Initial Conditions and Monetary Freedom in Former Communist Countries: An Instrumental Variable Approach

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Abstract: Economic literature has widely discussed the importance of institutions in general, and that of monetary freedom in particular, for economic growth in post-communist countries, yet less is known about the determinants of institutional quality in these countries. While some studies argued that initial social conditions matter for institutional building, not much empirical work has been done to econometrically demonstrate their influence. The present paper fills this void by using regression analysis in order to assess the impact of the strength of civil society right after the fall of communism on monetary freedom in subsequent years, on a sample of former communist countries. As a simple OLS regression is prone to endogeneity problems, the author uses an instrumental variable approach, instrumenting the initial strength of civil society through the number of victims of terror during communism. The paper proves that the initial strength of civil society has a positive, significant and sizeable impact on monetary freedom 5-6 years after the transition process has begun.

1. INTRODUCTION

The fall of the communist regime in Central and Eastern Europe and Central Asia has left more than 20 countries to rebuild from scratch their political and economic systems. Although they were somehow similar from a cultural or social perspective, some countries managed to progress, growing into well-functioning and prosperous market economies, while others are performing even worse than during communism, striving with poverty and becoming some kind of modern dictatorships. As researchers have tried to explain these divergent evolutions, one of the theories that gained increasing popularity was that of the importance of institutional quality. More precisely, the quality of institutions a country has developed in the first years of transition was shown to have influenced its subsequent political and economic performance: countries that protected private property supported entrepreneurship and, in general, respected the freedom of their citizens have stronger and more performant economies compared to those where these rules were poorly enforced, or completely inexistent.

Once researchers understood the importance of institutions for economic growth in transition, a new question has followed: what influences the quality of institutions? Scientific literature has explored multiple answers, yet an agreement was reached regarding the strong influence of initial conditions. Indeed, a transition country where there were more political opponents of the socialist elite, and these opponents have gathered in stronger pro-market parties, managing to overthrow the old nomenclature in the newly held democratic elections, or a country where

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exponents of the old regime had less resources to pray on, has definitely built better rules. However, initial social conditions have also played an important part, as the strength of civil society and the determinacy of citizens to create and support a democratic, market-oriented system put pressure on the new leaders to establish rules of better quality.

In this paper, we empirically investigate the influence of initial social conditions (measured through the strength of civil society at the beginning of transition) on institutional quality. The focus is on one institutional dimension, i.e. monetary freedom, which measures to what extent a country has a stable currency, that preserves its value over time, and market determined prices. We choose this institutional dimension based on existing literature that emphasizes the importance of a reliable currency as a medium of exchange, unit of account, and store of value for both consumers and producers in a market economy. Without it, there are no incentives to amass capital, invest and create long-term value. We argue that a simple OLS regression of the strength of civil society at the beginning of transition on monetary freedom measured 5-6 years afterward would not suffice, as it would be prone to endogeneity problems, stemming from omitted variable bias. Hence, we apply an instrumental variable approach, using the number of victims of terror during communism as an instrument for the initial strength of civil society, in a cross-section regression on a sample of 27 transition countries in Central and Eastern Europe and Central Asia. We prove that the initial strength of civil society has a positive, significant and sizeable impact on monetary freedom 5-6 years after the transition process has begun.

The second section of this paper presents a review of literature on the importance of institutions for economic growth in transition countries, as well as on the determinants of institutional quality. The third section describes our empirical approach, providing information on data, sample, methodology and results. The last section concludes.

2. THEORETICAL APPROACH

In their process of transition from a planned to a market economy, former communist countries implemented a series of radical reforms meant to reshape from scratch the functioning mechanisms of their economies. Although all the dimensions of these reforms had significant importance, among the essential ones were those that implied price liberalization, monetary stabilization, and the creation of an independent monetary authority. In short, these countries had to let prices for goods and services form freely on the market, as opposed to having them set by the central planner, and to create a politically and economically independent central bank, in charge of monetary policy.

As there was a significant gap between the new prices that were now set freely on the market and the old ones, kept at low levels by the central planner, these countries experienced hyper-inflation. Moreover, once the two-digit inflation episode was overcome, prices in these economies continued to be exposed to inflationary influences. Failure to contain this phenomenon hurts economic performance, as price instability discourages investment and erodes savings, stimulating capital flight (Debelle et al., 1998). As explained by De Gregorio (1992), inflation has negative effects on the productivity of capital and on the rate of capital accumulation, as it diverts resources away from productive activities, towards activities meant to reduce the costs of inflation. The evidence of the negative effect of inflation on economic growth is even clearer when the former reaches higher rates, around 8-10 percent (Sarel, 1996, Barro, 1995). In order to mitigate the hyperinflation manifest at the beginning of transition, as well as future inflation episodes, post-communist countries needed an independent central bank, in charge with mone-
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Nary policy. Legal independence of a central bank helps reduce inflation, once the level of price liberalization is sufficiently high and sustained (Cukierman et al., 2002). Louangani and Sheets (1997) also show that transition economies with more independent central banks managed to achieve lower inflation rates compared to their counterparts.

Apart from suppressing inflation, price controls are also harmful because they distort market information and the system of relative prices, having a negative impact on the efficient allocation of resources, leading to either shortages or surpluses. In other words, prices will no longer reflect the relative scarcity of resources, sending misleading information to entrepreneurs about where should they direct their investment. As De Haan and Sturm (2000) put it, price controls restrict the freedom of buyers and sellers to engage in a mutually agreeable exchange. As such, a monetary environment conducive to growth does not only require low inflation and stable prices, but also the absence of price controls (Cebula et al., 2012).

As we see that not only inflation itself matters for economic performance, the focus of research work that investigates the influence of the monetary environment has shifted from inflation to a broader concept referred to as monetary freedom (Ivanović and Stanišić, 2017), which includes inflation as well as the absence of price controls. A measure of monetary freedom was developed by the Heritage Foundation, as part of a broader Index of Economic Freedom, starting 1995. The monetary freedom dimension looks to what extent a country has a stable currency and market determined prices. As explained by the Heritage Foundation, with a monetary policy that endeavours to fight inflation, maintain price stability, and preserve the nation’s wealth, people can rely on market prices for the foreseeable future, thus having better incentives to invest, save and carry out longer term plans; on the contrary, an inflationary policy confiscates wealth like an invisible tax and distorts prices, misallocates resources, and raises the cost of doing business (Miller et al., 2021).

This measure of monetary freedom has been used in several studies that investigated its effect on economic performance. Among the most recent ones, Ivanović and Stanišić (2017) analyse the relationship between monetary freedom and economic growth in a selected sample of 11 new European Union member states with a 19-year panel data regression covering the period of 1997-2015. They conclude that the degree of monetary freedom significantly influences the growth of real GDP, albeit the relationship weakens after the 2008 global economic crisis. Gurgul and Lach (2011) also perform an empirical estimation on a similar sample of Central and Eastern European countries in transition over 2000-2009, concluding that monetary freedom is among the areas that can be considered especially important for economic growth. The same conclusion is reached also by Peev and Mueller (2012), who find that monetary freedom is among the most significant components of the Index of Economic Freedom for GDP per capita growth in transition countries. However, similar results are obtained also for samples of developed countries, for instance by Cebula et al. (2012) who look at the effect of all the components of the Index of Economic Freedom on per capita real GDP among the OECD countries during 2002-2006, and find that monetary freedom ranks among the dimensions that exert the strongest impact on per capita real GDP. On the same note, Heckelman (2000) uses a wide sample of both developing and developed economies, showing that monetary freedom does Granger-cause growth.

In terms of its channels of influence, McMullen et al. (2008) show that monetary freedom influences the decision to engage in entrepreneurial activities using a sample of 37 developed and developing economies, while Sufian and Habibullah (2010) finds find a correlation between monetary freedom
and the good performance of the banking sector in Malaysia. Goel and Nelson (2005) discover that monetary policy has a stronger influence on corruption compared, for instance, to fiscal policy, also using a large sample of both developing and developed economies.

Other studies analyse economic freedom only as a whole (see for instance De Haan & Sturm, 2000, Saha, 2009, Mushtaq and Ali Khan, 2018) without assessing the disaggregate impact of its components. However, these studies also find, as a generally accepted conclusion, that economic freedom exerts a positive influence on economic growth, or on other factors that, in turn, influence or prohibit growth. This is part of a bigger strand of research that investigates the influence of institutions (be they political or economic) on economic performance (see Ugur, 2010; Efendic and Pugh, 2011; or Redek and Sušjan, 2005, among others, for a review). This research interest gained popularity especially in the context of the fall of the communist regime in Central and Eastern Europe and Central Asia, as the quality of institutions has started to be seen as a potential alternative explanation for the different economic paths transition countries have embarked on. As highlighted by Campos and Coricelli (2002), the role of institutions has largely been neglected in empirical analysis of growth in transition economies. The main idea is that good institutions lead to constructive policies and create the right incentives for citizens to engage in productive activities, while bad institutions stimulate rent-seeking behaviours and create the premises for extractive rather than inclusive policies (Eydam and Gabriaze, 2021), thus explaining the different economic performance of countries that all started to build from zero a new institutional system.

While there is a significant strand of economic literature acknowledging the crucial role of institutions in general, and of monetary freedom in particular, for economic growth and development of transition countries, a second question arises: what influences the quality of institutions and what makes some countries develop a high degree of monetary freedom? Douglas North, who is considered the founding father of new institutional economics, stated that institutions are not necessarily or even usually created to be socially efficient; rather they, or at least the formal rules, are created to serve the interests of those with the bargaining power to create new rules (North, 1990). Beck and Laeven (2006) build on this assumption and offer a political economy explanation for the reason why institution building has varied across transition countries. They argue that the incumbent elite who stepped into power at the beginning of transition was (to a greater or lesser extent) formed of older socialist nomenclature, therefore having incentives to create flawed rules that allowed for the extraction of rents and other benefits that served their personal interests, at the expense of the general development of the country. They use the number of years spent under communism as a proxy for the entrenchment of the socialist elite, and the share of natural resources in GDP at the beginning of transition as an indicator of the entrenchment of the elite’s opportunity to extract rents, showing that countries that spent a larger number of years under communism and rely more on natural resources had a larger presence of the socialist elite in their political structures at the beginning of transition. Further on, they demonstrate that this led to a lower quality of institutions built during the first decade of transition.

The fact that the initial conditions matter for the future institutional path of a transition country was also highlighted by Roland (2002), who argues that to have a broader image of initial conditions, and a more precise idea of their impact on the initial choice of institutions, one needs also to include sociological variables. He suggests that one important variable which has been somehow disregarded until now is the strength of the non-communist politicians at the beginning of transition, while also advocating for the importance of including the strength of civil society. In his view, such differences in initial conditions influence the intensity of political constrains, and thus the initial choice of political institutions and policies.
3. **EMPIRICAL APPROACH**

While Beck and Laeven (2005) look at initial conditions from a political perspective and demonstrate their importance, using the number of years spent under communism and the resource endowment as proxies for the initial quality of the political structure, Roland (2002) emphasize the role of civil society as an alternative measure of initial conditions. However, from this latter point of view, there is not much empirical research so far, as there are not many measures of sociological status quo at the beginning of transition. Moreover, endogeneity problems in a regression of institutional quality and initial strength of civil society may arise from omitted variable bias, making this hypothesis difficult to be tested in practice. For instance, one can assume that, while civil society has influenced political leaders’ choices of institutions, there can be a third, omitted factor that influences both the strength of civil society and the quality of institutions, such as religion: although religious practices were, in theory, banned under communism, religion was de facto practiced at different intensities in different countries; a country with more religious citizens tends to have a stronger civil society, as religion gathers people together and unites them, and also more religious people support democratic values and institutions. In such cases, a simple OLS regression would lead us to biased estimates.

Building on the hypothesis of Roland (2002) about the crucial importance of initial social conditions for institutional building, we try to solve this endogeneity problem by using an instrumental variable approach in order to assess the influence of initial social conditions (measured through the strength of civil society) on monetary freedom in a sample that includes transition countries in Eastern Europe and Central Asia. We choose monetary freedom as a measure of institutional quality given its importance for economic development, as discussed above. We argue that a good instrument for the strength of civil society at the beginning of transition is the number of political victims of the former communist regime. Intuitively, the more oppressive towards dissidents a communist regime was, the lower the number of those who had the courage to publicly manifest their civic spirit, hence the weaker the civil society at the beginning of transition.

For the measure of the number of political victims of the former communist regime, we use the annual rate of victims of terror, that is the average annual percentage of population that was victim to *political or summary executions, murder, and assassinations; death by torture; disappearances; flight dead; These are discriminating murders, aimed at individuals, unlike massacres*. The data comes from professor R. J. Rummel at University of Hawaii, who compiled a database of democide and power kills by governments. Values for every country are displayed in Figure 1.

Data on the strength of civil society at the beginning of transition was obtained from the *Varieties of Democracy V-Dem* Project dataset developed by the University of Gothenburg, V-Dem Institute. This variable measures how do people get involved in civil society organizations. Lower values refer to situations in which either most associations are state-sponsored, and people’s participation is not purely voluntary, or voluntary associations exist but few people are active in them, while higher values reflect an environment in which there are many diverse organizations and it is considered normal for people to be at least occasionally active in at least one of them. Therefore, the higher the value, the stronger and more independent civil society is. For every country, we have selected the value for the first year of transition; values are displayed in Figure 2.
Figure 1. Annual average rate of terror during communism

Source: Professor R. J. Rummel, University of Hawaii

Figure 2. Strength of civil society at the beginning of transition

Source: Varieties of Democracy V-Dem Project, University of Gothenburg, V-Dem Institute

Data on monetary freedom is obtained from the Heritage Foundation, as a part of a broader dataset that measures economic freedom. Their monetary freedom index assesses to what extent a country has a stable currency and market determined prices. For every country, we use the index of monetary freedom after 5 or 6 years of transition, depending on data availability. We decided that such a period is longer enough for the newly emerged institutions to reach a mature shape, inspired by Sachs (1996) who considers that five years, or the first mid-decade of transition, were enough for some transition countries that went through a rapid systematic transformation to create market institutions and achieve economic growth. Values for each country are displayed in Figure 3.
In econometric terms, there are two conditions that an IV must meet:

1. Relevance, meaning that the covariance between the instrument (in our case the annual rate of victims of terror) and the endogenous regressor (in our case participation in civil society) should not be null. Intuitively, we argue that the more terror the communist regime instituted throughout population, and the more the former communist regime eliminated possible opponents, the weaker the civil society was right after the fall of the regime. Results of the regression of participation in civil society on the annual rate of victims of terror during communism suggest the existence of a negative and significant causal relationship, as it can be seen in column (2) of Table 1. The F-statistic of this first stage regression is also above the rule of thumb value of 10, indicating the presence of a strong instrument, while the value of the R-squared suggests that the annual rate of victims of terror alone explains one quarter of the variation in the strength of civil society at the beginning of transition.

2. The exclusion restriction, which requires that the covariance between the instrument and the error term of the initial OLS regression is zero. In other words, the instrument should influence the dependent variable (in our case monetary freedom) only through the endogenous regressor (in our case participation in civil society). This cannot be tested in practice, yet intuitively we can argue that the level of terror instituted by the communist regime throughout population cannot influence monetary freedom during transition in other ways but through its influence on the initial state of society at the beginning of transition.

In Table 1 we estimate the effect of the strength of civil society at the beginning of transition, instrumented by the annual rate of victims of terror during communism, on monetary freedom after the first 5-6 years of transition. Column (1) presents the results of a simple OLS regression (without the use of an instrumental variable), which we argue is affected by endogeneity problems and leads to biased estimates. Column (2) presents the results of the first stage regression, while column (3) displays the results of the IV estimation.
Table 1. Estimation results

<table>
<thead>
<tr>
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<th>(1) OLS</th>
<th>(2) First stage</th>
<th>(3) IV</th>
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<td>strength_of_civil_society</td>
<td>monetary_freedom</td>
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<td>strength_of_civil_society</td>
<td>17.57** (4.94)</td>
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<td>41.00** (12.84)</td>
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<td>terror_victims</td>
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<td>-</td>
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<td>R²</td>
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<tr>
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<td>27</td>
<td>27</td>
</tr>
<tr>
<td>F-stat</td>
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<td>12.9</td>
<td>-</td>
</tr>
<tr>
<td>Wu-Hausman test p-value</td>
<td>-</td>
<td>-</td>
<td>0.036</td>
</tr>
</tbody>
</table>

Standard errors in parentheses. * p<0.05, ** p<0.01, *** p<0.001

Source: author’s calculations

A basic OLS regression with robust standard errors of the strength of civil society on monetary freedom reveals a positive beta coefficient significant at p<0.01, while the IV regression where we use the annual rate of victims of terror during communism as an instrument also yields a positive beta coefficient, significant at p<0.01, yet greater in magnitude. The difference between the two suggests that the endogeneity problems of the OLS regression lead to biased results, underestimating the influence of initial social conditions on monetary freedom. The Wu-Hausman test also indicates the existence of endogeneity, as it rejects the hypothesis that OLS and IV estimates are equal (its p-value is displayed in the last line of Table 1). All in all, the results of the IV regression show that the strength of civil society at the beginning of transition has a positive, significant and sizeable effect on monetary freedom in subsequent years. Moreover, a simple OLS regression would underestimate this effect.

4. CONCLUSION

In this paper, we have discussed the importance of institutional quality in general, and monetary freedom in particular, for economic growth in transition countries. We have then touched upon the determinants of institutional quality in former communist countries, arguing that, while certain political aspects, such as the entrenchment of the old socialist elite, are important for subsequent institutional building, sociological factors should also be taken into account, more exactly the strength of civil society at the beginning of transition. We have also demonstrated empirically the importance of these sociological factors, in an attempt to fill an existing void in the literature when it comes to econometrical approaches to such political economy questions. More precisely, we have used regression analysis to prove the existence of a causal relationship between the strength of civil society at the beginning of transition and monetary freedom 5-6 years after, in post-communist countries. As a simple OLS regression would lead to biased estimates because of endogeneity problems stemming, for instance, from omitted variable bias, we have used an instrumental variable approach and found that the number of political victims of the former communist regime qualifies as a good instrument. The results prove that the strength of civil society at the beginning of transition has a positive, significant and sizeable effect on monetary freedom.

On the one hand, the results of this paper shed more light on the determinants of institutional quality in transition countries, hence helping explain why some former communist countries ended up with better institutional systems and more prosperous economies, while others stag-
nated or even regressed compared to their communist years. They present an alternative explanation, which complements rather than substitutes previous conclusions: while the political context at the beginning of transition played an important role for subsequent institutional building and economic performance, aspects related to the social fabric of the country and its civil society have also mattered. On the other hand, this paper can be a stepping stone towards more extensive research into the importance of social conditions, and future work may be carried in order to assess whether civil society had an influence also on other institutional dimensions.

REFERENCES


