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The EU on the 50th Anniversary of the Treaty of Rome

March 25, 2007 marks the 50th anniversary of the Treaty of Rome, the signing of which is considered to be the birth of the European Union. On this occasion the following articles discuss past and present developments in a number of important European policy fields.

Wolf Schäfer*

The Trade-off Between Enlarging and Deepening

The Treaty of Rome of 1957 has fostered an integration process that has been exceptionally successful in political and economic terms, because it has strengthened peace and increased wealth in Europe, whereby it may be assumed that increasing wealth is in fact one of the decisive conditions for safeguarding peace. And for this reason it was right to begin – by way of a European Economic Community and the successive realisation of a liberalised economic area – with a strategy aimed at increasing prosperity in the member countries until such time as the economic foundation appeared strong enough to allow for a step-by-step expansion of the institutional infrastructure of the Community. For some time now, however, the generally positive picture of European integration has been clouded by a development strategy on the part of the European Union that is becoming increasingly unclear. In addition to the fact that the finality of the integration process remains open, the strategic planners responsible for European policy appear to have significant deficits of understanding when it comes to developing a sustainable future for the EU. In concrete terms, the question in hand is the following: is the EU enlargement strategy compatible with a simultaneous deepening strategy?

The Basic Issue

On the one hand, the EU has been expanding for decades and it is not clear which, if any, economic, political, legal or geographical limits should be established for future enlargement. On the other hand, there is at the same time a palpable tendency – driven above all by the EU's Community bodies – towards an institutional deepening of the Union which is resulting in an increasing centralisation and harmonisation of fields of policy and which similarly has no clearly defined limits. The enlargement strategy is being pursued alongside the deepening of the EU; enlargement and deepening are thus considered to be *complementary* to one another. This strategy needs to be subjected to a fundamental review, for it lacks consistency, which means that it is in danger of failing. The question to be considered is whether the relationship between enlargement and deepening of the EU is, rather, a *substitutional* one, i.e. that with every round of enlargement, as a matter of principle, a step towards less deepening potential is taken. In this sense, there is thus a trade-off between enlargement and deepening.

This trade-off is a core element in the theory of the optimal size of states or integration areas. What determines the size of a state and its changes? Within the context of the debate on EU enlargement, the question at hand is the following: is the EU just the right size? Or is the EU still too small or already too large? And in this connection: can the current institutional infrastructure of the EU cope with further rounds of enlargement? And if so, only if it is deepened, or perhaps only if the exact opposite occurs?

The Fundamental Trade-Off

The trade-off that determines the size of an integration area is between the positive welfare effects generated in large countries[1] by increasing returns to scale in the production of public goods on the one hand, and the costs of heterogeneity that ensue as a result of diverse preferences within the population with regard

* Professor of Economics, Helmut-Schmidt-University Hamburg and Europa-Kolleg Hamburg, Germany.

to these public goods on the other.[2] Consequently, no such trade-off exists if preferences within the population are completely homogeneous. Thus, if all the people in the world had the same preferences with regard to public goods, then the whole world would be the optimal integration area, because then the returns to scale could be maximised without any heterogeneity costs.[3] Enlarging the integration area will thus always be advantageous if those joining it have the same preferences as the inhabitants of the existing integration area with their homogeneous preferences.

As far as the economies of scale are concerned, these can be demonstrated using two examples. Focusing first of all on those kinds of public goods for which the cost of provision does not (wholly) vary with the size of the population, it is evident that the per capita cost of provision falls as the population grows, thus leading to lower per capita taxation. Public goods of this kind with a high proportion of fixed costs include *inter alia* defence, the legal system, monetary and fiscal policy, certain parts of public infrastructure, public communications systems, the diplomatic service etc. Moreover, the efficiency of taxation is often higher in big countries than in small ones because of the large-scale technical infrastructure involved.

As a second example it may be stressed that big countries mean big domestic markets, and that because of the corresponding volume of protection-free domestic trade they enjoy productivity advantages over smaller countries with smaller markets. On the basis of this argument alone, large countries should always be richer than small ones. However, this is not true if small countries have opened up to such an extent that they are integrated into the global economy, for then their market size is determined by the global market. With any given political borders, the economies of scale are therefore determined by the degree of openness of the country in question and the degree of its integration into the international division of labour.

Now, as far as the heterogeneity costs – which run counter to the economies of scale – are concerned, these are higher in big countries than in small ones, because it can be assumed that citizens' preferences become more diverse as the size of the population increases. In this context, the differences in preferences relate to the public services provided by the country's government. They are based on non-economic (cultural, ethnical, linguistic, religious) and economic factors (e.g. personal and regional differences in income levels). In addition, heterogeneities of preferences are also influenced by geographical distances: the greater the proximity to public goods – e.g. to a school, authorities, to the country's capital – the lower the transaction costs, and vice versa. Moreover, there is a high level of correlation between the geographical proximity of citizens and the homogeneity of their preferences.

The result of all this is that the centralised production of certain public goods in big countries meets the preferences of relatively fewer citizens than in small countries. With any given supply of public goods, the number of dissatisfied citizens is therefore relatively larger in big countries compared to small ones.[4] This failure to satisfy citizens' preferences together with the compensation payments sometimes triggered as a result – e.g. disbursements from the EU structural funds – constitute the heterogeneity costs of large integration areas.

Compensation payments come into play especially in situations where regional income disparities lead to regional preference heterogeneities with respect to the redistribution policy of the central government: poorer regions have a greater interest in income transfers than richer ones, the poorer ones consequently also prefer higher taxes for the richer ones than these do themselves. Since preference heterogeneities between individual regions of an integration area due to income disparities foster an inclination towards secession and opting out on the part of the poorer regions, central compensation payments can serve to prevent such secession and opting out. The more free trade there is outside the integration area, i.e. the fewer barriers exist to access a bigger market, the lower the costs of secession will be for a poorer region and the more leverage it will have in pressing for transfer payments if the central government is keen to prevent the break-up of the integration area.

On the other hand it is also true that richer regions may also incline towards secession if their preferences for making transfer payments to the poorer regions are

[1] In this context the size of a country is not measured geographically but by the size of the population.

[2] Cf. also for the following Alberto Alesina, Enrico Spolaore: The Size of Nations, Cambridge Mass. 2003.

[3] This is not the case if the returns to scale decline beyond a certain size of country, e.g. as a result of disproportionately high administration costs. This point is made *inter alia* by Eric Jones: The European Miracle: Environments, economics, and geopolitics in the history of Europe, Cambridge et al. 1981, chapter 7.

[4] This is probably one cause of the increasing number of conflicts around the world within large countries where ethnical, racial, religious, linguistic and cultural heterogeneities bring national central governments into difficulties and where repression and force are then often used in an attempt to superficially homogenise the various heterogeneities. Incidentally, from this perspective it may be recognised that countries ruled by dictatorships are typically too large.

not strong enough to satisfy the preferences of the latter. This will be the case if the richer regions consider those economies of scale of the larger integration area which are of relevance to them to be smaller than the cost of the transfer payments they have to make. This means that, in principle, smaller regions have less power to force transfers than larger ones.

Economies of scale as an advantage and heterogeneity costs as a disadvantage of large jurisdictions form the basis of the theoretical concept of the *optimal size of states.*[5] The optimal size of a country as a theoretical concept requires that it be derived under specific institutional restrictions. One can also say that different institutions lead to different optima. For example, heterogeneity costs in centrally governed states are higher than in states with decentralised political institutions, with the consequence that a centralistic policy will tend to be more appropriate in smaller rather than larger states as long as the economies of scale of the latter do not offset or exceed their higher heterogeneity costs. This means in other words that the less homogeneous the preferences of citizens in larger countries are, the less successful a centralistic policy will be.

In terms of the EU this implies the following: the EU institutions conceived in 1957 for the relatively small integration area of the six founding members with relatively homogeneous preference structures, can only cope with an increase in heterogeneity caused by enlargement insofar as corresponding economies of scale are simultaneously generated by the said enlargement. If the latter does not take place to a sufficient extent, then the problem arises that the optimal size of the integration area is exceeded – at substantial cost: the EU becomes less efficient, the functional capability of its institutions is eroded with disintegrative friction, the average level of wealth within the Community declines.

The concept of the optimal size of states corresponds, incidentally, to that of the *equilibrium size of nations,*[6] where the important differentiation is whether the size of the population (or the country's borders) is established on a democratic basis or on dictatorial-leviathan terms. Most national borders are determined neither on an exclusively democratic basis nor solely as the result of dictatorial decisions, although during the course of history the latter alternative has clearly tended to dominate. In the case of EU enlargement, however, new borders are drawn as a result of decisions taken by the EU members, thus corresponding more to the concept of the democratic[7] than to the dictatorial-leviathan equilibrium size of an integration area: the EU is free, in principle, to determine its own borders.

Enlargement *cum* Deepening?

For the EU, it is necessary to focus more strongly than has hitherto been the case on the trade-off between economies of scale and the costs of heterogeneity. The problem lies in the EU strategy of enlargement coupled with simultaneous institutional deepening, which theoretically implies that the proponents of this strategy consider the economies of scale generated by EU enlargement to be greater than the increase in the costs of heterogeneity – and this, moreover, to an extent that still provides scope for deepening, which, as we have seen, typically raises the costs of heterogeneity when it is characterised by the increasing centralisation and harmonisation of fields of policy within the EU.

Now this is indeed the case, for the EU – as documented in the treaties of Maastricht, Amsterdam and Nice, and finally in the draft constitutional treaty – is taking control of more and more fields of policy in which economies of scale are by no means apparent, but where preference heterogeneities within the EU are substantial.[8] Thus the EU postulates an ever increasing number of Community responsibilities *inter alia* in the fields of social, structural, environmental, employment, health, industrial, technology, transport, research and education policy. These are policy areas which (still) lie almost exclusively within the competence of the member states and in accordance with the principle of subsidiarity, the EU's fundamental principle of action, do indeed belong there.This is also true of the proposed EU Fundamental Rights Agency, which similarly belongs in the category of "central EU competence presumptuousness".[9]

The presumably decisive grounds for the appropriation of an increasing number of responsibilities on the part of the EU Community institutions are of a politico-economic nature: the Community institutions are striving to strengthen their power base by extending their central(ised) fields of activity. They thus have an inter-

[5] Also variously derived on the basis of club theory approaches, cf. *inter alia* Luca de Benedictis, Pier Carlo Padoan: EC Enlargement to Eastern Europe. Community and National Incentives and Sectoral Resistances, Milan 1993.

[6] Alberto Alesina, Enrico Spolaore, op. cit.

[7] Here to be abstracted from the well-known democracy deficit of the EU.

[8] Cf. also Alberto Alesina, Ignazio Angeloni, Ludger Schuknecht: What Does the European Union Do?, Cambridge Mass. 2001.

est in political cartelisation in the form of a harmonisation of national fields of policy, because this enables them to assume the function of monitoring the extent to which national governments maintain cartel discipline. In this way, the EU strategy of enlargement *cum* deepening in the form of centralisation and harmonisation can be explained in politico-economic terms as an endeavour on the part of the Community institutions to extend their powers.[10] This strategy may strengthen the Community institutions politically, but at the same time it weakens the EU as an area of integration because, in the context of the fundamental enlargement trade-off between heterogeneity costs and economies of scale, it raises the former without increasing the latter to the same degree or more. In the light of the illustrations of heterogeneity costs and economies of scale given above, this appears to be especially true where the EU is extended to include small countries with income levels below the EU average.

Enlargement *versus* Deepening!

Any enlargement of an integration area will exclusively generate economies of scale without creating heterogeneity costs if it is a pure free trade zone or customs union, since the optimal size for both is the entire world.[11] As institutional deepening increases, the optimal size of the integration area consequently becomes smaller due to the heterogeneity costs generated in the process. This implies that enlargement of the integration area should as a matter of principle not be accompanied by institutional deepening in the form of centralisation and harmonisation – including an increase in redistribution as the institutional expression of rising heterogeneity costs – but rather the exact opposite: decentralisation and diversification, which institutionally reduce the heterogeneity costs of enlargement. As a consequence the motto should be: enlargement *versus* deepening. This then implies that greater importance is attached to the subsidiarity principle. One can also say, therefore, that asserting the subsidiarity principle becomes all the more important the further an integration area is enlarged if enlargement is accompanied by an increase in preference heterogeneities. This connection would appear to be of importance for the enlargement strategy of the EU, although the EU, with its simultaneous strategy of deepening, reveals that it is *de facto* increasingly running counter to the subsidiarity principle.

The Subsidiarity Principle

The EU strategy of institutional deepening is therefore not consistent with the principle of subsidiarity, which since the Treaty of Maastricht has been declared to be a general principle of action within the EU. In the EU, the subsidiarity principle refers in particular to the competences of the member states in relation to those of the Community, although it has so far had little more than appellative character. From an economic point of view it seems appropriate to identify the subsidiarity principle as the institutional manifestation of the general principle of comparative advantage that applies in societies based on the division of labour. It implies an assumption that responsibility should firstly rest on the private rather than the state level, and secondly on the lower rather than the higher state level. This means that the state's task of allocation entails providing incentives for the efficient production of goods in the private economy and in the case of purely public goods to supply these in accordance with citizens' preferences.[12] One example of a purely public good within the EU as a whole is the realisation of the Internal Market with the four freedoms of movement of persons, capital, goods and services. This is a constitutive Community task, in the face of which national or regional preference heterogeneities among the EU members cannot exist because acceptance of the Internal Market programme as a purely public EU good is in fact a virtual pre-requisite for EU membership.[13]

In the economic theory of federalism the subsidiarity principle is regarded as a rule of establishing responsibility within a multi-tiered state structure.[14] The predilection inherent to the subsidiarity principle for tasks to be allocated on a decentralised basis is clearly fuelled by the aim of satisfying citizens' preferences

[9] From an economic point of view, fundamental rights – apart from certain basic requirements for a peaceful and liberal co-existence – are to be defined not in absolute, but in relative terms. Thus for example protection against terrorism has to be weighted differently in Northern Ireland, Spain and southern Italy than in Sweden, Portugal and Austria, because the risk levels are different. For this reason and as a matter of principle, fundamental rights do not belong in a standardising EU charter of basic rights nor in the EU constitution, but in the respective national constitutions.

[10] Cf. also Roland Vaubel: Enforcing Competition Among Governments: Theory and Application to the European Union, in: Constitutional Political Economy, Vol. 10, 1999, pp. 327-338.

[11] This of course assumes that homogeneous preferences exist with regard to the realisation of free trade. This assumption seems reasonable, because in principle all countries and their citizens stand to benefit from free trade.

[12] Cf. for basic reference James M. Buchanan: Federalism and Fiscal Equity, in: American Economic Review, Vol. 40, 1950, pp. 583-599; Jerome Rothenberg: Local Decentralization and the Theory of Optimal Government, in: Julius Margolis (ed.): The Analysis of Public Output, New York 1970, pp. 31-64; Wolf Schäfer: Overlapping Integration Areas, in: Franz Peter Lang, Renate Ohr (eds.): International Economic Integration, Heidelberg 1995, pp. 49-64.

[13] Accordingly, it is for the Commission to actively press for the necessary market liberalisation measures in the member states – something it has been seen to have done, pointing the way forward, in recent years.

to the greatest extent possible. And this means that the more heterogeneous these preferences are, the less capable homogeneous public services provided by central bodies are of living up to this heterogeneity. Rather, the supply of public services has to be geared to the different users who should then also provide for their financing. At the same time this addresses the principle of fiscal equivalence,[15] which is assigned to the principle of subsidiarity within the framework of the theory of fiscal federalism.

A decentralised form of task sharing between administrative bodies in accordance with the principle of fiscal equivalence should not only satisfy the citizens' heterogeneous preferences in optimal fashion, but also – by means of the vertical and horizontal competition inherent to it – produce incentives for innovation among the public suppliers.[16] This addresses the dynamic component of the principle of subsidiarity, which in addition demonstrates that the subsidiarity principle is inherent to the systems competition within an integration area which naturally intensifies every time the integration area is enlarged. Consequently, enlargement *versus* deepening of the EU at the same time implies enlargement *cum* subsidiarity.

In addition, the principle of subsidiarity can be strengthened if exit options for EU states and regions are anchored institutionally by legalising secession and opting out. This enables states and regions to withdraw from certain fields of Community policy where, as a result of the deepening strategy, the principle of subsidiarity has been breached, and to take these on themselves. In extreme cases even a legalised withdrawal from the EU should be made possible.[17] The contradiction between enlargement and deepening would then become evident if exit options were actually exercised. In this context it should be emphasised that for a country leaving the EU as an area of free trade and integration, the opportunity costs caused by leaving are lower the more the world markets outside the EU in an increasingly globalised world are liberalised. Globalisation therefore promotes potential secession in heterogeneous integration areas – particularly for smaller countries, which, due to their own relatively insignificant market size, are dependent upon free trade with large markets beyond their borders. One can also say that globalisation and free trade increase the pressure on the EU to lower its heterogeneity costs and to increase its economies of scale should it wish to reduce the potential inclination towards secession.

As a result, the trade-off between the economies of scale and the heterogeneity costs of an integration area are influenced by the international trade regime: increasing free trade throughout the world raises the economic viability outside of the EU even of smaller countries and regions, and for this reason it can become increasingly attractive to strive for political independence by means of secession. By doing so they would benefit from significant economies of scale while at the same time reducing their heterogeneity costs. In this sense it is quite probable that a process of economic integration may be accompanied by one of political disintegration. In any case it does not seem reasonable to assume that this connection will be of no relevance for the EU in future, particularly if, as a result of the centralistic deepening strategy, the subsidiarity principle continues to be effectively disregarded.[18]

Institutional Consequences

We recognise, then, that not every step towards enlarging the Union is unreservedly advantageous, but is subject to institutional restrictions and vice versa: not every EU institutional infrastructure is compatible with a given size of the Community. This has consequences with respect to the structure the European Community is or ought to be striving for: should the EU evolve into a federal state or a confederation of states, or should it maintain its current status as a compound of states? Or should it even develop (back), institutionally, more strongly towards its original form of a customs union, i.e. the primary foundation for wealth on which to erect its growing institutional superstructure? The fact that the question regarding the finality of the EU integration process has yet to be answered – and given the dynamism of the global economy should probably not be answered today – does not mean that the institutional consequences of further EU expansion and its further deepening can be ignored.

Let us consider the three Community institutions of the EU: the European Council, Parliament and Commission. A parliament is the primary decision-making body of a federal state, whereas the council represents the place where decisions are made for a confedera-

[14] Cf. also Wolf Schäfer: Harmonisation and Centralisation versus Subsidiarity: Which Should Apply Where?, in: INTERECONOMICS, Vol. 41, No. 5, 2006, pp. 246-249.

[15] Cf. for basic reference Mancur Olson Jr.: The Principle of ´Fiscal Equivalence`: The Division of Responsibilities Among Different Levels of Government, in: American Economic Review, Vol. 59, No. 4, 1969, pp. 479-487. [16] Cf. also Wallace E. Oates: Fiscal Federalism, New York 1972.

[17] Cf. also Wolf Schäfer: Withdrawal Legitimised? On the Proposal by the Constitutional Convention for the Right of Secession from the EU, in: INTERECONOMICS, Vol. 38, No. 4, 2003, pp. 182-185.

[18] The subsidiarity principle is not even effectively anchored in the draft constitutional treaty: although the national parliaments are to have the right to object to planned EU laws, these objections are not intended to be binding for the EU in any way.

tion of states. The status currently in place in the EU, where the two institutions have parallel decision-making competencies, has been described by Germany's constitutional court as being representative of the hybrid institutional form of a compound of states. In a mixed form of this kind there is no guarantee of decision-making consistency – on the contrary, it tends to generate more rather than fewer contradictory results because of the diverging interests of the respective decision-makers in Parliament and Council.[19] Thus it is probably the case that the members of the European Parliament endorse a strengthening of centralised EU competencies in the sense of a federal state,[20] while the Council members tend to be more favourable towards asserting national interests, and so act in the sense of a confederation of states.[21] Decisions according to the federal state principle, as taken in the European Parliament, are then at odds with those taken according to the confederation of states principle, as is the case in the European Council, and may thus lead to contradictions and policy logjams. The Commission is then the institution in which these contradictions are bundled. This results in the Commission having extraordinary powers that are compatible with neither the one nor the other state principle, as is manifested for example in the Commission's sole right of initiative and its monopoly in setting the Council agenda, and at the same time reveal a deficit in its democratic legitimisation.

What does this hybrid institutional structure in the EU mean for the strategy of enlargement or deepening of the EU or even for both at the same time? Since every enlargement raises the heterogeneity costs of the Community, it implies a step in the opposite direction to a federal state and thus accentuates the development towards a confederation of states (or towards a stage of integration that is even less deep). This means that the decision-making powers of the Parliament must be diluted while those of the Council are strengthened.[22] The opposite is the case only if the economies of scale associated with the enlargement more than offset the heterogeneity costs because the populations of the new member states are characterised by preferences that are generally homogeneous with those of the EU. However, this particular case has become increasingly irrelevant, certainly since the eastern enlargement of the Union,[23] and is all the more so in respect of possible further eastern expansion to include for example the Balkan states, the Ukraine and Turkey.[24]

In contrast to enlargement, the deepening strategy implies, in institutional terms, a step towards a federal state and the necessary consequence of a stronger Parliament and a corresponding dilution of the powers of the Council. This demonstrates that the trade-off between enlargement and deepening leads to inconsistent consequences on the institutional level. Such inconsistencies intensify what is already a strategic power struggle taking place between the EU institutions far from the grass roots level, and thus strengthen still further the lack of clear orientation of EU development strategy. Who would deny that this is at least one possible source of decisive institutional pieces in the complex mosaic that was the portfolio of reasons for the rejection of the draft constitutional treaty in referenda in France and the Netherlands? And who would deny that similar rejections might be repeated – perhaps elsewhere in the Community – should the EU continue its inconsistent enlargement *cum* deepening strategy?

In the final analysis, it must be recognised that a continuing strategy of EU enlargement necessitates, and indeed will probably impose, an increasing decentralisation of powers within the Community. The current institutional infrastructure – and this is even more true of a centralised, deepened one – will prove unsustainable, will erode. In the long term, developments may increasingly focus on consolidating the economic foundation that furthers the increase of wealth in the

[19] Cf. also Charles B. Blankart, Dennis C. Mueller: Welche Aspekte sollten in einer Verfassung der EU berücksichtigt werden und welche nicht?, in: ifo Schnelldienst, Vol. 56, No. 6, 2003, pp. 9-11; and Charles B. Blankart: Warum ist die Europäische Verfassung so bürgerfern?, in: List Forum für Wirtschafts- und Finanzpolitik, Vol. 21, pp. 45-54.

[20] In this context, parliamentarians are the more successful the greater the number of simple majorities and the smaller the number of qualified majorities that are necessary for the central allocation of powers. Voting rules therefore play a major role in the design of the deepening policy in the EU. Cf. also Philippe Aghion, Alberto Alesina, Francesco Trebbi: Endogenous political institutions, Cambridge Mass. 2002.

[21] However, there is also the well-known strategy of national ministries and/or governments to foster via the Commission, with an ultimate resolution in the Council, political intentions that they are unable to implement at the national level. In such cases, Council resolutions lean institutionally *de facto* towards a federal state and so increase the heterogeneity costs within the Community.

[22] This has also been suggested by the European Constitutional Group. Cf. Peter Bernholz, Friedrich Schneider, Roland Vaubel u. a.: An alternative constitutional treaty for the European Union, in: Public Choice, Vol. 41, 2004, pp. 451-468.

[23] This is certainly not true of countries such as Norway, Switzerland or Liechtenstein, should they one day wish to enter the EU.

[24] Since Turkey already has a high degree of free trade access to the Internal Market, Turkey's full accession to the EU would lead to only relatively minor additional economies of scale, but would probably, given the strong diversity of preferences due above all to cultural, political and religious factors, generate substantial heterogeneity costs for the EU. This is presumably the point of departure for those who recommend a "privileged partnership" rather than full membership for Turkey, since this would enable the economies of scale to be utilised while to a large extent avoiding the heterogeneity costs.

Community – i.e. the four freedoms of the Internal Market – and less on extending its politico-institutional superstructure. Once that is the case, any enlargement of the EU would on balance generate more welfare gains from economies of scale than welfare losses from the costs of heterogeneity. It would be a development towards a free trade integration area of overlapping competing jurisdictions that would pave the way for the application of the principle of subsidiarity. Furthermore, the mechanisms of globalisation appear to promote such a development or even to exact it in the long term. From an economic point of view there would be no reason to bemoan such a development.

Conclusion

The EU policy of enlargement through the accession of new members while at the same time pursuing the institutional deepening of the Union will prove unsustainable if and because, in the trade-off between the costs and benefits of expanding integration areas, the rising costs of heterogeneity exceed the economies of scale generated by enlargement. A deepening strategy in the sense of the centralisation and harmonisation of an increasing number of fields of policy, together with the extension of powers granted to the Community institutions that is inherent in such a policy, raises the heterogeneity costs of enlargement. Yet these costs must be lowered so that in spite, or because, of the EU's inclination towards further enlargement, which will not end in the foreseeable future, the economies of scale gained by enlargement may dominate. However, this means counteracting the extension of Community institutions' activities into fields of policy, which, in accordance with the subsidiarity principle, are a matter of national or regional responsibility.

With every round of enlargement, the EU would then probably grow closer and closer to an endogenously self-decentralising integration area and develop towards a structure of overlapping, competing jurisdictions that reduce the heterogeneity costs caused by enlargement because they have a high level of proximity to citizens' preferences. Accordingly, every enlargement would mean the EU moving ever further away from the finality of a more rather than less centralised construction (confederation of states, compound of states or even a federal state) – even if this is not the official policy strategy of the Community or is not declared to be such. In other words: should the EU continue with its centralistic deepening strategy while at the same time pursuing further enlargement, then the institutional erosion of the Community, which may be accompanied by an increasing inclination towards secession tendencies within the Community, would appear to be inevitable. History, incidentally, provides numerous examples of the institutional disintegration of significant integration areas caused by excessive internal contradictions. And maybe it would be sufficient to focus primarily and in particular on the wealth-increasing and peace-keeping effects attributable to the large and expanding free trade area that is the Internal Market in order, for this very reason, to hail the EU as a successful project of European integration born of the Treaty of Rome signed 50 years ago.

Ansgar Belke* and Thorsten Polleit**

Money and Inflation – Lessons from the USA for ECB Monetary Policy

Perhaps no other hypothesis in economics has been as strongly supported by theoretical reasoning and empirical evidence as Milton Friedman's famous dictum: "Money is always and everywhere a monetary phenomenon". That said, it is surprising to see that today's monetary policies, which pursue the objective of maintaining price stability, pay rather little or no attention at all to money when setting interest rates.[1]

In view of the European Union's celebrating the 50th anniversary of the Treaty of Rome, we would like

* Professor of International Economics, University of Hohenheim, Stuttgart, Germany.

** Frankfurt School of Finance & Management, Frankfurt/Main, Germany.

[1] M. King: No Money, No Inflation – The Role of Money in the Economy, in: Bank of England Quarterly Bulletin, Summer 2001, p. 162; L. H. Meyer: Does Money Matter?, The 2001 Homer Jones Memorial Lecture, Washington University, St. Louis, Missouri, 28 March 2001; T. J. Fitzgerald: Money Growth and Inflation: How Long is the Long Run? in: Federal Reserve Bank of Cleveland, 1 August 1999.

to critically review the erosion of the role of money in international monetary policy-making. From our viewpoint, such an undertaking appears to be all the more relevant as the "modern view" of "monetary policy without money" has started influencing euro area monetary policy.

In its strategy review on 8 May 2003, the European Central Bank (ECB) downgraded the role of money by making it an information variable rather than preserving it as the key indicator of its policy.[2] More recently, the stability of money demand in the euro area has been questioned, largely on the basis of empirical research.[3] However, the statistical results of conventionally specified money demand function tests cannot give a final answer as to whether the demand for money function is stable or not.[4]

It should be noted that with the fading out of money in monetary policy-making, which set in around the early 1990s, many international asset markets have been experiencing strong price increases.[5] Most notable was the "New Economy" boom in the second half of the 1990s.[6] Overly confident investors bid up stock valuations to hitherto unseen levels, before markets came crashing down around the second half of 2000. Lately, the pronounced rise of property prices in many countries has caught attention among the public at large and policy-makingers alike.[7]

As history shows, swings in asset prices can have a highly important impact on output and employment.[8] In particular, there is plenty of evidence from around the world of the costs related to the formation and subsequent correction of pronounced asset price increases.[9] Could it be that, following the fading out of money in today's monetary policy-making, inflation comes along in a new disguise: "asset price inflation" rather than consumer price inflation? In "The Monetary History of the United States, 1867-1960", Milton Friedman and Anna Jacobson Schwartz concluded: "… the history of money will continue to have surprises in store for those who follow its future course – surprises that the student of money and the statesman alike will ignore at their peril".[10]

Using US data, we find that the aggregate "nominal output plus stock market capitalisation" is closely related to the money stock, lending support to one of Milton Friedman's key monetarist propositions. In our view, the findings should be particularly important for ECB monetary policy, as an inflation-free euro plays a crucial role for European economic and political integration.[11] We conclude that monetary policy should keep a close eye on money developments if it wants to prevent consumer and asset price inflation.

The paper has been structured as follows. First, we address some of the weak spots of monetary policies' widely accepted price stability objective. Second, we briefly review the proposal by Alchian and Klein for in-

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[2] European Central Bank: The Governing Council's evaluation of the ECB's policy strategy, Monthly Bulletin, June 2003, pp. 79-92.

[3] In this context see for instance the Portuguese central bank which, after reviewing the stability of the money demand model suggested by Calza, Gerdesmeier and Levy (A. Calza, D. Gerdesmeier, J. Levy: Euro area money demand: measuring the opportunity costs appropriately, IMF Working Paper No. 01/179, 2001) and Carstensen (K. Carstensen: Is European money demand still stable?, Kiel Institute for World Economics, Working Paper No. 1179, Revised version, March 2004; K. Carstensen: Stock market downswing and the stability of EMU money demand, Kiel Institute for world Economics, 2004) concluded: "… the recent evidence raises serious doubts regarding the use of M3 as an indicator for evaluating the risks to price stability". Cf. N. Alves, C. R. Marques, J. Sousa: Some issues concerning the use of M3 for monetary policy in the euro area, in: Banco de Portugal, Summer 2006, p. 53. For a more balanced view, cf. Banque de France: Re-examining the money demand function for the euro area, in: Banque de France, Quarterly Selection of Articles, No. 4, 2006, pp. 5 and 24.

[4] M. Leschke, T. Polleit: Zurück zur Geldmengenorientierung, in: Wirtschaftsdienst, Vol. 87, No. 1, 2007, pp. 18-21.

[5] For a discussion of the impact of monetary policy on asset prices cf., for instance, C. Bean: Asset Prices, Financial Instability, and Monetary Policy, in: American Economic Review – Papers and Proceedings, Vol. 94, No. 2, 2004, pp. 14-23; B. Dupor, T. Conley: The Fed Response to Equity Prices and Inflation, in: American Economic Review – Papers and Proceedings, Vol. 94, No. 2, 2004, pp. 24-32; D. Domanski, M. Kremer: What Do Asset Price Movements in Germany Tell Policy Makers, in: The Role of Asset Prices in the Formulation of Monetary Policy, Bank for International Settlements, Conference Papers, Basle, Vol. 5, 1998, pp. 24 and 41; European Central Bank: The Stock Market and Monetary Policy, Monthly Bulletin, Frankfurt/Main, February 2002, p. 39.

[6] R. J. Shiller: Irrational Exuberance, Princeton, New Jersey 2000, Princeton University Press.

[7] A. Belke, D. Gros: Instability of the Eurozone? On Monetary Policy, House Prices and Labor Market Reforms, IZA Discussion Paper, Institute for the Study of Labor, Bonn, No. 2547, 2007.

[8] F. Altissimo et al.: Wealth and Asset Price Effects on Economic Activity, ECB Occasional Paper No. 29, June 2005.

[9] T. Helbling, M. Terrones: When Bubbles Burst, World Economic Outlook, IMF, April 2003, Chapter II; C. Detken, F. Smets: Asset Price Booms and Monetary Policy, ECB Working Paper 364, Frankfurt/Main 2004; C. Borio, P. Lowe: Securing sustainable price stability: Should credit come back from the wilderness?, BIS Working Paper No. 157, 2004; C. A. E. Goodhart, B. Hofmann: Deflation, paper presented at the ECB Workshop on Asset Prices and Monetary Policy, 11-12 December 2003; L. Christiano, R. Motto, M. Rostagno: The Great Depression and the Friedman-Schwartz Hypothesis, NBER Working Paper No. W10255, January 2004.

[10] M. Friedman, A. J. Schwartz: A Monetary History of the United States, 1867-1960, Princeton University Press, Princeton 1963, p. 700.

[11] For an insightful general comparison between US and euro area monetary policy see, for instance, O. Loisel: Monetary policy making in the Euro area and in the US, in: Banque de France, Quarterly Selection of Articles, No. 6, Winter 2006/2007, pp. 5-8.

cluding asset prices in the target price index.[12] Third, we provide some empirical results for the relation of money and nominal magnitudes in the USA. Finally, we draw some conclusions for ECB monetary policy.

Weak Spots of the Price Stability Concept

The idea of making price stability the primary objective of monetary policy is rooted in the view that "sound money" makes a positive contribution to improving growth and employment and raising living standards – a view that is confirmed by decades of experience and a substantial body of empirical and economic research. Following the "index regime" as proposed by Irving Fisher,[13] central banks around the world have been identifying price stability with a small rise of a representative consumer price index over time, typically between 2 and 3 per cent per annum.

The focus on consumer price indices might be explained by three factors. First, there is the notion that people want to preserve the purchasing power of their money holdings vis-à-vis a pre-defined set of consumption goods. Second, consumer prices, even though representing just a (small) fraction of all goods and services bought and sold, are assumed to "shadow" the economy's total price level. Third, there is a pragmatic reason: a price index for the total economy, including goods and services of final demand and wealth (that is goods produced in the past), is simply not available.

The mainstream economic view about the objective, definition and desirability of price stability has not remained unchallenged, though. The free market oriented, libertarian Austrian School of economics has ever since been criticising that in a free market economy there would, and actually could, not be any stability as far as exchange ratios are concerned, including the exchange value of money.[14] And as the Austrian School yields rather rewarding insights into the relation between monetary policy and nominal magnitudes, some of their central views shall be reviewed briefly.

From the Austrian economics viewpoint, money is a means of exchange. Taking the standpoint of a methodological individualism and the law of diminishing marginal utility, changes in an individual's money holdings entail changes in the relative valuation of money.[15] That said, changes in credit and money supply, which are a characteristic feature of any monetary regime – be it under a government controlled paper money or a commodity standard – inevitably lead to changes in both subjective and objective valuations of money prices.

For Austrians, the objective of price stability, as heralded under an index regime, would therefore be a futile and illusory undertaking.[16] In fact, Austrians would fear that central bank induced changes in credit and money supply would cause distortions in the economy's relative price mechanism, leading to misallocations which, in turn, trigger economic crises. In particular in view of concerns about the fallibility of government controlled money and the costs associated with it, Austrian economists have been arguing for returning to free market money.[17]

Austrian economists explicitly note that changes in credit and money supply affect individual prices at different times and to different extents, thereby bringing about changes in overall demand and supply, investment and consumption. So even if the central bank delivers a pro forma stable price index, there would be no protection against a misalignment of relative prices, or "imbalances". Austrians would therefore warn against the notion that price index stability would be compatible with equilibrium in goods (and financial) markets.

Echoing this central aspect of the Austrian School of Economics, the Chief Economist of the Bank for International Settlements (BIS), William R. White, noted that the Keynesian focus on aggregate measures in the economy like, for instance, price indices, provides inadequate guidance for identifying potentially emerging macro-economic problems: "… achieving near-term price stability might sometimes not be sufficient to avoid serious macroeconomic downturns in the medium term".[18]

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[12] A. A. Alchian, B. Klein: On a Correct Measure of Inflation, in: Journal of Money, Credit and Banking, Vol. 5, No. 1, 1973, pp. 173-191.

[13] I. Fisher: The Money Illusion, New York 1928, Adelphi.

[14] L. von Mises: Human Action, 4th ed., San Francisco 1996, Fox & Wilkes, p. 220.

[15] H.-H. Hoppe: How is Fiat Money Possible? – or, The Devaluation of Money and Credit, reprinted, in: The Economics and Ethics of Private Property, 2nd ed., Ludwig von Mises Institute, 2006, p. 180.

[16] A. P. Mueller: The Myth of Price Stability, in: The Free Market, Vol. 24, No. 11, November 2004.

[17] See in this context, for instance, L. v. Mises: Monetary Reconstruction (written in 1952, first appeared in 1953), reprinted in L. v. Mises: The Theory of Money and Credit, Liberty Fund, Indianapolis 1981, pp. 453-500; F. A. v. Hayek: The Denationalisation of Money, London 1976, The Institute of Economic Affairs. It should be noted that Austrians would not expect free market money to be non-inflationary. In fact, they think free market money would be much more reliable than a government controlled money.

[18] W. R. White: Is Price Stability Enough?, BIS Working Paper No. 205, Basel, April 2006, p. 1.

Price stability is usually measured as a change in the price index of final demand. Asset prices tend to be ignored (or are underrepresented) in such measuring. However, since the middle of the 1980s, asset prices in many countries have been rising strongly, often exceeding consumer price inflation. In particular declines of asset prices – such as, for instance, the 1987 stock market crash, the property price collapses during the second half of the 1980s, the sharp decline in bond prices in 1994, and the deflation of the "New Economy" stock market hype setting in in late 2000 – have led to a growing interest in learning more about the relation between monetary policy and asset price inflation.[19]

Focusing on Asset Prices – the Alchian and Klein Idea

When dealing with asset price inflation, some initial remarks appear to be in order. The term "inflation" is usually defined as an ongoing rise in the economy's overall price level. Thus, inflation denotes the loss of purchasing power of money: as the price level rises, the purchasing power of money declines. What is more, inflation refers to the *overall* upward drift of money prices; it does not refer to an increase in individual goods prices.

In a market economy, there are ever-changing relative prices of economic goods. Prices of some goods and services and assets may exhibit an ongoing rise over time. Such an observation, however, is not necessarily indicative of inflation, for price rises in one category of goods and services might be accompanied by price declines in other categories, thereby keeping the economy's total price level unchanged.

Clearly, assets such as stocks, bonds, housing etc., represent a specific category of goods being bought and sold in the market place. As a result, it might actually be misleading to speak of "asset price inflation". This is because the latter would refer to an ongoing increase in prices of a specific (tradable) item – namely assets – thereby implying a *relative* price change. However, it has become common practice to use the term asset price inflation for denoting an unusual increase in asset prices.

Indeed, there can be periods in which asset prices rise above what appears to be economically justified from the viewpoint of market observers.[20] However, in view of such a development it would be better to speak of "asset price bubbles" rather than "asset price inflation". An asset price bubble denotes the difference between an asset's market price and the fundamentally, or intrinsically, justified valuation;[21] asset price bubbles might not necessarily imply inflation in the sense that money loses its purchasing power, however.

The Concept

After having addressed these definitorial issues, it is time to move on to the discussion about the role of asset prices in monetary policy-making. Goodhart argued that monetary policy should assign an explicit role to asset prices in the policy-making, thereby preventing monetary policy from accentuating business cycles via affecting asset prices.[22] Rather than identifying asset prices as an element in the wider context of the transmission mechanism of monetary policy, Alchian and Klein pointed out that a monetary policy focus on consumer prices has the drawback that asset prices might be made irrelevant.[23]

The authors argued that a correct inflation measure should include asset prices, and that a "constant utility" price index should take account of current and future prices for all goods and services bought and sold. If future prices were not available, Alchien and Klein wrote, asset prices could be used as substitutes, as these variables would be related to the current price of future consumption flows. Their idea thus amounts to stabilising a cost-of-life index, with changes in asset prices reflecting future inflation. A consumer's life-time budget constraint *BC* can be written as:

$$(1) \qquad BC = p_t c_t + \sum_{j=1}^{T} p_{t+j} c_{t+j}$$

where p and c represent prices and consumption goods, respectively. Consumers allocate their wealth into current consumption and asset holdings ($p_A A_t$) in each time period. So the budget constraint can be also written as:

$$(2) \qquad BC = p_t c_t + p_A A_t$$

Subtracting the second equation from the first yields an expression that shows the link between asset prices and future prices:

$$(3) \qquad p_A A_t = \sum_{j=1}^{T} p_{t+j} c_{t+j}$$

[19] De Nederlandsche Bank: Asset Price Inflation, in: Quarterly Bulletin, December 2000, pp. 25-35.

[20] On 5 December 1996, for instance, the former Chairman of the US Federal Reserve Board, Alan Greenspan, used the term "irrational exuberance" in describing the behaviour of stock market investors.

[21] K. Cuthbertson: Quantitative Financial Economics, Stocks, Bonds and Foreign Exchange, Chichester et. al. 2006, John Wiley & Sons, p. 157.

[22] C. A. E. Goodhart: Price Stability and financial fragility?, in: K. Sawamoto, Z. Nakajiama (eds.): Financial stability in a changing environment, New York 1995, St. Martin's Press.

[23] A. A. Alchian, B. Klein, op. cit.

If A_t and future consumption choices were known, then changes in p_A would reflect changing future prices. Shibuya and Shiratsuka exploit this link and further simplify Alchian and Klein's abstract theory for practical purposes.[24] The approach would define the economy's total price level as a weighted-sum of consumer and asset prices:

$$(4) \qquad p_{total} = \alpha p_c + (1 - \alpha)\, p_A$$

or, when expressed in inflation terms,

$$\pi_{total} = \alpha\pi_c + (1-\alpha)\pi_A$$

with $0 \leq \alpha \leq 1$, and with α representing the weight of consumer goods and $(1 - \alpha)$ that of assets in the total price index.

The Critique

One could argue that asset prices – if the overall monetary policy objective is preserving the purchasing power of money – should be included in a price index measure because assets are, like any other goods and services of final demand, bought and sold by market agents. From this viewpoint, asset prices would actually be assigned the same status as goods and services of current production.

In view of the above one could think about broadening the policy objective of central banks to stabilise an index consisting of consumer and (financial) asset prices. However, it has been argued that such an approach, if put into practice, would create more difficulties for central banks than it solves.[25]

- If the objective of monetary policy is broadened beyond purely stabilising consumer prices by focusing on an amalgamated price index that includes asset prices, this would presumably result in an index exhibiting higher volatility than the traditionally defined consumer price index. Targeting a broad index might thus lead to greater and more frequent changes in central bank rates compared with the status quo, which might have negative effects on output and employment.
- The foremost problem with asset price movements lies in the signal extraction problem.[26] Asset prices may be driven by a number of factors, namely expected returns, future short-term rates, time preferences, risk and liquidity premia etc. It might thus be difficult, if not impossible, to identify the causes of the change in asset prices. If, for example, stock prices rise, no policy action would be required when prices move closer towards fundamentally justified valuations. In contrast, a case for policy intervention might be made if prices moved away from equilibrium values. The identification problem is thus twofold: firstly, in identifying to what degree asset prices reflect fundamentals and, secondly, in identifying how new prices are in accord with the state of fundamentals.
- On a more technical level, there may be difficulties in constructing an index including all relevant asset markets. For instance, for some asset prices – housing might be a good example – it might be difficult to obtain price data on a timely basis. Also, heterogeneous product prices might be driven by relatively pronounced expenditure patterns which can be expected to exert a rather strong impact on prices, which should contribute to the volatility of the overall price index.

The Response

Perhaps the concerns outlined above would be mitigated if we subject them to closer scrutiny. For instance, a more volatile price index – which might be the case if the central bank were to include consumer as well as asset prices in its target index – does not necessarily imply a more activist monetary policy. In view of the well-known time-lag problem, monetary policy should base its decisions on "leading" intermediate, or indicator, variables. Of course, it is an open question whether the central banks can identify variables that have a predictable impact on future inflation of the total price level, and which can be influenced by the central bank accordingly; this question can only be properly answered by theoretical reasoning and empirical research.

In fact, the signal extraction problem might not become relevant when using a broadly defined price index. The central bank could actually accept a strong rise in asset prices if it is compensated for by declines in prices of goods and services so that the total price index remains unchanged. Furthermore, there might

[24] H. Shibuya: Dynamic Equilibrium Price Index: Asset Price and Inflation, in: Monetary and Economic Studies, Institute for Monetary and Economic Studies, Bank of Japan, Vol. 10, No. 1, 1992, pp. 95-109; S. Shiratsuka: Asset Price Fluctuation and Price Indices, in: Monetary and Economic Studies, Institute for Monetary and Economic Studies, Bank of Japan, Vol. 17, No. 3, 1999, pp. 103-128.

[25] J. Capel, A. Houben: Asset Inflation in the Netherlands: Assessment, Economic Risks and Monetary Policy Implications, in: Bank for International Settlements: The Role of Asset Prices in the Formulation of Monetary Policy, Conference Papers, Vol. 5, March 1998; European Central Bank: Asset Price Bubbles and Monetary Policy, in: Monthly Bulletin, April 2005, pp. 47-60.

[26] For a survey of empirical attempts to detect bubbles see, for instance, R. Gürkaynak: Econometric Tests of Asset Price Bubbles: Taking Stock, Finance and Economics Discussion Series, No. 2005-04, Federal Reserve Board, 2005.

indeed be problems in providing data on all relevant asset classes in a reliable and timely manner. However, the latter might be solved by stepping up efforts to improve the availability and quality of price data for the economy's stock of wealth.

The broadening of the catalogue of monetary policy objectives would require a careful analysis of the costs and benefits of asset price inflation, actually in line with analysing the costs and benefits of consumer price inflation. For instance, asset price inflation might be seen as being beneficial as it increases output and employment. However, asset price inflation may ultimately lead to costly consumer price inflation and/or financial crises and severe recessions.[27] For instance, a bursting asset price bubble, as a result of asset price inflation, could lead to a sharp drop in aggregate demand, undermine the stability of the financial system and ultimately end in "bad deflation".

If the primary objective is the maintance of price stability, asset price inflation has to be taken proper account of in monetary policy-making. To this end, monetary policy will have to learn more about the developments that contribute to, or can actually be held responsible for, asset price inflation. As asset price inflation periods have usually been associated with excess credit and money creation it appears to be promising to review the link between money and nominal magnitudes.

Long-run Relation between Money and Nominal Magnitudes

For deriving some basic relationships between money, credit and nominal magnitudes, the well-known quantity equation relationship can serve as a starting point:

$$(5) \qquad M \cdot V = Y \cdot P$$

where M denotes the stock of money, V represents the velocity of money, and Y and P stand for the real transaction volume and the price level respectively. Equation (5) is simply an identity; it states that the stock of money, multiplied by the number of times a money unit is used for financing purposes, equals real output multiplied with the price level. In this sense, the monetary side of the economy is in line with the real side of the economy.

The quantity theory of money states that an increase in the stock of money translates into a (proportional) increase in the economy's price level. Assuming a constant income velocity of money (or, alternatively stated, a constant demand for real money holdings), changes in money supply equal changes in the nominal transaction volume:

$$(6) \qquad \Delta m = \Delta y + \Delta p$$

where Δ represents the change in natural logarithms of the levels of the variables under review. That said, money growth above (below) the growth of the real transaction volume could be interpreted as a loss (gain) of the purchasing power of money. In fact, equation (6) epitomises one of Milton Friedman's key monetarist propositions, namely that the growth rate of money determines changes in nominal magnitudes.

Unfortunately, data about an economy's total transaction volume and total price level are not available. In empirical work, the former is typically approximated by the gross domestic product (GDP), the latter by a consumer goods price indices or the GDP deflator. A method for approximating the economy's nominal transaction volume might be seen in combining the economy's nominal GDP and its stock market capitalisation.

Descriptive Statistics

Table 1 shows some descriptive statistics for various key variables of the US economy for various sample periods. Perhaps most strikingly, M2 expansion was 6.7% p.a. on average in 1959-Q1 to 2006-Q3, that is equal to the growth rate of the nominal transaction volume. The difference between the growth rate of the transaction volume and real GDP was 3.4%. The latter corresponded to the average annual increase in the GDP deflator, and was somewhat below the average rise in the consumer price index of 4.0% p.a.

These findings might serve as a reminder of one of Milton Friedman's key monetarist propositions, namely that over the long-run money growth equals the growth rate of nominal magnitudes.[28] However, Friedman did not suggest that changes in money would have an immediate and predictable effect on nominal magnitudes. He explicitly suggested that it may take quite some time (which, in turn, could vary from instance to instance) until the effects of changes in money supply would ultimately show up in nominal magnitudes. [29]

[27] C. Borio, P. Lowe: Asset prices, financial and monetary stability: Exploring the nexus, BIS Working Paper No. 114, 2002; C. Borio, P. Lowe, op. cit.; J. C. Trichet: Asset price bubbles and monetary policy, Mas lecture, 8 June, Singapore 2005 (http://www.ecb.int/press/key/date/2005/html/sp050608.en.html).

[28] For a short summary of Friedman's own list of eleven key monetarist propositions see M. Friedman: The Counter-Revolution in Monetary Theory, Lecture, 1970.

[29] For instance, an increase in money supply would, according to Friedman, reduce the preference for money holdings that is, to put it differently, increase the income velocity of money. As a result, an increase of money by, say 3%, could well trigger an initial increase in nominal magnitudes of more than 3%.

Table 1
Descriptive Statistics

	CPI	Real GDP	Nominal GDP	Dow Jones	Transaction volume	M2	M2ST
I. 1959-Q1 to 2006-Q3 (195 observations)							
Mean	0.040	0.033	0.069	0.065	0.067	0.067	0.064
Maximum	0.137	0.090	0.136	0.409	0.207	0.127	0.326
Minimum	0.003	-0.031	-0.007	-0.443	-0.104	0.003	-0.037
Std. Dev.	0.027	0.023	0.027	0.153	0.063	0.028	0.051
II. 1959-Q1 to 1979-Q4 (80 observations)							
Mean	0.046	0.038	0.081	0.015	0.055	0.079	0.055
Maximum	0.118	0.082	0.136	0.324	0.170	0.127	0.115
Minimum	0.007	-0.023	0.002	-0.443	-0.097	0.022	-0.024
Std. Dev.	0.031	0.024	0.027	0.148	0.065	0.026	0.033
III. 1980-Q1 to 2006-Q3 (107 observations)							
Mean	0.038	0.029	0.061	0.096	0.073	0.058	0.072
Maximum	0.137	0.081	0.132	0.409	0.172	0.122	0.326
Minimum	0.012	-0.028	0.027	-0.264	-0.104	0.003	-0.037
Std. Dev.	0.025	0.019	0.021	0.147	0.057	0.026	0.060

Source: Bloomberg. Thomson Financials. own calculations.

The transaction volume is defined as nominal GDP plus the stock market capitalisation of the US S&P 500 index.

4th differences of log levels.

Fluctuations of the growth rate of the nominal transaction volume minus real GDP growth – which might be interpreted as an approximation to the economy's total price level – were higher than the variability of consumer price inflation (see Figure 1). There were a number of instances in which the growth rate of the transaction volume minus GDP (representing an alternative measure of the economy's total price level) fell into negative territory – something consumer prices never did in the period under review.

Money Demand Estimates

Monetary impulses are transmitted via the demand for money function. When using money as an indicator for price developments, a crucial assumption is that there exists a stable long-run money demand function (which is homogenous in terms of prices) such as:[30]

$$(7) \qquad m_t = ß_0 + ß_1 tv_t + ß_2 ln(1+ i_t^{long}) + ß_3 ln(1 + i_t^{short}) + \varepsilon_t$$

where m_t is a money, tv the nominal transaction volume (that is, in our example, the sum of nominal GDP and the market capitalisation of the US stock market), i_t^{long} is the long-term interest rate (10-year US Treasury rate), i_t^{short} the short-term interest rate (US 3-months money market rate), and ε_t is the i.d.d. error term.

In economic terms, the error term in (7) can be interpreted as the "money overhang", a measure of "excess money supply",[31] representing an indicator of disequilibria on the money market. If the money demand function forms a stable cointegration relationship, the monetary overhang is a stationary variable ($I(0)$) which contains information on the future development of money. Dynamic processes of adjustment ensure that, following a disturbance, the money holdings adjust to the path defined by the money demand.[32]

Using a cointegration framework as set out by Johansen,[33] we find a long-run relation between nominal monies (that is M1, M2 and M2ST), the transaction volume (as defined in this analysis) and long and short-term interest rates in the USA for the period 1959-Q1

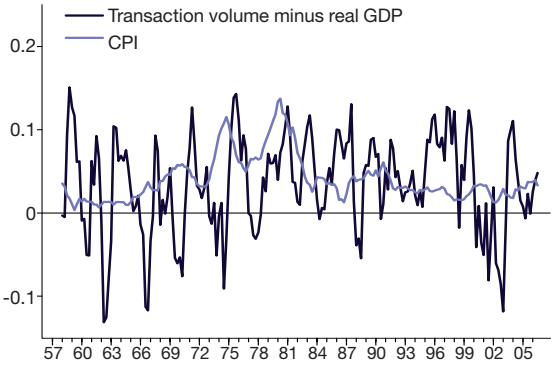
[30] For the use of a microeconomic optimisation approach in deriving a money demand functions, see M. Woodford: Control of the Public Debt: A Requirement for Price Stability?, NBER Working Paper 5684, National Bureau of Economic Research, Cambridge/MA 1996. R. E. Lucas: Nobel Lecture: Money Neutrality, in: Journal of Political Economy, Vol. 104, No. 4, 1996, pp. 661-680, discusses price homogeneity and long-term neutrality of money. S. Sriram: A Survey of Recent Empirical Money Demand Studies, IMF Staff Papers, 47/3, 2001, pp. 334-365 gives an overview of recent empirical studies. A. Serletis: The Demand for Money: Theoretical and Empirical Approaches, Boston, Dordrecht, London 2001, Kluwer Academic Publishers, analyses micro-based (Divisa) aggregates.

[31] K.-H. Tödter: Monetary Indicators and Policy Rules in the P-star Model, Deutsche Bundesbank Discussion Papers, 18/02, Frankfurt/Main, June 2002; D. Gerdesmeier, T. Polleit: Measures of Excess Liquidity, HfB-Working Paper Series, No. 65, Frankfurt School for Finance & Management, Frankfurt/Main 2005.

[32] R. F. Engle, C. W. J. Granger: Co-Integration and Error Correction: Representation, Estimation, and Testing, in: Econometrica, Vol. 55, No. 2, 1987, pp. 251-276.

[33] S. Johansen: Likelihood-Based Inference in Cointegrated Vector Autoregressive Models, Oxford 1995, Oxford University Press.

Figure 1
Transaction Volume minus Real GDP and CPI
(1959-Q1 to 2006-Q3)

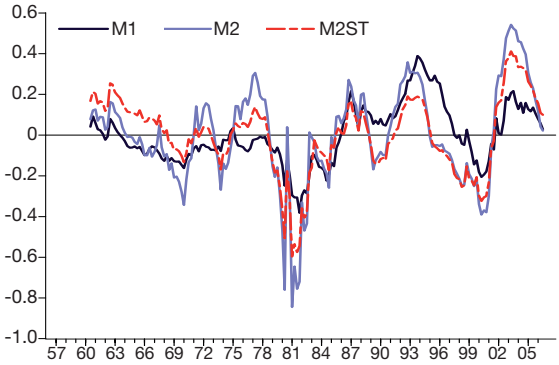


Sources: Bloomberg, Thomson Financials, own calculations.

The transaction volume is defined as nominal GDP plus the stock market capitalisation of the S&P 500.

4th differences of log levels.

Figure 2
Money Overhangs in the USA
(1959-Q1 to 2006-Q3)



Sources: Bloomberg, Thomson Financials, own calculations.

The money overhang is defined as the actual stock of money minus the equilibrium stock of money.

to 2006-Q3.[34] The income elasticities have plausible magnitudes and the expected signs. The same holds true when long and short-term interest rates are included in the cointegration vector. However, if just one interest rate is included, the interest rate elasticities become positive.[35]

Figure 2 shows the money overhangs of M1, M2 and M2ST respectively, according to our cointegration results. High inflation and, most important, the restrictive US Fed policy in the early 1980s created a negative money overhang. In the second half of the 1990s, strong GDP growth and a strong increase in stock prices also resulted in a negative money overhang. The latter finding could suggest that the US Fed did not (at least not fully) accommodate the increase in money demand in the New Economy episode.

Following the slump in stock prices and the marked slowdown in US GDP growth as of 2001, the monetary overhang moved back into positive territory. In fact, it was the highest monetary overhang (at least when M2 and M2ST are used) in the period under review. This finding corresponds to Friedman's analysis in 2006: "The results strongly support Anna Schwartz's and my 1963 conjecture about the role of monetary policy in the Great Contraction. They also support the view that monetary policy deserves much credit for the mildness of the recession that followed the collapse of the U.S. boom in late 2000."

Our cointegration results suggest that there is a long-run relation between money and the nominal transaction volume in the period under review, as suggested by Milton Friedman. However, such a relation is far from being perfect in the short-term; there were periods in which deviations between the actual stock of money and the demanded quantity diverged substantially. Be that as it may, the results suggest that – and this is the important finding of our analysis – monetary policy affects not only the inflation of current production but also that of stock (and presumably other asset) prices as well.

Summary and Conclusions

In view of the role of money for nominal magnitudes in the USA the question arises: what can be learned for ECB monetary policy? There is theoretical reasoning and empirical support for the hypothesis that money supply growth affects not only consumer but also asset prices. Against this background it would appear advisable for central banks to set rates in line with the signals provided by money supply if the objective is the maintenance of the purchasing power of money – as consumer price inflation might no longer show the "true" loss of the purchasing power of money.

[34] M2ST is defined as the stock of M2 minus short-term deposits, yielding a monetary aggregate that is similar to MZM. See in this context, for instance, J. B. Carlson et al.: Results of a Study of the Stability of Cointegrating Relations Comprised of Broad Monetary Aggregates, in: Journal of Monetary Economics, Vol. 46, No. 2, 2000, pp. 345-383. We find statistical evidence that all variables under review are I(1). The results of the relevant unit root and cointegration tests are available on request from the authors.

[35] Usually, one would expect interest rate elasticity to be negative. However, the estimation uses contemporaneous variables. Impulse-response functions show that nominal money holdings decline (rise) when the interest rate increases (declines).

Such an insight is all the more relevant as money demand analyses for the euro area suggest that excess liquidity seems to have translated increasingly into asset price inflation rather than consumer price inflation.[36] Headline euro area M3 growth might be much more closely related to the loss of purchasing power of the euro than may be widely believed. That said, for keeping inflation in check the ECB should set interest rates in line with the signals provided by money supply or, more to the point, measures of excess liquidity.[37]

Against this background it is hard to understand why the ECB de facto downgraded the role of money in its monetary policy strategy on 8 May 2003 to a mere information variable. In view of a long-run relationship between money growth and inflation various economists, perhaps most prominently among them Nobel Price Laureate R. E. Lucas, Jr.,[38] have concluded that the problem of controlling inflation could be successfully solved: choose the growth rate of money supply that corresponds to the desired long-run rate of inflation.[39]

Lucas' recommendation appears to be particularly important in view of the European integration process for which ECB monetary policy undeniably plays a crucial role. The euro, introduced at the beginning of 1999, is still a relatively new currency, and it has still to prove itself as a reliable means of payment. What is more, the European integration process is far from being accomplished, and new EU countries will need to be economically included in the single currency area in the years to come.

The emergence of a unified and peaceful Europe is currently one of the most astonishing, even revolutionary, developments in the western hemisphere.[40] Historically speaking, though, relations between European nation states have usually been associated with a deliberate balancing of rewards against costs. European societies have not been formed by a concept of conceptual goodwill, even though they have been shaped by a uniform, and intertwined, historical experience.

A peaceful societal cooperation under property rights and the division of labour in Europe needs a reliable means of exchange. That said, the idea of sound money plays a crucial role for allowing Europe to reap the full potential of economic and political integration.[41] A European monetary policy setting interest rates in line with the signals provided by money supply would actually be compatible with the objective of safeguarding the purchasing power of money. This is because inflation is, at the end of the day, always and everywhere a monetary phenomenon; and under a government controlled money monopoly it is made by central banks, even though this proposition is still often denied.

A growing insight into the contribution of asset prices to the economies' overall inflation rate might, as Otmar Issing put it, add "… to the renewed role assigned to money in economic research and the revival of interest in money and its counterparts by other central banks … It should be obvious therefore that the burden of proof is indeed on the side of those who suggest that we should neglect the information stemming from monetary analysis."[42]

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[36] ECB Observer: Money Matters for Inflation in the Euro Area, Analyses of the Monetary Policy of the Euro Area, Report No. 9, Franfurt/Main 2006; see also the work of C. Dreger, J. Wolters: Investigating M3 money demand in the euro area – new evidence based on standard models, DIW Berlin, German Institute for Economic Research, Discussion Paper 561, 2006, on money demand in the euro area. For an anaylsis of euro area money demand until the end of 2001 see, for instance, G. Coenen, J. L. Vega: The Demand for M3 in the Euro Area, in: Journal of Applied Econometrics, Vol. 16, No. 6, 2001, pp. 727-748.

[37] For analysing the impact of monetary policy on stock market returns in Germany see A. Belke, T. Polleit: (How) Do Stock Market Returns React to Monetary Policy? An ARDL Cointegration Analysis for Germany, in: Kredit & Kapital, Vol. 39, No. 3, 2006, pp. 335-366; A. Belke, T. Polleit: Monetary Policy and Dividend Growth in Germany: Long-Run Structural Modelling versus Bounds Testing Approach, in: Applied Economics, Vol. 38, No. 12, 2006, pp. 1409-1423. For the need of further research in this field see, for instance, B. Bernanke, M. Gertler: Should Central Banks Respond to Movements in Asset Prices?, in: American Economic Review, Papers and Proceedings, Vol. 91, 2001, pp. 253-257; M. T. Bohl, P. L. Siklos, T. Werner: Did the Bundesbank React to Stock Price Movements?, Discussion Paper 14/03, Economic Research Centre of the Deutsche Bundesbank, Frankfurt, June 2003, J. B. Durham: Does Monetary Policy Affect Stock Prices and Treasury Yields? An Error Correction and Simultaneous Equation Approach, in: Federal Reserve Board, Finance and Economics Discussion Series, No. 2003-10, March 2003; European Central Bank: The Stock Market and Monetary Policy, Monthly Bulletin, February 2002, Frankfurt/Main, pp. 39-52; R. Rigobon, B. Sack: The Impact of Monetary Policy on Asset Prices, in: Journal of Monetary Economics, Vol. 51, No. 8, 2004, pp. 1553-1575.

[38] R. E. Lucas, Jr.: Adaptive Behavior and Economic Theory, in: Journal of Business, Vol. 59, No. 4, October 1986, pp. 401-426.

[39] Lucas makes it clear that this assertion applies to long-run averages of money growth and inflation.

[40] H. Kissinger: Does America Need A Foreign Policy?, New York 2001, p. 47.

[41] As Mises (L. von Mises, op. cit., p. 454) put it: "It is impossible to grasp the meaning of the idea of sound money if one does not realize that it was devised as an instrument for the protection of civil liberties against despotic inroads on the part of governments. Ideologically it belongs in the same class with political constitutions and bills of rights."

[42] O. Issing: The monetary pillar of the ECB, speech at "The ECB and Its Watchers VII" conference, 3 June 2005 (http://www.ecb.int/press/key/date/2005/html/sp050603.en.html).

Sylvester C. W. Eijffinger*

Productivity, Growth Potential and Monetary Policy in EMU

The purpose of this paper is to discuss productivity, growth potential and monetary policy in Economic and Monetary Union (EMU) in Europe vis-à-vis the United States (USA). Productivity is a word often used to explain both European (export) successes in certain sectors on the one hand, and European failure to reach US levels of productivity on the other. Europe is a global leader in a number of (high-technology) products and many countries have achieved and maintained significant export growth. How can this observation be reconciled with frequent allegations of low productivity in Europe? As to the difference to the USA, in 1995, the European Union (EU) had almost closed the productivity gap. After that, however, the gap widened, having again narrowed somewhat in recent years. US productivity growth has been slowing steadily for more than two years. Simultaneously, the evidence has strengthened that large parts of Europe are experiencing a renaissance. How important is productivity to explain differences in growth between the two regions, or are there other factors at work?

Economic growth has always been at the centre of any medium and long-run economic model. Unfortunately most of the factors driving it were assumed to be out of policymakers' control: demographic growth, natural endowments, capital accumulation and other exogenous forces. Since the beginning of the twenty-first century, on the other hand, more and more attention has been paid to the effect of political institutions on long-run growth. A common characteristic of modern frameworks is that they identify a non-constant relationship between growth and its drivers: according to the different developmental stages, different factors are responsible for maintaining a high and sustainable level of growth. All the theoretical and empirical frameworks recognise that structural growth is strictly associated with total factor productivity (TFP) growth. TFP growth increases with the number and size of innovations introduced in the market. The implication is that, ultimately, economic growth rests on two pillars:

- the stock of *skilled human capital*, which guarantees an innovative and effective research output
- a set of *economic and political institutions*, which creates the appropriate incentives for the agents to innovate and introduce the new technologies into the market.

This paper focuses on the second of the pillars described above and out of the many economic and political institutions we have decided to focus our attention on product and labour market deregulation. There are two reasons: first, because we believe it is the most important element in the passage from an investment to an innovation-based economy; second, because the two markets are strictly interrelated and analysing them independently would not allow a clear understanding of the subject in hand.

The approach undertaken is prominently empirical. After a very brief description of the regulatory levels of product and labour markets on the two sides of the Atlantic, we conclude with an independent study on the accuracy of the IMD competitiveness index in predicting the overall economic performance of countries close to the technological frontier.[1]

Structural Reforms and Growth

Issing[2] lists three sets of factors as possible determinants of inflation and output growth differentials.

- The first includes *structural factors*, such as differences among countries in productivity trends, in the degree of openness and exposition to foreign shocks, in the financial structure, and in the degree of rigidities in goods and labour markets. A key role is played by the dynamics of unit labour costs. Interestingly, however, the compensation per employee

* Professor of European Financial Economics and Jean Monnet Professor of European Financial and Monetary Integration, CentER, Tilburg University, The Netherlands; Professor of European Financial Integration, RSM Erasmus University, Rotterdam, The Netherlands; Research Fellow, CEPR, London; Member of the Panel of Experts of the Committee on Economic and Monetary Affairs of the European Parliament to which the article was first presented as a Briefing Paper for the Monetary Dialogue with the President of the European Central Bank in December 2006.

[1] The empirical part of this paper is heavily based on S. Eijffinger, A. Rossi: Structural Reforms and Growth: Product and Labor Market Deregulations, CEPR Discussion Paper, No. 5988, 2006.

[2] O. Issing: Structural Reforms and Economic Growth in Europe, in: S. Eijffinger, K. Koedijk, F. Smets (eds.): Structural Reforms and Economic Growth in Europe, Papers of an international conference organised by CEPR/European Summer Institute on 9-10 September 2005 at the European Central Bank in Frankfurt am Main, London 2006, Centre for Economic Policy Research.

component has proved to be more important than labour productivity.

- The second set includes *cyclical factors*. Differentials can arise from asymmetric shocks hitting specific economies or from asymmetric responses to common shocks. In the euro area, common shocks account for the bulk of business cycle fluctuations. Moreover, co-movement of economic activity has increased since 1999, suggesting relatively similar propagation mechanisms. Finally, country-specific shocks have small level effects on output but generate large and persistent effects on output growth differentials.[3]

- The third set includes *policy-related factors*. Inflation and output differentials can be induced by misaligned national structural or fiscal policies. It is also sometimes argued that in a currency union characterised by inflation differentials, a single monetary policy can act in a destabilising way by strengthening inflation and output growth differentials.

Issing[4] states that in EMU there are stabilising channels that counteract the effect of potentially diverse real interest rates. The first is a competitiveness channel: a country with lower than average inflation and higher than average real interest rates due to weak demand experiences an increase in competitiveness and in the demand for its goods, hence counteracting the initial effect of higher real interest rates. Recent research at the ECB suggests that in the euro area the real interest rate effect is stronger in the short run, while the competitiveness effect builds up slowly but prevails over the long term. The second stabilising channel is provided by risk sharing. Within EMU capital and credit market integration enables the mitigation of the effect of country-specific shocks on consumption through international diversification. This is a key mechanism that can counteract the differential welfare impact of asymmetries among members of a currency union. In the euro area, the share of idiosyncratic shocks smoothed through capital and credit markets is substantially lower than in the USA. Nonetheless, it has been increasing since the early 1990s. National economic policies, according to Issing,[5] are better instruments to enhance the ability of individual countries to respond to economic shocks and to divergences. Structural reforms in labour markets contribute to ensuring a smooth adjustment to shocks or changing economic conditions. In this respect, the creation of EMU has to some extent fostered capital mobility by increasing cross-border flows, although further integration is also warranted to mitigate the effects of asymmetric shocks on consumption. In contrast, labour mobility remains low between countries and regions, as well as between sectors and professions. It is important to enhance labour flexibility at the national and regional level, given the existence of differences in languages and cultures that inhibit mobility across countries. Structural policies should also aim at improving the efficiency of the price-setting mechanism to reduce the persistence of inflation divergence.

Product and Labour Market Regulation

Product market regulation is usually referred to as a combination of numerous elements, usually related to the degree of privatisation and level of competition in a given economy. Following intuition, the more privatised and the higher the level of competition in a given market, the more it is considered deregulated.

The eighties were characterised by wide regulatory divergences across countries. For example, 20-30 per cent of the non-agricultural GDP of Europe, Ireland and New Zealand was produced by state-owned enterprises. The same figure for the USA, Japan and Switzerland oscillated between 1 and 10 per cent. Between 1984 and 1998 most of the Anglo-Saxon countries like New Zealand, the United Kingdom (UK) and Australia went through a very strong process of privatisation, while continental Europe, with the exception of Portugal, did not go through such a radical transformation. In the last fifteen years under consideration, the different starting-points were still reflected at the end of the period. In fact, most of the Anglo-Saxon countries were already at an "advantage" compared to continental Europe and those that were not, like Ireland and New Zealand, managed to deregulate very quickly. The most recent comprehensive assessment of product market regulation is the one conducted by Nicoletti, Scarpetta and Boyland.[6] The authors identify three patterns of product-market regulation. The first group/cluster includes mostly Continental European countries. They are characterised by relatively liberal policies as far as international trade and international investments are concerned, but pursue a more interventionist and restrictive approach regarding state control and barriers to entrepreneurship (also called

[3] Cf. J. De Haan, S. Eijffinger, S. Waller: The European Central Bank: Centralization, Transparency and Credibility, Cambridge MA 2005, The MIT Press, chapter 5.

[4] O. Issing, op. cit.

[5] Ibid.

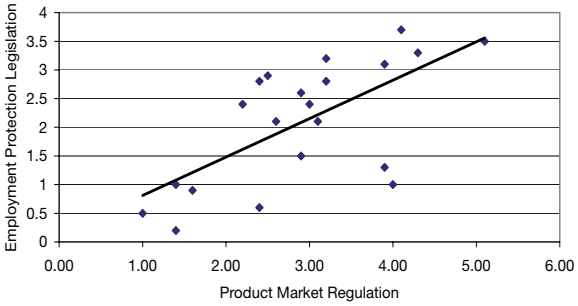
[6] G. Nicoletti, S. Scarpetta, O. Boylaud: Summary Indicators of Product Market Regulation with an Extension to Employment Protection Legislation, OECD Economics Department Working Paper, No. 226, Paris 2001, OECD Economics Department.

inward policies). The second group comprises Anglo-Saxon countries that have a more hands-off approach in both inward and outward oriented policies. Finally, the third group is composed of relatively heterogeneous countries. Norway and Greece have very strict regulatory frameworks both inward and outward. Italy is very restrictive at home, but very open to the international markets. The opposite is the case for Canada.

Given that labour is the main input for the production of goods and services, labour market regulation is also certainly a key element to be considered by policymakers. Labour markets are directly and indirectly affected by a large number of regulations. Here we shall consider only one aspect of it: employment protection legislation (EPL). The reason is that it is a very good proxy for the overall level of labour market regulation. Furthermore, it was impossible to obtain studies embracing organically all the aspects that constitute labour market regulations, like unemployment benefits and levels of minimum wage. By EPL is usually meant restrictions on firing such as severance payments, mandatory notice periods, administrative procedures and delays. According to the EU's broad economic policy guidelines, member states are invited to "review employment contract regulations and, where appropriate, related costs, with the aim of promoting more jobs and striking a proper balance between flexibility and security".[7]

Recent studies show that Anglo-Saxon countries like the UK, the USA, Ireland and Canada have very liberal markets on both temporary and long-term contracts. The markets are very strictly regulated in continental Europe with countries like Italy, Germany and France having very high employment protection legislation levels in both types of contract. Other countries like Sweden and the Netherlands score very well in temporary contracts and relatively badly in long-term ones. Almost half of the countries enacted EPL reforms in the 8-year time-span under consideration. Apart from France, which increased the overall level of protection, all the other countries worked in the other direction. Greater attention was given to temporary contracts, most likely because of the laxer political constraints compared to the reforms that touch long-term ones. The reason is to be found in the fact that unions are sustained and financed by the employed workers, who are mainly under permanent working contracts: in order to provide companies with some degree of flexibility in their hiring and firing schemes, each state had to reform the sectors of the labour market that were less defended by lobbies. Even though not optimal, this approach usually led to some benefits from an efficiency point of view. On the other hand, countries like Italy, with very strong restrictions on permanent contracts and relatively weak restrictions on temporary ones now have a divided labour market: the young workforce is under temporary contracts while older workers have very safe employment conditions, with the obvious social tensions that result from this. The hope is that in the future it will be possible to diminish the EPL levels on long-term contracts throughout the EU.

Figure 1
Product Market Regulation and Employment Protection Legislation (1998)



Correlation between Product and Labour Market Regulations

The correlation between the two variables is very important in this context, as highlighted above. Unfortunately, due to the aforementioned lack of data, we are unable to conduct a study on the correlation of product and labour market institutions over time. A study demonstrating the direction of causality between the two is impossible for the same reason. Following the example of Nicoletti, Scarpetta and Boylaud[8] we report below the bivariate correlation between product and labour market regulations in 1998 for 21 OECD countries. Given the non-existence of indices representing the overall level of labour market regulation, following Boeri et al.[9] and Nicoletti et al.[10] we have decided to proxy it through the degree of EPL. The relationship is shown in Figure 1. The correlation coefficient "ρ" is 0.658387, which demonstrates a relatively strong bivariate correlation. The relationship shown has two very important implications. First, it proves that the insignificant relationship between product market

[7] Council Recommendation of 21 June 2002, OJ L182 of 11.07.2002.

[8] G. Nicoletti, S. Scarpetta, O. Boylaud, op. cit.

[9] T. Boeri, G. Nicoletti, S. Scarpetta: Regulation And Labour Market Performance, CEPR Discussion Paper, No. 2420, 2000.

[10] G. Nicoletti, S. Scarpetta, O. Boylaud, op. cit.

regulation and unemployment/employment can be attributed not only to a lack of explanatory power of the former for the latter, but to multi-collinearity with labour market regulation. Second, Figure 1 empirically validates one of the main findings that Blanchard and Giavazzi[11] developed theoretically, i.e. that a decrease in product market regulation naturally leads to (causes) a decrease in labour market regulation. The theoretical framework, however, is only partially demonstrated. In fact, we are unable to show the direction of causality entailed by the model, but only the fact that the two variables move together. The final part of this paper is dedicated to the relationship that policymakers probably care most about, i.e. the one between product and labour market regulation and economic growth.

Economic Growth and Deregulation

Unfortunately, there is a serious lack of data concerning the assessment of product and labour market regulation. It was impossible to find a database that contained both measures for a sufficient number of years. As explained above, product market regulation has been analytically assessed from 1978 until 1998 at intervals of 4-5 years by Nicoletti et al.[12] On the other hand, neither labour market regulation nor any of its components (EPL, minimum wages, unemployment benefits) were ever assessed in an organic way for a sufficient number of years. The closest the literature has got to this topic is the paper by Nicoletti and Scarpetta,[13] who study the relationship between product market regulation and productivity growth. This paper proves that productivity is increased by reforms promoting private governance and competition. Both privatisation and entry liberalisation are estimated to have a positive impact on productivity in all sectors. In manufacturing the second is particularly influential, because regulation limiting entry hinders the adoption of existing technologies, possibly by reducing competitive pressures, technology spillovers and the entry of new high-tech firms. The authors take these findings as a powerful interpretation of the observed recent differences in growth patterns across OECD countries, in particular between large Continental European economies and the United States. Strict product market regulations – and a lack of regulatory reforms – are likely to underlie the relatively poorer productivity performance of some European countries, especially in those industries where Europe has accumulated a technology gap (e.g. ICT-related industries). These insights are certainly powerful, but two elements leave us dissatisfied with the study in hand. First, it focuses on productivity growth and not GDP per capita growth: although very close to each other, the two variables are not always equal and, for our purpose, a study using GDP per capita growth would be preferable. Second, it does not show the effects of labour market regulation on economic growth. To achieve a better understanding of the subject in hand, we present two studies here. The first is a cross-section analysis in which we regress GDP per capita against the levels of product and labour market regulation in 2003. The second study is a bit less straightforward: we take the IMD Competitiveness Index as a proxy for product and labour market regulation and conduct a panel data study trying to determine whether changes in the regulatory environment determine differences in GDP per capita growth figures.

Given the aforementioned lack of data, we decided to run a cross-section study for the year 2003. We regress nominal GDP per capita against indicators for product and labour market regulation for 28 OECD countries according to different model specifications. As the two sectors tend to have similar regulatory levels across countries, this results in a strong multicollinearity. In order to overcome this problem, we tried to use different proxies for product and labour market regulation. For the first we used alternatively the aggregate indicator of product market regulation developed by Nicoletti et al.,[14] "state control", "barriers to entrepreneurship" and "barriers to trade and investments". For the second we used alternatively the degree of "EPL", "strictness on individual dismissals" and "collective bargaining coverage". Unfortunately our efforts to exclude multicollinearity did not lead to any valuable result. The level of labour market regulation is significantly negatively correlated to the level of GDP per capita when used alone in the regression equation. It is, on the other hand, insignificant when inserted along product market regulation and vice versa. We certainly cannot be satisfied by these results, but the high correlation between the variables in hand makes it impossible to estimate their individual effects on GDP per capita levels. To understand the effects of product and labour market regulation we now adopt a different strategy. We use a nation's competitiveness

[11] O. Blanchard, F. Giavazzi: Macroeconomic Effects of Regulation and Deregulation in Goods and Labor Markets, in: Quarterly Journal of Economics, Vol. 118, No. 3, 2003, pp. 879-909.

[12] G. Nicoletti, A. Bassanini, E. Ernst, S. Jean, P. Santiago, P. Swa: Product and Labour Markets Interactions in OECD Countries, in: OECD Economics Department Working Paper, No. 312, Paris 2001, OECD Economics Department.

[13] G. Nicoletti, S. Scarpetta: Regulation, Productivity, and Growth: OECD Evidence, Policy Research Working Paper Series, No. 2944, Washington, DC 2003, The World Bank.

[14] G. Nicoletti, S. Scarpetta, O. Boylaud, op. cit.

Table 1
List of Countries Included in the Panel Data Regression

Australia	Finland	Israel	Philippines	Taiwan
Austria	France	Italy	Poland	Thailand
Belgium	Germany	Japan	Portugal	Turkey
Brazil	Greece	Korea	Russia	United Kingdom
Canada	Hong Kong	Luxembourg	Singapore	USA
Chile	Hungary	Malaysia	South Africa	Venezuela
China Mainland	Iceland	Mexico	Spain	
Colombia	India	Netherlands	Sweden	
Czech Republic	Indonesia	New Zealand	Switzerland	

level, as assessed by the IMD Competitiveness Index, as an instrumental variable for both product and labour market regulation.

Economic Growth and the IMD Competitiveness Index

As a first step, it is fundamental to describe the methodology used by IMD in building the Competitiveness Index. The annual competitiveness rankings are composed of four sub-categories: economic performance, government efficiency, business efficiency and infrastructure. For these sub-categories there are 83, 77, 69 and 94 individual criteria respectively. The categories themselves are further broken down for a total of twenty sub-factors. Each of the twenty sub-factors receives an equal weight of 5 per cent, irrespective of the number of criteria composing it. To give each of these elements a score, the IMD uses hard and soft data. The former receives a weight of two thirds and the latter accounts for the rest. The soft data originates from the annual executive opinion survey. The survey is an in-depth 112-point questionnaire sent to business executives and economic experts. The empirical model to be proposed analyses the statistical relationships between the national economic performance and the composite IMD Competitiveness Index. A panel data model is used. Data were collected for 46 different countries, which include industrialised, developing and least developed countries. A list of the countries is given in Table 1. In the analysis we use the entire set of countries. However, we also conducted our analysis separating the sample into industrialised and developing countries. Our findings were unaffected and are therefore not reported here. The IMD Competitiveness Index was taken for ten consecutive years (1995-2004). Because the overall IMD index is an aggregation of separate, but complementary, sub-components (i.e. economic factors, government efficiency, business efficiency, infrastructure), it was our intention to analyse their individual effect on economic welfare and identify which would be the most important factor in driving economic growth. This analysis was impossible because the building blocks of the overall index have changed over time. It was possible to have consistent sub-indices only for the years 2000 to 2004, which was considered too short a time span.

"GDP per capita growth" was used as independent variable. The Penn World Table database was used for the period 1950-2000. IMF data were used to integrate the successive four years. The business cycle is stripped out of the real GDP per capita growth data by using the Hodrick-Prescott filter. This is done to obtain the structural growth rates, which serve as a proxy for the potential economic growth of the countries in question. To have a "clean" measure of it, the real growth rate data is smoothed over the period 1950-2004, even though the index data is limited to the period 1996-2004. Thus, only the part of the smoothed data which lies within the period 1995-2004 is used. The independent variable is the "change in the absolute competitive rank from one year to the next". The changes are calculated in such a way that an improvement in rank (i.e. a change in rank from 14 to 12) is represented by a positive number (i.e. +2). Thus, we expect to have a positive coefficient for the changes in ranks. Further on, we included lags of the changes in rankings. More precisely, they have been lagged by one, two and three periods because an improvement or decrease in competitiveness might not show up immediately in the data. It might need time to manifest itself. Country-specific and time-specific fixed effects were used. Here is the model specification adopted:

$$\Delta GDP_{it} = \alpha + \beta_1 \Delta INDEX_{it} + \beta_2 \Delta INDEX_{it}\_1LAG_{it} + \beta_3 \Delta INDEX_{it}\_2LAG_{it} + \beta_4 \Delta INDEX_{it}\_3LAG_{it} + \varepsilon_{it}$$

where ΔGDP is the real growth rate per capita adjusted by the Hodrick-Prescott Filter, ΔINDEX is the change in competitiveness ranking constructed as explained above, and ΔINDEX_XLAG is the index change lagged by X periods.

The estimation results are reported in Table 2. The coefficient for ΔINDEX is significant up to the second lag, indicating a strong relationship between the ranking in the IMD Competitiveness Index and economic growth. Although the proxy used did not contain product and labour market regulation only, with this study we have shown the close relationship between eco-

Table 2
Panel Data Regression Relating GDP per capita Growth Figures adjusted by the Hodrick-Prescott Filter to Yearly Changes in the IMD Competitiveness Index (Country-specific and Time-specific Fixed Effects)

Dependent Variable: GDP per capita Growth adjusted by the Hodrick-Prescott filter

Total pool (balanced) observations: 276

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Constant	2.741264	0.030920	88.65790	0.0000
ΔINDEX	0.036429	0.010445	3.487617	0.0006
ΔINDEX_1LAG	0.032011	0.010419	3.072315	0.0024
ΔINDEX_2LAG	0.023600	0.010309	2.289319	0.0230
ΔINDEX_3LAG	0.014842	0.010291	1.442304	0.1506
Fixed Effects (Country-specific)				
Fixed Effects (time-specific)				
R-squared	0.918993	F-statistic	46.42904	
Adjusted R-squared	0.899200	Prob(F-stat)	0.000000	
Durbin-Watson stat	1.677949			

nomic growth and the friendliness of the regulatory environment. We have tried to use separate proxies for product and labour market regulation to show their independent effects on economic growth, but either they were not available for a sufficient time-span and number of countries, or they were so imprecise that the results were insignificant. To conclude, the results of this study should be taken only as preliminary. Future research attempts should be aimed at showing the independent effects of product and labour market regulation on economic growth across countries over time. It is important to have an empirical quantification of the two to better direct future policy-making and enact reforms to maximise structural growth.

Some Conclusions

The purpose of this paper was a deeper understanding of the relationship between economic growth and product and labour market (de)regulation. Although most economists believe in the positive effects of deregulation, the empirical estimations did not always prove to be completely satisfactory. First, we have discussed product and labour market regulations in Anglo-Saxon and European countries. Second, we have shown the correlation between product and labour market regulations. Finally, the last part of the paper was dedicated to proving the relationship between product and labour (de)regulation and economic growth. The approach has been a little unconventional, given that we have used the IMD Competitiveness Index as a proxy for the regulatory friendliness of a given country. Our empirical results have appeared to be very promising and we hope that future research with more precise data and sharper estimation techniques might be possible in the future.

Secondo Tarditi*

European Integration between Dr Jekyll and Mr Hyde

Fifty years after the institution of the European Economic Community (EEC) it is interesting to analyse and appraise the developments of this most important event of economic and political integration in our continent. We shall focus on the Common Agricultural Policy (CAP), which has absorbed more than half the resources of the European budget and we shall compare the expectations of European citizens with the outcomes of implemented policies. In performing such an exercise, it is surprising to realise how policy outcomes have been at odds with the objectives and expectations enshrined in the Treaties.

The general policy objective of maximising the "common good" or the well-being of citizens, has permanently been under threat by particular private or group interests, putting pressure on policymakers and often operating within the public sector. Government failures have been particularly frequent and dangerous in some sectoral policies, such as agricultural policy, where private interests more frequently interfere and are traded-off against the general interest by policymakers.

Stevenson's allegory of Dr Jekyll and Mr Hyde[1] may be useful to highlight the performance of the Common Agricultural Policy in the last decades. The "Dr Jekyll"

* Professor of Agricultural Economics and Policy, Faculty of Economics, University of Siena, Italy. Tarditi@unisi.it.

[1] R. L. Stevenson: The strange case of Dr Jekyll and Mr Hyde.

identity of the European policymaker aimed to attain the "common good", largely consistent with the policy objectives stated in the Treaties, especially in terms of economic efficiency, income distribution and environmental protection. This usually implies impartial judgements and no discrimination among citizens or policy groups in everyday policymaking. On the other hand, the "Mr Hyde" identity of the policymaker favours the interests of his own social group even when this is to the disadvantage of the interests of society as a whole. Such behaviour usually leads to a waste of economic resources, increased income disparities, and reduced environmental protection, openly in contrast with the Treaties.

In Europe such a contrast between private and public interests in policymaking is probably larger and more diffused than in other parts of the world for historical and institutional reasons. Early direct attempts at economic and political integration of the continent failed, such as the European Defence Community in 1952, or did not yield the expected success, such as the Western European Union created in 1954. As a "second best" solution, the European Economic Community succeeded in a piece-meal, sectoral approach, integrating European countries through the customs union and the common market, followed by the economic integration of some basic economic sectors, up to the recent economic and monetary integration of a large part of the continent.

Unfortunately such integration by sectors of the European economy generated some European institutions which are largely self-referential, not well integrated horizontally, favouring private or group interests in contrast to the interests of all citizens. For example, current decisions in sectoral policies, e.g. agriculture, are taken by the Agricultural Council of Ministers which is made up only of Agricultural Ministers from each Member Country. It is consequently understandable if the outcomes of their decisions happen to be biased in favour of the interests of some farmers and landowners rather than consistent with the interests of society as a whole.

For example, it would be rather hard to justify in the general interest why, in the last half century, the CAP generated transfers to the agricultural sector representing over 50% of farm income, expanding domestic supply, while contemporarily huge amounts of food surpluses were destroyed and up to 10% of arable land is not cultivated but set aside in order to reduce supply and keep domestic farm prices high. In the last fifty years the amount of wasted resources and the negative impacts of the CAP on income distribution were so large, pervasive and damaging to European citizens that they qualify for the term "European disease".

We shall focus our attention on four basic issues: the agricultural price policy, its various reforms, the European enlargement, and the present rural development policy, before leading to some major conclusions.

Price Policy

The first main issue confronting general and particular interests in agricultural policymaking took place in the early sixties, at the very origin of the CAP, when the customs union was instituted. After WWII agricultural tariffs were rather high especially in Germany and Italy as compared to France and the Benelux (Belgium, the Netherlands and Luxembourg). At the time agriculture was still the largest economic activity in the six founding member countries, employing over half of the labour force in most regions.

Some of the policymakers were in favour of adopting the same liberal approach in the agricultural sector which was proving to be successful in manufacturing and in the EEC economy at large. After WWII, between 1947 and the early sixties, the GATT[2] negotiations had halved international border protection in manufactured goods, boosting international trade while, in contrast, agricultural commodities were only marginally affected by this international liberalisation wave. Given the international importance of the new-born European market, the institution of the EEC could have been a good opportunity for reducing the average agricultural protection in the new customs union, favouring a larger liberalisation process at a global level.

Such a "Dr Jekyll" strategy would have been fully consistent with the principles of economic policy established in Treaty of Rome: "The Member States and the Community shall act in accordance with the principle of an open market economy with free competition, favouring an efficient allocation of resources",[3] and of commercial policy: "By establishing a customs union between themselves Member States aim to contribute, in the common interest, to the harmonious development of world trade, the progressive abolition of restrictions on international trade and the lowering of customs barriers."[4]

A strategy consistent with such objectives democratically expressed in the Treaties was at first envisaged. On the one hand the existing market price support, especially in Germany and Italy, where the

[2] General Agreement on Tariffs and Trade.

[3] Art. 98 of the Consolidated Treaty establishing the EC, ex art. 102 of the Treaty of Rome. From now on we will refer only to the Consolidated Treaty.

[4] Art. 131.

economic sanctions of the League of Nations in the 1930s and WWII had generated the largest protectionist policies, was to be reduced. On the other hand a complementary policy was to favour intersectoral labour mobility and structural adjustment, increasing average farm sizes and providing higher amounts of land per unit of labour, especially in regions where employment in agriculture was redundant and labour productivity very low. It was agreed that at least 30% of the financial resources were to be spent by the newly created European Agricultural Guidance and Guarantee Fund on structural adjustment policies in order to create a competitive agriculture especially in low-income regions.

In order to implement this envisaged strategy, largely consistent with the general interest of EU citizens, existing farm prices especially in Germany and Italy were to be reduced, and compensatory payments granted to farmers for the consequent income losses were envisaged. These payments would have been limited in time and degressive, in order to smooth the cost of structural adjustments, allowing the necessary reallocation of economic resources among firms and regions in the EEC.

Such a strategy in the general interest, which was indicated in the Treaty of Rome, was however difficult to implement in the EEC. In the meetings where decisions on agricultural policy were taken it immediately became apparent that the general interest was scarcely taken notice of. Ministers of Agriculture were much more concerned with the benefits received by the farmers they represented than with the benefits accruing to consumers or taxpayers. In fact, the large majority of EU citizens were not directly represented in the decision-making institutions.

A "Mr Hyde" approach to policymaking already prevailed in the early sixties. Border protection for agricultural commodities was neither reduced nor even balanced among EEC member countries as stated by the Treaty of Rome[5] but, rather, increased rapidly, granting to the entire EEC the high German and Italian level of border protection. The envisaged 30% share of agricultural expenditure on structural policies was never reached, but for decades remained very low, at about 5%.

By manipulating border tariffs, and consequently market prices, it was much easier to generate income transfers from consumers to producers, favouring the various farm lobbies. To implement structural policies it was necessary to put constraints on farmers' behaviour in order to monitor how direct subsidies would be spent. Following a private or group approach it was much more convenient to receive higher farm prices, without any constraint on the use of the consequent increases of farm income.

Moreover, such income transfers were scarcely noticed by consumers and policymakers as the existing domestic price was the only reference for EEC citizens. Almost no-one, with the exception of rare economic experts or academics, bothered to compute what would have been the EEC market price in the absence of the existing border protection. The transfers were also called "invisible" as there was no explicit official computation or mention of them in the annual bookkeeping of the EEC.[6]

The high costs for consumers of the price support policy were not taken into account and at first were more or less denied in debates among policymakers and even among policy experts. The European Commission has always been very conscientious about publishing budgetary expenditures but was making practically no reference to the costs born by EEC consumers as a consequence of supported farm prices. Even official research institutes, while describing every aspect of budgetary expenditure, were not estimating or even quoting the costs born by consumers as a consequence of the CAP.[7] Unfortunately such "invisible costs" as estimated by the OECD up to the nineties have been larger than the budgetary costs of the CAP, i.e. over 50% of the whole EU budget.

Reforms of the CAP

In the following decades, the prevalence of sectoral interests over the objectives of society as a whole generated manifest economic costs for European citizens in terms efficiency, equity and sustainability.

When in the early sixties the EEC was still a net importer, higher tariffs and the consequent higher domestic prices were a burden for consumers but a net benefit for producers and taxpayers, as the proceeds of border levies were flowing into the EC budget. In the early seventies persistent high price support pushed domestic supply beyond the self-sufficiency level

[5] In order to minimise the shocks of changes in domestic prices following the unification of national markets, Article 19 of the Treaty of Rome was very clear on the institution of the common external tariff: "… duties in the common customs tariff shall be at the level of the arithmetical average of the duties applied in the four customs territories comprised in the Community." This basic rule was only attempted for agricultural commodities at the very beginning, but the higher border protection decided by the Council of Agricultural Ministers made such measures immediately redundant.

[6] The costs for EEC consumers have been estimated annually since the late seventies by OECD: Agricultural policies in OECD Countries, Monitoring and outlook, but were never taken into due consideration in the Council of Agricultural Ministers.

[7] E.g. "Annuario dell'Agricoltura Italiana" published by the Italian National Institute of Agricultural Economics.

for an increasing number of commodities. As the EU became a net exporter, import barriers became redundant and food surpluses would have reduced domestic prices towards the international level.

If the European Council of Ministers had been sensitive to the general interests of European society, according to our "Dr Jekyll" allegory, the obvious policy to follow would have been to accept the natural reduction of domestic price support. In fact, when the EC was a net importer, higher domestic prices could still be justified in terms of ensuring greater security in food supply, protecting EU citizens in the case of a (very improbable) famine or economic embargo. When the EC increased its supply beyond its domestic demand there was no more logical justification in the common interest for maintaining domestic prices above world market prices.

By reducing price support EU citizens would have benefited in terms of lower prices and greater food consumption, cancelling out food surpluses. Such a reduction of domestic prices on the one hand would have generated a physiological restructuring of inefficient farms which were too small or badly managed to stand the competition and, on the other hand, would have reduced the existing high rents of larger farms and landowners, according to the normal rules of competitive markets.

The champion of the "Dr Jekyll" approach in the seventies was the Dutch Commissioner Sicco Mansholt, who had played the largest role in creating the EC and, although defending farmers' interests, being a farmer himself, was sensible enough to clearly perceive when sectoral interests started to be in contrast with the general interests of society. His famous "Mansholt Memorandum" published in December 1968, and the following European structural directives in the early seventies, became the main attempt to reform the CAP as soon as its huge wastes of economic resources and its perverse income distribution were becoming manifest. Moreover, the higher prices of agricultural commodities were increasingly damaging the rural environment by expanding the use of pesticides and polluting fertilisers, and favouring soil erosion.

The proposed Mansholt strategy was rather simple. Price support should be largely dismantled in order to avoid costly food surpluses, while the average production costs in farming should be reduced in order to increase per capita farm incomes. The existing large number of very small farms should be substantially reduced by favouring land consolidation and intersectoral labour mobility. Off-farm employment opportunities were to be subsidised when farmers did not have a minimal amount of land and capital resources to allow them a per capita income comparable to non-farm jobs in the region. Farmers in need of capital aid to adjust their farm size and equipment, if they proved to be able to reach such a "viable" income level, were to be granted public subsidies for a limited period of time (six years, or nine in disadvantaged regions) in order to implement the structural changes needed.

Under these structural directives, in the seventies agricultural production would have changed radically, and a reduced number of farmers would have allowed for larger land and capital resources per farm and lower production costs. Domestic price support could have been contemporarily dismantled in order to transfer to consumers a large part of the efficiency gains consequent to the reform, as happens in any competitive market economy.

Sicco Mansholt and his reformers did not take it sufficiently into account that decisions on agricultural policy were not taken by all policymakers in the interest of society as a whole, but rather by the Council of Agricultural Ministers sometimes in a "Mr Hyde" approach, and mainly concerned with avoiding a reduction in farm incomes. Instead of easing the physiological out-migration of farmers to other activities as a consequence of the rapid changes in technology and in consumer preferences and reducing the costs of labour mobility, this was opposed in order to avoid costly structural changes in both rural and urban areas, but also in order to maintain larger rural constituencies and the local structure of political power.

The basic keystone of the whole project, i.e. the reduction in price support as a consequence of domestic supply's increasing beyond demand, could not take place as a consequence of the numerous "ingenuous" devices created over past decades by the fervid fantasy of our agricultural farm lobbies and policymakers.

At first food surpluses were considered temporary events due to seasonal fluctuations in supply, and they were disposed of at the expense of the Community taxpayer. Then larger food surpluses in an increasing number of commodities became a permanent, structural reality. The well-known "lakes of milk" and "mountain of butter" were produced due to excessively high domestic prices and could not be consumed by Community citizens for the same reason. They were kept in numerous, huge storehouses all over Europe, up to the limit of deterioration and were then destroyed or sold to various countries, such as the former Soviet regime, at a price often barely covering transportation costs. Various reform attempts failed, such as the "superlevies" envisaged to limit profits of larger farmers, or the "stabilisers", aiming to curb the expansion of the agricultural budget by reducing price support.

For cereals and other, non-perishable commodities the EEC started to get rid of food surpluses by subsidising exports and dumping them on the world market. As the European Community, especially after its enlargement to include most EFTA[8] countries, was becoming the largest world market for an increasing number of commodities, dumping our surpluses on the world market depressed international prices and created serious problems for the other non-subsidised "natural exporters". Especially poorer countries did not have the financial resources of European taxpayers, who were willing to support large export subsidies, and they were deeply damaged by our unfair trade policy.

In the eighties our international trade partners could no longer stand the Community dumping of milk products and its depressing impact on international prices. The obvious solution to this problem was the reduction of domestic price support. According to a study by the European Commission a 12% reduction of milk prices could have been sufficient to eliminate existing surpluses. We were not discussing a broad price liberalisation, as implemented in non-agricultural commodities where border tariffs were almost totally dismantled thanks to the GATT negotiations, but rather a limited reduction in price support in order to avoid the most apparent waste of EU citizens' money and of economic resources at a global level due to distortions in international markets.

The "Mr Hyde" approach prevailed again even in such peculiar circumstances and instead of reducing border tariffs and domestic milk prices the Council of Agricultural Ministers instituted the milk quota system, by which each producer reduced the share of his/her supply in order to keep market prices high. This new policy obviously involved extra bureaucratic controls and administrative costs borne by Community, national and regional budgets. The European Community, born in order to liberalise markets and diffuse free enterprise, was denying the principles of the market economy and adopting supply control measures typical of the centralised economies which have almost disappeared in the world in order to defend the privileges of a small group of producers.

The land and capital resources withdrawn from milk production under quota constraints were necessarily invested in other agricultural commodities, worsening the existing problems of overproduction in those markets. Notwithstanding the demands of some farm lobbies, the quota system could not be extended to other commodities.

[8] European Free Trade Association.

Instead of allowing the utilisation of the existing generalised excess of agricultural resources for non-agricultural activities, by reducing agricultural market support, the Council of Agricultural Ministers preferred set-aside, sterilising about 10% of arable land in each farm and paying farmers about €1800 million a year, obviously at the expense of European taxpayers, in order to reduce market supply. The most visible indicators of the huge misallocation of resources pervading the CAP, such as food surpluses, were then rapidly reduced, but the economic cost for EU citizens was not reduced, only disguised.

It is difficult to imagine a more incredible and huge waste of economic resources spent in order to maintain the private sectoral interests of an extremely limited number of people.

EU Enlargement

At the end of the century, the enlargement of the Community by ten central and eastern European countries (CEECs) could have been another very good opportunity to reform the Common Agricultural Policy in the interests of European citizens. In the year 2000 the ten CEECs accounted for only 8% of the EU15's gross domestic product, and their economic size was still very limited due to the low per capita income. On the other hand, they accounted for 30% of agricultural land and 58% of the EU15 employment in agriculture. Their impact on agriculture would surely have been much more important than on the rest of the economy.

After the collapse of the Soviet regime, the CEECs suffered deep structural reforms in order to transform the previous centralised economy into a market economy. In the early nineties their agricultural economy was still largely open to world markets, although producer price support started to increase in view of accession to the European Union.

The choice open to European policymakers in the early nineties was again straightforward. According to a "Dr Jekyll" approach in the general interest of European citizens, enlargement by such a large share of European agriculture was a very good occasion for dismantling the existing producer support in the EU15, amounting at about 75% of the border value of agricultural production.

By eliminating price support, in the EU15 the huge wastes resulting from the current misallocation of economic resources, e.g. the cost of land set-aside, production quotas and the remaining food surpluses, would have disappeared. European citizens would have benefited by lower food prices, while the existing large amounts of farm subsidies could still have been

granted for some years, say ten or fifteen, to farmers within a strategy aiming to adjust poor farm structures and diffuse new technologies for facing the challenge of lower market prices.

In order to reduce the costs borne by farmers in the transition to the new liberal regime, the existing annual income transfers to farmers could have been maintained in terms of financial bonds guaranteed by the European Union. Farmers could cash these bonds every year, or cash them as a lump sum. If farmers were unable to compete on the market, or willing to retire, they could sell their land and transform the proceeds, together with the present value of the accumulated bonds, into a life-long insurance. On the other hand, farmers willing to develop a viable farm could use the bonds for improving farm size and technology, becoming more competitive by lowering their average costs of production.

If in the year of accession domestic price support were dismantled for EU15 countries and much smaller analogous income transfers were granted to compensate for the much lower price support existing in new Member Countries, the CAP reform would have been implemented at a rather limited cost for farmers and for society as a whole. After the transitional period European consumers and taxpayers would have been much better off, without the permanent burden of present farm subsidies.

This opportunity for reforming the CAP was widely discussed but did not succeed, mainly due to the firm stand of the majority of Agricultural Ministers backed by a large number of farm lobbies. According to our "Mr Hyde" allegory to policymaking, for a large number of farm organisations it was more convenient to go on receiving large income transfers from consumers and taxpayers without constraints, even if a large part of these economic resources were wasted in payments for land set-aside, surplus disposal and storage, bureaucratic expenditure, export subsidies and so on. At the beginning of the century, the European Union was responsible for about 90% of the agricultural export subsidies paid in the world.

The CAP in the EU15 was not reformed but this inefficient way of spending public money was extended to the former group of CEECs and, at present, to Romania and Bulgaria.

As a consequence of the extended farm subsidies and price support in the new Member Countries consumer prices and budgetary expenditures rapidly increased, while farm incomes doubled as was forecast by economic research conducted in the previous years.[9] It is surely very difficult to justify in the general interest such a huge waste of economic resources and regressive income redistribution, favouring large and better-off farmers at the expense of EU consumers and taxpayers.

Pseudo Environmental Policy

In 1994, in order to conclude the Uruguay Round of GATT-WTO multilateral negotiations, the EU agreed to reduce the domestic price of cereals by about 30%. Compensatory payments were instituted to mitigate in time such a sudden price reduction and ease the structural adjustment towards the new set of relative market prices, a rather transparent strategy in the general interest. Unfortunately the basic features of these transitional compensatory payments were not immediately strictly defined as limited and decreasing in time.

Given the strong imbalance in the political bargaining power between the sectoral farm and landowners' lobbies on the one hand and consumer and other horizontal lobbies defending the citizens' general interests on the other, in the nineties these compensatory payments were practically not reduced. Farmers received substantially the same amount of money in a different way, part of which was no longer incorporated as support for market prices but was received as direct payment. Our policymakers gradually changed the name of these direct payments calling them "production aids", at least etymologically eliminating any reference to their origin as a compensation consequent to the reduction in price support. While compensatory payments are commonly considered transitional, production aids can well be permanent.

Following the strategy of changing the name and appearance of the same soup, these payments are now justified in terms of compliance with good farming practices and the alleged environmental benefits generated by farmers and amounted to €29.6 bn in 2004, two thirds of the EAGGF guarantee expenditure.

If such "aids" are paid by the European taxpayer for this very good reason, why are present compensatory payments proportional to the former levels of price support? Why are they not calibrated according to different areas such as plains or mountains, according to some environmental parameter? European citizens are surely willing to compensate anybody for positive environmental externalities, but the financial burden should have at least some relation to the environmental benefits. For example, livestock farms, often gen-

[9] J. Marsh, S. Tarditi: Cultivating a Crisis – The Global Impact of the Common Agricultural Policy, report commissioned by Consumer International and European Research into Consumer Affairs, March 2003, http://www.unisi.it/cipas/ref/Marsh-Tarditi_2003_Cultivating_Crisis.htm.

erating large water, soil and air pollution, are highly subsidised while various environment-friendly cultivations, such as flowers and ornamental plants, do not receive any public subsidy for the simple reason that their price was not supported by the CAP in previous decades.

As is the case for market price support still operating in basic commodities, direct payments are also heavily distorting incomes and investments as entrepreneurs do not receive the correct signals and incentives from the market. In the history of the CAP some highly supported commodities used to be very profitable for farmers, while contemporarily they are very costly for EU citizens, who have to pay the cost of dumping surpluses, set-aside arable land, bear large administrative costs for production quotas and other output constraints in order to manage supply.

This rather visible annual waste of resources becomes much larger if we take into consideration the long-term effects in distorting investments. Excessive resources are maintained in too small and inefficient farms, hindering structural adjustment and maintaining high average costs of production in agriculture. Under such conditions, a large share of transfers of resources paid by consumers and taxpayers to the agricultural sector are not even flowing into farmers' income, but are absorbed by inefficient farms in order to pay their higher production costs. The CAP, instead of transferring these resources to farmers, is simply destroying a large part of them.

Structural policies, financing investments and new technologies, cannot be correctly implemented in the general interest if market prices are distorted. Financial aids to farmers are understandably invested by entrepreneurs according to their private profitability, which often leads to totally wrong outcomes in terms of public interest. The present "Rural Development Programmes", the second pillar of the CAP, are not based on sound structural policies without sectoral constraints. In practice they are not "rural" as they are heavily biased in favour of agriculture rather than being oriented to the most useful activities, and are not "development programmes", as investments are only a minor part of total expenditure. They should more honestly be named "Agricultural Assistance Programmes".

As proved in the whole economic life of the European Community, a correct agricultural reform cannot be done without a consistent structural reform. EU citizens' money must be spent on investments, changing the structure of agriculture according to market forces indicating consumer preferences. It should no longer be wasted on current expenditure spreading it all over the Community, largely favouring rich farmers and landowners, without clear development targets, but rather as a result of the bargaining power of various farm lobbies and of the preferences of some powerful members of the Council of Agricultural Ministers.

Perspectives

According to the OECD annual estimates,[10] in 2004 the total support to agriculture in the European Union was €108 bn, of which €57 bn was transferred from consumers to the agricultural sector by manipulating domestic prices. The remaining €51 bn are paid by the EU25 budget. The total support is comparable to the net added value of agriculture at market prices.[11] The basic issue of the reform of the CAP has always been the excess of economic resources conveyed towards agriculture by European policymakers and largely wasted. Only a rather limited part of such income transfers is accruing to farmers' income.

Following the principles of the EC Treaty, in order to "act in accordance with the principle of an open market economy with free competition, favouring an efficient allocation of resources", budgetary and consumer resources should be spent according to their most profitable use for society as a whole, without any sectoral or regional constraint which is not justified by clearly defined sectoral or regional strategies leading to the common interest.

As a consistent share of such economic resources presents a negative marginal productivity for our society, such as the €1800 m. annually spent by the budget in order to set aside about 10% of our arable land, the obvious strategy should be to divert to other activities at least a major part of those economic resources which are now used in a wasteful way, mainly worsening income distribution and often in contrast to our environmental objectives. Such a "Dr Jekyll" approach would surely be much more consistent with the objectives which European society enshrined in the Treaties than the present misallocation of resources generated for example by non-competitive policy measures typical of a centralised economy such as production quotas.

According to a recent study,[12] a bilateral EU liberalisation of agricultural markets, combined with the investment of present agricultural budgetary expendi-

[10] OECD: Agricultural Policies in OECD Countries: Monitoring and Evaluation 2005, Paris 2005.

[11] The commonly quoted "net added value at base prices" , €125 bn in 2004, is including a part of farm subsidies.

[12] Oxford Economic Forecasting: Trade Liberalisation and CAP Reform in the EU, 2005, p. 5.

ture in other more productive outlets such as research and development, would generate, after a transition period, up to an annual 2.1% increase in EU15 GDP and a 1.3% increase at the global level. Net income gains would be larger for poor people and countries. People in the poorest decile would benefit from a 4% income increase against a 2% increase for the first, richest decile.

Such an extreme reform of the CAP is manifestly unfeasible in our present circumstances; however, huge improvements in the allocation of resources are surely possible and advisable in the general interest. In order to limit market distortions, direct payments have recently been gradually decoupled from the amount of commodity produced. Farmers are now receiving payments measured according to heads of livestock or the amount of land cultivated with each commodity in previous years. Subsidies have recently been grouped in a single farm payment, but the bulk of the payments are still largely proportional to the old price support granted to each commodity before the conclusion of the Uruguay Round as compensatory payments were not dismantled.

An increasing part of present market farm subsidies should be transferred to the second pillar of the CAP, the rural development policy, favouring farm investments, agri-environmental measures and structural adjustment. If the present large part of farm subsidies were rapidly used according to appropriate social cost-benefit analyses as indicated in the Treaties, the largest part of farm subsidies could be reoriented towards rural areas. These former farm subsidies and related expenditures would still be constrained only to rural areas, but without sectoral constraints. A large amount of financial resources would be available for farm restructuring, and for farm and non-farm investments in rural areas, in line with better economic use for different activities, without privileging agricultural expenditure. All environmental concerns could be implemented properly whenever related subsidies and regulations were justified in the interests of European citizens.

Unfortunately this possible strategy, largely consistent with the general interest, is strongly opposed by some farm lobbies and vested interests, adopting a "Mr Hyde" approach even when proper compensations for transitional costs are envisaged.

In present rural development programmes subsidies are limited only to farmers or members of their families,[13] creating discrimination by privileging farmers versus other rural citizens, notwithstanding the negative marginal productivity for society of a large part of present farm expenditure. If the present policymakers were sincerely aiming at a better use of present available resources, the consistent farm subsidies still related to the former price support instituted almost fifty years ago would be rapidly diverted via "modulation" towards investments and other productive expenditure targeted towards specific policy objectives.

The core issue has remained the same throughout the past decades. Such a large amount of subsidies cannot be absorbed in agriculture if fair rules in the general interest are applied, but our political institutions are not powerful enough to solve this problem. Instead of dismantling once and for all this costly waste of money, a large number of present policymakers prefer to fiddle around inventing an incredibly large number of costly policy regulations and administrative devices to use citizens' money. Consumer organisations, which should be among the most important horizontal groups defending EU citizens, have a diffused but very tiny voice, and are unable to organise a political strategy even in their own interest, as everyone of us is a consumer.

Notwithstanding so many reforms of the CAP, the per capita transfers related to agricultural policy have still been increasing.[14] According to the most recent report of the EU Commission,[15] "… the medium-term income projections display a rather favourable outlook as the EU-27 agricultural income would grow by 23.2 % between 2005 and 2013 in real terms and per labour unit". Our policymakers do not yet realise that increasing output and farm income while sterilising such a large share of our arable land, together with plenty of other economic resources, is not a "rather favourable outlook" but a rather "dreadful outlook" for European citizens. It looks like our policymakers have become fully accustomed to a Mr Hyde approach in policy evaluation and in policymaking.

Unfortunately, as happened in the last half century, this approach to policymaking will probably continue, always finding new ways of frustrating reform proposals in contrast to the Treaties, the EU citizens and ethics.

[13] Reg. (CE) 1968/2005 art. 53.

[14] S. Tarditi: Consumer Interests in the Common Agricultural Policy, EU Commission, 2003, University of Siena, Frame 3-11.

[15] EU Commission: Prospects for agricultural markets and income in the European Union 2006-2013, Directorate General for Agriculture and Rural Development, Brussels, January 2007.