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# How I Learned to Stop Worrying and Love the Crisis<sup>\*</sup>

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## Abstract

We investigate the effects of economic crises on the subsequent economic performance, economic reform, democratization and institutional change. Our analysis is based on a sample of post-communist countries, most of which experienced severe economic crises during the 1990s. We find that the severity of crisis has had a positive impact on the subsequent pace of economic reform, economic growth and, with a delay, on investment and institutional change. Episode of high inflation, moreover, translate into lower subsequent inflation. Crises thus appear to serve as catalysts of reform and institutional change and lead to better long-term economic performance.

Keywords: crisis, transition, growth, inflation, reform, institutions.

JEL Codes: O11, O47, P27

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eventually lead to (attempted) systemic reforms in the early 1990s. There was, however, substantial variation in terms of reforms implemented and their outcomes. Some countries implemented ambitious reforms early on and, in a space of a few years, managed to put in place Western-style democratic regimes and market-economy system. Others muddled through, reversed previously implemented reforms and/or suffered state capture by interest groups. In terms of growth, countries such as Poland, Czech Republic but also Uzbekistan experienced relatively mild recessions and started recovering after 2-5 years. Other post-communist countries saw th

macroeconomic variables, except for unemployment rates which we obtained from the EBRD Transition Reports (various issues). We use the average Freedom House democracy index<sup>3</sup>

political and institutional transitions. Finally, we code whether countries were engaged in military conflict (external or internal) based on the Correlates of War (2010) dataset.

### 3 Long-term Effect of Crises

As the first step in our analysis, we need

column (1). However, when we include both output fall and GDP per person side by side in column (3), only output fall remains significant while GDP per capita now has no effect on reform. In column (4), we add lagged inflation (in logs to reduce the influence of episodes of extremely high inflation). Its effect is positive and significant: a recent experience of high inflation helps accelerate reforms. Yet, the effect of output fall remains strongly significant and essentially unchanged. Finally, the last column introduces quadratic polynomial of the time that elapsed since the end of crisis: on its own and interacted with output fall.<sup>5</sup> The quadratic time trend can potentially capture the time-specific profile of reform while the interaction term between time and output fall will show whether the effect of crises on subsequent reform strengthens or diminishes over time. None of these variables are significant: the effect of crises on reform does not vary over time.

Next, in Table 2, we consider the effect of crises on the disaggregated EBRD sub-indexes. These regressions replicate column (4) of Table 1, except the dependent variable and the lagged index of reform now is the sub-index denoted in the heading of each column. The results are remarkably consistent across the eight sub-indexes and are similar to those obtained with the average index: lagged sub-index of reform has a negative effect, lagged democracy has a positive effect and output fall again displays a positive and strongly significant effect on subsequent progress in reform. Hence, having experienced a crisis in the past stimulates progress across all aspects of the reform program. While the coefficients estimated for the various sub-indexes are quite similar to each other (and to that reported in column 4 of Table 1), the crisis effect is particularly pronounced for removal of price controls, liberalization of foreign trade and small-scale privatization.

So far, we have shown that having experienced a crisis fosters economic reform. Inasmuch as economic reform improves economic policy making, the legacy of past crisis should, indirectly, improve economic performance too. We now turn, in Table 3, to investigating whether crises affect economic performance also directly. The dependent variable is the growth rate of per-capita GDP. Each regression controls again for lagged reform index, to account for the possible indirect effect. We also control for investment to GDP ratio and involvement in military conflicts. Reform progress, as expected, has a positive coefficient: countries that have implemented more ambitious reform are rewarded by faster growth. Somewhat surprisingly, investment is never significant. Military conflicts impose a heavy penalty on economic performance. Past output contraction translates into faster subsequent growth. This effect is again robust to controlling for economic convergence by including lagged GDP per person (which appears with negative coefficient, as is standard in the growth literature, but is not significant when included alongside output fall, see columns 2 and 3) and inflation (which lowers growth, see column 4). Finally, in column (5), we again introduce the quadratic polynomial of time since end of crisis and its interactions with output fall. The quadratic time trend is not significant but the interaction terms are. Specifically, we observe an inverted U-shaped pattern: the positive effect of the crisis initially strengthens but eventually declines again.<sup>6</sup>

In Tables 4 and 5, we consider the effect of output fall on investment to GDP ratio and the ratio of inward FDI to GDP. I

bringing in additional capital into the country, can also be associated with important technological spillovers. The regressions follow similar

an index of the overall cumulative price increase since 1989 (i.e. value of 2 corresponds to a doubling of the price level, 10 implies a ten-fold increase in prices, etc.). Once inflation has been stabilized, the index stays at the level attained at the time of stabilization. We define







Table 2

Table 3 Output Fall and Economic Growth

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Dependent variable:	GDP p.c. growth rate				
	(1)	(2)	(3)	(4)	(5)

## Table 4 Output Fall and Investment

Table 5 Output Fall and Foreign Direct Investment Inflow

Dependent variable:	Foreign Direct Investment				
	(1)	(2)	(3)	(4)	(5)
Lagged EBRD index	5.266 (1.778)**	0.418 (1.650)	5.840 (2.229)**	3.409 (2.758)	2.243 (3.249)
War	11.273 (4.439)*	17.804 (4.487)**	13.285 (4.607)**	14.052 (4.952)**	14.632 (5.215)**
Lagged outputfall	-0.456 (0.123)**		-0.523 (0.147)**	-0.527 (0.154)**	-0.581 (0.162)**
Lagged gdp p.c.		0.721	-0.023	-0.096	-0.944

Table 6 Output Table 6

Table 7 Output Fall and Democratization

Dependent variable:	Democracy (first difference)				
	(1)	(2)	(3)	(4)	(5)
Lagged democracy	-0.343 (0.021)**	-0.376 (0.022)**	-0.358 (0.022)**	-0.366 (0.024)**	-0.373 (0.025)**
Lagged output fall	-0.005				



Table 8 Output Fall and Quality of institutions

Table 9 Cumulative Inflation and Subsequent Inflation

		Inflation	
	(1)	(2)	(3)
Lagged EBRD index	55.355	234.517	231.533