectors, for instance, in countries with strong currencies suffered from the changes in European exchange rates between September 1992 and May 1995 (the pound sterling depreciated by 25 per cent, the peseta by 30 per cent and the lira by 50 per cent). By eliminating these exogenous changes in competitiveness, the euro gives producers a more stable economic environment. The impact will certainly be substantial in areas of production not particularly subject to government intervention, such as fruit, vegetables or sheep.

Furthermore, the euro puts an end to fluctuations in prices and payments to farmers. Successive green-pound devaluations in the early 1990s, for instance, pushed up UK farm incomes significantly, but the appreciation of the pound from 1996 onwards, and the readjustment of green rates, halted the process and led to some painful adjustments (the specific effects of the euro on farm payments and prices are addressed in Section 3).

Keener competition in the inputs and services sector, in particular banking and insurance, will bring down costs and borrowing rates. Savings should be substantial. One point worth noting here is that, with a fully unified capital market, national policies on soft loans should logically be revised downwards. Countries will no longer be able to claim, as they used to, that subsidised loans offset the handicaps that farmers suffer in terms of real interest rates *vis-à-vis* other European countries. Domestic soft-loan policies can represent large sums of money in some countries, such as France and Germany (FF 3.2 billion in France).

European agriculture has been a single market for almost 40 years, and has been more able to adjust than other sectors. Nevertheless the new currency, by removing monetary and agri-monetary barriers to trade, will step up competition across the euro-area. As in other sectors, tax and social legislation will become far more important to competitiveness than in the past. Wage differentials and labour-law constraints still vary widely in the European Union. As wages and social security contributions account for a large share of the costs in some types of farming, the sector could be particularly hard hit by the competitive distortions that stem from different social and tax arrangements. In the fruit and vegetable sector, for instance, by giving greater weight to disparities in social and wage legislation the euro could aggravate problems for growers in countries with stricter regulations.

For the agro-food industries. In the short term, the introduction of the euro will entail costs for agro-food firms, which will have to switch equipment and software to the new currency and train their staff. Although the figures do not refer specifically to the food industries, different sources have estimated adjustment costs at between 1.2 and 2 per cent of annual turnover (on average for all sectors). Firms will also have to ensure that they do not upset consumers by any ill-considered rounding-up of prices. There will also be the cost of co-ordination with suppliers, customers and banks to ensure that conversions and the full switchover to the euro in 2002 are compatible and coherent. Verifying the legal aspects and

continuity of contracts, in particular for transactions outside the European Union, may be expensive. Firms will have to review their business strategies and move away from standardised products, reasoning less in terms of national borders than of target regions, language groups, age groups and similar consumer/ethical profiles.

It is only then in the medium term that the euro will bring down costs in agro-food firms. Banks will find it easier to offer financial services throughout the euro-area, and by cutting exchange-risk premia the euro should help to bring down interest rates in line with EU inflation objectives. These two factors will lower corporate interest charges. Furthermore, the drop in bank transaction and exchange-risk costs will have a significant impact on the agro-food sector.

Uneven gains. The single currency will not affect every branch of industry in the same way. Not all firms will benefit from the same cuts in interest rates. On a fully integrated capital market, monetary union will induce a shift from a country approach to one based on individual agents, and interest rates will be determined by individual financial standing rather than the macro-economic situation in the country concerned (Bensaid and Ponty, 1991). Ultimately, firms will have to review their supply and location strategies. With the elimination of transaction costs, incentives to produce locally on some markets may disappear. This may encourage firms to locate production on the basis of other factors, such as the proximity of suppliers, a pool of skilled labour or a cluster of similar producers, with scope for synergy gains. It may be an opportunity to reorganise production in terms of location.

The elimination of foreign exchange risk will be of particular benefit to firms operating in more than one European country. Cash flow from a unit based in one country can be used for another unit elsewhere in the EU. This, combined with other technical developments facilitating transactions (for instance the Trans-European Automated Real-Time Gross-Settlement Express Transfer System, or TARGET), or more direct clearing systems between banks in different countries, may bring substantial gains for multinationals (Münchau, 1997). More generally, by stepping up competition, economic and monetary union is expected to benefit larger enterprises. Concentration-led restructuring may occur in the processing and distribution sector, and food in particular.

The effects on smaller enterprises are less clear-cut. Those with only a local clientele are likely to incur the costs of moving over to the euro without benefiting from economies of scale. Nevertheless, the single currency does put an end to one situation that was a greater handicap for smaller firms, at least those present in more than one EU country. They had to pay proportionally more to purchase foreign currency, and the conversion costs dissuaded many low-turnover firms from exporting. Smaller producers may find that the single currency, combined with electronic communications and marketing tools, helps them to broaden their customer base, even in niche markets.

3. Effects of the euro on agricultural payments and prices

Monetary co-ordination between the fifteen EU Member States. For the time being at least, the United Kingdom, Greece, Sweden and Denmark are to remain outside the euro-area. Proposals to co-ordinate monetary policy are foreseen in order to prevent their currencies from fluctuating too much against the euro, and also to prevent these countries from engaging in competitive devaluations while enjoying the advantages of the single market. In December 1996, the European Council meeting in Dublin adopted the principle of an ERM2 in which non euro-area Member States could participate. The European Central Bank is expected to intervene, in co-ordination with the national central banks, to ensure observance of the fluctuation bands similar to those in the original ERM, which will subsequently be narrowed.

In spite of this co-ordination, significant exchange-rate variations between the euro and other EU currencies cannot be ruled out. This is because ECB intervention will be restricted by its mandate to maintain price stability, preventing a fuller stabilisation policy under which it would supply euros to the market, with the inflationary consequences this might have. Meanwhile the four countries outside the euro-area will be under less of an obligation than the other eleven to practise budgetary discipline, and this might lead to diverging inflation rates. The implications of having different monetary arrangements in the euro-area and in non-euro-area Member States may be substantial for the agriculture sector.

The consequences of the euro for the agri-monetary system. The Treaty of Rome provides for a single system of institutional prices for major agricultural products throughout the Community and, by extension, the European Union. In concrete terms, this means the same prices and payments in a common currency (until 1998, and subsequently in euros) for farmers throughout the EU. This principle is one of the basic tenets of the Common Agricultural Policy (CAP), although there are some exceptions, in particular nationally modulated agri-environmental payments. While there are still different currencies, when one of them depreciates, farmers in that country will receive higher prices and payments in national currency. The major fluctuations that occurred from 1992 to 1995 thus led to substantial price and payment increases in those currencies that had depreciated.[8]

Agri-monetary mechanisms (described in Box 2) influence the conversion of institutional prices and payments into national currency. In practice, institutional prices and payments in the farming sector were not, prior to the launch of the euro, converted into national currency at the market rate but at special "green" rates, or agricultural conversion rates (ACRs). The disappearance of the eleven national denominations therefore has some relatively complex repercussions, since it puts an end to the variations in prices and payments stemming from currencies fluctuating against the ECU, and also does away with the agri-monetary mechanisms that compounded these exchange-rate effects.

For the eleven euro-area countries, the introduction of the single currency will mean the end of the agri-monetary system. For the other countries, the introduction of the euro will be an opportunity to undertake radical reform.

In the past, the agri-monetary system has had some serious perverse effects (described in Box 3), which have disappeared with the advent of the euro (although the 1992 and 1995 reforms had already done away with the more noticeable disparities in the system, with institutional agricultural prices no longer fixed artificially at levels far removed from reality and farmers no longer so protected from market price signals). Discontinuing the special monetary arrangements for agriculture will drastically simplify the system and will equalise EU prices and payments; eventually, it will also lead to budgetary savings and end distortions in the agriculture sector. For exporters, refunds will be identical, regardless of the port of shipment. This will end multiple movements for the sole purpose of obtaining more favourable refunds, and the cases of fraud this generated.

Box 2. The agri-monetary system on the launch of the euro

Conversion rates specific to the farming sector. In the European Union, support prices for many agricultural products and payments under the Common Agricultural Policy are set administratively (in ECU before 1999 and in euros since) at levels common to all countries. Prior to the introduction of the euro (and even afterwards in Greece, Denmark, Sweden and the United Kingdom), a devaluation or depreciation of an EU currency against the ECU would normally lead to an increase in these support prices and payments once converted into national currency. This would push up producer prices in national currency in countries suffering a structural depreciation of their currency. Conversely, a country whose currency appreciated or was revalued would see a fall in its producer prices expressed in national currency. However, the impact was tempered by the agri-monetary system, in that a special "green" rate rather than the market rate was used to convert ECU prices into national currency.

Background. The agri-monetary system has been in place since 1969. Until recently, the green rate mechanism largely insulated agricultural prices from fluctuations in European currencies. Prior to 1995, agricultural prices were set in a "virtual" currency, the green ECU, and the conversion of these prices into national currency (using green rates) insulated institutional prices from exchange rate variations. In the past, arrangements involving duties and subsidies on goods crossing the borders between Member States ("compensatory amounts") ensured that trade flows between Member States were not artificially affected by the fact that exchange rates for agricultural prices were not the market rates. Compensatory amounts were discontinued in 1992, when border controls ended.

When these compensatory arrangements were discontinued, a mechanism called the "switchover" was introduced to ensure that the appreciation of stronger currencies did not lead to a decline in prices and payments in national currency terms, and which allowed agricultural prices to increase in a way that was not particularly transparent. A coefficient was used to revalue the green ECU in line with the strongest currency, widening the gap between green rates and market exchange rates. Thus, any appreciation of the strongest currency raised prices in national currency terms throughout the EU (except in the country with the strongest appreciation, where prices remained the same). Administered prices and payments in market ECU were in fact higher than announced (prices were set at a given value in green ECU but in practice, as the switchover coefficient had risen to 1.21 by 1995, they were actually 21 per cent higher in market ECU).

The system prevailing on the introduction of the euro. The 1995 reform simplified the agri-monetary system considerably. The switchover mechanism and green ECU were both discontinued. From 1995 onwards, institutional prices were set in market ECU (this adjustment went ahead without changing prices in national currency, thanks to a simultaneous 21 per cent increase in institutional prices in 1995). The green rates fluctuated in a smaller range around the market exchange rate. They were not realigned when the change in the market exchange rate was considered minimal or temporary, but for "appreciable" appreciation of a currency the corresponding green rate was (partially) revalued, which allowed prices in national currency to decrease. When a country's currency was devalued, and the disparity between green rates and market rates exceeded that prescribed in the regulations, the green rates and hence institutional prices increased in national currency (but less than they would have if the market rate had been used directly). The purpose of maintaining the green rates was to prevent exchange-rate fluctuations from being continually passed on to prices and payments in ECU.

From 1995 onwards, the green rates managed to some extent to dampen price fluctuations caused by exchange rates changes, without really insulating agricultural prices from significant currency appreciation if the appreciation was significant and confirmed over a period of several months. A mechanism which prevented direct payments in national currency from decreasing when a currency appreciated had in fact been maintained, since the payments were converted at a fixed exchange rate (that of 23 June 1995). This was a means of maintaining the level of direct payments to farmers in countries with strong currencies. Conversely, even moderate depreciation, exceeding the limits set by the agri-monetary regulations, generated an increase in direct payments in national currency. Furthermore, compensation payments was envisaged for farmers in countries whose currencies had appreciated. They were not supposed to distort trade. Degressive over a period of three years, they were in part financed by the Community budget, leaving Member States free to decide whether or not to pay their share.[9]

Box 3. Perverse effects of the old agri-monetary systems

The agri-monetary system has undergone several adjustments since 1969. The system in place when the euro was introduced dates back mainly to 1973, with revisions in 1995 and 1997. Although insulating the sector from the effects of sudden variations in exchange rates, and curbing the inflationary impact of devaluations on the cost of food and general price levels, the agri-monetary system has had a number of perverse effects in the past, which will disappear with the advent of the euro.

The initial objective of green rates was to prevent sudden parity changes from affecting agricultural prices and incomes. Over time, however, the objective became that of protecting farm incomes in national currency from downward pressure. The agri-monetary system gradually insulated the sector and impeded a general free-market mechanism, i.e. the gains in competitiveness stemming from devaluation that help to redress the balance of payments. Furthermore, countries whose currencies appreciated used to benefit in terms of input costs, without being disadvantaged in terms of farm products, since green rates kept prices constant in national currency while compensatory amounts protected them from imports and promoted their exports. Within the Community this created major competitive distortions which, accumulating over two decades, had a significant impact on resource allocation in European agriculture (Bureau and Butault, 1992).

Revising ACRs downwards was politically awkward in that it entailed income losses for farmers. When compensatory amounts were discontinued, a "switchover" mechanism was introduced to push up agricultural prices automatically throughout the Community every time the strongest currency appreciated (see Box 2). While the reforms of 1992 and 1995 put an end to the more glaring disparities, the system remained asymmetrical, since green rates were more easily revised upwards than downwards. This pushed up budget costs. Once the switchover was discontinued, the mechanism still tended to push up the price of supported products, at least when the market price was close to the intervention price. Consequently there were not only budget costs but consumer costs too. Thus the agri-monetary system helped to push up prices in national currency, making it harder for the European Union to respect its WTO commitments.

The gap between green rates and market rates encouraged exporters to prefer certain countries for the shipment of goods, in order to obtain higher export subsidies (refunds). This led to costly trade flow diversion and increased the risk of fraud. Until the introduction of the euro, there were substantial gaps between exchange rates and green rates for long periods of time (this could occur if appreciation was not "appreciable", see Box 2). The system thus encouraged operators to offer their products for intervention in countries where the disparities were most profitable, creating artificial trade flows (Williams, 1998).

Agri-monetary mechanisms introduced disparities between products supported by an intervention price and other products with prices directly affected by currency movements. The products on which the system had very little effect (e.g. potatoes, quality wines, horticultural products, sheep products,) accounted for almost 50 per cent of Community output in value terms.

Since 1995, compensation has been granted to countries subject to green-rate revaluation (see Box 2). Although some of the compensation was paid by Member States, it is a burden on the Community budget. It also had perverse effects, in that no aid is entirely neutral in terms of resource allocation, and compensation measures are based on what is necessarily an imprecise analysis of exchange-rate effects on income (even though the exclusion of the first 2.6 per cent from the calculation of agri-monetary aid in 1998 helped to give a more accurate reflection of the impact of revaluation on the market situation). In addition, countries were authorised to provide support from their national budgets to offset the income losses stemming from the depreciation of certain European currencies, in 1995. Thus agri-monetary mechanisms were set objectives that were more ambitious than their initial goal of automatically offsetting the impact of currency movements on institutional prices.[10]

Arrangements as from 1 January 1999. The regulations that have come into force with the euro set all institutional prices and payments in euros rather than ECU, discontinue the green rates and establish a "frozen" rate to convert the direct payments granted under the Common Agricultural Policy into national

currency (see Box 1). For the participating Member States, prices and payments, now set in euros at Community level, will be directly applicable. For producers and consumers in each participating State who opt to work in their national currency until 2002, prices and payments will simply be converted at the exchange rate for the euro against their national currency, as fixed on 31 December 1998 (Table 1). This rate is irrevocable until the national currencies finally disappear, i.e. when national banknotes and coins are no longer legal tender.

The new agri-monetary arrangements are set out in Regulation EC2799/98 of 15 December 1998, taking effect on 1 January 1999. The impact on agricultural prices should be as follows: the effects of the euro on price variations in the agricultural sector appear to have been limited. In so far as variations in agricultural prices are concerned, the euro appears to have had limited effects. In the system prevailing prior to the euro, there was an asymmetry regarding the way depreciations and appreciations of national currencies were passed on to producer prices.[11] The average rate at which payments and support were converted into national currency was higher than the EU market rate inasmuch as some countries showed significant gaps between green rates and ECU market exchange rates prior to the introduction of the euro (see Box 4).

Table 1. Conversion rate for the euro into national currencies

	1 euro =
Netherlands	2.20371 Guilders
Belgium-Luxembourg	40.3399 Belgium Francs
Portugal	200.482 Escudos
Germany	1.95583 Marks
Italy	1 936.27 Liras
Ireland	0.787564 Punts
Spain	166.386 Pesetas
Austria	13.7603 Schillings
Finland	5.94573 Markaa
France	6.55957 French Francs

The disappearance of green rates and alignment of the euro on the value of the ECU have therefore led to cuts in guaranteed agricultural prices, because in each euro-area country the green rate was higher than the market rate (ECU/national currency). It should be pointed out, however, that the impact of ECU conversion rates was only felt when market prices were low and guaranteed prices played an active role on the market. The cuts in guaranteed prices stem from the gaps between the green rates applicable on 31 December 1998 and the irrevocable exchange rates of national currencies against the euro, applicable as from 1 January 1999 (see Table 2). However these price cuts, for which there will be no compensation, are quite small (1 to 2 per cent).

Box 4. Green rates and market exchange rates on the changeover to the euro

1 ECU = *(value at 31/12/1998)* *Currency:*	Market exchange rate	Green rate	Frozen conversion rate for direct payments
Netherlands	2.20755	2.23593	2.14021
Belgium-Luxembourg	40.4055	40.9321	39.5239
Portugal	200.856	203.183	198.202
Germany	1.95896	1.98391	1.90616
Italy	1 940.10	1 973.93	2 248.15
Ireland	0.788832	0.796521	0.829498
Spain	166.710	168.336	170.165
Austria	13.7807	13.9576	13.7190
Finland	5.95497	6.02811	5.88000
France	6.57016	6.68769	6.61023

Table 2. Changes in guaranteed agricultural prices in the eleven euro-area countries

	%
Netherlands	-1.441
Belgium-Luxembourg	-1.447
Portugal	-1.329
Germany	-1.415
Italy	-1.908
Ireland	-1.125
Spain	-1.158
Austria	-1.414
Finland	-1.367
France	-1.916

Compensation was to be payable if farm prices had fallen significantly in national currency, because of an "appreciable revaluation" between the former ACR and the exchange rate for the euro. The compensation is defined in the interim measures (Council Regulation 2800/98). "Appreciable" movement is gauged by considering the euro exchange rate against the lowest ACR in the following three situations: i) over the preceding 12 months; ii) at any time between the preceding 12 and 24 months; iii) at any time between the preceding 24 and 36 months. Only two-thirds of ii) and one-third of iii) were to be taken into consideration. The compensation was to be computed by multiplying the "appreciable" degree of

revaluation by the loss of income, determined by a process explained in Council Regulation 2799/98. No compensation was proposed for a movement of less than 2.6 per cent. The payments should not take the form of production-linked assistance. Any compensation was to be payable in three annual tranches, the second and third each reduced by one-third; the first will be 100 per cent funded by the Commission and the others 50 per cent funded by the Commission.

The introduction of the euro will have greater repercussions on the amounts collected in direct payments. This is because the rate used to convert direct payments in ECU into national currency was frozen in June 1995 (see Box 4 and Table 3). The amounts collected in direct payments have therefore declined, because of the move to the euro, in countries whose currencies have appreciated strongly since 1995, and where the ACR freeze had, until end 1998, prevented a decrease in payments in national currency.[12]

Regulation 2799/98 sets up the terms for interim assistance to offset the reduction in direct payments in national currency, resulting from the introduction of the euro, for those countries where the frozen ACR was less than the euro exchange rate set on 31 December 1998. Compensation is to be calculated, by type of payment and by country, from March 1999.

Table 3. Changes in direct payments in the eleven euro-area countries

(frozen green rate of June 1995/euro rate)

	%
Netherlands	-2.967
Belgium-Luxembourg	-2.065
Portugal	-1.150
Germany	-2.606
Italy	-13.873
Ireland	-5.055
Spain	-2.221
Austria	-0.301
Finland	1.118
France	-0.766

The compensation is payable in three annual tranches, in the form of increases in the direct payments for arable crops and per head of cattle, in the per head compensation for sheep and goats, and in agri-environmental and structural payments. The compensation is mandatory in the first year and 100 per cent funded by the European Union. In the second year it is reduced by one-third and jointly funded 50-50 by the Member country and the Commission. In the third year it is reduced by half, and still jointly funded, 50-50. The share funded by the Member country in the second and third years is optional. The payments will be discontinued after 2001, on the grounds that agriculture must adjust to monetary reality like other sectors of the economy. In the case of structural and agri-environmental payments, if the ceilings have not been reached no compensation is to be provided.

The implications for agricultural prices and payments in non euro-area countries. Denmark, Greece, Sweden and the United Kingdom will still have to convert euro-denominated prices and payments into their national currencies. There is also no longer a green rate for these countries, it being replaced in this case by the exchange rate published by the European Central Bank for the date of the "operative event" for the measure in question.

The Commission regulations set out the conversion procedure for agricultural prices. The European Central Bank publishes daily figures for the euro exchange rates with the British, Danish, Greek and Swedish currencies. For a given operation, such as putting a commodity into intervention or requesting an export subsidy, the exchange rate to be employed is the last rate published by the ECB prior to the date of the operative event, i.e. the day on which the economic measure, defined and set at a given level for a specific economic objective, is decided.[13] Commission Regulations 2080/98 and 2183/98 give precise definitions of the operative events and hence of the date to be used for the conversion. For trade with non-Member countries, for instance, it will be the date on which customs formalities are completed. For transactions between EU countries in the euro-area and outside, it will be the date on which the customs declaration was accepted. For tendering it will be the date on which delivery commences (if no physical transfer takes place, the date on which the bid is accepted). For withdrawal prices in the fruit and vegetable sector, it will be the first day of the month on which withdrawal occurs, and so on (see Commission Regulation 2808/98 or MAFF, 1999).

Box 5. Green rates and market rates for the euro

Currency:	Market rate on 4 Jan 99 1 EURO =	Green rate at 31 Dec 98 1 ECU =	Frozen rate for direct payments 1 ECU =
United Kingdom	0.71110	0.698159	0.755249
Denmark	7.4501	7.56225	7.74166
Sweden	9.4696	9.35538	9.91834
Greece	327.15	338.319	302.837

Even for those countries located outside the Euro area, the asymmetrical system of margins and reference periods has disappeared. Nevertheless, the potential negative effects of appreciable revaluations continue to be taken into account, even if the definition of an appreciable revaluation has changed. For non-participating countries, a system is proposed to offset appreciable revaluations that may occur until 1 January 2002. The compensation is optional, as in the system that applied earlier, and will be payable in March after the change. Previously, appreciable revaluations were based on the evolution of green rates over the preceding three years. Henceforth, an appreciable revaluation means a situation where the annual average exchange rate is below a threshold defined as the lowest annual average conversion rate applied during the previous three years and the rate of exchange on 1 January 1999. In this way the appreciable revaluation defining the compensation is measured. Compensation is paid according to regulation 724/97. In concrete terms, payments are made in three annual instalments, with conditions that ensure that the aid does not affect the volume of production. The payments in the second and third years will be reduced by a third and two-thirds respectively compared with the first year. No aid is granted for the first 2.6 per cent of appreciable revaluation in order to limit the possibility of over-compensation. The amount of aid is

calculated by multiplying the appreciable revaluation by the income loss estimated by the Commission. The second and third instalments may be reduced if the farm income situation is favourable.

The frozen green rate, which had been employed to convert payments set in ECU since June 1995, has been discontinued. The exchange rate employed to convert per hectare payments, set in euros, into the four non-participating currencies is the rate set by the ECB on the first day of the marketing year (the first day of the marketing year is the date of the operative event for direct payments, see Commission Regulation 2808/98), in practice 1 July for arable crops and 1 January for cattle payments. For structural and agri-environmental payments, the ECB rate is again employed, in this case the rate on 1 January of the year in which payment is made.

The disappearance of the frozen green rate and employment of market rates to convert direct payments for the four non-participating countries will mean a reduction in the payments in national currencies for those countries whose currencies have appreciated against the ECU since 1995. As with the euro-area countries, an interim compensation system is proposed. Compensation will be payable for three years if the rate applicable to direct payments at 1 January 1999 is lower than the one applying in the two previous years. Compensation is mandatory and 100 per cent funded by the European Union in the first year. In the second year it is reduced by one-third and financed 50-50 by the EU and the Member country. In the third year it is reduced by half and again funded 50-50. In the second and third years the share funded by the Member country is optional.

Effects of the euro on the EU agriculture budget. The first consequence of the introduction of the euro will be to simplify considerably the rules for establishing and managing the EU agricultural budget. Expenditure relating to the Common Agricultural Policy accounts for half of all European Union spending. Yet payments under the Guarantee Section of the European Agricultural Guidance and Guarantee Fund (EAGGF), unlike many others, were not made in ECU but in the currencies of the different member countries. Under this section, the EU budget has to bear the cost of the exchange risk linked to national currency fluctuations, and this requires complex management.[14] The system engendered disparities between the ECU-denominated amounts in the CAP and those that finally appear in the budget accounts. Foreign exchange risk will diminish with the advent of the euro. As long as some EU Member States retain their own currencies, the risk will remain and net transfers may fluctuate even more than in the past for the four non-participating Member States. This is because, of these four countries, net beneficiaries will collect more -- and net contributors will pay more -- if their exchange rates fluctuate against the euro. This was already the case with the ECU but, because it was based on a basket of currencies, its value adjusted to individual currency fluctuations. The euro, on the other hand, is not affected when the value of other currencies changes.

By removing the disparities between green rates and market rates, at least for the eleven countries concerned, the euro should remove the corresponding burden on the agricultural budget. This is because an overall disparity of one per cent between green rates and market rates represented ECU 400 million in additional expenditure from the agricultural budget. Again, this is basically because the agri-monetary system was asymmetrical, with green-rate adjustments taking far longer when currencies appreciated than when they depreciated. Another reason is the way farmers were compensated for green-rate revaluation, partially from the Community budget (in Ireland and Sweden, the agri-monetary system is said to have accounted for 8 per cent of gross value-added in the sector in 1997: see OECD, 1998).

The Commission has calculated, for instance, that the suppression of green rates (for prices) and "frozen" green rates (for payments) could result in annual savings of 600 million as from 2000, as shown in Table 4. It is necessary, however, to take into account supplementary costs incurred to compensate for reductions in direct aids resulting from the move to the euro. Preliminary estimates set it at around ε 1.1 billion for the period 1999-2002 (CEC, 1998). Overall, even with interim compensation arrangements

for farmers in countries where the disappearance of green rates leads to cuts in direct payments, the introduction of the euro will generate savings for the agricultural budget (Heine and Gazagnes, 1997).

Table 4. Impacts of the reform of agri-monetary arrangements on the European Union budget

Euro (millions)	1999	2000	2001	2002	2003
Compensation for producers in countries with revalued green rates	+136	+654	+226	+101	0
Savings from ending disparity between green rates and market rates	-101	-603	-603	-603	-603
Total	**+35**	**+51**	**-377**	**-502**	**-603**

Source: European Commission

4. Implications of the euro for Associated States

The implications that the euro will have for the central and eastern European countries which are associate members of the European Union is hard to gauge because the association agreements do not touch on the adoption of the euro by these countries (although the EU Monetary Committee holds regular consultations with Associated States) and because the dates and details of their accession have still not been specified (the first wave of accessions, expected to cover Hungary, Poland, the Czech Republic, Slovenia and Estonia, may begin in 2002). There is substantial doubt whether these countries can meet all the euro-area criteria in the near future, particularly with respect to inflation, government deficits and financial market regulation (Hofreither, 1998). If the criteria are not met on accession, they could join ERM2, which would put them in a similar situation to Denmark, Greece, Sweden and the United Kingdom at the moment. Their currencies would then have to fluctuate within the bands applying to these four countries. Other scenarios are possible, however, if the convergence criteria are not met. One could be that new Member States conduct their own monetary policies independently, although there will necessarily be constraints on government deficits.

The growing importance of commercial and financial transactions with the euro-area, and the determination to meet the convergence criteria for EMU, will act as incentives for the Associated States to peg their currency to the euro and to use it as a reserve and invoicing currency. However, there may well be times when the advantages of pegging to an anchor currency are outweighed by enjoying the benefits, in terms of competitiveness, of a flexible exchange rate. Even if there is a political will in favour of pegging to the euro, central and eastern European currencies may conceivably experience major exchange-rate fluctuations in the medium term. Inflation levels are still significantly higher than in EU Member States, and any catching up in economic terms is bound to result in a balance of payments deficit. Furthermore, the high share of inward investment, at a time when some governments are still reluctant to undertake structural reform, suggests a risk of sudden devaluation if there were to be a crisis of confidence.

If the new countries cannot become members of the monetary union, new agri-monetary arrangements could be set up at the next enlargement if necessary, though the precise form of any changes cannot be predicted until the terms of accession are clearer. While the agri-monetary system should not provide incentives to depreciate (because farming accounts for a significant share of GDP in future Member States, mechanisms that raise agricultural prices could encourage a depreciation policy), it should also promote the smooth integration of these countries into the agricultural common market. If conversion rates between central and east European currencies and the euro diverge significantly, there may ultimately be a risk of destabilisation on agricultural markets, and of trade problems similar to those raised by the sharp depreciation of the lira in the mid-1990s.

Transitional arrangements, such as those introduced when Spain and Portugal joined the European Community, are a possibility. During a transitional period, "accession compensatory amounts" were introduced to offset the differentials between farm prices in the ten Member States and in Spain and Portugal. These compensatory amounts were coupled with a mechanism to regulate trade, commodity by commodity, with annual import thresholds between the ten Member States and the two acceding States. The mechanisms worked satisfactorily and helped to ease Spain and Portugal into the agricultural common market, with little impact on the Community budget (Beynet *et al.* 1998).

Nevertheless, a similar mechanism would probably be more awkward to introduce in the Associated States of central and eastern Europe, where agricultural output capacity far exceeds that of Spain and Portugal. Unlike these two countries, whose exports were seldom commodities with administered prices, most of the items exported by future Member States are subject to Community intervention. Moreover, agricultural prices in these countries and in EU Member States are very different (milk and beef prices are around 60 per cent of EU levels). Here, any amounts paid by the EU on imports and levied on exports would be a heavy burden on the Community budget, inasmuch as the future Members are, for the moment, net importers of farm products from the European Union.

5. Effects of the euro on international trade

Intra-community trade. The introduction of the euro is not expected to have a direct impact on agricultural trade flows between euro-area countries. Relative producer prices will change only marginally, since the current disparities stem mainly from different market situations (areas with a deficit or surplus in a product) and transport costs. There has been only a small decline in prices since the green rates have been discontinued (see above). The decreases (or in some countries increases) in direct payments denominated in national currency are greater, but should have little impact on output, since much of this support has been significantly decoupled from production, via reference yields and stocking rates. Consequently, setting the euro at the ECU rate will not make a significant difference to the economic environment of producers across the euro-area. But by setting the relative positions of the EU currencies irrevocably, the introduction of the euro puts an end to competitive depreciation, which has sometimes generated substantial trade flows in the past.

By harmonising export refund criteria, the euro will also prevent speculative movements of exports through ports offering the highest refunds. In the past, monetary disparities diverted third country exports to ports in the Netherlands and to a lesser extent Germany, as well as the United Kingdom more recently (see Box 3). These diverted flows sometimes reached significant proportions, but should disappear with the introduction of the euro and the new agri-monetary arrangements with the four countries located outside the euro-area.

Another effect of the euro on trade flows within the EU is that the elimination of transaction costs will foster a geographical shift in consumption in cross-border areas. Member States and regions with

lower consumption taxes may attract more consumers, once exchange costs have disappeared. While this is not likely to happen on a large scale, the flows could be substantial for tobacco and spirits, since excise duties vary widely from one country to another.

Effects on extra-Community trade. The euro has replaced the ECU on a one-to-one basis. This should not directly cause upheaval in international trade flows or world agricultural prices. However, the disappearance of eleven currencies and the introduction of a new currency common to such an economically important area is bound to have some effect on the system and on international trade. Two factors that are still uncertain may have major implications for trade. The first is the extent to which the euro will become an invoicing currency for global agro-food trade. The second is the position of the euro against the dollar on the currency market.

While the EU accounts for a considerable share of trade (19 per cent of world trade for the eleven euro-area countries), the denomination currently used for the vast majority of transactions is the US dollar. Whatever the scenario, its replacement by the euro would be a slow process. Some of the countries trading more specifically with the European Union, however, such as eastern European and Mediterranean countries, are likely to opt to curb fluctuations in their exchange rates against the euro (Bénassy-Quéré, 1996). The central European countries wishing to become full-fledged Members of the EU eventually will also have an incentive to peg their exchange rates to the euro, to finance any external deficits in euros and to use it as a reserve currency. In any case, they will also be able to opt to have commercial and more specifically agricultural contracts denominated in euros.

The issue of the dollar/euro exchange rate is crucial to agro-food trade (Manegold, 1998). The rate will determine the competitiveness of European farm products and, to a large extent, agricultural prices and incomes. The position of the euro against the dollar will depend on the attitude of the European Central Bank, itself shaped by the confidence of international markets in the stability of the euro, and the international attraction of the euro for investors, central banks (as a reserve currency) and other economic agents (as an invoicing currency). All of these points remain highly uncertain. Some economists are boldly predicting that the euro will appreciate strongly against the dollar (see Box 6). If they prove to be right and the euro is strong against the dollar, the European economies would derive a number of advantages, such as more favourable terms of trade, cheaper imports, more easily contained inflation and lower interest rates. In sectoral terms, however, the competitiveness of European agro-food products could be seriously affected, making it harder to export and hence to observe EU commitments to the World Trade Organisation, particularly where export subsidies are concerned. It should be noted, however, that the evolution of the exchange rate between the euro and the dollar in the first months of 1999 have not confirmed the original predictions. On the contrary, during the first half of the year, the euro continued its downward slide against the dollar and it is still not known whether this is the result of cyclical or short term developments (for example, the Kosova crisis or the fact that Europe and the United States are at different points in the economic cycle) or the result of structural factors.

Uncertainty over the currency and price stability. A stronger role for the euro on the international stage will not necessarily mean a stable euro/dollar exchange rate. Wider fluctuations between the dollar and the euro could have major implications for world prices and agricultural trade.

Several factors suggest that the euro could fluctuate strongly against the dollar and the yen. The introduction of the euro automatically reduces the share of EU Member State “imports”, since intra-euro area trade need no longer be paid in a foreign currency (Siroen, 1998). Since the euro-area will be less dependent on exchange rate fluctuations than the European economies are at present, the European Central Bank will probably attach less importance to the euro/dollar exchange rate. Furthermore, as it has a mandate to secure price stability but not to manage exchange rates, it may intervene less to stabilise the

external value of the euro, while the US Federal Reserve too would be intervening relatively little (Bergsten, 1997).

Box 6. Will the euro be a strong or a weak currency in the medium term?

There is substantial uncertainty over the parity of the euro with the US dollar and the yen.

Certain factors suggest that the euro will be structurally weaker than the ECU:

- The international demand for euros will be lower than demand for the different European currencies, if only because euro-area central banks will free their European currency reserves, and because intra-EU trade will be in euros.
- The introduction of the euro will automatically reduce the openness of EU economies, and hence the extent to which exchange rates contribute to inflation, making it less necessary to have a monetary policy as firm as that of the Bundesbank previously was to secure price stability and low interest rates.
- With the introduction of the euro, European economic agents will diversify their portfolios into foreign currencies, in particular the dollar.
- Many EU Member States have non co-operative monetary policies, in particular on interest rates, and in the past this led to an overvalued ECU. The disappearance of fixed-exchange constraints in Europe could, therefore, push down euro/dollar exchange rates (Le Cacheux, 1998).
- Finally, there is likely to be an increase in euro-denominated loans issued by non-residents, curbing the appreciation of the euro (Bénassy-Quéré *et al*. 1997).

Conversely, other factors suggest a stronger euro. The European Central Bank's monetary orthodoxy, the pressure of public opinion in northern Europe for a strong currency as exemplified by the German Mark (even if this demand seems to have gradually modified over the first few months of 1999), and the fact that the euro-area trade balance is showing a structural surplus all suggest that, in the longer term, the euro could become a strong currency:

- The ECB, which has a mandate to secure price stability, could opt to conduct a rigorous interest rate policy that would bolster the euro's reputation for stability and, in the longer term, bring down interest rates, while at the same time retaining a strong currency that enhances the terms of trade and keeps prices stable.

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- Furthermore, the euro may be stronger precisely because Member States have little chance of gaining from competitive depreciation (Tavéra, 1998). This analysis, which concludes that the euro will be a strong currency, is based on an assessment of how a depreciation of the euro affects macro-economic activity in a Member State, depending on the structure of its foreign trade, before and after joining EMU. One example is the importance that competitive depreciation strategies used to have for a country like Italy. Since any benefits from a depreciation of the lira were largely gained *vis-à-vis* Italy's European partners, many of them would disappear with monetary union, giving the Italian government less incentive to press for a weaker euro.

- A decisive factor will be the capacity of the euro to serve as a reserve currency. If international investors are confident enough to use the euro as an alternative to the dollar and the yen, the euro will be a stronger currency, even if monetary policy is less stringent. At present, over 60 per cent of official reserves are in US dollars (compared with 26 per cent in European currencies) which is used for most international trade transactions. Initially, the disappearance of the "legacy" currencies will mathematically increase the share of international reserves held in US dollars. The size of the monetary area does not appear to be a barrier to the euro becoming a reserve currency. If the Central European Bank's monetary policy bolsters the credibility of the euro on financial markets, there could be more diversification of investment into euros. Nevertheless, if the euro is to take on this role as an international currency, a substantial volume will have to circulate for markets to operate efficiently.

According to some economists, if the dollar loses its status as the sole international currency, payment of the cumulative US debt could push the dollar well down against the euro. The US structural trade deficit may also become less acceptable than in the past, and this might weaken the dollar in the longer term. Even if the uncertainty and controversy persist, economists do not rule out very substantial increases in euro reserves. If the demand for euro-denominated assets comes from outside the euro-area, there will be an inflow of capital that will turn the EU's current account surplus (1.8 per cent of euro-area GNP in 1997) into a deficit. The United States will then be forced to reduce its own deficit (2.1 per cent of GNP in 1997). Such a shift could only occur at the expense of a strong appreciation of the euro against the dollar (Mundell, 1998; Portes and Rey, 1998).[15]

Furthermore, if the euro appreciates against the dollar, and more specifically if a large share of international reserves shift from the dollar to the euro, the basic rules of economics hold that the European Union would then have a large balance of trade deficit, as counterpart to the inflow of capital as non-European countries look for euro-denominated assets. Should the dollar's international supremacy be threatened, it would be more difficult for the United States to finance future current account deficits. If central banks decide to act according to their mandate and focus only on domestic objectives, the policies adopted by the United States and by Europe to respond to such a situation could lead to increased instability of the euro and the dollar. The management of American and European monetary policies would thus become very difficult (Wolf, 1998). Towards the end of 1998, Germany put forth a proposal that Japan, the United States and the European Union co-ordinate their policies so as to reduce such risks. No agreement, however, was reached. In any event, by determining target zones greater fluctuations of other currencies could result. Thus, increased instability due to the introduction of the euro cannot be excluded.

Some authors argue that greater instability between the euro and the dollar would not necessarily be a bad thing.[16] Nevertheless, from a sectoral viewpoint, greater instability in the euro/dollar exchange rate would have serious repercussions for agriculture. It could increase the need for hedging strategies and lead to more pressure for protection against the impact of monetary fluctuations on producer prices, for instance, via wider use of floor/administered prices.

Moreover, with the Uruguay Round Agreement, fluctuations in the dollar against the ECU, and in future the euro, have become more important to European agriculture than in the past. Before 1995, EU producers were protected by a system of variable levies, on an index fixed in ECU. If a weak dollar caused world prices to drop, for instance, protectionist measures increased accordingly. Since 1995, fixed customs duties, which are to fall significantly by the year 2000, have been replacing these variable levies. Consequently, with the exception of safeguard clauses with limited scope, the European Union no longer has a means of offsetting the impact of dollar movements on world prices. And with the decline in subsidies, European exports will be increasingly dependent on movements in the dollar. If the introduction of the euro leads to greater exchange-rate instability between the dollar and European currencies, the consequences in terms of fluctuating agricultural prices and incomes could be considerable for European agriculture. This could lead to increased pressure for protection against variations in producer prices, for example through the maintenance of fixed or administered prices. It is by this, admittedly indirect route, that the introduction of the euro could be less than completely neutral in its impact on the international negotiations that are to take place under the auspices of the WTO.

NOTES

1. Although the Belgian franc and the Luxembourg franc are tied, technically they are separate currencies.

2. In particular, see Emerson, 1990, Bensaid and Ponty, 1991, Eichengreen, 1993, Bénassy-Quéré *et al.* 1997, Bergsten, 1997.

3. There is some controversy over the scale of savings on transaction and administrative costs (Eichengreen, 1993). The Commission has recently estimated them at ECUS 30-40 billion. The 1990 Emerson Report on the potential advantages and costs of EMU put them at around half a percentage point of European Union GDP.

4. The Stability and Growth Pact adopted on 13 December 1996 provides for sanctions when the general government deficit exceeds 3 per cent. These take the form of deposits, which are converted to fines if excessive deficits persist (there are exemptions for "special" circumstances, i.e. sanctions are reduced if real GDP in the country concerned falls by at least 0.75 per cent and are not imposed at all if the fall exceeds 1.5 per cent). The sanctions are dissuasive, since the deposits range from 2 to 2.5 per cent of GDP, depending on the deficit.

5. The theory of optimum currency areas states that it is in the interests of two or more countries to set up an area with fixed exchange rates or a single currency whenever production factors are sufficiently mobile to offset price and wage rigidities and to avoid the costs, in terms of unemployment, of specific macro-economic shocks. This theory has often been used to highlight the dangers of Economic and Monetary Union, with opponents of the single currency demonstrating that the European Union does not meet the optimum conditions laid down by Mundell (1961), Flemming (1962) and McKinnon (1963). Yet one of the limitations of the classic version of this theory is that it ignores certain dynamic aspects (Frankel and Rose, 1996). The structure of trade, like the level of real incomes, goes with the degree of integration in a monetary union and the disadvantages of giving up monetary independence diminish as income levels grow closer. At the same time, the advantages of monetary union increase with economic integration.

6. US federal transfers are often underestimated. In 1997, for instance, Wyoming, the state with the lowest growth, received transfers amounting to $5 200 per head from the federal government (ranking it number two in the country), while taxes were extremely low (less than a quarter of what a similar household pays in Connecticut; *The Economist*, July 18, 1998:51). It is hard to imagine a similar mechanism existing in the EU in the medium term.

7. "Crowding-out" is the adverse effect that measures to boost the economy have on private investment, as interest rates rise owing to increased government spending (Malinvaud, 1982).

8. In the United Kingdom, for instance, support prices expressed in pounds rose by 23 per cent between 1992 and 1996, owing to currency depreciation. However, prices began to fall from 1996 onwards because the appreciation of the pound subsequently triggered a revaluation of green rates, under the mechanism described in Box 2.

9. The European Commission's preliminary draft budget for 1998 allocated ECUS 472 million to cover these payments, mainly for Italy and the United Kingdom.

10. Following the sharp depreciation of several currencies in 1993 and 1995, the Council agreed that some countries with strong currencies could grant direct payments to producers who were experiencing competition from the countries concerned. The payments come from national budgets, and are decoupled from production.

[11]. More specifically, if the gap between the green rate in a particular currency and the average market rate against the ECU over the 10 previous days exceeded a maximum deviation of -2 per cent or +5 per cent, the green rate was readjusted to halve the gap. If the gap was under -2 per cent, the green rate was devalued. If the gap was over +5 per cent, the green rate was revalued. Since the neutral margin had a positive threshold (+5) that was wider than its negative threshold (-2), the system was asymmetrical. Furthermore, revaluation, which pushes down prices in national currency, was not automatic. It had to be ascertained beforehand that the gap was higher than 5 per cent for a certain length of time and that the gap to be eliminated was not just offsetting devaluations that had occurred during previous months. For details, see Gazagnes, 1996.

12. To prevent too great a divergence between the green rate and the "frozen" rate of June 1995, used to convert direct payments into national currency, the European Council of Ministers, meeting in March 1997, decided that the gap between the two should not exceed 11.5 per cent.

13. Under the agri-monetary rules, prices and other amounts must be denominated in ECUS and since 1 January 1999 in euros, even if they are paid or collected by Member States in national currency, and the date on which the operative event occurs is the reference date for the conversion. According to the definition given in the CAP legislation, this date is the day on which the economic objective of the operation is attained.

14. Every month, the Guarantee Section of the EAGGF refunds any CAP expenditure to Member States in their own currencies; in the budget accounts, these payments are converted at the ECU rate applicable on the tenth day of the month following that during which the expenditure was committed.

15. According to Mundell (1998), the US has a cumulative current account deficit of $1 700 billion over the past 15 years, of which $1 000 billion is met by capital flows and $700 billion by the acquisition of dollar reserves by other countries. If these countries moved a significant amount of their reserves over to the euro, the impact would be substantial and the current account deficit could seriously weaken the dollar. Bergsten (1997) thinks that between $500 billion and $1 000 billion in international investment could be switched to the euro, mainly from the dollar. In his view, there could eventually be a bipolar euro/dollar world, with each currency accounting for 40 per cent of financial transactions worldwide. Portes and Rey (1997) have estimated that a shift of $700 billion dollars from dollar to euro reserves would result in a 40 per cent appreciation in the euro (*Financial Times*, 7 July 1998).

16. These variations could be a factor of adjustment in a global economy that has two currency areas subject to what are often asynchronous business cycles. In terms of stabilising exchange rates against an external benchmark like the dollar, for instance, positive effects might be generated at macro-economic level by greater exchange-rate instability between the euro and the dollar (Bénassy-Quéré et al, 1997). Although the Belgian franc and the Luxembourg franc are tied, technically they are separate currencies.

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