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MONETARY CONVERGENCE ON THE ROAD TO EMU: CONCEPTUAL ISSUES FOR EASTERN EUROPE

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Monetary Convergence on the Road to EMU: Conceptual Issues for Eastern Europe

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Abstract: Traditional monetary and economic convergence in accordance with the Optimal Currency Areas model has a number of limitations. Above all, it fails to assess the state of formal and informal monetary institutions. Adequate for an industrial society, it does not address the change to a globalising information society, being mainly quantitative, aggregated, and generally mechanical. This removes it from reality, though keeping it close to a quantitative presentation. It fails to take into account invisible threats to convergence and East European country realities involving informal monetary institutions and differences in institutional development. Monetary regime efficiency is judged solely by Maastricht criteria fulfilment.

These limitations may be overcome in two ways. The first is to take into account the institutional aspect of money, enabling discussion of institutional monetary convergence. The second way is to adopt institutional monetary competition, allowing at least some institutional competition in EEC monetary regimes in the run up to euro adoption and possibly allowing the euro to circulate in parallel with national currencies.

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Introduction

Today, convergence is at the focus of attention of European politicians, civil servants, economists, and researchers. European Union enlargement encompassing East European countries (EECs), and their eurozone entry in particular, entails stringent requirements for preliminary convergence: mostly Maastricht criteria which have to be met during the transitional ERM II stage.

Among Maastricht criteria, only inflation and to an extent interest rates and exchange rates are strictly speaking directly linked to monetary variables[1]. Clearly, monetary variables can be extended to include, *inter alia*, various money and credit aggregates, interest rates, and price indices. At a subordinate level, there are also institutional and organisational requirements with regard to central bank autonomy and administrative capacity. A tight interpretation of the Optimal Currency Area (OCA) model calls for a preliminary synchronisation of economic cycles and key macroeconomic indicators to achieve painless shifts to a common monetary policy (a common interest rate) and a common currency.

In this respect, monetary regimes chosen by individual EECs are deemed (above all by the European Commission and the European Central Bank) appropriate and successful if they comply with the above criteria. This would be followed by synchronisation of transmission mechanisms across the different EEC monetary regimes, so that any future common monetary impulses from the ECB would have a symmetrical effect on individual economies.

The acceptance of new members into the eurozone is viewed as being in the common interest and is subject to a general decision based on painstaking analyses of preliminary convergence. The EC and the ECB publish official reports on convergence, and numerous statistical and econometric analyses are conducted[2].

Though the EU procedure allows a choice and does not exclude a diversity of monetary regimes, over time (partly due to individual choice, and partly due to EC or ECB input), the spread of EEC monetary regimes has narrowed. Today, EECs have generally chosen one of two monetary regimes, reaching a uniform polarity: i. flexible and active CBs employing inflation targeting; ii. static and passive CBs operating to currency board rules (exchange rate pegs and monetary base coverage). Representative of the former are the Czech Republic, Hungary, Poland, Romania, Slovakia, and Slovenia, and of the latter, Bulgaria, Estonia, Lithuania, and *de facto* Latvia and Croatia[3].

I feel that convergence interpreted in the aforementioned way is most vulnerable not only conceptually and ontologically, but also from a purely practical perspective. Because its reference is purely quantitative and aggregated, and because

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[1] Indeed, it is hard to say which variables are monetary and which are not!

[2] Montenegro is a good example of euro adoption without preliminary convergence *á la* Maastricht (for some conceptual and technical details of unilateral euroisation, see Schobert 2003).

[3] Of these countries, only Slovenia currently (June 2006) qualifies for the euro.

past tendencies are extrapolated without regard to money's institutional and technological aspects, it could even be argued that such convergence detracts from the genuine emergence of a common European monetary area. Moreover, it may be argued to lead to growing disparity, as will be demonstrated. I believe that a new definition of convergence can overcome the above limitations. Such a definition should take into account institutional and technological changes, as well as the purely subjective peculiarities of consumers. Two critiques of the current model of convergence could be formulated. The first, 'from within,' extends the mainstream concept of convergence to include institutional elements. The second, which I see as more principled, proposes to replace monetary convergence with institutional monetary competition.

In section I, the traditional view of convergence is presented along with its limitations. In section II, the directions which an alternative conceptual framework could take in European monetary area enlargement are described. In section III, an attempt is made to identify some empirical evidence on Eastern Europe's monetary regimes.

I. Monetary Convergence and Eurozone Today

Economic convergence is usually regarded as involving: i) convergence of GDP per capita, and/or ii) convergence of economic policies and transmission mechanisms.

When common monetary policy and common currency are discussed in the European context, sufficient *ex ante* convergence across the cycles of individual eurozone economies and the need for transmission mechanism[4] similarity (to render ECB monetary impulses symmetrical throughout the eurozone) are stated as immutable conditions. It is claimed that otherwise (with divergent economic characteristics and transmission mechanisms), the likelihood of asymmetric shocks increases, as does their adversity, ultimately threatening eurozone disintegration[5].. This is said to be so because a common monetary policy could not offset individual asymmetric shocks. Almost nowhere, save for a few instances in the analysis of the transmission mechanism, is it acknowledged that the common policy itself could trigger shocks[6]. This logically leads to the creation of specific buffers or absorption mechanisms (mainly market flexibility,

[4] The transmission mechanism implies the mechanism along which impulses triggered by the central bank (mostly interest rate changes) pass on to economy: to real income in the first place (or the output gap) and price level. Enrico Colombatto proposes "…that a monetary regime transmits real shocks through the system when the standard is bad, but not bad enough to be rejected" (2005a, p6). When the monetary standard is very bad, inflation and reverse seigniorage occur.

[5] However confusing this may be, the sound theoretical ground on a positive correlation between levels and cycles is missing. There is a presumption that convergence in level requires convergence in cycle. This is because, when it is supposed that considerable trade flows exist, core growth is a condition for periphery growth. Yet, this logic could yield the opposite negative direction of correlation. The main argument for negative correlation is intuitive. Thus, as catching-up economies, EECs should have different cycles from those of countries which they are attempting to catch; otherwise they would never catch-up! Slow growth or recession at the centre could contaminate the periphery. Hence, it is unclear what the level and cycle relationship between rich and poor countries within an economic and monetary union ought to be. I am indebted to Enrico Colombatto for suggesting some of these inconsistencies.

[6] For a presentation of traditional OCA, and some recent observations, see the popular book by De Grauwe 2004 (2003), and articles by Horvath 2003 and Mongelli 2002.

economic openness, and the transfer of common funds etc.). This reasoning is in the overall spirit of classical OCA theory, where convergence is a condition for common monetary policy and a common currency. It is also assumed that the ECB is able to manage the economic cycle through interest rate changes[7].

In recent years, opposition to the above views (styled Endogenous Currency Areas Theory) has been increasingly heard. According to it, convergence is not a condition for, but rather a result of, the single monetary policy and the single currency[8]. Generally, however, ECB practice is still dominated by the old understanding of *ex ante* convergence (often limited to Maastricht criteria) and it remains the basis of EEC integration into the EU and the eurozone.

What are the major features of convergence as understood above[9]?

First, convergence is seen as the *mechanical and automatic* movement of certain quantitative characteristics of economies. They are often limited to extremely general macro variables related to both volumes and prices. Volume variables include, for example, national income, monetary aggregates and productivity, whereas price variables include items such as interest rates, various price indices, inflation, exchange rates, and productivity.

In this context, we may reflect that the idea of convergence as the process of bringing together certain variables resembles the application of classical physics and mechanics in economics, mainly resting within the model of general neo-classical equilibrium. This model holds that, given no state interference, internal forces lead to convergence among economic entities (individuals, groups, businesses, and nations). Convergence results from the movement of factors of production and income following utilitarian (marginal) principles. It is seen as the outcome of a perfectly functioning system free of restrictions. Transaction costs are nil; information is symmetrical and free; knowledge is perfect.

Within this model, one could ask what would happen when convergence is obtained (equilibrium is achieved). Taking GDP alone, would all countries and all regions develop equally thereafter? What could trigger disruptions? Indeed, a very large number of questions could be posed in this spirit[10].

Second, convergence is mainly *quantitative*; it is viewed as a set of selected indicators. From a generalised EU perspective, it does not take into account the qualitative features of different economies. Thus, could institutional specifics of monetary behaviour (corruption, crime, the shadow economy) lead to 'a convergence capture' in which convergence becomes the problem rather than the solution for a monetary regime? Following the quantitative path, convergence is burdened with the related conceptual problem of economic growth (see the concept of economic development as analysed by Colombatto, 2006).

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[7] This vision has been criticised many times by representatives of the Austrian School, within a more general philosophical context, in relation to the difficulties of economic policy, and within the framework of economic cycle theory (Mises 1980, Colombatto 2005a [2004]).

[8] For a survey of the approaches to monetary zones, see Mongelli 2002 and Horvath 2004.

[9] Three basic assumptions of this theory are not discussed here: i) the existence of the business and fluctuation cycles; ii) the possibility of cycle synchronisation; and iii) the possibility of business cycle management by central banks and governments.

[10] Curiously, a similar trend can be found in Marxian economics, such as the equalisation of the rate of profit within an industry and across industries.

Third, and closely linked to the above, convergence is measured by artificially constructed *aggregate* values which eliminate specific time preference differences between money consumers and money producers within individual countries (in fact, such preferences may be culturally determined). Thus, a common price index cannot track the movement of relative prices. Due to their generalised character, aggregates cannot track the subjective evaluations of individuals (individual money demand) which are the very motives for monetary behaviour[11].

Fourth—however paradoxical it may seem—there are *two mutually exclusive views on convergence*. On one hand stands a convergence which extrapolates past experience, is entirely past-oriented, and is strongly deterministic and inert. On the other stands a convergence which is entirely arbitrary, synthetic, and future-oriented at the expense of the past[12]. Extrapolation comes through primarily in the quantitative aspect of convergence, whereas construction comes through mainly in its qualitative aspect. Both views, however, fail to take into account the uncertainty or surprise the future holds. There is no place for enterprise and individual initiative in this convergence; it is clearly an instance of large-scale social engineering.

Fifth, convergence is managed and directed by *the state.* The state is seen as a large transmission mechanism free of private interests and operating efficiently to scientific principles. We owe this view largely (but not solely) to the fact that monetary integration models rest within the cost/benefit tradition of economic reasoning, with no regard to social concepts such as culture, politics, or ideology. Yet, transmission mechanisms comprise individuals and groups, each with its interests and goals; they cannot be automatic. Unless this were taken into account, the specified conduits remain sterile and remote from reality.

Undoubtedly, to a large extent the above five features of convergence are conditioned by the desire to measure it in order to manage it. However, present empirical models do not produce satisfactory results[13].

Sixth and last, the mainstream concept of convergence is rooted in the *industrial and partly the post-industrial* eras with their simple economic and social systems and slow economic processes. In the industrial world, physical accumulation was a major development factor; the state designated key industries and marshalled resources. The

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[11] It is highly probable that actual transmission mechanisms are entirely different. Thus, outward and purely mechanical convergence could conceal growing disparity and heterogeneity in micro behaviour.

[12] This concerns the 'brutal' transplantation of formal EU institutions into EECs without taking into account national institutional contexts (Garello and Nenovsky 2001). One example is the implementation of EU bank deposit insurance limits (20,000 euro per deposit) without considering EEC deposit structures and levels, thus raising moral hazard with all perilous consequences (for more detail see Nenovsky and Dimitrova 2003).

[13] Economists have developed various models for measuring convergence. For example, literature on economic growth (lately other variables) lists absolute (unconditional) *b* convergence (after the *b* parameter, which shows how a country's growth relates to its initial income status) and s convergence where differences between the incomes of rich countries and poor countries diminish with time. A later (and relatively more appropriate) approach to measuring convergence takes account of the various structural features of countries (conditional *b* convergence). Here, countries' variables converge only if the countries are similar institutionally and structurally. It is also believed that convergence can be global (when the trajectory is identical for all countries) and local (when several trajectories are in existence). For details, see Nenovsky *et al*. 2005, 2006.

'managed convergence' model entails purposeful monetary and economic policies redolent of poor countries' attempts to catch-up[14] during the industrial era.

Technological advance since the industrial era ought to modify the catching-up principles of mechanical convergence. Economic, social and innovative processes develop extremely fast, time and space are more compressed, distances are shorter. Information flows much faster and more cheaply than ever, and transaction costs are falling sharply. Forecast horizons get shorter, and extrapolation of the past is almost impossible.

Central planning is becoming ever more difficult as the economy grows more complex (remember the critique of Mises and Hayek on centralised planning). The past is of diminishing importance as the path dependence principle gets weaker. The near future and the present are of growing importance to economic agents' decision making as preference shifts to the present. The more complex a system is, the more decentralised it becomes. The major requirement for economic actors could be expressed in one word: *flexibility*[15]—fostering and acquiring qualities and abilities that allow quick adaptation to change, the capacity to grasp novelties, and an incessant willingness to learn. The flexibility of economic players is increasingly ousting the role of traditional resources, irrespective of whether they are material, financial, or other[16].

Hence, the catching-up form of convergence makes less sense as starting conditions lose their relative importance. Today, it is no longer necessary to pass through all the phases of development; there is no need to tread the paths of others. In a sense, all countries are on the starting blocks at all times. Leaders can be displaced quickly. It is no longer a question of catching-up, but of pushing one's way through, of coming ahead of others. The likelihood of success increases with increased flexibility and confidence.

II. Monetary Convergence: Towards a Broader Institutional View

From the arguments presented above, it follows that EECs could be grouped into distinct categories. One way of doing so would be to see how appropriate a country's level of monetary and market culture is in relation to its monetary regime. More theoretical backing is clearly required, yet this could mean that, for instance, less developed monetary/market cultures and levels of confidence in money would call for less monetary discretion and stricter monetary regimes. Harder regimes would be better suited to countries with a high propensity to cronyism and corruption.

One may presume that in countries like the Czech Republic and Hungary, narrowly defined monetary regimes would be relatively more appropriate, since money users there possess a 'higher' monetary culture and greater confidence in their

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[14] This gives rise to a number of catching-up conceptual frameworks focused on state or banking sector involvement (*e.g.*, Gerschenkron 1970 [1962]).

[15] In fact, people exchange money in virtual space, beyond geographical boundaries. However, if aggregation (prices, monetary aggregates) is considered important, it ought to rest on a virtual principle, not on geographical or national ones.

[16] The disadvantages of resource dependent countries are increasingly discussed. It is often mentioned that a number of countries lose positions and suffer crises following changes in the prices of commodities from which they had previously profited (15th Century Spain after the gold glut, the USSR after the crude oil shocks).

currencies. Bad informal practice is relatively less developed there compared with Bulgaria, Romania, and to some extent Poland. In the latter countries, broadly defined (and externally imposed) monetary rules offering less discretion and generating more discipline and confidence would be relatively more appropriate. Such rules should, in turn, allow efficient monetary practice to emerge[17]. For application of this logic, please see Table 7.

Monetary convergence would thus come closer to its initial goal of being a means to an end rather than an end in itself. The main task a monetary regime should tackle is that of creating conditions for generating credibility in money and stringent discipline for as many economic actors as possible, for the sake of predictability and the soundness of contracts. It should allow a natural movement of relative prices reflecting the time and space preferences of agents.

As already mentioned, the past has a relatively decreasing importance in today's open world. In a sense, economic actors, monetary ones included, make decisions based on an increasing 'institutional vacuum,' or 'less institutionally intensive space' (illustrated for transitional economies by Colombatto, 2003, 2005)[18]. This means that, in a sense, actors are increasingly free of the institutions of the past and exercise their institutional choice subject to influence[19]. The media, ECB and EU public relations, or academic courses in economics and allied subjects can impose the 'traditional' or 'new' concepts of monetary convergence as 'legitimate' and 'natural.' In this situation, the choice of rules of the game (entirely borrowed or allowing partial imitation) which EECs may exercise becomes a matter of persuasion.

Within the scope of monetary order, besides formal institutions, there are informal ones, rooted in national culture and tradition and honoured extensively over a long time[20]. Informal institutions play a role in the evaluation of transmission mechanisms. It does matter whether a monetary transmission mechanism crosses a fifth or half of the grey economy, or whether one can influence an economy in which cash does not reside in banks, or where the national currency is rarely used, as in some Southern European countries today[21].

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[17] In my view, it is relatively less appropriate to import institutions from outside (the ECB for instance) into such countries, since this would interfere with their own cultural and 'informal' experience. For insights into the institutional context in Bulgaria and EECs in general, see Koford and Miller (2006). See also Ialnazov (2003) on the differences between domestic and externally imposed anchors in the comparative cases of the Russian and Bulgarian transitions.

[18] This is not to claim that a world with no institutions can exist, but rather to offer a metaphor for differing institutional density. This concept repays elaboration; one line of reasoning may be to distinguish time cumulative from space cumulative causation (the former losing importance today compared with the latter). Another may be to research institutions as 'shared mental models' and theorise (on the basis of their empirically proven volatility and instability in EECs) that ramifications in new 'shared mental models' are very probable. Such models are more easily manipulated by external or internal factors. Here I owe some critical remarks to Dimiter Ialnazov.

[19] For a theoretical and methodological discussion on the nature and evolution of institutions and their 'internationality' and spontaneity, see Klein (1997), Khalil (1997), Kapas (2006), and Fiori (2006) among others.

[20] See Pejovic (2003), Sandholz and Taagepera (2005). More generally, monetary practice exists in a broad institutional context. The theoretical tradition which views money as a social phenomenon transcending purely economic meanings (Simmel, Knapp, Parsons, *et al*.) has become much more popular than sociology and anthropology (see for example Zelizer 1994).

[21] Monetary regimes include, *inter alia*, the gold standard, discretionary CBs, inflation targeting, exchange rate targeting, the currency board, monetary union, and dollarization. The range of informal

Here, the roles of the state and monetary authorities differ. The latter are supposed to foster confidence and discipline and not manage or manipulate the economic cycle. This could take place within the context of broadly defined monetary rules in the spirit of Eucken and Hayek.

In some respects, the concept of 'conditional convergence' (see Footnote 13) in recent literature implicitly suggests that variables converge given certain commonalities between economies (approximated to GDP *per capita*). Some studies on monetary topics follow a similar direction. They assume that common monetary policy efficiency depends on the extent to which transmission mechanisms are associated with the characteristics of the financial system. One example is the study of the relationship between the transmission mechanism and the structure of the financial systems of ten EECs by Elbourne and de Haan (2006).

Considering the institutional aspects of money could be only a first step to convergence. The next step would call for the question whether we are not too enslaved to the concept of convergence even with this institutionally augmented understanding. There are arguments for adopting at least some elements of the institutional monetary competition and free banking[22] model. Theoretically, this would require at least partial simulation of the spontaneous emergence of institutions to allow a transitional period in which actors can choose monetary rules.

What could these abstract concepts mean within an operational, practical context?

First, it would be efficient to have diversity and competition across the monetary regimes of individual EECs. This is a *macro level*. Each country could choose its monetary regime for itself, and determine the extent to which allow a wider (and hence a more stable) choice for its money consumers. Alternatively, it could select a monetary regime to help it with the three big EEC challenges: transition from plan to market, eurointegration, and globalisation. This is a way of offering the widest possible monetary choice to economic actors, a choice closely linked to the possibilities of accumulating knowledge and gathering and applying information. It should be designed

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institutions could cover popular practice in paying, saving, and lending (to the extent that national or foreign currency is used), preferred monetary or financial instruments, the extent to which banking and the financial markets are involved, *et cetera*. Thus, in Southern Europe (Bulgaria, Romania, Croatia) a large proportion of cash for payments and savings is in foreign currencies; this does not pass through the banking system as cash transactions prevail; savings are in large denominations. Financial intermediacy, on the other hand, is mainly by banks, direct financing is less developed, and confidence in it is low. This stems from low public confidence in national money and the national financial system; other factors include the Communist past when the monetary system was meaningless, closeness to Russia (Estonia, Lithuania and Latvia), different degrees of openness to financial innovation (especially in payments), and susceptibility to corruption. 'Institutionally augmented understanding' of monetary convergence means that the *qualitative* features of convergence are of an essence which is hard to quantify. Nevertheless, recent years have seen attempts to measure the institutional characteristics of economic systems (and to some extent of monetary systems) in terms of quantity by means of indicators such as those of the EBRD or Heritage Foundation freedom indices. Most generally, then, 'monetary institutions' can mean the combination of rules, behaviour and routine which govern economic players in dealing with money. For some detail, see Nenovsky and Rizopoulos (2003, 2004). This also means that basic monetary institution rules ought to derive from the behaviour of *consumers of monetary services* (Centi 1984). With respect to consumers, we may discern two theoretical and practical approaches to convergence: 'from below' (from the choice of money consumers) and 'from above' (including from outside). It is logical that the wider the range of money and money services choice (the wider the base of the money choice 'pyramid') the stronger convergence can be.

[22] For a review, see Selgin and White (1994).

to prevent negative consequences from the power asymmetry between different private and public groups (stressed long ago by Walter Eucken); it could involve disciplining mechanisms restricting the power of actors and groups which could benefit from inflation and artificial changes in relative prices[23].

Second, at the practical *micro level*, competition would imply allowing legal parallel circulation of the euro and the national currency (limited monetary competition). Since the different currencies are backed by different formal institutions, this move would also introduce institutional competition: competition among the institutional credibility of different mechanisms. In order for monetary competition to be both fair and efficient, legal conditions for the different currencies should be equal; they should both be officially authorised legal tender. In EECs, it should be possible to pay taxes, post prices and sign contracts in euro. Any artificial national currency monopolies such as having to pay taxes in it, (*i. e.*, creating artificial demand for one currency) would be prevented. While competition between monetary regimes could be seen as macro level competition, here one may speak of competition at the micro level.

Third, in a global context, the sole possibility of building confidence in the euro is to subject it to greater (*extra EU*) international competition. This could mean allowing other currencies (or at least some, such as the US dollar and the pound Sterling) to circulate legally within the EU, as well as allowing the euro to circulate legally outside the EU. Future currency competition will undoubtedly involve ever more private non-bank money, and the monetary order will become more complex and sophisticated[24].

The idea of currency competition in Europe has been proposed many times since Hayek's 1977/'8 essay. A competition mechanism between the euro and EU national currencies prior to euro launch was proposed (mainly by British economists) but not adopted.

III. Monetary Convergence in Eastern Europe: Some Empirical Evidence

Armed with these 'institutionally augmented' theoretical concepts of monetary convergence and competition, we may attempt to describe EEC monetary regimes empirically.

As pointed out, today EEC monetary regime effectiveness is measured in reference to Maastricht criteria. Table 1 presents the attainment of traditional convergence in EECs over the past three years against these criteria. Without going into details, we can conclude that only the inflation criterion creates problems. Hungary is an exception, having a considerably higher budget deficit which endures, unlike those of the Czech Republic and Poland which fell into line in 2005. Croatia

[23] It is especially important to overcome or minimise 'step inflation.' There, injecting money (and concomitantly destroying money) involves redistribution among actors and groups depending on their money chain positions (attended respectively on the different changes in the purchasing power in time and space), Colombatto (2005a).

[24] It could be asked why it is necessary to put the two currencies into circulation in the particular political context of enlargement, when it is clear that sooner or later the euro will replace national currencies. From the institutional stability point of view, however, it is much more efficient to introduce (even partially) elements of free consumer choice, because the way institutions appear is important for their future.

also exhibits certain peculiarities. Looking at the Table, it could be inferred that any monetary regime type is equally suitable (or unsuitable) for eurozone integration. Indeed, these are the basic economic criteria for political decisions on eurozone entry[25].

Forming quantitative criteria for measuring the state and development of institutions in general and monetary ones in particular is acknowledged as extremely difficult[26]. Nevertheless, it is possible to find approximating indicators for sound, though incomplete, information.

Over the past few years private and public institutions have begun selecting and monitoring indicators for measuring the development of formal (and partly of informal) institutions. Such are the Heritage Foundation index of economic freedom (for the economy in general and for the financial system in particular) shown in Table 4, the Transparency International index of corruption (Table 5), and the EBRD reform index (Table 6). In Table 2 we see the development of the financial system and its in-depth aspect through private sector lending and financial market equity capitalisation to GDP ratios. Table 3 shows currency substitution[27].

Without being too ambitious, it is possible to draw some preliminary conclusions (summarized in table 7).

We can observe the emergence of different groups of countries according to their institutional development (some authors speak of a "great divide"). Bulgaria and Romania, and partly Poland and Croatia, have the highest level of corruption and lowest level of economic freedom (they are the farthest from European levels, shown here by Germany). Accordingly, their institutional reform EBRD indices are the lowest. They also feature the highest levels of currency substitution and the least-developed financial systems.

Among EECs, Estonia stands out as the freest and most rapidly advancing country. As a whole, countries with currency boards perform better and have more favourable prospects of greater freedom and less corruption (compare Bulgaria with Romania). In them, the EBRD index also points to faster improvement (see index dynamics, Table 6).

There is no doubt that EEC institutional differences are closely correlated to the forms and types of monetary transmission mechanisms which could lead to results different from those expected when entering the eurozone.

Some dynamics can be summarised in Table 7 which shows the adequacy and appropriateness of different monetary regimes. I followed some simple theoretical rules which show that countries with strong and persistent informal monetary

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[25] But not lower than, or even higher than, the level of convergence prior to former EU enlargements and initial EU integration. Rapid attainment of nominal convergence is archetypal of countries with passive monetary regimes, and particularly of 'broadly defined monetary regimes' such as currency boards. Aware of the extremely static and partial nature of Maastricht criteria, a number of economists have gone deeper into OCA logic. They have conducted a number of econometric studies of cycle synchronisation between EECs and the eurozone (Brada and Kutan 2001, 2002, NOBE 2002, De Grauwe and Schnabl 2004, Suepell 2003, Bolle and Blessing 2005, Figuet and Nenovsky, 2005 are some). In general, analyses show that levels of EEC convergence and synchronisation are low. Only nominal convergence ranks somewhat higher.

[26] Concerning currency boards, see Camilleri-Gilson 2004 with its institutional index of monetary regimes, and also Ho 2001. For general discussion, see Freytag 2004.

[27] While analysing monetary institutions, additional indicators could be very useful, such as, *inter alia*, ones on the grey economy, banknote structure, the labour market, migration, and criminality.

practices and behaviour are suited to relatively static and broad monetary regimes, while strong formal institutionalisation of monetary practice rather calls for discretionary or narrow monetary regimes. A similar correspondence could be drawn from the relation between monetary regimes and the relative importance of the discipline and credibility effects.

Clearly, Table 7 should be considered only as a source for future reflections (to start with, it does not treat the issue of causality direction between monetary regimes and institutional development).

Table 1. EEC Convergence to Maastricht Criteria, 2003-2005

(%)	HIPC Annual Data (Rate of Change)			EMU Convergence Criterion Bond Yields			General Government Net Borrowing (-) / Net Lending (+)			General Government Consolidated Gross Debt		
	2003	2004	2005	2003	2004	2005	2003	2004	2005	2003	2004	2005
Maastricht Reference Value	**2,5**	**2,2**	**2,5**	**6,67**	**6,28**	**5,37**	**-3**			**60**		
	0,7	**0,1**	**0,8**	**5,78**	**4,11**	**3,35**						
	1	**0,9**	**0,8**	**4,07**	**4,3**	**3,38**						
	1,3	**1**	**1,5**	**4,15**	**4,42**	**3,37**						
Bulgaria	2,3	6,1	5	6.42	5.26	3,8	0,6	1,3	2,4	46,3	38,8	32,1
Croatia	1.8	2.1	3.3	5.6	5.7	4.2	-4,6	-5,2	-3.8	41,5	44,2	45.5
Estonia	1,4	3	4,1	5,25	4,39	3,98	2,4	1,5	1,6	6	5,4	4,8
Eurozone	2,1	2,1	2,2	4,14	4,12	3,42	-3	-2,8	-2,4	69,3	69,8	70,8
Hungary	4,7	6,8	3,5	6,82	8,19	6,6	-6,4	-5,4	-6,1	56,7	57,1	58,4
Latvia	2,9	6,2	6,9	4,9	4,86	3,88	-1,2	-0,9	0,2	14,4	14,6	11,9
Lithuania	-1,1	1,2	2,7	5,32	4,5	3,7	-1,2	-1,5	-0,5	21,2	19,5	18,7
Poland	0,7	3,6	2,2	5,78	6,9	5,22	-4,7	-3,9	-2,5	43,9	41,9	42,5
Romania	15,3	11,9	9,1	15.8	17.6	9.14	-2	-1,4	-0,4	21,3	18,5	17,1
Slovakia	8,4	7,5	2,8	4,99	5,03	3,52	-3,7	-3	-2,9	42,7	41,6	34,5
Slovenia	5,7	3,7	2,5	6,4	4,68	3,81	-2,8	-2,3	-1,8	29,1	29,5	29,1
The Czech Republic	-0,1	2,6	1,6	4,12	4,75	3,51	-6,6	-2,9	-2,6	30	30,6	30,5
The European Union	2	2	2,2	4,34	4,44	3,7	-3	-2,6	-2,3	62	62,4	63,4
The European Union (15 Countries)	2	2	2,1	5,54	6,27	4,82	-4,9	-3,6	-2,9	39,7	43,1	41,1
The European Union (25 Countries)	1,9	2,1	2,2	4,23	4,26	3,59	-2,9	-2,6	-2,3	63,1	63,4	64,6

Sources: Eurostat and national banks

Table 2. EEC Financial Development, 2003-2005

Loans to the Private Sector (End of Period)/GDP				Stock Market Equity Capitalisation (End of Period)/GDP			
	2003	2004	10/2005		2003	2004	2005
Bulgaria	27,4	36,8	42,0	Bulgaria	8.7	11.7	22.9
Croatia	53.4	56.6	59.8	Croatia	21.1	31.9	33.9
Estonia	55,0	64,1	72,6	Estonia	36,9	48,8	28,7
Hungary	41,5	47,5	49,3	Hungary	18,0	26,0	31,3
Latvia	38,3	48,5	63,2	Latvia	9,0	10,3	17,0
Lithuania	22,9	28,9	35,4	Lithuania	25,7	33,7	33,7
Poland	28,1	31,3	29,2	Poland	15,4	25,4	32,5
Romania	15.3	17.0	20.0	Romania	6.1	14.1	19,7
Slovakia	32,4	31,5	33,8	Slovakia	9,2	10,7	10,6
Slovenia	42,2	47,7	54,0	Slovenia	22,8	27,2	24,5
The Czech Republic	31,5	34,7	36,9	The Czech Republic	24,8	36,9	46,6
Germany	121.6	118.3	119.0	Germany	39.5	39.7	46.1

Sources: Eurostat, Bloomberg, national banks

Table 3. EEC Currency Substitution (Foreign Currency Deposits to Deposit Totals), 2003-2005

	2003	2004	2005
Bulgaria	48.2	43.7	44,5
Croatia	80,5	78.4	75.6
Estonia	26,1	26,6	33,3
Hungary	14,4	14.8	15.1
Latvia	74.9	76.6	77.8
Lithuania	25.5	24.7	25.9
Poland	16.0	14.4	16.0
Romania	42.5	41.2	34.5
Slovakia	13.2	12,2	11.6
Slovenia	32,3	34,3	33,4
The Czech Republic	14.1	16.4	15.9

Sources: national banks and Author's estimates

Table 4. EEC Freedom Indices (General and Financial System), 2003-2006

	2003		2004		2005		2006	
	Total Score	Banking	Total Score	Banking	Total Score	Banking	Total Score	Banking
Bulgaria	3,3	3	3,0	2	2,7	2	2,9	2
Croatia	3,1	3	3,1	2	3,0	2	2,8	2
Estonia	1,7	1	1,8	1	1,7	1	1,8	1
Hungary	2,5	2	2,6	2	2,4	2	2,4	2
Latvia	2,4	2	2,4	2	2,3	2	2,4	2
Lithuania	2,2	2	2,2	1	2,2	1	2,1	1
Poland	2,8	2	2,8	2	2,6	2	2,5	2
Romania	3,7	3	3,7	3	3,6	3	3,2	3
Slovakia	2,7	2	2,4	1	2,4	1	2,4	1
Slovenia	2,9	3	2,7	3	2,6	3	2,4	3
The Czech Republic	2,4	1	2,4	1	2,3	1	2,1	1
Germany	2.03	3	2.08	3	2	3	1.96	3

Sources and comments: The Heritage Foundation; each country is allocated a score between 1 and 5 for all ten factors, and scores are then averaged (using equal weights) to obtain the country's final Index of Economic Freedom score. Countries with scores of between 1 and 2 have the freest economies. Those with a score of around 3 are less free. Those with a score nearer 4 are excessively regulated and need significant economic reform to achieve sustained increases in economic growth. Those with a score of 5 are the most economically repressed

Table 5. EEC Corruption Indices, 2003-2005

	2003	2004	2005
Bulgaria	3,9	4,1	4
Croatia	3,7	3,5	3,4
Estonia	5,5	6	6,4
Hungary	4,8	4,8	5
Latvia	3,8	4	4,2
Lithuania	4.7	4.6	4.8
Poland	3,6	3,5	3,4
Romania	2,8	2,9	3
Slovakia	3,7	4	4,3
Slovenia	5,9	6	6,1
The Czech Republic	3,9	4,2	4,3
Germany	7.7	8.2	8.2

Source and comments: Transparency International; maximum index value is 10 indicating least corruption

Table 6. EEC Institutional Development Indices, 2003-2005

	2003			2004			2005		
	Banking Reform & Interest Rate Liberalisation	Securities Markets & Non-Bank Financial Institutions	Overall Infrastructure Reform	Banking Reform & Interest Rate Liberalisation	Securities Markets & Non-Bank Financial Institutions	Overall Infrastructure Reform	Banking Reform & Interest Rate Liberalisation	Securities Markets & Non-Bank Financial Institutions	Overall Infrastructure Reform
Bulgaria	3,33	2,33	2,67	3,67	2,33	3,00	3,67	2,33	3,00
Croatia	3,67	2,67	2,67	4,00	2,67	3,00	4,00	2,67	3,00
Estonia	3,67	3,33	3,33	4,00	3,33	3,33	4,00	3,33	3,33
Hungary	4,00	3,67	3,67	4,00	3,67	3,67	4,00	4,00	3,67
Latvia	3,67	3,00	3,00	3,67	3,00	3,00	3,67	3,00	3,00
Lithuania	3,33	3,00	2,67	3,33	3,00	2,67	3,67	3,00	2,67
Poland	3,33	3,67	3,33	3,33	3,67	3,33	3,67	3,67	3,33
Romania	2,67	2,00	3,00	3,00	2,00	3,33	3,00	2,00	3,33

Slovakia	3,33	2,67	3,00	3,67	2,67	3,00	3,67	2,67	3,00
Slovenia	3,33	2,67	3,00	3,33	2,67	3,00	3,33	2,67	3,00
The Czech Republic	3,67	3,00	3,33	3,67	3,33	3,33	4,00	3,67	3,33

Source and comments: EBRD Transitional Reports; higher scores are better

Table 7. EEC Monetary Systems

Country	Formal Institutions (Monetary Regimes)	Informal Institutions (Monetary Customs, Practices, Traditions And Routines, *& c*.)	Monetary Regime Suitability for Creating a Market Economy and Eurozone Integration
Bulgaria	Currency board after a deep financial crisis in 1997	Weak formalisation of monetary practice, lack of market and monetary policy tradition, bad experience from the 1996/'7 financial crisis, high level of currency substitution, large grey economy; high level of corruption;	Strong
Croatia	*De jure* managed floating exchange rate regime since 1993 (in some respects *de facto* currency board)	Weak formalisation of monetary practice (despite some tradition in market and monetary policy), very high level of currency substitution and a large grey economy; high level of corruption	Medium
Estonia	Currency Board since 1999, in ERM II since 28 June 2004	Early strong presence of formal and informal Soviet practice (despite pre-Soviet hard currency traditions); high level of economic freedom, (including financial); currently well developed formal institutions and informal market practice	Strong
Hungary	Since 2001 Inflation targeting and broad band (+/-15%) exchange rate control	Medium-level formalisation of monetary practices, some traditions in market and monetary policy	Medium
Latvia	Fixed Exchange rate (to SDR) till the close of 2004. Since then, euro peg with +/-1% fluctuation. ERM II entry on 2 May 2005, unilateral adherence to the +/-1% fluctuation band	As in Estonia, early strong presence of Soviet formal and informal practice; a very high level of currency substitution	Medium
Lithuania	Currency board with an USD peg between 1994 and 2002 and an euro peg since. Entered ERM II on 28 June 2004	As in Estonia and Latvia, early strong presence of Soviet formal and informal practice; a high level of currency substitution	Strong
Poland	Inflation targeting since April 2000	Weak to medium formalisation of monetary practice, some traditions in market and monetary economics, yet persistent	Medium to weak

		informal institutions; considerable grey economy; high level of corruption	
Romania	Inflation targeting since August 2005	Weak formalisation of monetary practices, market and monetary policy tradition, high level of currency substitution, large grey economy, high level of corruption	Weak
Slovakia	Floating exchange rate. ERM II entry in November 2005, with attendant inflation targeting	Medium-level formalisation of monetary practice, some tradition in market and monetary policy, liberal tax reform	Medium
Slovenia	Floating managed exchange rate. Entered ERM II on 28 June 2004 and the sole EEC qualified for eurozone entry in 2006	Strong formalisation of monetary practice, strong market and monetary economics tradition, well developed formal institutions	Strong
The Czech Republic	Inflation targeting since early 1998	Medium-scale formalisation of monetary practices, traditions in market and monetary economics from pre-communist period (redolent of Razin's 1920s stabilisation); strong formal institutional maturity	Medium

Sources: national banks' websites plus observations from the very beginning of the post-Communist period with subjective valuations on monetary regime appropriateness in line with the theoretical logic of this presentation

IV Conclusions

Building as it does on Optimal Currency Areas theory, the traditional approach to monetary and economic convergence has a number of limitations. They relate to the failure to assess the state of formal and informal monetary institutions. Adequate for industrial societies, the approach does not consider the deep changes in globalising information societies. The approach is mainly quantitative, aggregated, and generally mechanical. This drives it far from reality even though close to a quantitative presentation. This opens convergence attained using the approach (and EEC development under the aegis of this approach) vulnerable to invisible threats from informal monetary institutions and institutional development differences. Currently, monetary regime efficiency is measured only by fulfilment of Maastricht criteria.

A broader view over monetary behaviour shows it as highly probable that existing institutional diversity would have a negative effect when common monetary policy is applied. Monetary transmission mechanisms are not curves and formulae, but stages populated by actors with subjective preferences. In the same vein, one may cast doubt upon the theory of cycle synchronisation, which can never obtain in practice. It is also highly dubious whether catching-up countries ought to have the same preferences as those they are catching (aside from any debate on the very concept of catching-up and the existence of the business cycle[28]).

I propose that the limitations of the current convergence approach be overcome in two ways. The first involves incorporating the institutional characteristics of money into the approach. One could then discuss institutional monetary convergence. The second, and preferable according to me, involves adopting a form of institutional monetary competition. In practice this means subjecting EEC monetary regimes to partial institutional competition, at least before euro adoption. It would be possible for the euro to circulate in parallel with national currencies during this period.

Re-establishing and boosting competition at all EEC and EU levels is necessary not only from the theoretical, but also the practical perspective. At the macro level this would involve competition between different EEC monetary regimes. At the low level, it would involve parallel circulation of the euro and national currencies.

The two proposals would broaden monetary choice, allowing for more confidence and discipline because of rule selection[29]. Convergence becomes secondary and unimportant; what matters is competition and consumer choice. Only competition can enable monetary institutions to follow growing economic complexity and stratification. Given parallel circulation between the euro and EEC national currencies, all technical questions about loss of seigniorage, lack of lender of last resort, *et c*., are either pre-empted or find favourable solutions.

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[28] See for more details Garrison (1989).

[29] Competition could stretch the discipline of the two banks issuing money. Practice shows that countries with broader monetary regimes (*e. g*. currency boards) allowing greater monetary choice obtain better results.

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