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1

Economic Growth and Structural Features of Transition: Theoretical Framework and General Overview

Enrico Marelli and Marcello Signorelli

1. Introduction

The ‘Great Transformation’ that occurred in Eastern Europe after 1989 involved many spheres: institutional, political, social and economic. Even considering only the economic sphere – in addition to the overall transition to market economies – this transformation involved several structural changes, affecting economic growth and performance in many markets (with manifest effects in the labour market), as well as international relations with other regions of the world.

Especially if formalized, a simple theoretical model is unable to capture the complexities of this transformation. The relations between variables are numerous, are also unstable over time and exhibit significant feedback from economic and structural changes to institutional change itself. Thus, a heuristic model is probably more adequate to illustrate complex, multi-faceted phenomena and links between variables.

In this chapter, we propose a theoretical framework aiding understanding of the main features of the complex dynamics and relations characterizing transition processes, with special reference to Central and Eastern European Countries (CEECs). The heuristic model is integrated and supported by a partial review of the most important literature, both theoretical and empirical, concerning the specific aspects discussed. Its aim is also – in a unified framework of analysis – to show the links, interdependences and complementarities between the specific studies included in the chapters of the volume and to illustrate the rationale behind the sequence of the individual studies.

In addition, in order to better understand the importance of the various topics, we present some key data concerning the process of institutional, economic and structural change over a 20-year period, especially in those CEECs which became members of the EU in the 2004 and 2007 enlargements

(NMS). This general information (provided in the Appendix) offers an introductory overview of the main characteristics of transition, to be complemented by the more specific empirical evidence provided in subsequent chapters.

The structure of this chapter is as follows: The heuristic model is presented with the aid of a graph summarizing the intricate links between the main variables (Section 2). Then we develop the five main areas of the theoretical framework. The starting point is the process of institutional change, of which the main features and effects on the economic systems are examined (Section 3). One prominent economic consequence of transition concerns economic growth and development (Section 4). Institutional change and economic growth also interact with specific aspects of structural change (Section 5), concerning the sectoral specialization of economic systems and the spatial distribution of economic activities. The impact of transition, growth and structural change is particularly significant in labour markets (analysed in Section 6), in terms of their quantitative (unemployment and employment dynamics) and qualitative (quality of jobs, youth performance) effects; also the dynamics in income inequality are investigated in this section. The transition process also entailed new foreign relations (Section 7), these countries now gravitate mostly towards Western Europe (increased trade integration is only one of the several aspects) and are much more ‘vulnerable’ to shocks upsetting the global economy; in this section, the consequences of the 2008–2009 financial and economic crisis are briefly sketched. Lastly, the conclusions (Section 8) also stress the appropriateness of following a ‘comparative’ approach in the investigation of transition countries.

2. A theoretical framework for an integrated appraisal of transition

The ‘Great Transformation’ is a quite complex phenomenon, as already admitted by Kornai (2006). Many areas of the economic, social and political spheres are involved, not only in the countries directly affected by the fall of the Berlin Wall, but also in the whole of Europe and in East–West relationships. The core of the transformation was *institutional change*, an overall process in which price liberalization, privatization and the emergence of a new ‘governance’ were key aspects.

In addition to institutional change, we identify four main areas of influence – characterized by the working of specific and peculiar variables – which may in turn generate important feedback with the process of institutional change itself. The chart below highlights these four main areas:

- a) economic growth and development,
- b) structural change and regional performance,

- c) income inequality and labour market evolution,
- d) relations and shocks in the global economy.

First of all, the complex institutional change in the CEECs has affected economic growth in quantitative terms, because of the 'transitional recession'¹ of the initial years, subsequent recovery in the 1990s and recent (2000–2007) rapid growth, up to the 2008–2009 world recession.

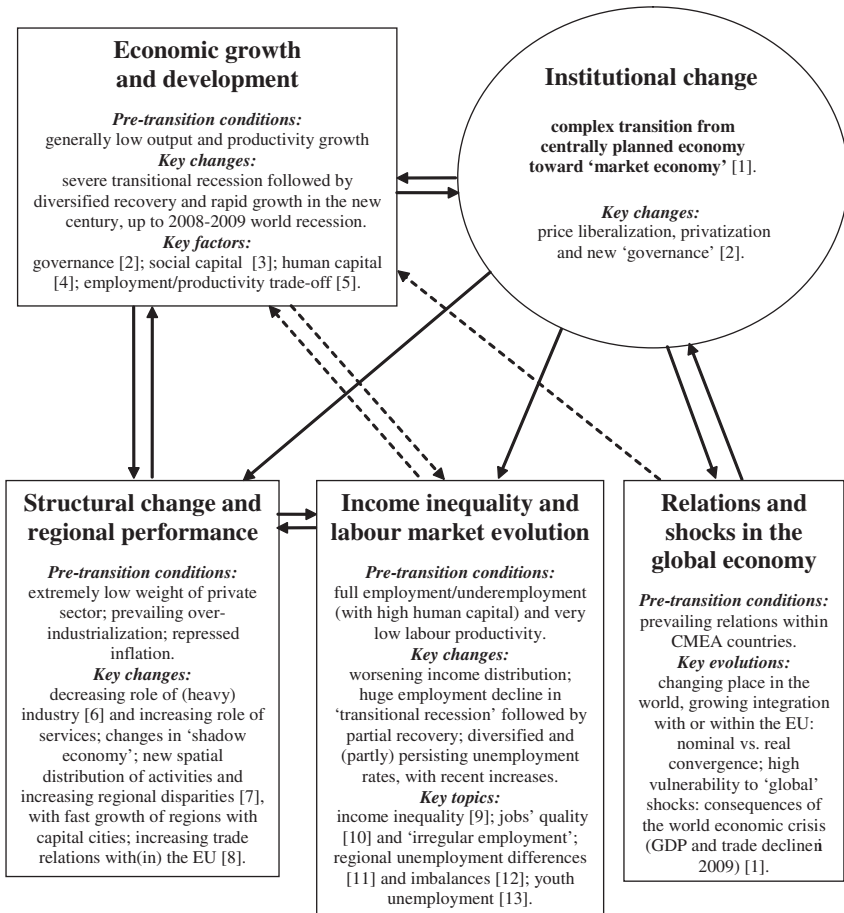
In general, the key factors of growth include technical progress, physical capital and human capital, as stated in standard neoclassical and endogenous growth models. Economic development in a broad sense is also shaped by more general factors, such as social capital and quality and effectiveness of 'governance', which is itself an aspect of the process of institutional change. Notice that there is also feedback from economic growth to institutional change, because high, balanced economic growth facilitates the implementation of structural reforms (partly by increasing the 'tolerance' versus the short-term costs they often involve).

Development processes are closely interrelated with vast structural changes, involving first a transformed sectoral mix, with contraction of manufacturing (especially heavy industry) and an expansion of services, particularly in capital cities. This in turn implies a modified spatial distribution of economic activities, with resulting regional disparities, whose increase has been a generalized phenomenon in the CEECs.

A special area which is worth examining concerns inequality in the income distribution (that has shown wide deterioration also as a consequence of the mentioned disparities) and labour markets. These markets are of course disrupted by institutional change (and specific labour market reforms); they are also interrelated with both economic growth and structural change. Before the onset of the transition, the situation in the CEECs was characterized by 'full employment' (and comparatively high levels of human capital) but also by low productivity and underemployment. The subsequent dynamics produced lower employment and rising unemployment, but were accompanied by significant productivity gains, together with changes in the spread of the shadow economy. However, the labour market performance and dynamics (including job types) differed widely according to gender, age and region.

A last sphere deserving attention refers to the foreign relations of the CEECs in the global economy. After half a century (or more) of leaning toward Russia and the other Soviet Republics,² these countries started or intensified new economic (and political) relations with Western countries: this is already clear-cut in the trade reorientation of the 1990s. The process is not yet completed and is now largely conditioned by the huge and diversified decline in 2009 world trade. Trade switching was favoured by the increasing inclination toward the EU: ten CEECs are now New Members and two of them have already adopted the euro.³

THE ‘GREAT TRANSFORMATION’ IN THE CEECS



3. Features and effects of institutional change

As noted in the previous section, the core of the transformation was *institutional change*, which profoundly affected economic, social and political life in the CEECs. Of all the ‘great transformations’ in world history (Polanyi, 1944), Kornai emphasizes that the transformation in Central and Eastern Europe is the only episode with the following six characteristics: (i and ii) the changes followed the main direction of Western development, economically towards capitalism and politically towards democracy; (iii) there was a complete transformation, comparable in all spheres (economic, political,

legal, in political ideology and in social stratification); (iv) no violence occurred in the transformation; (v) the process of transformation took place in peaceful circumstances – it was not preceded by war and changes were not forced upon society as a result of foreign military occupation; (vi) the transformation took place incredibly quickly, within a time-span of ten to 15 years.⁴

First, it should be noted that the ‘transformational recession and unemployment’⁵ which occurred during the first years of transition were largely unexpected by many economists. Although some of the economic literature had already analysed the importance of institutions and their effects on uncertainty (for example, Hirschman, 1970; North, 1990), the renewed focus on the key role of institutional change was also due to the evident difficulties in finding explanations for the (differences in the) economic performance of transition countries by means of standard (or even neo-classical alone) approaches and instruments, partly adopted in development economics.⁶

Here, we recall only a few examples of the vast theoretical and empirical literature on the relations between institutions (or institutional change) and economic performance in transition countries, by distinguishing studies focusing on: (i) the use of alternative definitions of institutions and institutional change, and the adoption of many and different ‘performance variables’; (ii) the role of initial economic or institutional conditions and reform or institutional policies in explaining GDP dynamics; (iii) the speed of transition and its effects on unemployment.

In the first group, authors generally used a wide concept of institutions and institutional change. Raiser (1999) pointed out that any process of rapid formal institutional change, as in transition economies, must contend with the legacy of an inherited set of informal institutions that may or may not be efficient in a changing economic and social environment. He also compared ‘top-down’ versus ‘bottom up’ institutional reforms, emphasizing the role of social capital and trust in transition. Hare (2001) examined the role of certain key institutions⁷ and highlighted the importance of ‘missing institutions’ in the early stage of transition. Schneider and Enste (2000) stressed the remarkable impact of the shadow economy on official institutions, norms and rules, and proposed that its influence (see data in Appendix) was an indicator of the deficit of legitimacy of the social order and existing rules of official economic activity. Raiser et al. (2001) treated institutional change as a multidimensional unobserved variable and examined the determinants of institutional change (initial conditions and path dependence, changes in the structure of market demand, interaction with the outside world, and the capacity of the State to implement and enforce new rules), using a panel dataset for 25 transition economies. Nuti (2004) discussed the complexity of the ‘great transformation’, the role of an institutional vacuum and the huge national differences in the paths of institutional transition. Roland

(2001) considered certain stylized facts of the transition process in CEECs and China, and proposed an 'evolutionary-institutionalist' interpretation founded on: (i) the institutional perspective, (ii) the evolutionary approach, (iii) the great importance of economists' relative ignorance of economic and social systems and their transformation and (iv) the emphasis on the high level of uncertainty associated with social engineering (aversion towards large-scale institutional transformation).

An example of studies of the second group is given by De Melo et al. (1997), who examined the role of initial conditions and policies (liberalization) in explaining economic outcomes (in terms of growth and inflation) by considering two strictly institutional initial variables: the characteristics of state formation and a variable of 'market memory' measured by the number of years under central planning. Fisher and Sahay (2004) examined output performance determinants in 25 transition countries by considering certain institutional variables (reform index and state capture index) together with an initial conditions index derived from factor analysis.⁸ The importance of initial conditions for economic performance was also stressed by Falcetti et al. (2006) who showed both the effects of progress in market-oriented reforms on growth and the existence of important feedbacks (from growth to reforms) using simultaneous equation estimation. The feedback effect of growth to reforms has been recognized in many other papers. The sensitivity of results to the choice of time period is discussed by Fidrmuc (2003) and Lysenko (2002).⁹

In the third group, the seminal paper of Aghion and Blanchard (1994) was followed by extensive literature focusing on the costs and benefits of the speed of transition and on the role of government for an 'optimal speed of transition' (OST). Transition is described as a regime change from an allocation system based on central planning to one based on market forces. In particular, the optimal pace of worker and job reallocation gave rise to a division between a 'gradualist approach' (Dewatripont and Roland, 1995) and rapid 'big bang' reform (Murphy et al., 1992). Roland (2000) distinguished the following three main positions: (i) one faction supporting 'shock therapy' and suggesting fast, comprehensive reform to avoid the risk of 'gradualism', mainly in terms of probable individual measure ineffectiveness and consequent public opposition; (ii) a second faction was in favour of 'gradualism' (and attention to national differences in sequencing) in order to minimize the social costs of transition, especially in order to avoid the negative effects on unemployment rates caused by too rapid reforms; (iii) a third stance highlighted the need for rapid change in certain aspects and gradualism for others. Many other papers analysed certain effects (especially on labour market performance) of the pace of transition (Bruno, 2006).

The above brief literature review acknowledges the key importance of institutions and institutional change, notwithstanding the specific approach.¹⁰ We conclude by quoting Raiser (1997): 'what transition is

all about is redesigning the institutional framework of formerly centrally planned economies; therefore, a transition theory is necessarily a theory of institutional change’.

4. Economic growth and development

Economic growth and development is the theme of Part I of the book. There is a huge amount of literature on this. Let us consider, firstly, the more general factors of growth, by examining their importance for transition countries. We shall examine later more specific features of growth in the CEECs. Growth models – starting from the neoclassical growth model (Solow) – have focused on the main determinants of productivity growth. In the ‘conditional convergence’ variant of Solow’s model (Barro, 1991; Mankiw et al., 1992), some other exogenous variables, such as human capital, are considered. In general, technical progress, the process of innovation and R&D expenditure are the main variables usually considered in economic growth investigations, to integrate the role of capital accumulation.

Concerning R&D expenditure (see, for example, Sveikauskas, 2007; Zachariadis, 2004), empirical results highlight a generally positive effect on growth, but with different intensities and explanations. For example, some research investigates the role of spill-over effects (Engelbrecht, 1997) or the different impact of public and private R&D expenditure (Sveikauskas, 2007), or even the complex interactions between many variables (FDI, R&D and human capital), particularly in the CEECs (Perugini et al., 2008).

The role of education or human capital for economic growth (and productivity dynamics) has also been extensively investigated in the literature, by both mainstream and heterodox economists, especially in the last two decades. Not only has human capital been incorporated into endogenous growth models (beginning with Lucas, 1988) and in the ‘augmented’ Solow model (Mankiw, Romer and Weil, 1992), but it has also been considered in analysing conditional beta-convergence between different economies (Barro, 1991). More specific studies have analysed the role of education – the other factors of human capital being training and experience – on economic growth: the results are various, depending on the definition used, on considering education in terms of stocks rather than flows, or even on the different specifications of human capital as inputs in the production function.¹¹

Differences across countries in income levels and economic growth rates can only partly be explained by differences in physical capital endowment or even by joint consideration of physical and human capital. A significant role is played by intangible assets in a broad sense, considering both human and social capital, since individuals and their human capital do not exist in isolation (Schuller, 2000); even the cross-effects of human and social capital may be important for economic development.¹² Social capital refers to a

wide range of social activities and relations between individuals and groups, together with shared norms and values allowing participants to act together more effectively to pursue shared objectives (Putnam, 2000; World Bank, 2008); at a macro level it also includes institutional trust and quality of governance.¹³ The real effects of institutional changes (on productivity, growth or employment) have been examined in many studies: see, for example, Marelli and Signorelli (2010), who detect different effects (in intensity of impact or even in its sign) in the various phases of transition.

When discussing economic growth in the CEECs, it is natural to start from the first years of huge productive decline (see Table 1.A1 in Appendix). The 'transitional recession' was particularly severe in Latvia (−44.2 per cent from the maximum to the later minimum values of real output) and Lithuania (−40.6 per cent), Bulgaria (−39.3 per cent), but also in Estonia (−29.4 per cent), Slovakia (−24.4 per cent), Romania (−20.6 per cent), Slovenia (−20.4 per cent) and Hungary (−18.1 per cent). The output fall was lower in Poland (−13.7 per cent) and the Czech Region (−12.1 per cent). The duration of the recession ranged from two years (Poland) to five or six years (Estonia, Lithuania and Bulgaria). The subsequent recovery was diversified but generally fast at the end of the 1990s (with the exception of Romania and Bulgaria) and the rate of growth boomed almost everywhere in the new decade (see data in Appendix), until the 2008–2009 financial crisis and world recession.

The high economic growth of the CEECs was gained in the last decade also from the trade deepening¹⁴ and reorientation toward the EU; some CEECs actually became NMS of the EU (there position in the EU will be discussed in Section 7). Finally, we should mention that a specific strand of the literature on economic growth focuses on the trade-off between productivity and employment growth (Dew-Becker and Gordon, 2008); on this point however, see also the discussion on labour market performance in Section 6.

5. Structural change and regional performance

Structural change and regional performance is the specific topic of Part II of this book. On one hand, structural change has been affected by the general process of economic growth and development (in the CEECs, as in all countries of the world) and, on the other, by the institutional change typical of transition countries.

Concerning the former, since the early studies of Colin Clark, economic growth is shown to be associated, in a first stage, with the shift from agriculture to industry and, subsequently, by a move toward service activities (the 'three sectors law'). In addition to assuming a close relation between the stage of development and the productive structure of each country (and region), famous development economists (Chenery, Clark, Hirschman, Kaldor) in many cases also considered the interaction between structural and

institutional convergence.¹⁵ Structural convergence can also easily be incorporated in neoclassical growth models; in the ‘conditional convergence’ approach, homogenization of structural conditions in economic systems implies that steady states can be equalized, allowing countries (or regions) to achieve similar per capita output levels. On the opposite side, some ‘endogenous growth’ models predict increasing specialization and diverging paths for (structurally) different economic systems.

Structural change, especially considering the evolution of the main economic sectors, may interact with economic growth, with particular reference to productivity dynamics and differences, through many channels (see Kruger, 2008). The effects of technological progress are examined in many studies. In particular, Pasinetti (1993) analyses the effects of technological progress on aggregate income in a model in which structural change is driven by Engel’s law; Pasinetti himself and other authors develop multi-sector growth models.¹⁶ However, a key finding of much research is that aggregate productivity growth may result from structural change alone (even without productivity growth at the level of individual industries): in fact, industries with relatively lower rates of productivity growth tend to shrink in terms of shares and the opposite occurs in industries with relatively higher rates of productivity growth (Kruger, 2008).

Some comparative analyses between Eastern and Western Europe have been carried out: for instance, Stephan (2002) focuses on sectoral structure, path dependence and specialization patterns to explain the productivity gap. Marelli (2007) investigates specialization and convergence of the EU-25 countries and regions, also focusing on the role of structural convergence and diversification of production in affecting the dynamics of employment, output and productivity. Concerning Eastern countries, while broad economic structures – in terms of value added or employment – have not always converged (‘specialization indexes’ are generally higher in the CEECs than in Western countries), the differences in trade specializations have declined continuously. Some of the new member states have changed their specialization towards medium and high-tech products (including machinery and transport equipment), for which the world demand has been dynamic: these countries can take advantage of a highly skilled labour force, huge FDI inflow, restructuring in production and modernization of capital stock (Zaghini, 2005).

In contrast with former mono-industrialized industrial regions (generally specialized under central planning in mining production, steel and textile industries, and armaments), some regions were more prompt to change their specialization. This is the case for regions with capital cities¹⁷: they were generally highly diversified and more flexible in adjusting to transition and to EU integration and changing economic structures. The clustering of activities around capital cities – whose growth of productivity and per capita income has been much faster than in the rest of the countries – can also

be explained by the interaction between industrial activities, existence of advanced services, accessibility to both domestic and foreign markets and availability of 'superior' resources, such as public services, research centres, human capital, FDI attraction pools and good infrastructure.

Thus, structural change interacts with the spatial distribution of economic activities. Some regions, especially the leading regions of transition countries, can become centres of production thanks to the relations between the working of scale economies and trade costs: economies of scale, together with easier access to markets, may compensate for higher production costs.¹⁸ Spatial polarization effects – for example, those investigated in the new economic geography – may derive from the interplay between trade integration, economies of scale and concentration of production (Krugman, 1993).

Scarpetta (1995) showed that transition mostly affected regions where production was concentrated under the planned economy. Instead, accessibility factors (distance from the core of Europe) were stressed by Gorzelak (1996). One conclusion about regional disparities is that economic growth and catching-up of transition countries have reduced the gap (at national level) with Western Europe, but at the cost of increasing within-country (regional) disparities (Marelli and Signorelli, 2010). Of course, income distribution at the individual level has also been affected by these tendencies.

One last structural feature to be recalled is the shadow economy. This phenomenon refers in no way only to the CEECs but also to many other developed and developing countries; however, the characteristics of the planned economy and the transition toward a market economy have witnessed a significant role played by the informal or 'shadow' economy. As reported in the Appendix, country differences in the size of the shadow economy¹⁹ are remarkable (Schneider and Enste, 2000), even when considering only the NMS, where it ranges from under 20 per cent (Slovak and Czech Republics) to more than 30 per cent (Latvia, Estonia, Bulgaria, Romania and Lithuania).

6. Income inequality and labour market evolution

Labour market evolution in the CEECs has been affected by transition processes (especially, privatizations and price liberalizations), economic growth and structural change (with many sorts of feedbacks also in this case). For example, the generally huge GDP decline during the 'transitional recession' was accompanied and followed by high and (partly) persisting unemployment rates in many countries. (Un)employment was of course influenced by the degree of restructuring, in turn affected by the depth and speed of the reform process.

Starting from a situation of 'virtual' full employment,²⁰ the labour market situation deteriorated for several years, although with differences between

countries. In the 1990s, unemployment rates reached two-digit values (with peaks of 15–20 per cent) in many CEECs (see Appendix), with significant persistence in some cases.

For a better interpretation of more recent trends, it is useful to refer to the three quantitative objectives of the European Employment Strategy. In the Lisbon European Council (2000) the following two objectives were defined: (i) a total employment rate of 70 per cent (calculated on a working age population of 15–64 years) and (ii) a female employment rate higher than 60 per cent; at the Stockholm European Council (2001) an objective of employment rate higher than 50 per cent for the population between 55 and 64 years was also added (all three objectives are to be reached by 2010). Also in the case of these indicators, national differences emerge across countries.

More specific studies consider flow data and labour turnover (that is, net job creation and destruction) in addition to the usual disaggregation by sex and age. While the position of working women in the CEECs is not worse than in Western countries, the performance of young people – with particular reference to youth unemployment – deserves special attention. The stability and ‘quality’ of jobs is also an area in which recent research is appearing.

The mechanisms of regional labour market adjustment in transition have been studied by many authors.²¹ Fidrmuc (2004) highlighted the minor role played by migration in reducing regional disparities in the CEECs, whereas the immobility of workers, caused by lack of housing in potential destination areas and the existence of wage rigidities, was emphasized by Boeri (2000). However, Boeri and Garibaldi (2005) argue that the NMS are not more rigid than the old member states, despite the persistence of some structural problems and, in some cases, large pools of unemployment (in particular, the Baltic states have high degrees of labour market flexibility).

Rutkowski (2006) argues that low-productivity employment in the CIS is a mirror image of unemployment in the CEECs (where a developed social safety net exists), while Belorgey et al. (2006) show that employment rate changes negatively affect the productivity growth rate, supporting the hypothesis of diminishing returns for the employment rate.

Research on disparities across regions in labour market performance has also highlighted regional differences in initial conditions. Polarization effects – similar to those illustrated in Section 5 – can also be found in terms of unemployment (Overman and Puga, 2002).

In general, increasing regional disparities in the CEECs have caused an upsurge in economic inequality. Also the income distribution among households has deteriorated during transition, although it could be expected, after a turning point, a future reduction in income inequalities (see Chapter 9). Income inequality and labour market evolution is the topic of Part III of the book.

7. The CEECs in the global economy, the effects of the world economic crisis and the current outlook

Transition was accompanied in the CEECs by a changing position in the global economy, in many cases together with new political or even military alliances (EU or NATO membership). The previous remarkable, or in some cases exclusive, orientation toward Russia and the other Soviet Republics has been (partly) replaced by a reorientation toward Western Europe. In particular for the NMS trade relations developed significantly even before the official EU accessions (2004 and 2007); the notable increase in trade is due to the robust growth rates of these countries (after the transitional recession), the large economic weight of the EU area and geographical proximity (Bussière et al., 2005). Increased trade links also augmented the synchronization of business cycles with the EU (and euro) area. Above all, the output growth of Hungary, Poland and Slovenia is the most highly correlated with the euro-zone, like some core EU-15 countries and even more than EU-15 peripheral countries (Greece, Portugal, Spain, Ireland, Finland); the lowest correlations, close to zero, are found for the Baltic states (Darvas and Szapáry, 2008; Fidrmuc and Korhonen, 2006).

New EU member states have high trade openness, growing trade integration with EU-15, reforms in labour markets (with relatively high degrees of flexibility) and in institutions, and increasing business cycle synchronicity with the euro area; however some countries are lagging behind as regards certain aspects of 'real convergence' (growth, productivity, price levels) as well as output specialization and delays in the modernization of financial systems (Angeloni et al., 2005).

Conversely, they show prevailing nominal convergence:²² inflation,²³ interest rates and debt to GDP ratios, but with some imbalances in deficit to GDP ratios. It should be noted that CEECs have quite low debt to GDP ratios with respect to many Western EU countries.

As for the exchange rate, four countries (out of ten) joined the ERM-II agreements. Note that, in the early 1990s the NMS had some kinds of 'soft pegs', but moved in the following years to either flexible exchange rate regimes with inflation targeting (the larger countries) or to currency boards or hard pegs (the smaller ones). It is interesting to note that the larger countries – such as Poland, Hungary and the Czech Republic, which had the highest output correlations with the European core – have not yet entered the ERM-II (and will have to wait much longer before adopting the euro). In the past, appreciation of exchange rates was enhanced by capital inflows associated with huge FDIs (which partly counterbalanced current account deficits).²⁴

However, what about the present situation and expected trends for the next few years? We cannot conclude this introductory chapter without briefly mentioning the dramatic effects of the financial crisis which arose in 2008. We have observed both financial and real consequences. In the former,

banking systems suffered (partly because credit was provided in most countries by the foreign subsidiaries of Western banks, owing to the fragility of the local financial systems), stock indices plunged (even when compared with the generalized world decline), exchange rates underwent huge devaluations in countries adopting flexible regimes (harming economic agents who had been accustomed to borrowing in foreign currencies), interest rates soared, at least comparatively, due to rapidly increasing risk premiums (less so in countries with floating exchange rates), public deficits increased (see Tables 1.A9 and 1.A10 in Appendix) and consequently – despite initially low debt levels – the risk of default has become worryingly apparent in many countries (Latvia, Hungary and, outside the EU, Ukraine are in the worst position).²⁵

The real impact is similar, but more intense, to what we are observing all over the world this year (2009): a large-scale recession, falling consumption and investment (partly due to the drop in confidence and expectations), decrease in industrial production, falling employment and rising unemployment (see Table 1.A5 in Appendix). The real effects are amplified by the very openness of the economies in question and their great vulnerability: exports are decreasing (see Table 1.A11 in Appendix), also because of the deplorable situation in foreign (Western) markets, and FDI flows are retrenching, also as a consequence of hidden protectionist tendencies in Western countries which prefer to maintain firms and activities at home (even foreign banks are tempted to distance themselves).

Let us, now, provide some figures about the current and expected (2009 and 2010) developments according to the most recent forecasts of international organizations. Following the deepest decline in post-war history, two points seem rather sure in the ‘new world’ of uncertainty: (i) a full collapse of the world market economy – a debated scenario in the Fall 2008 – has been avoided, also thanks to strong economic policies, which have helped in restoring some confidence in the markets; (ii) although the global recession has not yet ended, real economic activity seems to be nearing its bottom in this Summer 2009.

According to OECD (June 2009) forecasts, real GDP is expected to decline in 2009 by -2.2 per cent for the world as a whole, accompanied by an even larger and dramatic contraction (-16 per cent) of world real trade. The fall in real GDP will be greater in specific regions of the world: -4.8 per cent in the euro area²⁶ and -2.8 per cent in the US in 2009; a modest recovery is expected for 2010: $+0.9$ per cent and 0 per cent respectively for the two areas. Emerging countries, although partially affected by the slowdown ($+7.7$ per cent and $+5.2$ per cent are the expected growth rates in China and India in 2009), that caused significant negative effects (such as return migration from industrial urbanized areas to rural areas in China, falling wages in India), should recover soon and help to pull the world out of recession ($+9.3$ per cent and $+7$ per cent are the expected growth rates for these two countries in 2010). A comparison between the above and other countries

(and aggregates) in the world can be made thanks to the recent forecasts by EU Commission (April 2009), presented in Appendix (Table 1.A3).

Concerning the CEECs of Eastern Europe, EBRD forecasts (released on 7 May 2009) show different situations for 2009: (i) a real GDP change equal to zero in Poland; (ii) a group of countries (Czech Republic, Slovak Republic, Slovenia, Bulgaria and Romania) with a recession (between -3 per cent and -4 per cent) lower than the average of Western Europe; (iii) a country with a large decrease (similar to Germany's or Italy's), that is Hungary (-5 per cent);²⁷ (iv) finally, the worst performers are the Baltic states (-10.5 per cent Estonia, -11.8 per cent Lithuania, -13.2 per cent Latvia). According to current forecasts, in 2010 growth will be negative but close to zero or moderate (less than $+1$ per cent) in almost all CEECs; the only exceptions – with a worse performance – will be Bulgaria (-1 per cent), Lithuania (-2 per cent) and Latvia (-4.1 per cent).

In the face of this horrendous scenario, economic policies adopted by almost all countries in the world have been robust and multifaceted including: (i) easy monetary policies (the official interest rates set by central banks range at historically low levels between 0 and 1 per cent); (ii) rescue plans for the banks most deeply affected (the most relevant ones have been adopted in the US and in the UK); (iii) huge fiscal stimuli (with negative effects on public deficits and debts that will last for several years); (iv) plans to reform the international financial system (new rules have been approved, following the London G-20 summit, both in the US and in the EU and should be implemented in the next months).

Despite this strong reaction by policymakers, the recession has already caused extensive problems for real economic activities and labour markets: the deepest effects on employment will be felt with a lag of some months. The unemployment rate has already reached 9–10 per cent in both the US and the EU, where it is expected to grow further toward the 12 per cent ceiling in 2010. Not only is cyclical unemployment growing, because of the output gap (expected to rise to -3.6 per cent in 2010 in the euro area: see European Commission, 2009b), but a permanent rise in structural unemployment is also likely, because even potential output will be significantly reduced as a result of the crisis (for example, by 2–3 per cent in the medium term in the OECD area). Hence, stabilization policies to support aggregate demand should be accompanied by a continuous effort to adopt reforms and structural policies (including improvements in passive and active labour policies).

Needless to say, all these problems are exacerbated in the CEECs. In particular, the unemployment rate is expected to especially increase in the Baltic states (Table 1.A5 in Appendix). To prevent mass unemployment and social disruption, the 'solidarity' of EU countries should be directed – as mentioned in the EU Treaty – to the most vulnerable members, not only the CEECs, but also, we may add, to neighbouring countries in the region.²⁸

8. Conclusions

In this chapter, we briefly recalled the complexities of the ‘Great Transformation’, which jointly involved the institutional, political, social and economic spheres and, for better comprehension of the specific studies presented in the following chapters, proposed a unified theoretical framework based on a heuristic model. We identified five main areas, headed by ‘institutional change’, interrelated with the following additional areas: (i) economic growth and development, (ii) structural change and regional performance, (iii) income inequality and labour market evolution, (iv) relations and shocks in the global economy.

After highlighting the relation and feedback between the above areas, we partly reviewed the main contributions in the literature for each issue, concentrating on evolution in transition countries. The focus is on CEECs which became EU members in the 2004 and 2007 enlargements, but their various evolutions are compared whenever possible with other transition countries or groups of countries. We believe that a comparative approach is essential in order to grasp the diverse situations and dynamics of such complex processes. Although most of the studies presented in the following chapters refer to a number of transition countries (in some cases, the CEECs are compared with Western European countries to highlight their specificities better), a general overview referring to all of them seemed appropriate.

Although transition in the CEECs has been a fast process, a 20-year interval is long enough to include different phases. The ‘transitional recession’ of the early 1990s was followed by recovery in the second half of the 1990s and by rapid growth in the new century (when these transition countries almost reached the extraordinary pace of growth of China).²⁹ Again as regards institutional change, many events occurred. After the onset of transition towards ‘market economy’, all these countries started leaning towards Western Europe (with which trade, economic and political relations were established or reinforced), most of them joined the EU and a few even entered the euro-zone.

The reforms aimed at the development of a market economy, the trade deepening and reorientation toward Western countries (and the huge FDI flows coming from that area), the process of admission into the EU and other processes of institutional change helped in strengthening the recent catching-up and economic growth of almost all CEECs – although with some imbalances – at least until the 2008–2009 economic crisis.

We have sketched some characteristics and likely (huge) consequences of this crisis in the previous section. This ‘global shock’ – suggesting the need for a more effective new ‘world governance and coordination of economic policies (together with more effective rules and institutions)’ – is producing generalized real effects, although with different intensities in the various world areas (continents, countries, regions); their persistence will crucially

depend on the effectiveness of (integrated) policies adopted at the different levels of government.

For many aspects, the 2009 world recession can be considered, also for CEECs, as the beginning of a new – rather uncertain – phase of development and integration. However, in our opinion, once the storm is over, and assuming the adoption of appropriate policies, these countries will gradually be able to return to reasonable growth rates – despite the ongoing structural break – thanks to their competitiveness, favourable structural conditions, good economic resources (including human capital) and, above all, irrevocably established democratic and institutional settings.

Appendix: Key Empirical Evidence on the 20-year Long Transitions

Table 1.A1 Initial Conditions (1989–1990) and ‘transitional inflation and recession’

	GNP pc	PS (%)	TD	[T ₀] and YUCP	INF	[T _M] and TOD
PL	5150	30	8.4	[1990] 41	302	[1991]–13.7
HU	6810	5	13.7	[1990] 42	27	[1993]–18.1
CZ	9000	5	6.0	[1991] 42	30	[1992]–12.1
SK	8000	5	6.0	[1991] 42	31	[1993]–24.4
EE	8900	10	30.2	[1992] 51	150	[1994]–29.4
LV	8590	10	36.7	[1992] 51	395	[1993]–44.2
LT	6430	10	40.9	[1992] 51	350	[1994]–40.6
SI	9200	10	4.0	[1990] 46	363	[1992]–20.4
RO	3470	15	3.7	[1991] 42	209	[1992]–20.6
BG	5000	10	16.1	[1991] 43	163	[1997]–39.3
RUSSIA	7720	5	11.1	[1992] 74	485	[1998]–45.6
CIS-5	5954	5–10	25.9**	[1992] 70–73	298	[1995–1999]–42.0
CIS-7	4191	10***	27.6**	[1992] 70–71*	434	[1993–1999]–46.0

Legend and Sources: Countries and Aggregates: PL = Poland; HU = Hungary; CZ = Czech Republic; SK = Slovak Republic; EE = Estonia; LV = Latvia; LT = Lithuania; SI = Slovenia; RO = Romania; BG = Bulgaria; CIS-5 includes Belarus, Kazakhstan, Russia, Turkmenistan and Ukraine; CIS-7 includes Armenia, Azerbaijan, Georgia, Kyrgyz Republic, Moldova, Tajikistan and Uzbekistan. The data for Czech Republic and Slovak Republic are referred to the two Republics that formally became separated countries in 1993.

GNP pc = per capita GNP at PPP in US\$1989 (*Source:* DDGT 1997, World Bank).

PS = 1989 private sector % share in GDP. *** Kyrgyz Republic is the only exception with 5%. (*Source:* EBRD online database).

TD = Trade dependence in 1990, defined as the % ratio between the average of exports and imports and GDP (*Source:* World Bank). ** Average values of the 5 or 7 countries included in CIS-5 and CIS-7 [for example De Melo et al., 1997].

[T₀] = first year of transition (transition year is defined as the year in which central planning was dismantled, for example, Fisher and Sahay, 2004).

YUCP = years under central planning; * excluding Moldova (51).

INF = Average inflation rate during the first three years since price liberalization.

[T_M] = Lowest output year.

TOD = Total output decline, from [T₋₁] to [T_M] (*Source:* World Economic Outlook, 2004).

Table 1.A2 Institutional Change: Transition index and Privatization

		1989	1992	1995	1998	2003	2008
PL	TI	1.26	2.56	3.22	3.52	3.66	3.78
	PS	30	45	60	65	75	75
HU	TI	1.33	2.63	3.48	3.78	3.85	3.96
	PS	5	40	60	80	80	80
CZ	TI	1.00	2.63	3.30	3.48	3.70	3.81*
	PS	5	30	70	75	80	80
SK	TI	1.29	2.62	3.37	3.64	3.75	3.74
	PS	5	30	60	75	80	80
EE	TI	1.00	1.85	3.15	3.44	3.74	3.93
	PS	10	25	65	70	80	80
LV	TI	1.00	2.00	2.81	3.11	3.56	3.63
	PS	10	25	55	65	70	70
LT	TI	1.00	1.59	2.85	3.07	3.52	3.70
	PS	10	20	65	70	75	75
SI	TI	1.52	2.04	2.93	3.22	3.37	3.41
	PS	10	30	50	60	65	70
RO	TI	1.00	1.59	2.41	2.89	3.11	3.44
	PS	15	25	45	60	65	70
BG	TI	1.00	1.85	2.33	2.81	3.30	3.56
	PS	10	25	50	65	75	75
RUSSIA	TI	1.00	1.89	2.59	2.55	2.92	3.04
	PS	5	25	55	70	70	65

Legend and Sources: TI = Transition synthetic indexes are calculated as the simple mean of the following nine EBRD index: (i) large scale privatization, (ii) small scale privatization, (iii) enterprise restructuring, (iv) price liberalization, (v) trade and foreign exchange system, (vi) competition policy, (vii) banking reform and interest rate liberalization, (viii) securities markets and non-bank financial institutions, (ix) overall infrastructure reform. The scores are from 1 to 4. *Source:* elaborations on EBRD online database.

Note: *2007.

PS = private sector % share in GDP. *Source:* EBRD online database.

Table 1.A3 GDP Growth

	1996–1999	2000–2003	2004–2006	2007	2008	2009	2010
	Average yearly per cent changes			1989 = 100	Annual per cent change		
PL	5.7	2.7	5.4	169	4.9	0.0	0.8
HU	3.7	4.4	3.5	135	0.5	-5.0	0.0
CZ	1.0	2.9	5.9	139	3.2	-3.5**	0.1**
SK	4.1	3.8	7.7	154	6.4	-3.5	0.8
EE	5.3	8.1	8.4	150	-3.6	-10.5	-0.2
LV	5.1	7.2	10.5	124	-4.6	-13.2	-4.1
LT	4.9	7.0	8.0	116	3.0	-11.8	-2.0
SI	4.5	3.5	5.3	151	3.5	-4.0	0.5
RO	-2.0	4.5	6.7	120	7.1	-4.0	0.4
BG	-2.2	4.8	6.3	107	6.0	-3.0	-1.0
RUSSIA	-0.3	6.8	7.3	102	5.6	-7.5***	2.5
EU-27					0.9*	-4.0*	-0.1*
US					1.1*	-2.9*	0.9*
Japan					-0.7*	-5.3*	0.1*
China					9.0*	6.1*	7.8*
India					7.2*	4.3*	5.0*
World					3.1*	-1.4*	1.9*

Source: EBRD online database and EBRD forecasts (2009 and 2010) as of May 7, 2009; * EU Commission data and forecasts (2009 and 2010) as of April 2009.

Note: **IMF projections; ***Based on first quarter GDP growth estimates of the Ministry of Economy of the Russian Federation of -9.5 per cent year-on-year.

Table 1.A4 Sectoral Composition of GDP

	1989		1995		2000		2007	
	Ind	Agr	Ind	Agr	Ind	Agr	Ind	Agr
PL	44.1	11.8	32.1	5.6	31.7	3.0	32.6 ^g	2.3 ^g
HU	21.0 ^b	7.8 ^b	23.1	5.9	27.3	4.5	21.7	3.6
CZ	36.7 ^a	8.2 ^a	33.3	4.7	36.0	3.9	42.0	3.0
SK	35.2 ^c	5.7 ^c	29.1	4.9	25.5	4.2	27.2	2.6
EE	28.3 ^d	9.5 ^d	26.3	7.3	24.8	4.3	25.3	2.7
LV	35.1 ^a	21.2 ^a	26.7	8.0	21.1	4.9	19.4	2.9
LT	55.7 ^b	19.2 ^b	29.9	10.3	26.4	7.0	29.8	4.7
SI	39.8	4.4	25.5	3.6	25.6	2.7	23.2	2.1
RO	49.9 ^a	23.7 ^a	32.9	19.8	27.3	11.1	24.6 ^f	8.4 ^f
BG	39.8 ^b	15.4 ^b	31.0	12.7	25.8	12.3	26.1 ^f	8.0 ^f
RUSSIA	38.2 ^b	14.0 ^b	29.0	7.2	30.8 ^e	7.7 ^e	28.0	4.1

Source: EBRD

Note: a = 1990; b = 1991; c = 1992; d = 1993; e = 1999; f = 2005; g = 2006.

Legend: Per cent data. The complements to 100 are accounted by the Services.

Table 1.A5 Unemployment Rates

	1989–1991	1992–1995	1996–1999	2000–2003	2004–2007	2008*	2009*	2010*
PL	9.4	15.4	12.4	18.5	13.9	7.1	9.9	12.1
HU	3.4	10.5	8.3	5.9	7.0	7.8	9.5	11.2
CZ	2.4	3.8	6.0	8.0	7.2	4.4	6.1	7.4
SK	5.4	12.9	12.9	18.4	14.6	9.5	12.0	12.1
EE	0.5	6.9	10.4	11.6	7.0	5.5	11.3	14.1
LV	0.6	11.9	16.1	12.5	8.0	7.5	15.7	16.0
LT	0.3	6.7	14.6	15.0	7.4	5.8	13.8	15.9
SI	7.3	8.4	7.2	6.6	6.0	4.4	6.6	7.4
RO	1.0	9.7	6.4	7.1	7.1	5.8	8.0	7.7
BG	6.0	15.9	15.1	16.6	9.5	5.6	7.3	7.8
RUSSIA		7.1	11.2	8.8	6.8	5.9	9.5	8.4

Source: EBRD online database.

Notes: *Eurostat definition and EU forecasts as of Spring 2009.

Legend: Annual average per cent values.

Table 1.A6 Employment Rates (total and female)

	1996–1999		2000–2003		2004–2007		2008	
	Total	Female	Total	Female	Total	Female	Total	Female
PL	58.5	51.4	52.8	47.2	54.0	48.0	59.2	52.4
HU	53.5	46.7	56.4	50.1	57.1	50.9	56.7	50.6
CZ	66.5	58.1	65.0	56.8	65.1	56.6	66.6	57.6
SK	59.4	52.8	57.0	51.7	58.7	51.7	62.3	54.6
EE	63.1	59.1	61.6	57.8	66.2	63.3	69.8	66.3
LV	59.4	54.5	59.6	56.1	65.1	61.2	68.6	65.4
LT	62.0	59.0	59.4	57.4	63.1	60.1	64.3	61.8
SI	62.3	57.9	63.2	58.4	66.4	61.6	68.6	64.2
RO	64.3	58.3	60.2	54.5	58.2	52.4	59.0	52.5
BG			50.8	47.4	57.6	53.6	64.0	59.5
EU-15	61.2	51.4	64.1	55.2	65.9	58.3	67.3	60.4

Source: Eurostat online database.

Legend: Annual average per cent values (with respect to working age population 15–64).

Table 1.A7 Shadow Economy (% of official GDP)

	1999–2000	2001–2002	2002–2003
PL	27.6	28.2	28.9
HU	25.1	25.7	26.2
CZ	19.1	19.6	20.1
SK	18.9	19.3	20.2
EE	38.4	39.2	40.1
LV	39.9	40.7	41.3
LT	30.3	31.4	32.6
SI	27.1	28.3	29.4
RO	34.4	36.1	37.4
BG	36.9	37.1	38.3
RUSSIA	46.1	47.5	48.7

Source: Schneider (2007).

Legend: Shadow economy as per cent of official GDP using the DYMIMIC and Currency Demand Method.

Table 1.A8 Inflation Rates

	1997–1999	2000–2003	2004–2007	2008	2009*	2010*
PL	11.3	4.5	2.4	4.2	2.6	1.9
HU	14.2	7.3	5.6	6.0	4.4	4.1
CZ	6.5	2.4	2.3	6.3	1.1	1.6
SK	7.7	7.8	4.1	3.9	2.0	2.4
EE	7.1	3.6	4.6	10.6	0.6	0.5
LV	4.8	2.5	7.5	15.3	4.6	-0.7
LT	5.7	0.5	3.4	11.1	3.6	-0.4
SI	7.4	7.7	3.1	5.5	0.7	2.0
RO	86.6	29.5	8.1	7.9	5.8	3.5
BG	10.7	6.5	6.8	12.0	3.9	3.6
EU-15	1.4	2.1	2.1	3.3**	0.4**	1.2**

Source: Eurostat online database.

Note: * EU Commission forecasts as of Spring 2009; ** Euro-16 area.

Legend: Annual average rate of change in Harmonized Indices of Consumer Prices (HICPs).

Table 1.A9 Deficit (% of GDP)

	1996–1999	2000–2003	2004–2007	2008	2009*	2010*
PL	-4.0	-4.9	-4.0	-3.9	-6.6	-7.3
HU	-6.2	-5.8	-7.1	-3.4	-3.4	-3.9
CZ	-4.0	-5.7	-2.6	-1.5	-4.3	-4.9
SK	-7.2	-7.4	-2.6	-2.2	-4.7	-5.4
EE	-0.6	0.4	2.2	-3.0	-3.0	-3.9
LV	-0.8	-2.2	-0.4	-4.0	-11.1	-13.6
LT	-5.3	-2.5	-0.9	-3.2	-5.4	-8.0
SI	-2.3	-3.2	-1.1	-0.9	-5.5	-6.5
RO	-4.0	-2.9	-1.8	-5.4	-5.1	-5.6
BG		-0.6	1.7	1.5	-0.5	-0.3
EU-15	-2.4	-1.4	-1.8	-1.9**	-5.3**	-6.5**

Source: Eurostat online database.

Note: * EU Commission forecasts as of Spring 2009; ** Euro-16 area.

Legend: Annual average per cent values of Deficit/GDP and Debt/GDP ratios.

Table 1.A10 Debt (% of GDP)

	1996–1999	2000–2003	2004–2007	2008	2009*	2010*
PL	41.2	40.9	46.4	47.1	53.6	59.7
HU	65.2	55.0	63.1	73.0	80.8	82.3
CZ	14.3	25.6	29.7	29.8	33.7	37.9
SK	36.8	46.3	33.9	27.6	32.2	36.3
EE	6.3	5.3	4.3	4.8	6.8	7.8
LV	11.8	13.6	11.9	19.5	34.1	50.1
LT	17.3	22.6	18.2	15.6	22.6	31.9
SI		27.4	26.1	22.8	29.3	34.9
RO	16.2	23.8	15.0	13.6	18.2	22.7
BG	88.0	60.3	27.0	14.1	16.0	17.3
EU-15	68.4	62.5	62.6	69.3**	77.7**	83.8**

Source: Eurostat online database.

Note: * EU Commission forecasts as of Spring 2009; ** Euro-16 area.

Legend: Annual average per cent values of Deficit/GDP and Debt/GDP ratios.

Table 1.A11 Export of Goods and Services (% annual change or five year averages)

	1992–1996	1997–2001	2002–2006	2007	2008*	2009*	2010*
PL	12.2	9.7	11.0	9.1	5.8	-11.0	0.2
HU	11.7	16.3	10.9	15.9	4.6	-11.9	0.8
CZ	9.7	10.3	11.3	14.9	6.9	-11.6	0.7
SK		10.8	11.8	13.8	3.2	-10.2	0.2
EE		13.0	10.4	0.0	-1.1	-14.1	0.4
LV		5.8	9.2	10.0	-1.3	-12.9	0.5
LT		6.7	11.9	4.3	11.3	-15.1	-0.2
SI	-2.1	7.9	9.0	13.8	3.3	-11.8	-0.3
RO	10.4	10.8	11.6	7.9	19.4	-16.9	0.6
BG		5.5	9.2	5.2	2.9	-11.1	2.2
Russia				6.4	3.0	-8.0	3.0
EU**	6.8	7.9	5.2	5.0	1.6	-12.6	-0.2
US	7.4	4.2	4.9	8.4	6.3	-14.0	0.5
Japan	3.5	2.9	9.4	8.4	1.7	-18.4	1.9
China				22.2	8.5	-8.0	3.8
India				9.5	5.0	-8.5	3.1
World				6.5	3.3	-11.5	0.7

Source: Eurostat online database.

Note: * EU Commission forecasts as of Spring 2009; ** intra- and extra-EU trade.

Legend: Annual average per cent values of Deficit/GDP and Debt/GDP ratios.

Notes

1. Price liberalization also caused a period of high inflation (with huge differences between countries) in all countries.
2. The Council for Mutual Economic Assistance (CMEA) was created in 1949 by the Soviet Union, Bulgaria, Czechoslovakia, Hungary, Poland and Romania.
3. Slovenia and Slovakia joined the Euro-zone in 2007 and 2009, respectively.
4. Kornai also stated that the largest difference, with respect to previous great transformations, was the speed of the change. However, it is important to recall that there were politicians and economic experts who urged even faster changes.
5. As illustrated by the data in the Appendix, the generally huge GDP decline (and high inflation) during the early years of transition were accompanied and followed by high and (partly) persistent unemployment rates in many countries.
6. Stiglitz (1994) draws attention to the weakness of the neoclassical model of a market economy as a basis for advising transition governments on appropriate reform strategies.
7. Such as private property and business contracts, banking and financial regulation, labour market institutions, clear fiscal environment for firms, institutions dealing with competition/industrial/trade policies and, lastly, trust between economic agents and trust and honesty in public institutions.
8. This 'initial condition index' (EBRD Transition report, 1999) represents a weighted average of measures for the level of development, trade dependence on CMEA, macroeconomic disequilibria, distance to the EU, natural resources endowments, market memory and state capacity.

9. The use of ‘transitional time’ rather than usual calendar time is interesting, as it takes into account the fact that the transition process started at different times in different countries. All references in this section are only examples of a much wider literature.
10. More specific works include the following: Boeri and Terrell (2002), Brown and Earle (2004), Gabrisch and Holscher (2006), Popov (2007), Svejnar (2002).
11. For an overview of key issues on the knowledge-based economy in Central and Eastern Europe, see Radosevic (2006). For more complete references on this point, see Chapter 4.
12. This is the outcome of the empirical research presented in Chapter 3; in particular, education seems to act jointly with institutional trust and political activity.
13. The traditional factor accumulation variables and variables relating to policy choices and institutions of governance are jointly considered in the empirical study presented in Chapter 2.
14. As already recalled, the 2009 world recession was accompanied by a huge trade decline.
15. Empirically, we can observe that, in many lagging regions of Southern and Eastern Europe, there is still a large primary sector; at the same time, in some regions of Europe the tertiarization process has been continuing for decades, whereas in others the peak of industrialization has not yet been reached (see Marelli 2004, which provides more complete references about prominent studies on structural change).
16. Much other research has highlighted the role of supply and demand factors in shaping the process of structural change, with remarkable effects on the dynamics of aggregate output, employment and productivity. Baumol (1967) and Durlauf (1993) focus on the role of the technological side; Laitner (2000) presents a neoclassical multi-sector growth model; Klette and Kortum (2004) produce a multi-sector endogenous growth model; Metcalfe et al. (2006) use an evolutionary model for simultaneous consideration of demand-side factors and technological progress.
17. Jasmand and Stiller (2005) found higher productivity levels and widening gaps in the capitals (with the largest gap in Budapest, whose productivity is 80 per cent greater than the national average); many of the capital cities of transition countries already have a per capita income (measured in purchasing power parities) well above the EU-15 average.
18. According to Martin (2006), a scenario of ‘global convergence and local divergence’ arises if the international cost advantage of the poorer country is larger than the national cost advantage of the poorer region; the cost of production is the main driving cost between countries (in fact wages and labour costs still differ widely between countries), whereas market access is the main driving force of location between regions.
19. Countries with larger shadow economies normally have lower ‘regular’ employment rates (for example, Perugini and Signorelli, 2004). Average productivity levels in the ‘informal sector’ are also generally lower with respect to the formal economy, partly due to composition effects of employment – for instance, the relatively higher share of workers with lower-than-average educational attainments (for example, Boeri and Garibaldi, 2006).
20. Kornai (2006) is clear on this point:

Open unemployment was unknown in the socialist economy; the employment rate was very high, every worker could feel secure at his or her workplace.

Indeed, an inverse disequilibrium prevailed. The socialist economy created chronic shortages, including a chronic labor shortage – at least, in the more developed and industrialised Central Eastern European countries. This has come to an end. The employment rate has significantly declined and open unemployment has appeared.

21. A good survey of the empirical literature is provided by Huber (2007). A survey on regional labour market performance differentials can be found in Elhorts (2003); Ferragina and Pastore (2006) present a complete review of the theoretical literature focusing on regional unemployment and the OST (optimal speed of transition).
22. The complex links between nominal and real convergence are illustrated – and partly empirically tested for the group of EU-27 countries – in Marelli and Signorelli (2009).
23. Obviously, excluding the first years of very high inflation that followed price liberalizations (also due to initial conditions of prevailing ‘repressed inflation’ in centrally planned economy). Also in recent years, it has been difficult for many countries to abide by the inflation criterion: at the beginning of 2008, only three countries out of ten were respecting it (ECB, 2008).
24. According to De Grauwe and Schnabl (2005), who highlight the conflict between nominal and real convergence during the run-up to EMU, a real appreciation of the exchange rate may be achieved by a nominal appreciation (at least within the ± 15 per cent band allowed by the ERM-II agreements). An appreciation is required by the *Balassa-Samuelson* effect: the NMS, characterized by lower per capita income levels and consequent strong catching-up processes, will inescapably have higher *inflation* rates in the transition to EMU and in the first period after adopting the euro (because of productivity differences between sectors and high inflation in the non-tradable sector).
25. See, for example, ‘Argentina on the Danube’, *The Economist*, 19 February 2009; ‘The whiff of contagion’, *The Economist*, 26 February 2009.
26. The forecast of the European Commission (2009b) for the EU as a whole is –4 per cent.
27. Also the recent OECD (2009) forecasts confirm that the fall in real GDP will be greater in Hungary (–6.1 per cent in 2009, –2.2 per cent in 2010) than in Czech Republic (–4.2 per cent and +1.4 per cent), in Slovak Republic (–5 per cent and +3.1 per cent) and in Poland (–0.4 per cent and +0.6 per cent).
28. In the short term, this should include the possible bail-out of countries risking default; the IMF has already provided loans to many countries. For the more general EU response to the crisis, see European Commission (2009a).
29. China and India, which were already the leading powers in the world until the seventeenth century, are forecast, respectively, to outstrip or approach the US GDP by 2050 (see Cohen, 2009).

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