

Real convergence in Central, Eastern and South-Eastern Europe

Speech by **Lorenzo Bini Smaghi**, Member of the Executive Board of the ECB at the ECB Conference on central, eastern and south-eastern Europe, Frankfurt, **1 October 2007**

Introduction ^[1]

Ladies and Gentlemen:

I would like to welcome you all to Frankfurt, and to our economic conference on central, eastern and south-eastern Europe.

Let me start by saying a few words about the meeting itself, which is the second of its kind. With this conference the ECB aims to foster cooperation and provide a forum for a multilateral discussion among central bankers in the region. Taking a regional perspective is useful given the similarities in economic structures of the countries concerned. To a large extent, these similarities reflect the common background of transition to a market economy. This transition has important implications, in particular with respect to policy challenges.

In the region, ten countries are Member States of the European Union, while the remaining seven are candidate or potential candidate countries at different stages of the process. ^[2] But the feedback we have received from last year's conference indicated that this heterogeneity actually reinforces the usefulness of taking a regional perspective.

This brings me to the overriding theme of this conference, real convergence. As central bankers, we are used to discuss nominal convergence, since it is at the heart of our main task, maintaining price stability. It is also at the heart of the Maastricht criteria on the adoption of the euro. However, we chose this time to focus on the other side of the coin. There are three reasons for this. First, catching up is the main goal of all the countries under review. Second, real convergence has gained momentum in recent years, also in countries where progress had been slower in the 1990s. Third, real convergence has important implications for nominal convergence.

Against this background, I will first briefly review some stylised facts of real convergence in central, eastern and south-eastern Europe. I will then turn to selected aspects of the convergence process, namely

- growth and convergence,
- financial globalisation and the current account,
- financial development,
- and finally, implications for monetary policy.

By contrasting theory and empirical evidence I would like to bring the attention to some interesting and unresolved issues and to identify key policy challenges that the conference participants might want to consider further.

1. Real convergence in central, eastern and south-eastern Europe – where do we stand?

Let me start with some facts and figures. The convergence experience in central, eastern and south-eastern Europe can be summarised as follows:

1. Following notable output losses during the early 1990s, all countries in the region have seen a strong recovery. With a few exceptions, most of them have passed their pre-transition levels of real per capita income.
2. The recovery resulted in convergence towards the real income per capita level in the euro area. In the EU Member States of the region, real per capita income reached 40% of the euro area level in 2005, an increase of about nine percentage points since 1993. In candidate and potential candidate countries – excluding Turkey – a rise of seven percentage points was recorded in the same period, so that at end-2005, their average real per capita income stood at about 23% of the euro area level.
3. The timing and speed of convergence has varied substantially, reflecting differences in political stability and progress in structural reforms. Strong growth, fostered by structural reforms, investment and FDI, has been a key feature of economic developments in almost all New Member States since the mid-1990s. In most candidate and potential candidate countries, instead, the catching-up process has gained speed only in this decade.
4. Total factor productivity has been the main driver of growth and convergence across the region. Labour productivity has increased in all countries, closing the gap relative to the euro area. At the same time, in many countries labour utilisation is substantially below the euro area level, reflecting the large size of the informal sector as well as labour market frictions and mismatches.

To sum up: substantial progress has been made, but gaps in terms of income per capita relative to the euro area remain large. This suggests that the challenges of real convergence, which you have the opportunity to discuss today and tomorrow, will remain relevant for several years.

2. Convergence in central, eastern and south-eastern Europe – theory and evidence

Growth and convergence

In the last few years, the economic profession has been engaged in a controversial discussion on the origins of growth. ^[3] To a large extent, the debate was triggered by the empirical observation of increasing divergence of per capita income across countries. ^[4] Indeed, the evidence seemed to contradict a key prediction of standard growth theory: countries with relatively low per capita income should catch-up with richer ones. In theory, since capital is generally scarce in low income countries its rate of return should be higher than in richer economies, investment should be stronger, resulting in an increasing capital stock, production and finally income. Thus, per capita income differences should fall over time. Clearly, the global evidence on divergence of per capita income is inconsistent with this reasoning.

Two avenues have been followed to address this contradiction. The first one tries to take into account factors that actually prevent the marginal product of capital to fall – or at least: prevent it from falling to zero – even if the capital intensity of production is rising over time, as theory would predict. Literally millions of cross-country regressions ^[5] have been run to identify factors conditioning convergence, from the investment rate itself to macroeconomic, financial sector and institutional variables. And while absolute convergence has not been supported by the data, conditional convergence has been found to hold, even if not in all samples and periods.

Evidence of convergence in central, eastern and south-eastern Europe lends strong support to the conditional convergence hypothesis of standard growth theory. To be sure the acquis

communautaire is a structural factor which has provided a common framework for the countries in the region to engage in rapid convergence. ^[6] To sustain the catching-up with living standards in the euro area, continued structural convergence along the lines of the acquis communautaire is crucial, in particular in candidate and potential candidate countries.

However, there are also features in the current catching-up process that are at odds with established growth empirics. In particular, several empirical studies suggest that convergence in the region seems to have been driven by the growth of total factor productivity. ^[7] This contrasts with the evidence found for other rapidly converging economies, for example in Asia, where capital accumulation has been identified as the main driver of real convergence with advanced economies. ^[8]

Transition is the prime candidate to account for this anomaly. The heritage of central planning left many economies with large inefficiencies in production, which offered a vast potential for efficiency gains in the course of the regime shift. Economies in the region have made extensive use of this potential. This nevertheless raises an important question on the sustainability of the convergence process in the future. If strong TFP growth has been mainly the result of transition, it is not a renewable source of convergence for the future (i.e., when transition is over). Other sources must be found. One factor is efficient financial intermediation. After all, the financial sector is the “brain” of the market economy in allocating resources and allowing capital to flow to its most productive use. ^[9] This is what the empirical literature on finance and growth suggests, namely that financial development is significantly correlated with total factor productivity and less so with private savings rates or capital accumulation. ^[10] Clearly, financial development in the region has advanced rapidly. Nonetheless, capital accumulation should be expected to make a larger contribution to growth and real convergence in the future. However, while investment rates have been rising in central, eastern and south-eastern Europe, they are not particularly high by emerging market standards. Compared with emerging Asia they can even be considered as rather low. Why have investment rates been relatively subdued and what are the policies to be pursued fostering capital formation?

Financial globalisation and the current account

Conceptually, the policy question may be easy to answer: continued structural reforms, enhancing flexibility in labour and product markets, improving the business climate and governance. These are the standard responses. However, a rise in investment might contribute to a further widening of current account deficits. Indeed, in recent years investment in the region has been increasingly financed by tapping foreign savings. As a result, current account deficits have reached levels of more than 10% of GDP in several countries.

From a theoretical perspective, current account deficits may actually be interpreted as in line with the predictions of standard theory. ^[11] However, other emerging market economies have seen just the opposite pattern, namely convergence accompanied by improving current account balances, most visible in the high and widening current account surpluses in emerging Asia. It is even more striking that current account surpluses have been observed in parallel with increasing financial globalisation. Financial globalisation should facilitate capital flowing from rich to poor countries, the opposite of what we observe. This is known, as you know, as the “Lucas paradox” from the seminal article where Lucas pointed out that capital is flowing from emerging to advanced economies, contradicting predictions of standard models of trade and growth. ^[12] This paradox can still be observed in many parts of the world, resulting in what are commonly known as global imbalances. ^[13]

Various explanations have been suggested to account for this at least seemingly paradoxical development. On the one hand, rate of return differentials might be smaller than suggested by

the relative scarcity and abundance of capital, reflecting larger risks related to a higher level of uncertainty due to less developed legal and financial systems. Vice versa, the lower level of institutional quality in many emerging market economies might result in an outflow of capital because of lesser opportunities for financial investment. ^[14]

Countries in central, eastern and south-eastern Europe seem once again to be special among emerging markets. Their process of real convergence has been accompanied by very different current account developments than in other emerging markets. Why have countries in the region, while accumulating sizeable foreign exchange reserves, used so much foreign savings to finance current spending? Have financial factors that explain the current account surpluses in emerging Asia had a different impact in emerging Europe? ^[15]

Finding an answer to these questions is important not only to square empirical evidence with theory, but also from a policy perspective. Should policy makers get comfort from the fact that the imbalances in central, eastern and south-eastern Europe are in line with standard economic theory? Or should we be worried that these imbalances can be very disruptive for convergence if they prove to be unsustainable, as corrections can be painful and costly? ^[16]

Financial development

Let me now focus more closely on financial factors in the region, in particular the banking sector, which has seen a very peculiar form of structural convergence and financial integration. In most countries the banking sector is dominated by subsidiaries or branches of banks headquartered in the euro area. ^[17] While similar developments have been also seen in other emerging market economies ^[18], the process is unique in emerging Europe ^[19], where banks have expanded their presence in what has been perceived to become a single, large European financial market in the future.

Financial deepening in the region has been extremely rapid. Credit growth rates have been particularly high for consumer and mortgage lending, reaching in some countries and in some years more than 100% p.a.

Should we be worried by these developments? Research suggests that rapid credit growth does not necessarily lead to financial turbulence, but it is one of the main predictors. ^[20] Moreover, the structure of credit, featuring prominently loans denominated in foreign currency, gives reason for concern. How sustainable are debt burdens in the case of an economic downturn or significant exchange rate depreciation? Are the speed limits to real convergence set by financial factors?

The main policy challenge: overheating

This brings me to the last point I would like to deal with in these introductory remarks, namely the challenges for monetary policy. Until recently, demand pressures arising from strong credit growth and capital inflows have not been reflected in rising inflation for three reasons. First, strong productivity growth. Second, the current account, financed largely by FDI, which served as a convenient outlet for buoyant demand. Third, in nearly all these economies there is still substantial slack in the labour market, which is being nevertheless quickly absorbed.

Over the last two years, domestic demand pressures have started to increase and have been reflected in domestic price developments. Does this mean that countries have reached or even passed their growth potential? The evidence is not clear-cut. While there has been strong growth in recent years, labour utilisation has remained low. The same holds for participation and employment rates. Unemployment, even though declining recently, is still high in many countries. There thus seems to be ample space for a larger contribution of labour to growth,

mitigating the constraints for a further rise of potential output. At the same time, labour markets in the region are characterised by substantial mismatches. ^[21] Moreover, labour market disequilibria may be exacerbated by significant migration flows, limiting the supply response to the rise in demand at least in some countries. As a result, we observe the paradox of low labour utilisation and tight labour markets at the same time.

Theory suggests that in a process of rapid real convergence countries should experience higher overall inflation rates, due to the Balassa-Samuelson effect. However, the recent rise in inflation can hardly be explained by this effect alone. A review of empirical studies on the size of the Balassa-Samuelson effect in central, eastern and south-eastern European countries suggests that the effect is not very large and might even have declined over time. ^[22] This would suggest that the latest increase in inflation reflects overheating rather than a catching-up phenomenon.

Keeping nominal convergence on track is the main policy challenge in the region. The problem becomes particularly acute in countries which have given up monetary policy independence by choosing an exchange rate target or adopting a currency board arrangement.

The key question for these countries is: how is it possible to keep inflation under control by pegging the exchange rate, which means adopting de facto the monetary policy of the euro area, especially since the euro area economy is growing at a rate that is less than a third of what a catching-up economy should aim to achieve? In other words, how is it possible to keep inflation under control with very low or even at times negative real interest rates? What are the risks for financial stability of having persistently low real interest rates, much lower than the rate of growth of the economy?

I will not go into details on this issue, but I would like to recall that even in advanced economies periods of low interest rates might fuel financial turbulence, as the recent events show.

To be sure, keeping nominal convergence on track is not only a challenge for monetary policy, but also for fiscal and structural policies. Improving supply side conditions and a tight budget can certainly mitigate inflationary pressures stemming from strong domestic demand. One has nonetheless to be realistic in defining the requirements for budgetary, income and structural policies that are consistent with achieving at the same time real and nominal convergence. I guess the real question to ask is: how large should the budget surplus be to counteract the inflationary effects produced by a pro-cyclical monetary policy and would this be acceptable for a catching-up country? How far reaching, and acceptable to the population, should structural reforms be? All in all, the requirements for the budgetary and structural policies associated with an exchange rate linked to the euro might just be too demanding to counteract the procyclical effects of very low real interest rates. This might lead to boom and bust cycles, with potentially very severe adjustments costs that may delay real convergence.

Conclusions

After having raised several provocative questions to launch the conference, let me conclude.

Substantial progress in real convergence has been achieved in central, eastern and south-eastern Europe. This has happened with respect to real per capita income but also to economic structures, the business and institutional environment as well as macroeconomic policies. At the same time, the path for catching up remains large and fraught with risks. The income gap with the euro area, while significantly reduced, is still large. In candidate and potential candidate countries much remains to be done to also advance structural convergence. And the recent signs of overheating present a significant challenge for macroeconomic and structural policies.

I wanted to open this conference by raising issues that – having the conference programme in mind – will be further developed in the next 36 hours, from an analytical as well as a policy perspective. I wish you stimulating discussions and a successful conference.

Thank you very much for your attention.

References:

Abiad, A., Leigh, D. and Mody, A., (2007), “International Finance and Income Convergence: Europe is Different”, IMF Working Paper, No. 64, International Monetary Fund, Washington.

Adalet, M. and Eichengreen, B., (2005), “Current Account Reversals: Always a Problem?” prepared for the NBER Conference on G7 Current Account Imbalances, Newport, Rhode Island, 1-2 June 2005.

Arcalean, C., Calvo-Gonzalez, O., Móre, Cs., van Rixtel, A., Winkler, A. and Zumer, T., (2007), “The Causes and Nature of Rapid Growth of Bank Credit in the Central, Eastern, and South Eastern European Countries”, in Charles Enoch and Inci Ötöker-Robe (eds.), Rapid Credit Growth in Central and Eastern Europe, Endless Boom or Early Warning? Palgrave Macmillan, New York.

Arratibel, O., Heinz, F., Martin, R., Przybyla, M., Rawdanowicz, L., Serafini, R. and Zumer, T., (2007), “Determinants of Growth in the Central and Eastern European EU Member States – a Production Function Approach”, ECB Occasional Paper Series No 61.

Baumol, W. and Wolff, E.N., (1988), “Productivity Growth, Convergence, and Welfare: Reply”, American Economic Review, Vol. 78(5), 1155-59.

Beck, T., Levine, R. and Loayza, N., (2000), Finance and the Sources of Growth, Journal of Financial Economics, 58, 261-300

Berglöf, E. and Bolton, P., (2002), “The great divide and beyond. Financial architecture in transition”, Journal of Economic Perspectives, 16 (1), pp. 77-100.

Bini Smaghi, L., (2007), “Global imbalances and monetary policy”, Journal of Policy Modeling, forthcoming.

Bussière, M., Fratzscher, M. and Mueller, G.J., (2004), “Current Account Dynamics in OECD and EU Acceding Countries – An Intertemporal Approach”, ECB Working Paper Series, No. 311, European Central Bank, Frankfurt am Main.

Commander, S. and Kollo, J., (2004), “The Changing Demand for Skills: Evidence from the Transition”, IZA Working Papers No 1073.

De Gregorio, J. and Guidotti, P.E., (1992), Financial Development and Economic Growth, IMF Working Paper, WP/92/101, Washington D.C.

DeLong, J.B. and Summers, L.H., (1991), “Equipment investment and economic growth”, Quarterly Journal of Economics, 106(2), pp. 445-502.

Dowrick, S. and DeLong, J.B., (2003), “Globalisation and Convergence”, in Michael Bordo et al., (ed.), Globalization in Historical Perspective, University of Chicago Press, Chicago.

IMF, (2006), “Asia Rising: Patterns of Economic Development and Growth”, in World Economic Outlook, September, Chapter 3.

Landesmann, M., Vidovic, H. and Ward, T., (2004), “Economic Restructuring and Labour Market Developments in the New EU Member States”, The Vienna Institute for International Economic Studies.

- Leon-Ledesma, M., Nerlich, C. and Rupprecht, S., (2007), “The impact of real convergence on inflation in the new EU Member States”, mimeo.
- Levine, R., (1997), “Financial Development and Economic Growth: Views and Agenda”, *Journal of Economic Literature*, Vol. XXXV pp. 688-726.
- Lucas, R.E., (1990), “Why Doesn’t Capital Flow from Rich to Poor Countries?”, *American Economic Review*, Vol. 80(2), pp. 92-96.
- Luengnaruemitchai, P. and Schadler, S., (2007), “Do Economists’ and Financial Markets’ Perspectives on the New Members of the EU differ?”, IMF Working Paper 07/65, March, Washington DC.
- Mankiw, N.G., (1995), “The growth of nations”, *Brookings Papers on Economic Activity*, 25, pp. 275-310.
- Merton, R. and Bodie, Z., (1995), *A Conceptual Framework for Analysing the Financial Environment*, in Crane, D.B. (ed.), *The Global Financial System: a Functional Perspective*, Boston: Harvard Business School Press.
- Mihaljek, D., (2006), “Privatisation, consolidation and the increased role of foreign banks”, in *BIS papers No. 28*, pp. 41-65.
- Moreno, R. and Villar, A., (2005), “The increased role of foreign bank entry in emerging markets”, in *BIS papers No. 23*, pp. 9-16, Basel.
- Morgese Borys, M., Polgar, E.K. and Zlate, A., (2007), “Real convergence in central, eastern and south-eastern Europe”, ECB mimeo.
- Musso A. and Westermann, T., (2005), “Assessing potential output growth in the euro area – a growth accounting perspective”, *ECB Occasional Paper No. 22*, Frankfurt am Main.
- Prasad, E., Rajan, R. and Subramanian, A., (2007), “The Paradox of Capital, Finance and Development”, Vol. 44, No. 1, *International Monetary Fund*, Washington.
- Pritchett, L., (1997), “Divergence, Big Time”, *Journal of Economic Perspectives*, Vol. 11, No. 3, Summer 1997, pp. 3-17.
- Sachs, J., Tornell, A. and Velascó, A., (1996), “Financial Crises in Emerging Markets: The Lessons from 1995”, *NBER Working Paper No. W5576*.
- Sala-i-Martin, X., (1997), “I just ran two million regressions,” *American Economic Review, Papers and Proceedings*, Vol. 87, pp. 178-83.
- Young, A., (1995), “The Tyranny of Numbers: Confronting the Statistical Realities of the East Asian Growth Experience”, *Quarterly Journal of Economics*, 110, pp. 641-680.

[1] The views expressed in this note reflect only those of the author. I thank Eva Katalin Polgar and Adalbert Winkler for their input in the preparation of these remarks.

[2] The ten EU members are: Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia, Slovenia; the seven candidates or potential candidates are: Croatia, the former Yugoslav Republic of Macedonia, Turkey, Albania, Bosnia and Herzegovina, Montenegro and Serbia.

[3] For an overview see Mankiw (1995).

[4] See Pritchett (1997).

- [5] Borrowing from the title of the paper by Sala-i-Martin (1997).
- [6] However, it could also be argued that European integration is so special that the evidence on convergence in Europe – by way of exception – confirms the rule of divergence. This line of reasoning is further developed in the literature on convergence clubs; see for example, Baumol and Wolff (1988) and Dowrick and De Long (2003).
- [7] See Arratibel et al. (2007) and Morgese Borys et al. (2007).
- [8] See Young (1995) and IMF (2006).
- [9] See Merton and Bodie (1995).
- [10] See for example De Gregorio and Guidotti (1992) and Beck, Levine and Loayza (2000).
- [11] See for example, Bussière et al. (2004).
- [12] Lucas (1990).
- [13] See also Prasad et al. (2007).
- [14] See Bini Smaghi (2007).
- [15] The answer by Abiad et al. (2007) is a positive one, identifying rapid financial integration of the countries under review as a key factor in explaining the difference to other emerging markets. Financial market differences between countries in the region and other emerging market economies are also stressed by Luengnaruemitchai and Schadler (2007) and Bini Smaghi (2007).
- [16] See e.g. Adalet and Eichengreen (2005).
- [17] See Arcalean et al. (2007).
- [18] See Mihaljek (2006) and Moreno and Villar (2005).
- [19] See Berglöf and Bolton (2002).
- [20] See e.g. Sachs et al. (1996).
- [21] See Landesmann et al. (2004) and Commander and Kollo (2004).
- [22] Leon-Ledesma et al. (2007).