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Economic Growth in the Transition from Communism

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ECONOMIC GROWTH IN THE TRANSITION FROM COMMUNISM

<div align="center">

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Transition and growth

The two decades after the collapse of communism have witnessed large differences in terms of economic growth across transition countries. Figure 34.1 displays the dynamics of real GDP for central-eastern Europe (CEE) and for the Commonwealth of Independent States (CIS), during the period following the launch of market reforms, which started in 1989 in the CEE and 1991 in the CIS. Two main features stand out. First, the CEE countries have performed much better than the CIS. The initial output drop has been smaller and the recovery faster. As a result, in 2011 the level of real GDP in CEE countries was more than 80 per cent higher than before transition, whereas for the CIS the level of real GDP in 2011 was only 40 per cent above its pre-transition level. Second, both groups of countries have not performed particularly well in terms of the dynamics of real GDP vis-à-vis the rest of the world. Even though the CEE countries experienced a small loss in terms of output growth relative to the world economy, a large gap did open up for the CIS countries.

Both different initial conditions and different reform trajectories help explain these different performances. The growth performance of transition countries has been importantly affected by the initial 'transitional recession,' as defined by Kornai (1994). One might have expected that those countries initially harder hit would have displayed a steeper recovery. More generally, contrasting the experience of transition countries with that of other countries going through episodes of recession and crisis, one would have assumed that the specificity of transition would emerge in the form of a steep recovery following the output collapse, as the movement towards a market economy ought to have produced enormous efficiency gains. During the 1990s various explanations were provided for the persistence of the output decline and for the relatively poor post-recession performance (see Campos and Coricelli, 2002, for an overview). Here we focus on three main questions: (i) How did the 'transitional recession' compare with other episodes of deep recession in non-transition countries? (ii) What role did the 'transitional recession' play for the subsequent process of growth? (iii) What role did reform and liberalization policies play in transition countries, and more specifically, how important were the complementarities among reforms in terms of their impact on economic growth?
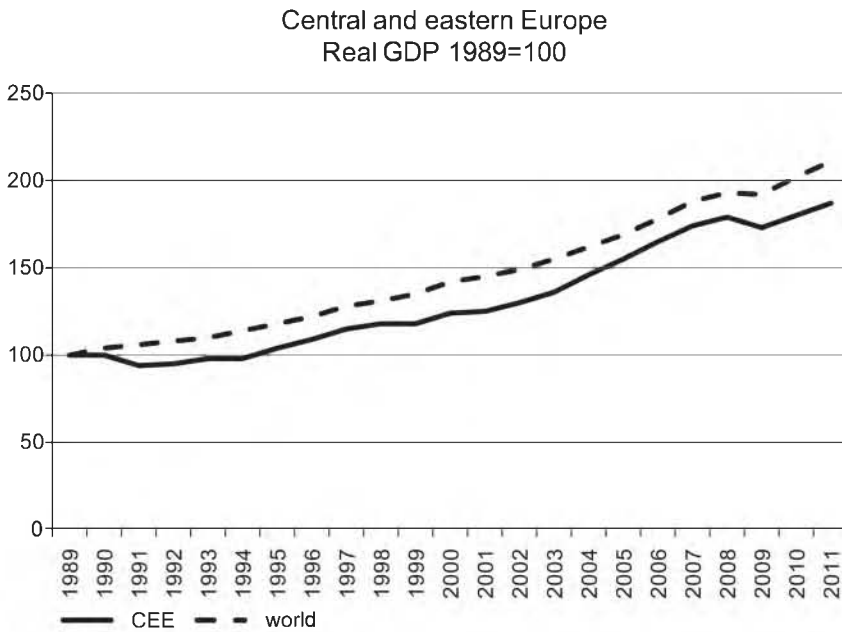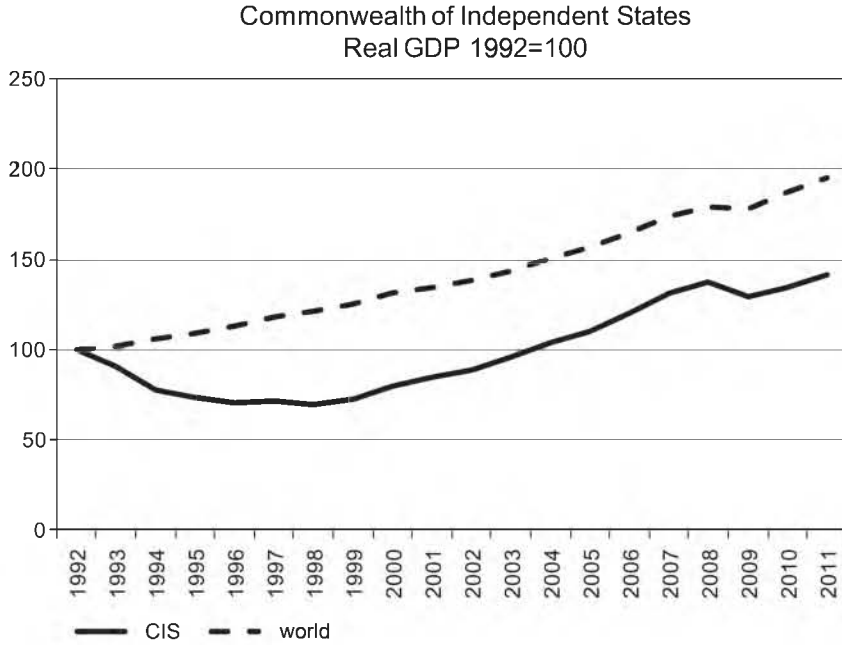
Commonwealth of Independent States
Real GDP 1992=100

Central and eastern Europe
Real GDP 1989=100

Figure 34.1 Real output during transition
Source: IMF, *World Economic Outlook Database*, June 2011.

The first question involves an assessment of the specificity of the transition experience. Is switching from a planned to a market economy radically different from, for instance, transforming a system from an agrarian economy into an industrial economy? The second question concerns the role of the initial output fall in explaining the subsequent recovery and growth. Did the depth and persistence of the initial output fall affect the characteristics of the output dynamics in the following period? The third question raises the issue of whether and to what extent the effects of structural reform policies depend on the magnitude and the pervasive nature of the initial distortions. Considering that planned economies were characterized by extreme distortions, linked to the absence of markets and the dominance of the state in the economy, should we expect that freeing the economy from these distortions would underpin a strong growth effect? Is there a role for policy complementarities in a world characterized by huge and widespread distortions?

Transition can be linked to the so-called 'unified theory of growth and development' by Parente and Prescott (2005). In this approach, growth and development go through different regimes, each characterized by institutional and policy factors which ultimately determine the growth performance of a country. The main idea is that countries can potentially exploit a 'world technology', which describes the technological frontier available in each period in history. Yet, national institutions and policies determine whether a country is capable of fully exploiting such a technological frontier. Defining a 'Malthus regime' as a regime under which output per capita stagnates, and a 'Solow regime' as the regime under which output per capita grows over time, the growth dynamics of a country can be analysed as a process characterized by a regime switch. Such switching occurs at different points in time for different countries. For this reason, a cross-section analysis would identify large differential productivity growth and productivity levels across countries. Furthermore, a time series of growth for a given country would identify structural breaks with accelerations of growth. Institutions and policies determine the timing of the regime switch and the extent to which a country is capable of moving closer to the world technology frontier. We believe transition fits rather well such a unified approach, because it is arguably the most important example of regime switch observed in the twentieth century.[1] From an empirical perspective, the transition experience accords with recent analyses of growth that emphasize the relevance of distinguishing periods of positive growth and periods of recession.

Transitional recession in a comparative perspective

Transitional recession is defined as the output fall that occurred after the launch of policies of liberalization and market reforms in formerly planned economies. The starting dates of transition differ across countries, with CEE countries launching their reform programmes during 1990–91, and the CIS countries launching such programmes after 1992. An additional complication for the cross-country comparison is that in the former Soviet Union, output began to fall before transition, namely with the start of *perestroika*. In Table 34.1 the recessions experienced by transition countries can be seen in a comparative perspective, over the whole period from 1960 to 2001.[2]

It is indeed remarkable that the cumulative decline for transition countries is by far the largest in the whole sample. Note that this is an average cumulative decline and thus it is affected by the milder drop in CEE. If we separate the CIS from CEE, we obtain even sharper results. Therefore, the first observation is that the 'transitional recession' is unique in its magnitude during the last half century. Furthermore, the duration indicates that the 'transitional recession' has also been the more persistent recession in a comparative perspective.

Table 34.1 Characteristics of recessions around the world (1960–2001)

Type/characteristics	Cumulative loss of GDP	Duration (years)	Number of observations
All country episodes	−7.5	1.62	637
Low income	−7.1	1.58	259
Low-middle income	−10	1.84	163
Upper-middle income	−8.6	1.67	97
High income	−4.1	1.38	118
Crisis	−6.8	1.64	182
Banking crisis	−11.7	2.19	104
Trade liberalization	−7.6	1.79	141
New government	−12.8	2.08	74
Civil wars	−17.4	2.42	60
Financial liberalization	−3.1	1.23	43
International capital flows	−3.6	1.32	53
Partial financial liberalization	−5.6	1.58	24
Partial capital liberalization	−6.0	1.53	43
Africa	−6.6	1.52	243
Asia	−6.0	1.39	93
Industrial country	−2.2	1.38	74
Latin America	−6.0	1.55	74
Middle East	−11.1	1.40	47
CIS[a]	−35.6	4.56	18
CEEs[a]	−19.3	2.88	16

Source: Cerra and Saxena (2008).
Note: a Authors' calculations.

The second observation is that the magnitude of the output decline in transition is comparable – actually deeper – than that observed during episodes of civil war in the rest of the world. The difference between CEE and the CIS countries has been huge: the average cumulative loss of GDP from peak-to-trough during the transitional recession in the CIS countries has been 35.6 per cent, and lasted 4.56 years, while in CEE it has been 19.3 per cent and lasted 2.88 years. It took the CIS countries an average of 10 years to return to their pre-recession output levels, while 3 years is the comparable figure for the CEE countries.[3]

Table 34.2 summarize econometric evidence on the effects of recessions on the immediate post-recession growth. It shows, by running two separate regressions for the period 1961–92 and for the period 1992–2007, that the magnitude of such negative effects is larger (or has significantly increased) in the later, more recent period. One reason may be the presence of transition recessions in the sample. This can be verified by including an interaction term for transition countries. Such an interaction term has indeed a significant negative sign, and although the estimated coefficients are still different before and after 1992, the difference is much smaller than in the regression without the transition countries dummy variable. This suggests that transition countries account for a substantial share of the increase in the negative effect of recessions found in the post-1992 period. These results further imply that recessions in transition countries have a strong negative and long-lasting effect on post-recession growth rates, pointing towards relatively shallow, if any, creative destruction in transition countries.

Table 34.2 Strength of recoveries before and after 1992

	Authors' calculations				Cerra and Saxena (2008, Table 3, page 26)	
	62–92	92–07	62–92	92–07	62–89	90–01
Dummy trough lagged	-0.375★	-1.017★★★	-0.380★	-0.601★	-0.39★★	-1.2★★★
Trough$_{i,t-1}$	(0.240)	(0.313)	(0.243)	(0.855)	(-2.0)[a]	(-9.2)[a]
Trough$_{i,t-1}$★ transition			0.220 (1.549)	-2.618★★★ (0.855)		
Number of observations	3348	2366	3348	2366	3033	1714

Notes: ★Significance at the 10%; ★★significance at the 5%; ★★★significance at the 1%.

Theoretical explanations

What are the main reasons that have been identified for this process? The theoretical literature on transition can be divided in two groups, one focusing on the initial fall in output, the other on medium- and long-term issues. The short time span that covers the experience of transition from a planned to a market economy makes it difficult for the analysis of economic growth to neglect the initial sharp, and largely unexpected, fall in output. Moreover, in some instances the initial collapse translated into a long and persistent depression.

Following the collapse of output, a lively debate started on its causes. Several observers claimed that such a collapse could be simply explained as a Keynesian recession, driven by a fall in consumer demand. Others argued that the fall in output could not be described as a simple Keynesian recession, as the timing and the magnitude of the collapse suggested a different interpretation, based on the concept of 'trade implosion'.[4] The phenomenon of 'trade implosion' can be ascribed to the break-up of the old system of coordination of production and exchange. The absence of market institutions implied that the old mechanisms of production and trade could not be quickly replaced by new well-functioning mechanisms. Kornai (1994) defined the output fall as a 'transformational' recession. This view appears relevant for a longer run perspective, as it pointed out the risks of a prolonged period of recession, or low-output equilibrium.

The sharp and unexpected fall in output is a puzzle for economic theory. Liberalization of prices, dismantling of trade barriers and the elimination of pervasive state intervention in economic activity, should have brought large efficiency gains. Within the literature on the initial output collapse, two main contributions stand out. One underlines the role of credit markets, the other the role of the so-called disorganization.

In a planned economy, the artificial structure of production and trade imposed by the planning system made credit markets, and to some extent even money itself, irrelevant, at least in connection with the enterprise sector. The dismantling of the planning system implied that production and trade were not only decentralized but that they would have to be carried out through monetary or credit arrangements. Development of credit markets takes time. The availability of cash for transactions by enterprises was constrained by official credit, given that firms initially lacked financial savings since these had been illegal in most centrally planned economies. Calvo and Coricelli (1993) single out credit markets as a fundamental institution missing in the former centrally planned economies. The collapse of CMEA trade can also be

seen as an example, related to the abandonment of an old mechanism of trade and netting out of payments, without the substitution with a private credit market. The imposition of tight financial policies at the time of price liberalization likely determined a situation of credit crunch for enterprises. The contraction of central bank credit resulted in a contraction in the overall credit supply to the economy, as private credit markets could not develop overnight.

Liquidity shortages can in principle explain a temporary fall in output. Over time, firms can accumulate monetary balances and converge to the optimal level of output that would have been reached in the presence of perfect credit markets. Accordingly, the behaviour of output would follow a U-shaped pattern. An implication of this view is that the output decline should be accompanied by a decline in productivity. Moreover, real wages would drop as well, as enterprises attempted to generate liquidity to purchase inputs.

An alternative channel that shares some of the main elements of the above view is the so-called phenomenon of disorganization (Blanchard and Kremer, 1997). Disorganization is defined as the breakdown of economic relations of the old regime, relations that cannot be replaced overnight by new ones. The main concept underlying this view is 'specificity' in economic relations between firms. The period of central planning was one of extreme specificity, as firms were locked into relationships with a small number of firms, in many cases only one firm. Firms did not need to accumulate any information on other firms and in particular had no information on their customers' ability and willingness to pay. A high degree of specificity implies the presence of monopoly rents. Production chains link firms to several suppliers, depending on the degree of complexity of production. Higher complexity implies a larger number of inputs.

Under a decentralized system, prices are set through a bargaining process. Customer firms, generally state enterprises at the start of reforms, make an offer price to their suppliers. If such a price is below the reservation price of the supplier (e.g. the outside option for the supplier), the latter does not provide inputs to the state firm and thus output falls. Assuming strong complementarities in production, even the lack of one input implies the impossibility to produce. The reason for inefficient bargaining is that the reservation price is private information of the supplier.

An implication of the model is that the larger is the number of inputs, thus the higher is the degree of complexity of production, the larger will be the output fall. One could therefore expect that the output fall would be more pronounced in highly industrialized economies. This may be a reason for the different performance in output of highly industrialized countries of the former Soviet Union as against mostly agrarian economies such as that of China. Another implication would be that output decline would be worse in countries that started reforms from a more rigid system of central planning. In countries in which firms had already experienced decentralized mechanisms of bargaining, output decisions and even price setting, the adverse effects of inefficient bargaining are expected to be less acute.

Looking beyond the initial output fall, a popular view of transition describes output dynamics along a path determined by the sectoral reallocation of resources. As resources move out of the old state firms into the private sector, productivity increases. If there are adjustment costs, or other imperfections such as search costs, aggregate output is likely to drop initially and increase afterwards, when the private sector has reached a sufficient size. Accordingly, output follows a U-shaped path. The initial contraction in output is reminiscent of a phenomenon of Schumpeterian 'creative destruction'. Inefficient firms are weeded out, leaving room for the expansion of new, more efficient firms. A clear signal of such a Schumpeterian process would be the increase in productivity accompanying the initial decline in output: evidence shows that in the initial phase there was little dynamics in terms of job flows, thus indicating that Schumpeterian

forces were slow to operate. At first sight, it would appear optimal to make the process of transition as fast as possible, by shortening the initial period of decline in output. However, if one takes into account possible adverse feedbacks, such as fiscal costs of the initial fall in output, or congestion effects in the labour market due to high unemployment, the normative implications of such views are less obvious. These reasons support the emergence of an important literature on the optimal speed of transition.

Perhaps, the most influential work in this area is Aghion and Blanchard (1994). They develop a two-sector search model, in which workers displaced from old state firms search for jobs in the new private sector. Job creation in the private sector is a function of profits, current and expected, which in turn depend on wages. The endogenous mechanism of job creation works through an efficiency wage model, in which the rate of unemployment, by reducing wages, stimulates the creation of jobs in the private sector. The shrinking of the state sector is considered a policy variable. Without macroeconomic feedbacks, the best policy would naturally be to shrink the state sector as fast as possible. However, job creation in the private sector depends on net profits, hence on tax rates paid by private firms. Given that the state pays for unemployment benefits out of its budget, the higher is unemployment, the higher would be the tax rate for private firms, not only because the needed public expenditure would be higher, but also because the tax revenue collected from state firms would be lower (as the state sector shrinks). This adverse fiscal effect counteracts the potential positive effect of unemployment on job creation in the private sector. As a result, there is the risk that too fast a speed of transition, i.e. an excessively rapid shrinking of the state sector, would derail the transition process, leading to an equilibrium with persistent high unemployment. By moderating the contraction of the state sector, the economy could achieve a successful shift of resources to the private sector that will ultimately absorb all workers in the economy.

Although relevant for a normative analysis of the speed of transition and for the role of unemployment, the basic model is less suited for the analysis of the growth process in transition economies. It implies a constant difference between productivity in state and private firms. In addition, the assumption of an exogenous decline of state firms discounts the important interaction between the increase of new private firms and the endogenous shrinking of the state sector.

Growth after the transitional recession

Campos and Coricelli (2002) provide, in the form of a list of stylized facts, a succinct summary of the economic growth performance in the first years of the transition. They claim that the unexpected and severe falls in per capita output were accompanied by both positive and negative events. Specifically on the latter, there was the collapse of the institutional framework, the emergence of significant costs (e.g. poverty), and capital stocks depreciated rapidly. On the positive side, the first years were marked by massive trade reorientation (unsurprisingly in light of the collapse of the Soviet Union) and radical structural change, with rapid increases in the share of services in GDP. A final element is that labour mobility was intense both during the transitional recession and in the subsequent positive growth years, but of a somehow different nature (Campos and Dabu–šinskas, 2009). During the recession, labour did not move in the most obvious way, that is, geographically, yet labour mobility can be seen in that workers moved from 'full employment' in the late 1980s to inactivity or high unemployment at the end of the 1990s, from the state sector to the private sector (this is particularly true in the CEE countries); and in that workers have changed their occupations on an unprecedented scale. Underpinning the positive years of growth one finds the renewal of the process of accumulation of physical capital (with foreign direct

investment playing a truly crucial role in many transition countries) and the gradual building up of institutional structures supportive of a vibrant market economy (rule of law, effective state bureaucracy, judicial systems, etc.). Yet one issue that has played a substantial role in growth terms is how structural reforms were chosen and actually implemented.

Reforms and growth

One of the most heated debates of the last two decades has been on the macroeconomic implications of structural reforms, or more specifically, on the economic growth pay-offs one should observe from the implementation of such reforms. Since the late 1980s, a large number of reform programmes were implemented across the world, with varying degrees of success. The reasons underlying this variation are still largely unknown and raise a number of questions. The transition experience provides an excellent setting to study such issues and unsurprisingly there is a large body of econometric evidence on the impact of structural reforms on economic growth in the transition economies. Babetskii and Campos (2011) put together a data set on more than 500 estimates of the effect of reforms on growth (from 46 studies) separated according to their effects: cumulative (or long term) and contemporaneous (or short run). They find a large variation across these different estimates, with the short-run effect tending to be negative, while the long-run effect tends to be positive. In addition to different types of reform effects, these authors use a general-to-specific modelling strategy to try to get at the reasons for the variation in the effect of structural reform on economic growth, taking into account both publication bias and perceived differences in the quality of the estimates/papers.

The main finding is that accounting for institutions and initial conditions are two major factors in decreasing the probability of reporting significant and positive effects of reform on growth, while focusing solely on trade liberalization significantly increases this probability. Note that initial conditions closely relate to a country's capacity to reap the potential benefits from (chiefly European) integration. Other noteworthy results include the observation that more influential papers (measured either by a dummy variable on whether it was published in a refereed journal or by Google Scholar citations), papers that do not use country-specific dummy variables (fixed effects) and with fewer degrees of freedom, tend to report smaller (or more negative) effects of reform on growth. They also find interesting differences among the variables that explain the variation in the long-run or cumulative vis-à-vis those for the contemporaneous or short-run effects. In particular, reform in terms of external liberalization still plays a significant yet not as prominent a role in the short-run as it does in the long-run case. The results suggest that this is because in the former the impact of macroeconomic stabilization seems to dominate.

The breadth of reforms that are needed to move from a planned to a market economy is undoubtedly much larger than any other experience of reforms in market economies. In this respect, transition has been a unique experience, as reforms had to be implemented in all economic and institutional areas typical of a market economy. Braga de Macedo and Oliveira-Martins (2008) constructed a coherence index of reforms based on the EBRD reform indicators. Their index captures the degree of co-movement in the various types of reforms. They find that the index has a positive effect on growth, controlling for the effect of the overall level of reform. Arguably more importantly, in addition to the effect of the extent of reforms, the implementation of reforms in areas that are likely to be complementary has a positive effect on growth, which in our view helps throw new light on the above mentioned growth differences between the CEE and the CIS countries and, to a lesser extent, between transition and the rest of the world (Coricelli and Maurel, 2011).

Concluding remarks

In this chapter we have analysed the growth experience in the first 20 years of transition from a comparative perspective. We followed the lead of recent theoretical and empirical analysis of growth and development and considered growth in transition in a unified framework including the initial transitional recession, the subsequent recovery and growth and the subsequent episodes of crisis experienced by transition countries. The empirical evidence reviewed suggests that in terms of growth, transition has been disappointing in the CIS countries, whereas it has produced more encouraging effects in CEE countries. We tried to link such results to the different reform paths followed by the two groups of countries. We conjectured that the still incomplete reform process, the piecemeal approach followed by the CIS countries, might be one of the explanations for the relatively poor results in terms of growth by the CIS countries in the first 20 years of transition (Campos and Coricelli, 2011).

From a methodological point of view, three main findings emerged. First, the comparative perspective provides useful information on the specific features of transition countries. Analyses based on samples composed solely of transition countries neglect potentially useful information and can thus be misleading. Second, analyses based on average rates of growth, as is typically done in the literature, may also produce misleading results, as the role of initial conditions and policies may vary significantly depending on whether countries are in periods of deep recession, periods of recovery or period of sustained growth. Finally, the impact of reforms crucially depends on the complementarity of reforms. Reform complementarity has an impact on output performance mainly through the depth and length of recessions, rather than the rebound of the economy following recessions.

Notes

1 It is remarkable that the model advanced by Parente and Prescott (2005) is very close in spirit to the models of transition proposed at the start of transition such as Aghion and Blanchard (1994) and, per-haps even more, Chadha and Coricelli (1997).
2 This section draws on Coricelli and Maurel (2011).
3 It is worth noting here that in the early transition years, measuring GDP for the transition economies was quite a challenging task, not least because these countries had formerly used the MPS system of national accounts rather than the standard UN–SNA system.
4 In the transition literature the term was first introduced by Calvo and Coricelli (1993).

References

Aghion, Philippe and Blanchard, Olivier (1994), 'On the Speed of Transition in Central Europe', in Fisher, Stanley and Rotemberg, Julio (eds), *NBER Macroeconomics Annual*, Cambridge, MA: MIT Press, pp. 283–320.
Babetskii, Jan and Campos, Nauro F. (2011), 'Does Reform Work? An Econometric Examination of the Reform-Growth Puzzle', *Journal of Comparative Economics*, vol. 39(2), pp. 140–58.
Blanchard, Olivier and Kremer, Michael (1997), 'Disorganization,' *Quarterly Journal of Economics,* vol. 112(4), pp. 1091–1126.
Braga De Macedo, Jorge and Oliveira-Martins, Joaquim (2008), 'Growth, Reform Indicators and Policy Complementarities,' *Economics of Transition*, vol. 16(2), pp. 141–64.
Calvo, Guillermo and Coricelli, Fabrizio (1993), 'Output Collapse in Eastern Europe: The Role of Credit', *IMF Staff Papers,* vol. 40(1), pp. 32–52.
Campos, Nauro F. and Coricelli, Fabrizio (2002), 'Growth in Transition: What We Know, What We Don't, and What We Should', *Journal of Economic Literature*, vol. XL, pp. 793–836.
——(2011), 'Financial Liberalization and Reversals: Political and Economic Determinants,' Brunel University and PSE, mimeo

Campos, Nauro F. and Dabušinskas, Aurelijus (2009), 'So Many Rocket Scientists, So Few Marketing Clerks: Estimating the Effects of Economic Reform on Occupational Mobility in Estonia,' *European Journal of Political Economy,* vol. 25(1), pp. 261–75.

Campos, Nauro F. and Kinoshita, Yuko (2010), 'Financial Liberalization, Foreign Direct Investment and Structural Reforms,' *IMF Staff Papers*, vol. 57(2), pp. 326–65.

Cerra, Valerie and Chaman Saxena, Sweta (2008), 'Growth Dynamics: The Myth of Economic Recovery', *American Economic Review*, vol. 98(1), pp. 439–57.

Chadha, Bankhim and Coricelli, Fabrizio (1997), 'Fiscal Constraint and the Speed of Transition', *Journal of Development Economics*, vol. 52(1), pp. 219–47.

Coricelli, Fabrizio and Maurel, Mathilde (2011), 'Growth and Crisis in Transition: A Comparative Perspective,' *Review of International Economics*, vol. 19(1), pp. 49–64.

Kornai, János (1994), 'Transformational recession: The main causes', *Journal of Comparative Economics*, vol. 19(3), pp. 39–63.

Parente, Stephen L. and Prescott, Edward C. (2005), 'A Unified Theory of the Evolution of International Income Levels,' in Aghion, Philippe and Durlauf, Steven (eds), *Handbook of Economic Growth*, London: Elsevier, pp. 1371–1416.