Privatization's Unequal Toll: Explaining Cross-Country Variation in Mortality and Health Outcomes After Transition From Comunism

Introduction

The collapse of communism in Central and Eastern Europe as well as in the former Soviet Union in the late 1980s and early 1990s marked a significant turning point in global political and economic history. The complexity of carrying out political, territorial, and economic reforms simultaneously is often termed the "dilemma of synchronicity" [1]. A cornerstone of this economic paradigm shift was privatization, which entailed the replacement of planned economies with free-market principles. That process was expected to lead to increased efficiency, economic growth, and improved living standards. However, the outcomes of this transition have been far from uniform across countries, with some nations experiencing significant improvements in health and mortality rates, while others have faced deteriorating conditions [2].

This paper draws on ...

Relevant Literature

Transition Types

The widespread institutional collapse across Central and Eastern Europe and the Former Soviet Union in the late 1980s led to an imperative for simultaneous political, territorial, and economic restructuring. Within the academic field of transitology, literature seeks to define and categorize these complex processes in various ways [3]. Probably the most commonly referenced typology of transformation processes [3] of Samuel Huntington divides countries into three categories based on the nature of their reforms [4]:

- "transformation" (e.g., Soviet Union, Bulgaria, Hungary) - when reformators group is originated in government elites,
- "transplacement" (e.g., Czechoslovakia, Poland) - when the reforms are imposed by

both government elites and opposition forces, as it happened during the round table talks,

- ”replacement” (e.g., East Germany, Romania) - when oposition has a significant role in reforms.

These categories reflect the degree of domestic consensus and external pressure influencing the reform processes. It is also worth mentioning that both power camp and oposition are divided, government into reformators and ”hard-headed”, oposition into moderates and radicals. In case of other classifications, they mostly match the above-mentioned typology, sometimes however some differences in countries grouping can be observed. Sometimes, a separate category is being created for countries created from multi-national states, like Czechoslovakia or Yugoslavia, due to merged effect of divisions on the level of top leadership and the nationalistic pressure from below. [5]. Worth to mention is also the division proposed by Herbert Kitschelt due to underlining group of countries where preemptive reforms were the idea. Examples are Soviet Union Gorbachev's initial innovations, as well as the regime changes in Bulgaria, Romania etc. [6].

Economic Transformation and the Privatization Debate

Privatization was universally deemed a central component of the economic transformation, necessary to replace the inefficient command economy with market principles [7] [8]. The public debate was dominated by a dichotomy regarding the pace and method of implementation betwen two camps:

- Neoliberal advisors - who championed ”shock therapy”, advocating for the rapid and simultaneous implementation of price and trade liberalization, stabilization, and mass privatization [9]. This approach was intended to create an irreversible shift to the market.

- Critics - often described as gradualist economists or neo-institutionalists, argued that hasty reform damaged the state and favored a slower process to allow sufficient time for essential governing institutions (e.g., corporate law, capital markets) to develop [10] [11].

Talking about the specific privatisation methods chosen across the Central and Eastern Europe and the Former Soviet Union, they yielded varied results and attracted distinct academic critiques:

- Mass (Voucher) Privatization: While the econometric results suggest that mass privatization, overall, had a significant positive effect on growth after the initial recession (after 1995) [12], its implementation, particularly in the Czech Republic, was criticized for leading to "budgetary crises and unleashing inflation at the macroeconomic level" [13].

- Insider Privatization: Models that favored management and employees (e.g., Russian Federation and Ukraine) led to "insider dominance" and were generally less effective at restructuring than market methods [12] [14]. This approach was associated with political continuity and was mostly retricted especially in the Czech Republic and Hungary, but also to a lesser extent in Poland, where hard political transition had weakened the political positions of former communist managers [15].

- Corruption and Fiscal Shock: The literature confirms that the transition created new incentives for corruption due to the massive transfer of property, coupled with weak states and underdeveloped civil societies [16] [17] [18]. Research shows that privatization's general growth effect hinges on the quality of the institutional setting, often proxied by the level of corruption [19]. Furthermore, the implementation of mass privatization programs is empirically demonstrated to have created a massive fiscal shock for post-communist governments, which undermined state capacity and protection of property rights, thereby exacerbating the recession [9].

The general dissatisfaction with the privatization process stemmed from the realisation of the process and its outcomes, rather than opposition to private property itself [20]. The popular demand for revising privatization was strongly correlated with individuals who experienced hardships during the transition, such as wage cuts, unemployment, or poor self-rated health.

Mortality and Health Outcomes

The political and economic upheaval led to a severe post-socialist mortality crisis between 1989 and 1995, resulting in an estimated 10 million excess deaths between 1990 and 2000 [21]. However, different countries experienced divergent trajectories in health outcomes:

- Severe Crisis: FSU states, including Russian Federation, Ukraine, and Belarus, experienced dramatic and prolonged mortality reversals [22]. Russian Federationn male life expectancy, for example, dropped by 6.6 years between 1989 and 1994, reaching a level three years below that of India, which was then a poor agrarian economy [23]. The death toll in post-Soviet states reached an estimated 7 million premature deaths, with 4 million in Russian Federation alone [24].

- Rapid Recovery: Central European countries, such as the Czech Republic and Poland, were the first former Communist countries to see a "rapid and sustained increase in life expectancy" after 1991 [25].

To understand what drove these demographic shifts, it is necessary to analyze the direct causes of death. Accorging to literature, the immediate cause during the crisis was primarily "violent mortality" including ischemic cardiovascular diseases, circulatory problems, external causes (accidents, suicide), and alcohol poisoning, particularly among working-age men [21] [24].

This surge was especially pronounced among 20–39 year olds, who were affected mostly by external causes of death, and 40–59 year olds, who were mainly hit by a rise in cardiovas-

cular deaths [23]. In Russian Federation, specifically, the fastest relative upswing in mortality was recorded for the 20–39 age group, while the fastest absolute rise occurred among 40–59 year olds. The fact that almost four fifths of the Russian rise in age-standardized death rates between 1980 and 2006 is due to increases in injury and cardiovascular disease mortality underscores the urgency of identifying the upstream factors [22].

However, the "causes of causes" are causing double voice. The literature is fundamentally divided on the extent to which mass privatization was the decisive upstream factor driving these outcomes:

- Argument for Correlation (Privatization as a Crucial Factor): A large body of cross-national and quasi-experimental research supports the hypothesis that rapid and extensive privatization (often referred to as mass privatization) was a "crucial determinant" of the adverse mortality trends [10] [26] [24] [27]. The primary mechanism linking this policy to premature death is identified as acute psychosocial stress caused by rapid economic dislocation. For example, one quasi-experimental retrospective cohort study in post-Soviet Russian Federation found that fast-privatized towns experienced 13% higher mortality among working-age men than slow-privatized towns [24]. These findings provided compelling evidence that rapid privatization contributed to raised working-age male mortality. In case of female related research, the one was made among women in Hungary [28]. Results indicated that prolonged state ownership was associated with protection of life chances during the post-socialist transformation for women. Another research reexamined the argument that alcohol policies were the key behind the mortality crisis in Russian Federation, and they found it as non robust. At the same time, they confirmed the robust link between rapid privatization and increased mortality [27]. This link is further supported by evidence that privatization, and the associated increase in unemployment, was strongly associated with mortality in former Soviet Union countries [10].

- Argument Against Robust Correlation (Methodological Skepticism): Conversely, other

prominent studies challenge the conclusion that mass privatization was the primary cause of the crisis, citing methodological weaknesses and a lack of empirical robustness [29] [30] [31] [32]. Critics argue that the claim that mass privatization adversely affected male mortality trends "does not stand up to closer examination" and is contradicted by other knowledge about health trends in the region. Some analyses found that the correlation between rapid privatization and mortality fails to hold across countries. Specifically, a study focusing on Russian Federationn regions found no robust evidence supporting the hypotheses that the mortality spike was caused primarily by the rebound effect (from the Gorbachev anti-alcohol campaign) or the affordability of alcohol. Instead, they concluded that the privatization-mortality link is robust to controlling for alcohol policy [33]. Other reviews, however, found that while four out of five studies showed rapid privatization to be significantly and positively related to mortality [34], with the only exception of Christopher J. Gerry [35]. Gerry critiques the Stuckler et al. article for committing an ecological fallacy. He argues that their broad, country-level analysis fails to prove that mass privatization was directly responsible for causing death at the individual level.

The overall scientific knowledge on the effects of politico-economic transitions on health outcomes remains "inconclusive" and there definitely is an area to make further examination, which the rest of the paper will be devoted to.

Data and Methodology

In the Table 1 below, we can see the changes in life expectancy at birth for Central and Eastern Europe and the Former Soviet Union between 1989 and 1999. As an addition countries from Western Europe are included for comparison:

	Male Life Expectancy Change			Female Life Expectancy Change		
Country	**1989-1991**	**1991-1995**	**1995-1999**	**1989-1991**	**1991-1995**	**1995-1999**
Czech Republic	0.09	1.43	1.67	0.32	0.90	1.43
Poland	-0.59	1.68	1.08	-0.09	1.28	1.04
Hungary	-0.13	0.31	1.25	0.25	0.75	0.78
Russian Federation	-0.79	-5.29	1.75	-0.26	-2.63	0.82
Ukraine	-1.51	-3.42	1.41	-0.87	-1.82	1.11
Belarus	-1.23	-2.7	-0.61	-0.89	-1.26	-0.27
Austria	0.36	1.03	1.49	0.32	0.97	0.88
Sweden	0.17	1.23	0.89	-0.02	0.90	0.45
France	0.43	0.95	1.11	0.51	0.73	0.61

Table 1: Changes in Life Expectancy at Birth (1989-1999) [36]

It is clearly visible that countries like Russian Federation, Ukraine and Belarus experienced significant drops in especially male life expectancy during the early 1990s. Countries like Czech Republic and Poland on the other hand managed to avoid such dramatic declines and even experienced some increases in life expectancy, especially after 1991. In case of all postcommunist countries, the trends were much more negative for men than for women. In comparison, Western European countries like Austria, Sweden and France experienced similar increases in life expectancy for both men and women, and those levels were generally higher than in postcommunist countries for 1989-1991 period and then the gap started to close in case of Central Europe in the following years.

In the Table 2 below, we can see the changes in Specific Death Rate for Central and Eastern Europe and the Former Soviet Union due to Ischaemic heart disease between 1989 and 1999. As an addition countries from Western Europe are included for comparison:

	Ischaemic Heart Disease					
	Change of Specific Death Rate in Percents					
	Male			Female		
Country	**1989-1991**	**1991-1995**	**1995-1999**	**1989-1991**	**1991-1995**	**1995-1999**
Czech Republic	%	%	%	%	%	%
Poland	%	%	%	%	%	%
Hungary	%	%	%	%	%	%
Russian Federation	%	%	%	%	%	%
Ukraine	%	%	%	%	%	%
Belarus	-6.55%	26.53%	12.30%			
Austria	0.88%					
Sweden	%	%	%	%	%	%
France	%	%	%	%	%	%

Table 2: Changes in Specific Death Rate due to Ischaemic Heart Disease (1989-1999) [37]

	Selected Alcohol-Related Causes					
	Change of Specific Death Rate in Percents					
	Male			Female		
Country	**1989-1991**	**1991-1995**	**1995-1999**	**1989-1991**	**1991-1995**	**1995-1999**
Czech Republic	%	%	%	%	%	%
Poland	%	%	%	%	%	%
Hungary	%	%	%	%	%	%
Russian Federation	%	%	%	%	%	%
Ukraine	%	%	%	%	%	%
Belarus	%	%	%	%	%	%
Austria	%	%	%	%	%	%
Sweden	%	%	%	%	%	%
France	%	%	%	%	%	%

Table 3: Changes in Specific Death Rate due to Selected Alcohol-Related Causes (1989-1999) [37]

	Selected Suicide and Self-Inflicted Injury Causes					
	Change of Specific Death Rate in Percents					
	Male			Female		
Country	**1989-1991**	**1991-1995**	**1995-1999**	**1989-1991**	**1991-1995**	**1995-1999**
Czech Republic	%	%	%	%	%	%
Poland	%	%	%	%	%	%
Hungary	%	%	%	%	%	%
Russian Federation	%	%	%	%	%	%
Ukraine	%	%	%	%	%	%
Belarus	%	%	%	%	%	%
Austria	%	%	%	%	%	%
Sweden	%	%	%	%	%	%
France	%	%	%	%	%	%

Table 4: Changes in Specific Death Rate due to Selected Suicide and Self-Inflicted Injury Causes (1989-1999) [37]

	Selected External Causes of Injury and Poisoning					
	Change of Specific Death Rate in Percents					
	Male			Female		
Country	**1989-1991**	**1991-1995**	**1995-1999**	**1989-1991**	**1991-1995**	**1995-1999**
Czech Republic	%	%	%	%	%	%
Poland	%	%	%	%	%	%
Hungary	%	%	%	%	%	%
Russian Federation	%	%	%	%	%	%
Ukraine	%	%	%	%	%	%
Belarus	%	%	%	%	%	%
Austria	%	%	%	%	%	%
Sweden	%	%	%	%	%	%
France	%	%	%	%	%	%

Table 5: Changes in Specific Death Rate due to Selected External Causes of Injury and Poisoning (1989-1999) [37]

	Selected Diseases of Circulatory System					
	Change of Specific Death Rate in Percents					
	Male			Female		
Country	**1989-1991**	**1991-1995**	**1995-1999**	**1989-1991**	**1991-1995**	**1995-1999**
Czech Republic	%	%	%	%	%	%
Poland	%	%	%	%	%	%
Hungary	%	%	%	%	%	%
Russian Federation	%	%	%	%	%	%
Ukraine	%	%	%	%	%	%
Belarus	%	%	%	%	%	%
Austria	%	%	%	%	%	%
Sweden	%	%	%	%	%	%
France	%	%	%	%	%	%

Table 6: Changes in Specific Death Rate due to Selected Diseases of Circulatory System (1989-1999) [37]

Results

Conclusion

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