

# CURRENCY SUBSTITUTION AND THE EFFECTS ON AGRICULTURAL AND INDUSTRIAL SYSTEMS IN NON-EU MEDITERRANEAN MEMBER COUNTRIES

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The purpose of this paper is to examine the prospects of European Monetary Union (EMU), from the perspective of the partners who do not join. The discussion is based both on simple economic reasoning and on sound economic intuition. Those parts of the argument that have escaped scrutiny so far are more fully developed, along with some empirical evidence. The ultimate objective is to focus on the changes that may lie ahead for EU in general and for agriculture in specific as a result of the implementation of EMU as envisaged in the Maastricht Treaty.

One part of the argument draws on recent research (Yotopoulos 1996) that concludes that currency substitution of "strong" currencies for "weak" has both distributional and allocative effects for the soft-currency countries that are inevitably negative. The case is summarized in section I. The symmetrical proposition is that it pays for a currency to be a reserve currency. The implications of these propositions for Europe pre-EMU and the plausible outcomes post-EMU, when the euro is likely to be a strong contender for reserve-currency status are discussed in Section II. Section III applies the same arguments to the situation in European agriculture, and in particular to that of those countries not included in a common currency. The last section deals with the summary and conclusions.

## I. Exchange rate volatility and devaluations

The volatility in exchange rates that set in after the collapse of the Bretton Woods system caused problems for the European Union (EU). The EU responded by establishing the European Monetary System of 1979 with the members pledging to keep exchange rates within a narrow band (the exchange rate mechanism, ERM). That pledge was reiterated with the Single European Act of 1986 which removed the remaining capital controls as of

### Abstract

**This paper utilizes the distinction between hard and soft currencies to challenge the conventional wisdom that free markets and strong currency is all that is required for economic development and growth. Instead, a free market in foreign exchange sets the soft currency of developing countries on a head-to-head competition with the world's hard currencies and the result is inevitably depreciation for the soft currencies. Moreover, currency depreciation has contractionary effects that could compromise growth instead of leading to development.**

**The objective is to focus on the changes that may lie ahead for EU in general and for agriculture in specific as a result of the implementation of EMU (European Monetary Unit) as envisaged in the Maastricht Treaty.**

### Résumé

*Ce travail utilise la distinction entre monnaie forte et monnaie faible pour lancer un défi à la sagesse traditionnelle d'après laquelle les marchés libres et la monnaie forte suffisent pour assurer le développement et la croissance économique. Au contraire, un marché libre dans l'échange étranger met la monnaie faible des pays en développement dans une position de concurrence tête-à-tête avec les monnaies fortes, ce qui provoque inévitablement la dépréciation des monnaies faibles. De plus, la dépréciation de la monnaie a des effets contradictoires qui pourraient entraver la croissance au lieu de conduire au développement.*

*Ce travail met l'accent sur les changements qui pourraient se produire, au niveau de l'Union Européenne en général et de l'agriculture en particulier, à la suite de l'introduction de la Monnaie Européenne Unique prévue par le Traité de Maastricht.*

1987. The failure on this pledge by members who succumbed to speculative attacks against their currencies in the early 1990s was not unique. In a recent review of exchange rate regimes Obsfeld and Rogoff (1995) find that only six countries defied the "mirage" of fixed exchange rates and kept their currency within a band of plus/minus two percent against any single other currency for a five-year period up to June 1995. The fixed exchange rate stalwarts were: Hong Kong, Thailand and Saudi Arabia against the U.S. dollar, Luxembourg against the Belgian franc, and Austria and the Netherlands against the Deutsche Mark.

In its search for systematic reasons that could account for the fragility of fixed exchange rates the literature has implicitly focused on finding causal links to devaluations. Predictably the fundamentals were hypothesized to play an important role in devaluations. Krugman (1979) called attention to lax monetary policies and unsustainable expansion of credit by the central bank; and Krugman more recently (1996) extends the argument to other macroeconomic fundamentals, as when unexpected cyclical downturns, increasing unem-

ployment, and government debt and deficit problems make devaluation look like an attractive remedial policy instrument.

A novel proposition has been advanced by Yotopoulos (1996) which implies a systematic exchange rate misalignment for developing countries, and furthermore, causally relates devaluation to low rates of growth. Appropriate exchange rate policies are considered crucial instruments for fostering economic development. Exchange rate misalignment, on the other hand, has adverse effects on trade and on growth. Misalignment is normally referenced (often indiscriminately) to the nominal exchange rate (NER) or to the real exchange rate (RER). The implication is that equilibrium in one exchange rate implies equilibrium in the other also. Operationally, this means that the allocation of resources that obtains under an equilibrium NER is identical with the one emanating from an equilibrium RER.

Yotopoulos posits a special relationship that exists between the NER and the RER in developing countries. The distinction between soft and hard (reserve) currency is enlisted in linking

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real with nominal variables in the exchange rate. The difference between the two is that only the hard currency is treated as a store of value internationally. This quality is based on "reputation", which in the specific case means that there is a credible commitment to stability of relative reserve-currency prices (towards other hard currencies, or say, gold). In the case of the soft currency, there is no credible commitment for stability of relative prices. The empirical implication of this difference becomes important in an open economy without capital controls and with free currency markets. There is an asymmetric demand from people in the developing country to hold a reserve currency, say the dollar, as a store of value – a demand that is not offset by Americans, for example, holding assets denominated in the currency of the developing country (°). The ensuing shift in the demand curve for the reserve currency leads to devaluation of the soft currency, and to further loss of reputation. The empirical implication of the distinction between hard and soft currencies is that in free currency markets the exchange rate for the former fluctuates, while for the latter it systematically depreciates. It is a basic time-inconsistency proposition that can trigger a spiral for further depreciation of the domestic currency (°).

This basic time-inconsistency proposition is used to link the NER to the RER, which is the relative price of tradables to nontradables. Consider a situation where one bundle of resources produces tradables or nontradables, measured such that one unit of each is worth \$1. In equilibrium it takes resources to produce either output and entrepreneurs should be indifferent between producing one unit of tradables or one of nontradables. Any deviation from this relationship implies misallocation of resources that has adverse effects on income and possibly growth. Introduce now a slight complication that is ubiquitous in the real world of developing countries: tradables trade in dollars, a hard currency, while nontradables trade in the local currency, which is a soft currency. The soft currency may be devalued. Then it becomes risky for the developing country entrepreneur to produce (or hold) one unit of nontradables that could not be converted for later spending into \$1. Expressed in another way, entrepreneurs are attracted to producing tradables because that is the only way they can acquire \$1 they wish to hold for asset purposes. Thus, relative to productivities measured at "normal" prices, nontradables become undervalued and

resources are biased away towards tradables. This is manifest in a relative price of nontradables that is too low compared with relative productivities. Symmetrically, the expectation of devaluation makes the price of tradables high.

The implication of the hypothesis is that in a *free foreign exchange market* (with no restrictions imposed in acquiring and holding foreign currency) the equilibrium NER tends to be "high" in a developing (soft-currency) country (too many units of local currency to the dollar). This is reflected in a high RER, which in turn leads to a costly trade bias and to a systematic misallocation of resources with adverse effects on growth *ex hypothesi*. Under these circumstances, policies that would reduce the RER would lead to a better allocation of resources. One such set of policies is intervention in the foreign exchange market to reduce the NER by rationing or protection. The empirical implications of the reputation-induced market incompleteness are identical with those of the more conventional incompleteness, e.g., in credit markets, that rests on asymmetric information (Jaffe and Russell 1976; Stiglitz and Weiss 1981; Floro and Yotopoulos 1991). Micro-ICP (International Comparisons Project) data provide price information for a complete set of outputs of an economy, appropriately normalized by the international prices of the same commodities. Data from international trade statistics are used to define tradables ("tradeds") and nontradables on a country-by-country basis. The ratio of the prices of the two is an index of the RER. Although it cannot be used to measure the deviation of the RER from its equilibrium value, it can clearly tell whether one country has higher prices of tradables relative to nontradables than another – i.e., it has a more undervalued RER, always in relative terms. As an example, **table 1** shows the countries that participated in Phase V of the ICP Surveys in 1985, ranked by the value of the RER index. Regression analysis reveals that the value of the RER index is negatively related to the rate of growth of real GDP per capita (**table 2**). The result remains valid when the research is extended within the endogenous growth framework to include other explanatory variables that have featured in the literature, such as the ratio of investment and of government consumption in GDP, school enrolment ratios, and so on. The other variables are dominated by the RER variable (°). How are such empirical results to be explained? Within the RER framework,

observations of relatively high prices of tradables (RER *undervaluation*) can be generated through aggressive devaluation of the NER that increases the price of exports and import-substitutes relative to the price of nontradables, both expressed in units of national currency per international dollar. Such NER policies can lead to overshooting the comparative advantage of a country by extending the range of tradability to commodities that are produced at "high" resource cost relative to nontradables. For instance, some countries without a climatic or resource advantage in producing grapes are known to export wine. Other countries graduate from being exporters of sugar and copra to exporting their teak forests, and on to systematically exporting nurses and doctors, while they remain underdeveloped all the same. If this happens, it may represent non-comparative-advantage trade. This in turn could imply a misallocation of resources against nontradables, which may explain the negative relationship between the RER and the real rate of growth in GDP.

If the preceding analysis is correct, the policy implication that arises recommends fixed exchange rates as an antidote to the systematic tendency of soft currencies to devalue through a process of crawling currency substitution. Moreover, the parable that links nominal exchange rates to tradables and nontradables, and the summary of the empirical results presented suggest that devaluations are contractionary in the sense that there is a causal and negative link between devaluation and growth.

## II. Exchange rate regimes in Europe and the role of the Euro as a reserve currency

There are some countries in Europe with strong currency: Germany, the Netherlands, Belgium-Luxembourg. There are also countries which periodically or consistently have had weak currency: England, France, Greece, Italy, Portugal, and Spain. Ireland and Denmark, at least at present, are some-

(°) This is Keynes' "precautionary" demand for foreign exchange. For the case of asymmetrical currency substitution - where there is no demand for domestic money from non-residents - see Ramirez-Rojas (1985), Cuddington (1983), Wallace (1979), Miles (1978). For further discussion see Yotopoulos (1996, Chapters 11 and 12).

(°) For the dynamics of a simple model of currency substitution where the expected rate of depreciation enters see Calvo and Rodriguez (1977), Agènor (1994).

(°) For a full discussion see Yotopoulos (1996: Chapter 7).

where in between <sup>(4)</sup>. The remarkable observation, however, is that even the weak-currency countries have ended up having relatively overvalued, strong currency status, when examined in a world scale. Of the EU countries that appear in **table 1** only two, Greece and Portugal, are ranked relatively high on the RER index. The rest, Germany, France, the Netherlands, Denmark, Belgium, Ireland, and Italy, are ranked towards the bottom of the distribution. While no implication should be attached to the cardinal scaling in that table, the ordinal value of a high RER, with high relative prices of tradables, is indicative of "high" nominal exchange rates. If there is an impact from devaluation, it should be located at the high-ranked end of the table. There are benefits in belonging to the strong currency group and there are costs in having a weak currency. But the implication of the argument in the previous section is clear. To the extent that weak-currency countries are afflicted by misallocation of resources and therefore suffer, other things equal, lower rates of growth, the weaker partners of the EU must have been sheltered from the contractionary effects of devaluation. The monetary externalities from the association with the strong currency partners were largely positive. This is not expected to continue post-EMU. The polarity within Europe is likely to be intensified as the In-countries share in the benefits of issuing a reserve currency, the euro, while the Out-countries are likely to face the distributional and allocative costs of competitive devaluation of their weak currencies. The EMU will skew the system even further by providing benefits to the In-countries, and imposing additional costs on the Out-countries. The discussion in this section focuses on the component of the benefits for the In-countries that relates to the creation of a reserve currency, the euro, and of the costs to the Out-countries that emanate from currency-substituting the euro for the weak currencies of the Outs. The agriculture-related costs to the Outs are treated in the next section. The advantages of

<sup>(4)</sup> Within the CAP weak-currency countries can be defined as those that have negative MCAs and strong-currency countries the ones with positive MCAs. See below.

<sup>(5)</sup> Federal Reserve Board Governor Lawrence B. Lindsey, in a 1994 speech that reminded Americans of the benefits of international currency status, estimated the cumulative additional Fed currency seigniorage since 1981 to be \$64 billion. Another calculation suggests that the U.S. derives about \$12 billion a year in seigniorage from foreign holdings of U.S. currency, which are conservatively estimated at 60% of total dollar currency in circulation.

**Table 1 Countries ranked by the value of the RER index, 1985.**

Country	RER	Country	RER
Ethiopia	1.967	Kenya	1.070
Rwanda	1.962	Morocco	1.069
Pakistan	1.747	Norway	1.013
Malawi	1.713	Netherlands	1.009
Sri Lanka	1.546	Turkey	0.998
Yugoslavia	1.542	Denmark	0.980
Greece	1.417	Australia	0.969
Ivory Coast	1.329	Belgium	0.963
Portugal	1.230	Jamaica	0.949
New Zealand	1.208	Sweden	0.933
Nigeria	1.196	Canada	0.928
Thailand	1.193	Japan	0.923
Hungary	1.192	Ireland	0.918
Egypt	1.186	Finland	0.879
India	1.178	Italy	0.831
Germany	1.155	Poland	0.829
France	1.095		

Source: Yotopoulos (1996), Chapter 1, Table 1.1.

establishing EMU and joining the In-countries have been described in the popular press in terms of the savings in transaction costs for the traveller within Europe, the convenience for importers and exporters, borrowers and lenders, who deal in their own currency, and the additional business the common currency creates for the In-country banks and other financial institutions. The professional analysis, on the other hand, focuses on the benefits of establishing an anti-inflationary policy based on the credibility effects of appointing a "conservative central banker" (Rogoff 1985). The analogy holds with joining the EMU since it ties the hands of weak policymakers by linking the members' monetary policy to the anti-inflationary preferences of the dominant central bank (Giavazzi and Pagano 1988). This is a rather narrow approach. Monetary union has more profound effects. The In-countries by sharing the same currency will be redefining the range of tradability of their respective economies. What was previously intra-EU trade will be within-EMU exchange. Current account balances between two In-countries would make no more sense than the current account balance between Arkansas and California. It makes a difference whether a member is a poor country in the EU or a poor region in an EMU. An even more important benefit arises if the euro becomes a reserve currency and vies for the dominant reserve currency position with the U.S. dollar. A reserve currency is one in which central banks hold their official reserves. With official reserves often being invested in interest-paying Treasury Bills, the reserve issuing authority ends up paying lower interest on its debt. Even more important, the fact that reserve currencies, certainly including the future euro, are

treated as a store of value internationally makes the reserve-country debt easier to repay by rendering the distinction between tradables and non-tradables immaterial. One way of understanding this is to compare a DC and an LDC along the continuum of possibilities for transforming nontradable output, or the resources that produced it, into tradables. To enhance the intuition suppose both countries, e.g., the United States and Greece, are overindebted. With the drachma being a soft currency and the Greek debt being denominated in dollars (because the drachma is soft currency), Greece cannot service its foreign debt from the proceeds of producing nontradables. These are traded in drachmas. It has instead to shift resources away from the nontradable sector to produce tradable output in order to procure the dollars for servicing the debt. In the U.S., on the other hand, the debt is serviced in dollars whether the output produced consists of tradables or nontradables. This option alone is very valuable since the reserve-currency country avoids any contractionary effects that can be associated with devaluation and with a biased shift of resources from nontradables to tradables (Yotopoulos 1996, Edwards 1989, Agènor and Montiel 1996). The most visible gain from issuing the reserve currency is the interest-free loan to the issuing authority for the use of the money by the reserve-currency holders. This gain is equivalent to the profit that American Express makes when people hold its traveler's checks, which they are willing to do without receiving any interest. By all accounts the cash value of the seigniorage on reserve currency can be as high as one percent of GDP. In the current growth environment this is a big number <sup>(5)</sup>. The seigniorage gains of the

**Table 2 An abstract of the relationship between growth and real exchange rate.**

	RER 1	RER 2
<b>Test 1. All countries; 1970, 1975, 1980, 1985</b>		
Coefficient	-0.021	-0.024
T-statistic	-2.708	-2.947
Constant	0.040	0.068
Standard error of Y est.	0.025	0.024
Number of observations	123	123
Adjusted R2	0.049	0.139
<b>Test 2. All countries; 1980, 1985</b>		
Coefficient	-0.025	-0.021
T-statistic	-2.720	-2.051
Constant	0.040	0.042
Standard error of Y est.	0.024	0.024
Number of observations	86	86
Adjusted R2	0.070	0.064
<b>Test 3. All countries; 1985</b>		
Coefficient	-0.031	-0.022
T-statistic	-3.290	-1.963
Constant	0.051	0.033
Standard error of Y est.	0.019	0.017
Number of observations	37	37
Adjusted R2	0.124	0.322
<b>Test 4. All countries; 1980</b>		
Coefficient	-0.021	-0.021
T-statistic	-1.270	-1.165
Constant	0.032	0.045
Standard error of Y est.	0.027	0.028
Number of observations	49	49
Adjusted R2	0.013	0.000
<b>Test 5. All countries; 1970, 1975</b>		
Coefficient	-0.023	-0.034
T-statistic	-1.995	-2.533
Constant	0.056	0.096
Standard error of Y est.	0.023	0.022
Number of observations	37	37
Adjusted R2	0.076	0.123
<b>Test 6. Low and middle income countries; 1970, 1975, 1980, 1985</b>		
Coefficient	-0.019	-0.025
T-statistic	-1.851	-2.416
Constant	0.035	0.073
Standard error of Y est.	0.030	0.029
Number of observations	74	74
Adjusted R2	0.032	0.112
Source: Yotopoulos (1996), Chapter 1, Table 1.2.		
Note:		
The dependent variable is annual rate of growth of real per capita GDP for a five-year period, centered on the year of observation.		
RER is defined as the ratio of relative prices of tradables to nontradables appropriately normalized by international prices and aggregated using expenditure weights.		
RER 1 reports the coefficient of the simple regression.		
RER 2 reports the coefficient of the RER after controlling for time (the slow-down of growth in the 1980s), DC-LDC status, and trade regime.		

reserve currency countries create a symmetrical loss for the soft-currency countries. The symmetry originates from the fact that in free currency markets the reserve currency is not only held by central banks; it finds itself also in individual savings accounts and in hoardings. This "precautionary" demand for foreign exchange amounts to currency substitution which, in the limit, makes devaluation of the weak currency a self-fulfilling prophecy. The process results in distributional and allocative losses for the weak-currency countries.

While the monetary regime under the ERM contributed to exchange rate stability and can even be credited with the expansionary effects of selective overvaluation in Europe, the creation of a reserve currency for the Ins is likely to

unleash an asymmetric demand from Out-residents to hold euros as a store of value – a demand not offset by In-residents holding weak currencies as an asset. This asymmetry tends to increase the price of the euro in the Outs – to depreciate their currencies. This will encourage currency substitution, a flight from the Out-currency, which will precipitate further depreciation. Expectations of devaluation feed on themselves to become self-fulfilling prophecies. The fault is not with the Out currencies as such. In free currency markets, without restrictions on foreign exchange, devaluation of the soft currency is inevitable and it becomes a political economy bubble: a set of reinforcing expectations. Even worse, if the analysis in the previous section is valid, the result of exchange rate instability

and devaluation for the Outs will be adverse on their economic growth. Europe of two speeds is likely to accentuate the split between the reserve currency Ins and the soft currency Outs, with the latter being further unhinged from the EU, let alone the EMU.

### III. CAP: the green money system and exchange rate weakness

The Common Agricultural Policy (CAP) has always had a link with the monetary conditions in the EU. One such link is particularly relevant to the argument of the preceding sections. The CAP served as one of the mechanisms that allowed soft-currency EU countries to maintain relatively overvalued currencies. In particular the "green money" system played a role in the process of monetary adjustment in Europe.

A basic objective of the Common Agricultural Policy (CAP), as it has operated since 1961, has been to set for the EU partners common agricultural support prices, at first in "units of account" and later in ECUs. Along with common support systems and common financing this has been one of the three "pillars" of the CAP. Such common pricing can however create problems when exchange rates change, as institutional prices must be translated into national currency for implementation by the local authorities. The European Community first sampled these problems in 1969 when the fixed exchange rates of the Bretton Woods system had moved out of alignment, necessitating a devaluation of the French franc and a revaluation of the Deutsche mark relative to the U.S. dollar.

Before devaluation the CAP intervention price of wheat of (say) 100 "units of account" per ton amounted to 494 FF and 400 DM for the French and German farmer, respectively, when they sold their wheat into intervention (public storage). After the FF devaluation (toward the U.S. dollar), the same price in units of account was equivalent to 555 FF per ton, a 12% increase in the intervention price in France, compared to the pre-devaluation regime. With the inflationary effects of devaluation hitting too close at home, the French government sought and received permission for the "temporary" use of the old exchange rate (4.94 FF per UA) rather than the new official rate (5.55 FF per UA) in converting EC prices to national currency. The devaluation of the franc was followed within a month by the revaluation of the Deutsche mark

(toward the U.S. dollar) which meant that the 100 UA intervention price was only worth 364 DM, a fall of 9 percent in local currency. The German government was concerned about the impact on farm incomes, coming so soon after the reduction in prices to the common level from 1964-67. Even worse, French farmers had an incentive to export their wheat in order to receive the intervention price in terms of the strong DM, instead of the the weak FF. The concern over the arbitrage effects mounted as the German authorities ran out of storage capacity for the grain purchased through intervention. Germany therefore sought and received permission to cushion the farmers from the impact of DMark revaluation. With French prices of wheat lower and German prices higher than anywhere else in the EC the objective of the CAP of common pricing was effectively annulled.

The temporary measures soon gave way to a more general mechanism for offsetting the impact of currency changes on the farm sector (or at least on the farm support prices). Special exchange rates were used to translate common prices to local currencies. These "green" rates were in effect lagged market rates: they tended to stay steady in the face of market rate changes, until such time as the government concerned could countenance an adjustment. When they moved it was in the direction of the market rate, reducing wholly or in part the gap. Arbitrage problems were handled at the national border with the imposition of taxes and subsidies, called in European parlance monetary compensatory accounts (MCA). They taxed the exports and subsidized the imports of weak currency countries, while subsidizing the exports and taxing the imports of strong-currency countries. The MCA system was financed centrally and had the effect of allowing countries to fix support prices in domestic currency rather than in ECU. This was the essence of the multiple exchange rates, the so-called "green money system", that applied in the CAP for about twenty-five years (Josling and Gardiner 1992).

Maintaining such exchange rate parities for agricultural goods different from those operating in the market altered the economic impact of devaluation, by eliminating some sub-part of the market for traded goods from the relative price changes. A country devaluing would find that agricultural import goods now were no more expensive than before, thus avoiding the expenditure-switching and contractionary

effects of devaluation in that commodity market. On the export side the same thing would be true: the expansion in demand for the product as a result of increased competitiveness would be masked. Agriculture in the devaluing country would therefore be exempted in part from the direct effects of the currency change – and by the same token would play a reduced role in the adjustment.

The system had one feature that was potentially important to several of the member states. The green money system operated only for goods subject to common market regulations under the CAP and in particular to those commodities subject to intervention buying. Thus a country exporting fruits and vegetables, for which no intervention buying existed, and importing cereals and livestock products, where intervention was in place, had an incentive to delay the impact of devaluation on the farm sector through MCAs, knowing that the export sector was not disadvantaged. In effect this was precisely the situation of the countries in the Mediterranean periphery of the EU, which otherwise drew only a small share of the agricultural support from the CAP system.

**Table 3** ranks the 12 countries of the EU by the 1993 ratio of the value of exports to imports of the main intervention commodities. Somewhat surprisingly, all strong currency countries are net exporters of intervention commodities, and therefore were positively affected by the MCA system. Several of the weak-currency countries among the 12 were net importers, such as Italy, Spain, Greece and Portugal, and these countries enjoyed an MCA-conferred subsidy on their imports that offset, at least temporarily, the increase in prices of intervention commodities that devaluation would have entailed. As net exporters, the remaining weak-currency countries, France, Ireland, and the U.K., were taxed. These countries gained no net advantage from the subsidy on imports of these commodities, as it was offset by the tax on exports. The strong currency countries derived some advantage for their agricultural sectors, as the MCA system reduced the pressure from the devaluation-induced competitiveness of the weak currency countries. The strong currency countries had their exports subsidized as they moved to net-importing countries (or to the rest of the world).

**Table 4** presents the ranking by the same criterion of value of exports to imports for fruits and vegetables, which are non-intervention commodities. (Data for olive oil and wine would

show a similar pattern.) The weak-currency countries rank consistently at the top of the table, and the strong-currency countries at the bottom, with the exceptions of Germany that ranks high and France that ranks low. The weak currency countries are net gainers by exporting their non-intervention commodities at the market prices of the strong-currency countries. The strong currency countries have less of an incentive to preserve a system which gave no obvious benefit to their (non-intervention) exports.

The effects on both tables together amount to a small advantage for the net-importing weak-currency countries conveyed through the subsidy to imports of otherwise expensive intervention commodities, and a strong advantage that they have almost exclusive access to the markets of the countries with strong currencies for their exports of fruits, vegetables, olive oil and wine. The system played a role, whether wittingly or not, in the adjustment process following exchange rate changes. The usefulness of the green money system as a way of reducing the inflationary impact of devaluation, however, declined as the weak currencies in the EU became stronger. It is an irony that the nature of the agro-monetary relationships of the EU may have been in part responsible for the fact that some of the weak currencies of the Union became overvalued in relative terms. Also, the operational mechanism of the MCA collapsed as the national borders, where taxes and subsidies were assessed, disappeared with the completion of the internal market. Accordingly the "green money" system (of green currencies and MCAs) virtually disappeared in 1993, and the small gaps which now exist between green and market rates are not enforced by MCAs.

Will the green money system become an historical curiosity in the world of EMU? Clearly the adoption of a common currency by all countries would remove the system once-and-for-all. But a partial common currency, between a small group of Ins could raise the issue of green currencies again. The "need" for a green money system will only have totally atrophied for the core countries. Common pricing of agricultural commodities will be preserved for the Ins through the common currency, the euro, and the integration of the internal market would be complete in the sense that each partner would in economic terms be just a region within the market. The situation is totally different for the Outs. Recently imports of the interven-

tion commodities, especially of grains and meat, have been becoming more expensive for the weak-currency countries as the green money system has been phased out. Further strengthening of the euro will exacerbate this effect. If the argument of the first part of this paper is valid, the moment of truth will come when the stronger currencies opt for monetary union. The excluded countries could suffer a prolonged devaluation which will drastically affect their relation to the rest of the EU. The cost of their imports of the intervention commodities will correspondingly increase, with the effect being especially burdensome for the three biggest net importers, Portugal, Greece, and Spain (table 3).

The response to this development could have a major impact on the integrity of the Union as a whole. One part of that integrity is the internal market, with free movement of goods, services, labor and capital. Any attempt to return to the "green money" system of the period up to 1993 would be problematic. One could of course imagine those countries outside the common currency establishing green rates vis-à-vis the euro which would over time be stronger than the market rate. Weak-currency importers of the temperate zone goods would benefit from the import-subsidy element of the MCA system. In effect the rest of the EU would be subsidizing the imports (relative to EU internal prices) of the weak-currency countries. This would, however require action at the internal borders of the weak-currency countries, and would represent a regression from the single internal market. Going beyond the operational difficulties, whether the idea of the subsidy as such would be politically acceptable is a matter for debate. The green-money system was arguably kept in existence less by benevolent concern over weak-currency countries and much more as a result of pressure from the strong-currency countries to maintain their own high price levels without facing the risk of arbitrated imports from their weak-currency partners. Whether the weak-currency countries could persuade the EU to adopt a "one-sided" green rate system to offset the impact of their devaluations is doubtful. The chances are that this would be seen as rewarding competitive devaluations and lax economic policies.

The weak currency countries could of course explore the possibility of unilateral action. They could for instance reduce inflationary pressures by unilateral liberalization. The country wishing to offset the negative impact of higher

**Table 3 EU agricultural trade for intervention commodities: ranking of countries by ratio of exports to imports (total value, all destinations).**

	1993	1990	1978
Denmark	2.76	3.51	3.80
France	-1.71	1.87	1.87
Germany	1.48	1.51	1.29
Ireland	1.43	1.75	2.27
UK	1.19	1.21	0.72
Belgium/Luxembourg	1.07	1.11	1.10
Netherlands	0.97	0.98	1.12
Italy	0.67	0.62	0.41
Spain	0.36	0.39	0.12
Greece	0.35	0.31	0.24
Portugal	0.33	0.27	0.05

**Table 4 EU agricultural trade for non-intervention commodities ranking of countries by ratio of exports to imports (total value, all destinations).**

	1993	1990	1978
Portugal	1.83	1.66	1.87
Italy	0.93	1.16	1.49
Germany	0.89	1.03	1.62
UK	0.88	0.98	1.24
Greece	0.62	0.67	0.43
Spain	0.52	0.56	0.75
Belgium/Luxembourg	0.50	0.59	0.77
France	0.36	0.37	0.54
Netherlands	0.30	0.32	0.38
Denmark	0.25	0.20	0.26
Ireland	0.21	0.23	0.21

import prices could simply reduce the protection at the border, importing cheaper goods from outside the Union. This would of course fly in the face of the Common External Tariff of the EU and the concept of a uniform external border. As such it would be even more politically difficult to gain agreement from other member states, who would certainly fear a spread of the "renationalisation" of trade policies to other areas. It would also imply the reintroduction of borders within the EU, at least around the core countries, to prevent trade deflection.

Strong currency countries may also seek ways of dividing the internal market. The equivalent of MCAs could re-emerge as a reaction of strong-currency countries to increased competition from their devaluing neighbors. This would also imply the re-erection of trade barriers or the payment of decoupled payments to farmers affected by the increased competition. Such action, besides being politically divisive, could also exacerbate the adjustment problems for the Outs. It would not be surprising under such circumstances to see growing pressure from these Outs to find a looser relationship with the core which would allow them to run independent trade policies, perhaps along the lines of the European Economic Area.

As neither of these options allows for the continuation of a seamless internal market and a common external trade policy, it seems that a different approach is needed. Such an approach has to start with the concept of trying to assist the weak currency countries to join the core expeditiously. This requires continued transfers to assist the weak currency economies to increase their competitiveness and enhance the international reputation of their currency. The strong-currency countries should be in a better position to make such transfers as a result of the seigniorage windfall from the reserve currency position of the euro. Present proposals seem designed to do the opposite, taxing countries that do not meet certain macroeconomic criteria. If the core wants to keep the Union together, let alone accommodate another ten or so countries, it will have to find some way of preventing the currency weakness of the Outs from destroying the benefits of membership in a large internal market.

#### IV. Conclusions

This paper utilizes the distinction between hard and soft currencies to challenge the conventional wisdom that free markets and strong currency is

all that is required for economic development and growth. Instead, a free market in foreign exchange sets the soft currency of developing countries on a head-to-head competition with the world's hard currencies and the result is inevitably depreciation for the soft currencies. Moreover, currency depreciation has contractionary effects that could compromise growth instead of leading to development.

These basic premises are applied to the prospect of EU with a core group of countries that join the EMU and the rest of the countries outside. The In-countries will derive immediate benefits, including the seigniorage gains of providing a reserve-currency alternative to the U.S. dollar. The Out-countries, on the other hand, will suffer by having their currencies depreciate against the euro. With the soft currencies of the Outs becoming softer, the integrity of the internal market of the EU could be compromised. The issue of agriculture post-EMU leads to the distressing conclusion that "Europe of Two Speeds" is likely to lead to the break-up of the EU. The alternative is for the In-countries to

generously support the Outs with the objective of their immediate integration in the EMU. ●

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