WHY SHOCK THERAPY MAY LEAD TO WORSE PERFORMANCE THAN GRADUAL TRANSITION

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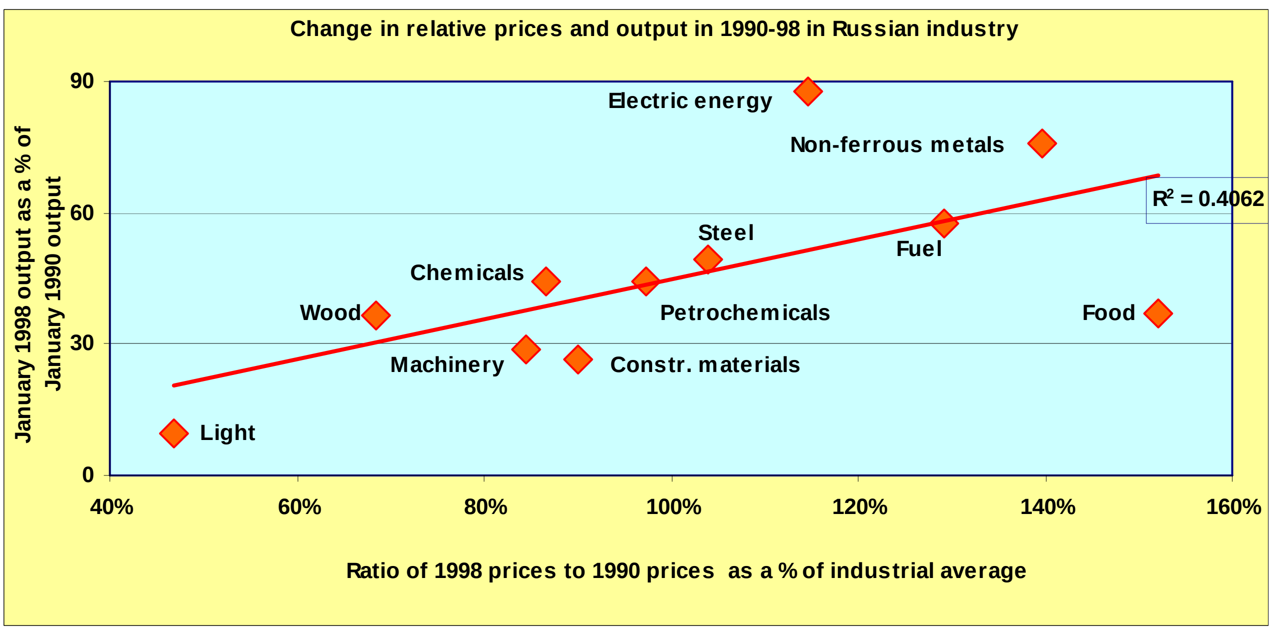
Among many explanations for the transformational recession that occurred in the 1990s in most transition economies there is one that hardly anyone can deny: an adverse supply shock caused by the change in relative prices. The evidence for all transition economies is that the reduction of output by country is well explained by the indicator of distortions in industrial structure and trade patterns (it remains statistically significant no matter what control variables are added). The magnitude of distortions, in turn, determines the change in relative prices, when they are deregulated. The evidence for Russia is at the chart below: industries with the greatest adverse supply shock (deteriorating terms of trade – relative price ratios for outputs and inputs), such as light industry, experienced the largest reduction of output. Such an explanation is simple and straightforward, yet somehow it is not discussed much in the literature.



Consider a country where deregulation of prices (or elimination of trade tariffs/subsidies) leads to a change in relative price ratios and thus produces an adverse supply shock for at least some industries. Capital should be reallocated from industries facing declining relative prices and profitability to industries with rising relative prices. Assume that 50% of the total output is concentrated in non-competitive industries: this whole sector should disappear either gradually or at once depending on how fast relative prices will change; capital is not homogeneous and cannot be moved to the competitive sector, whereas labor can be reallocated to the competitive sector without costs.

If prices are liberalized instantly, then non-competitive sector becomes unprofitable and output falls immediately by 50%; later savings for investment are generated only by the competitive sector, so it takes a number of years to reach the pre-recession level of output. If reforms are carried out slowly (gradual price deregulation or elimination of tariffs/subsidies), so that every year output in the non-competitive sector falls by, say, 10%, this fall could be largely compensated by the increase in output in the competitive sector. The best trajectory, of course, is the one with such a speed of deregulation that leads to the reduction of output in the non-competitive sector at a natural rate, i.e. as its fixed capital stock retires in the absence of new investment.

The example illustrates that there is a limit to the speed of reallocating capital from non-competitive to competitive industries, which is determined basically by the net investment/GDP ratio (gross investment minus retirement of capital stock in the competitive industries, since in non-competitive industries the retiring capital stock should not be replaced anyway). It is not reasonable to wipe away output in non-competitive industries faster than capital is being transferred to more efficient industries.

Market type reforms in many post-communist economies created exactly this kind of a bottleneck. Countries that followed shock therapy path found themselves in a supply-side recession that is likely to become a textbook example: an excessive speed of change in relative prices required the magnitude of restructuring that was simply non-achievable with the limited pool of investment. Up to half of their economies was made non-competitive overnight due to the change in relative prices after deregulation. Output in these non-competitive industries was falling for several years and fell in some cases to virtually zero, whereas the growth of output in competitive industries was constrained, among other factors, by the limited investment potential and was not strong enough to compensate for the output loss in the inefficient sectors.

Hence, at least one general conclusion from the study of the experience of transition economies appears to be relevant for the reform process in all countries: *provided that reforms create a need for restructuring (reallocation of resources), the speed of reforms should be such that the magnitude of required restructuring does not exceed the investment potential of the economy*. In short, the speed of adjustment and restructuring in every economy is limited, if only due to the limited investment potential needed to reallocate capital stock. This is the main rationale for gradual, rather than instant, phasing out of tariff and non-tariff barriers, of subsidies and other forms of government support of particular sectors (it took nearly 10 years for the European Economic Community and for NAFTA to abolish tariffs).

Empirical evidence for such an explanation seems to be very persuasive. The collapse of output during transition can be best explained as adverse supply shock caused mostly by a change in relative prices after their deregulation due to distortions in industrial structure and trade patterns accumulated during the period of central planning (additional adverse supply shock came from the collapse of state institutions), while the speed of liberalization, to the extent it was endogenous, i.e. determined by political economy factors, had an adverse effect on performance. In contrast, at the recovery stage the ongoing liberalization starts to affect growth positively, whereas the impact of pre-transition distortions disappears. Institutional capacity and reasonable macroeconomic policy, however, continue to be important prerequisites for successful performance.

Not surprisingly, in 2004-2005 the list of countries that exceeded the pre-recession level of output in 1989 included a lot of procrastinators in terms of economic liberalization: in addition to 5 central European countries and Estonia, there were also Turkmenistan, Uzbekistan, Belarus and Kazakhstan, not to speak about China and Vietnam.

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Fig. 1. GDP in 2004 as a % of 1989

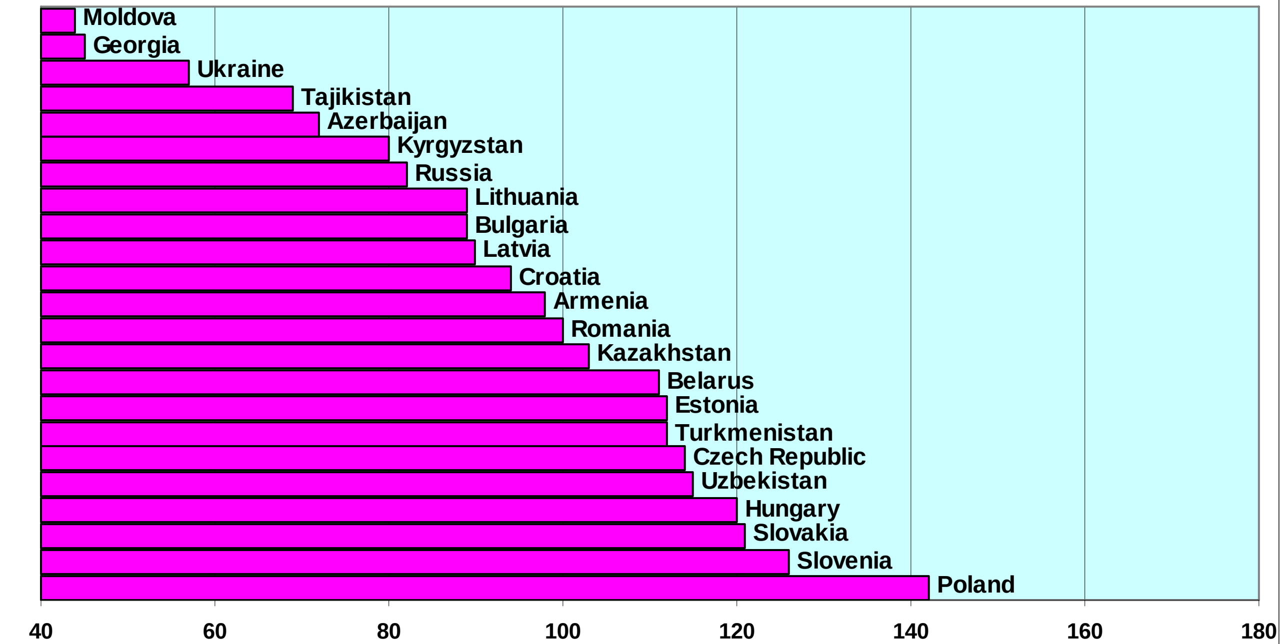

Fig. 2. GDP change in FSU economies, 1989 = 100%