



Double-edged sword: persistent effects of Communist regime affiliations on well-being and preferences

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Abstract

During Communism, party members and their relatives were typically privileged elites in Central and Eastern Europe (CEE) and the former Soviet Union (FSU). At the same time, secret police informants were often coerced to spy and report on their fellow citizens. After the fall of Communism, CEE countries and the Baltics underwent decommunization, unlike most FSU countries. This paper is the first to empirically distinguish between these two Communist party regime affiliations and study their long-term implications for the well-being and preferences of affiliated individuals and their relatives. In the FSU, we find that individuals connected to the former Communist party are more satisfied with their lives, but those linked to secret police informants seem to have lower life satisfaction than those without such ties. The life satisfaction benefit of having former Communist regime party connections in the FSU is, on average, equivalent to one month's household income. Simultaneously, the psychological costs of being an informant can amount to two monthly household incomes. In CEE countries, having informant connections is not associated with life satisfaction, but having links to the former Communist party is negatively correlated with subjective well-being. Formal and informal decommunization efforts are an important mechanism behind our findings. We also show that those connected to the former regimes differ from those without such connections in their preferences for democracy and market economy, levels of optimism, and risk tolerance, which provides suggestive evidence for the mechanisms underpinning our findings. Our results underscore that the former Communist regimes produced winners and losers based on the trustee status of their collaborators that decommunization efforts further shaped and solidified. Future decommunization efforts in the FSU may thus have important welfare implications.

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1 Introduction

Communism durably shaped the collective consciousness and socio-economic outcomes of people in Central and Eastern Europe (CEE) and the former Soviet Union (FSU) (Fuchs-Schündeln and Schündeln, 2020; Pop-Eleches and Tucker, 2014). For example, older cohorts who lived under Communism have lower support for democracy and gender equality and stronger redistribution wishes than younger cohorts compared to relevant counterparts in the West (Fuchs-Schündeln and Schündeln, 2020). Furthermore, the uneven democratization and marketization transitions after the fall of the Berlin Wall and the collapse of the Soviet Union have molded the collective destiny of post-socialist citizens (Easterlin, 2009; Gruen and Klasen, 2012). For example, in the early years of the transition, life satisfaction—a broad quality of life measure—was much lower in transition compared to non-transition countries (Guriev and Zhuravskaya, 2009).¹ In recent years, life satisfaction in the region has been increasing and the “happiness gap” between transition and non-transition countries has closed (Guriev and Melnikov, 2018; Nikolova, 2016; Skoglund, 2017).

An open question in this literature is whether ties with the former Communist regime—through either party membership or links to the secret police—still play a role in people’s lives and still shape their broader well-being and preferences today. While both groups were former regimes’ trustees, their fates during and after Communism differed markedly.

Former Communist party members and their families, who enjoyed privileges, political power, connections, suitable housing, and pleasant jobs, typically also did economically well after the regime fall (Bird et al., 1998; Geishecker and Haisken-DeNew, 2004; Gerber, 2000; Večerník, 1995). Yet, secret police informants had a less favorable fate, especially in countries with strict decommunization policies.

The outcomes of former regime collaborators differed based on post-Communist countries’ decommunization efforts and laws (Horne, 2017; Zabyelina, 2017). Specifically, after the collapse of the Communist regimes in 1989/1991, many countries, mainly in CEE, passed lustration laws banning or limiting from public service jobs for former Communist *apparatchiks* and secret police informants and agents (Appel, 2005; Moltz, 2014; Stan, 2009; Welsh, 1996). In some cases, decommunization efforts also included declassifying the secret service state files and the public disclosure of former informants and agents (Kraske and Puhl, 2005; Welsh, 1996).

¹ Differences in life satisfaction between Eastern and Western Europe in the early years of transition are partially attributable to the long-lasting effect of Communism and the enduring values and preferences it created (Fuchs-Schündeln and Schündeln, 2020).

Civil society groups and private activists have sometimes also informally disclosed names of former regime collaborators, which resulted in social outrage and tarnished the reputation and careers of those who appeared on the lists (Stan, 2011). Formal and informal disclosures of past regime collaborators have been more common in countries with relatively mild lustration laws. Yet, collaborator files have been more likely to be partially destroyed or with restricted access in the same group of countries. Partial destruction of secret files happened in several countries, including Bulgaria, Estonia, Hungary, Latvia, and Lithuania (Rumin, 2007).

Countries with harsh lustration laws, such as the Czech Republic, the Baltics, Georgia, and Ukraine, have barred from public office individuals with former regime ties. In Hungary and Poland, lustration has been milder and based on self-exposure or revealing the identities of public officials serving as collaborators while allowing them to stay in office. Countries like Bulgaria, Romania, and Slovakia reluctantly passed lustration laws that they have not systematically applied or temporarily repealed. Albania declared its lustration law unconstitutional in 2008. Furthermore, most FSU countries and several countries in former Yugoslavia have not passed lustration laws (Table 1). Russia declared lustration a criminal offense in 1991 (Horne, 2017).

In many countries, lustration has been a highly non-linear process, with laws becoming stricter, not being enforced, or being struck down only to be re-adopted (Nalepa, 2010). Yet, it is generally true that the CEE countries and the Baltics have been more active in decommunization than the FSU, which motivates the separate analysis of these two regions).

In this paper, we investigate whether affiliations with the former Communist party or the secret police matter for present-day well-being levels and preferences. We compare individuals who themselves were Communist party members or regime informants or had relatives in those positions to a group of similar individuals without such former regime affiliations. Given the nuances in the country contexts, the long-term well-being consequences of connections to the former Communist party and regime informants are a priori unclear and likely vary across the type of collaboration (i.e., party member or informant) and between the CEE and FSU. We furthermore expect that the associations depend on the countries' decommunization efforts and culture, as epitomized by lustration laws. On the one hand, if the elite status is carried over to the new system, former Communist party members and their relatives may enjoy favorable life circumstances today. On the other hand, if anti-communist sentiments combined with being exposed as a former regime trustee have meant labor market and societal discrimination, then former regime trustees and their relatives may experience a lower quality of life compared to those without such connections. We explore the role of countries' decommunization efforts, political institutions, and economic performance as possible country-level mechanisms behind the key relationships we identify.

Furthermore, while we focus on life satisfaction, we analyze additional outcomes related to financial satisfaction, optimism, risk preferences, interpersonal trust, and attitudes towards democracy and the market economy. Life satisfaction is a broad measure of well-being capturing monetary and non-monetary aspects of people's lives (Nikolova and Graham, 2022; OECD, 2013; Stone and Krueger, 2018; Stone

Table 1 Lustration laws, by country

Country	Year proposed	Year enacted
Albania	1995	1995
Armenia	2011	
Azerbaijan		
Belarus		
Bosnia and Herzegovina		
Bulgaria	1991	1992
Croatia	1998	
Czechia	1995	1995
Slovakia	2002	2002
Estonia	1991	1995
Georgia	2005	2011
Hungary	1989	1994
Kazakhstan		
Kosovo		
Kyrgyzstan	2010	
Latvia	1991	1994
Lithuania	1991	1991
Macedonia	2006	2008
Moldova	2000	
Montenegro	2007	
Poland	1989	1997
Romania	1990	1999
Russia	1992	
Serbia	2003	2003
Slovenia	1990	
Tajikistan		
Ukraine	2005	2014

Notes: The table reports the year of proposing or enacting lustration laws in the CEE, Baltics, and the FSU, based on Moltz (2014), Nalepa (2010), and Stan (2009). Kosovo has not proposed its own lustration law (Moltz, 2014). Uzbekistan and Turkmenistan, which have no lustration laws, are not included in our analysis sample as they were not included in the LITS III survey

and Mackie, 2013).² Nevertheless, complementing life satisfaction outcomes with analyses related to preferences, attitudes, and financial well-being furnishes a more nuanced picture of the complex consequences of past Communist party regime affiliations and helps us unravel possible individual-level explanations underpinning our main results.

² Answers to life satisfaction questions capture not only people's future aspirations but also comparisons with their own past, as well as social groups such as peers, neighbors, and colleagues (Clark, 2018).

We find that links to the former Communist party and secret service informants still matter for citizens' life satisfaction in the FSU. While individuals with ties to the former Communist party enjoy higher life satisfaction today, those connected to the former secret service are less satisfied with their lives. However, the latter result is only marginally statistically significant. These results demonstrate that the dichotomy of how communist regimes treated their trustees—depending on whether they were recruited as party members or informants—had long-lasting and contrasting effects on life satisfaction in the FSU.

In CEE countries, meanwhile, having informant connections is unassociated with life satisfaction, but links to the former Communist party are consistently negatively correlated with subjective well-being. The CEE results also point to another dichotomy related to the different nature of the Communist party operations during Communism and the divergent transition processes and decommunization efforts in CEE and FSU. For instance, in the FSU, the Communist regime was more hierarchical and relied on personalized relationships between the leader and the communist elites. By contrast, in most CEE countries, the communist elites had more opportunities for expressing their political opinions during Communism (Ishiyama, 1997; Kitschelt, 1995). This resulted in different voting patterns for Communist parties in the FSU and CEE in the first post-communist elections: while in the FSU, Communist parties were still able to get considerable support, opposition parties were more successful in the CEE (Ishiyama, 1997). These political outcomes also reflected the decommunization of cultures and efforts in the country groups.

The connections and privileges of the former Communist party members and the guilt and social discrimination associated with being an informant have different quality-of-life implications in CEE and FSU countries. While former Communist party affiliation still seems to carry privilege and status in the FSU, it carries shame and discrimination in the CEE and the Baltics. Our results also suggest that it is the children of those with Communist party ties that are driving the results. Thus, the former Communist regime was a double-edged sword, creating enduring privileges for elites but psychologically scarring informants and their relatives in the post-Soviet countries. Further analyses suggest that the underlying mechanism behind the different findings is the decommunization efforts in the CEE and the FSU, which we proxy with the presence of lustration laws. Elite continuity and preserving Communist party privileges seem to be supported by political instability, while economic and political instability make former informants more insecure about possible exposure.

Additional results suggest that part of the explanation for the life dissatisfaction of former Communist party affiliates in the CEE may be their financial dissatisfaction and strong redistribution preferences. In addition, differences in the well-being of former informants in CEE and FSU may be due to expectations regarding their children's future. While former informants in CEE likely adapted to the new life after decommunization and are optimistic regarding children's future, former informants in the FSU are pessimistic regarding their children's future and might be afraid of public exposure. Moreover, individuals with former regime trustee status are also more risk-seeking. Risk tolerance may be a necessary coping mechanism in the new

market economy for those with former regime connections or may be a trait that persisted from Communism to the present day. Former Communist party affiliates are also less likely to prefer a market economy and democracy. This implies that the transition from a planned to market economy and from Communism to democracy could have meant a loss of ideals, bringing life dissatisfaction.

This paper makes several important contributions to the literature. Broadly, we add to the literature on the persistence of various types of socio-economic and cultural phenomena (e.g., Acemoglu et al., 2001; Dell, 2010; Voigtländer and Voth, 2012), which has been summarized in Michalopoulos and Papaioannou (2017), Nunn (2009, 2014, 2020), Spolaore and Wacziarg (2013), and Voth (2021). Specifically, we add to the scholarship on the long-term consequences of Communism (e.g., Fuchs-Schündeln and Schündeln, 2020; Lange, 2021; Lichter et al., 2020; Nikolova et al., 2022) and the literature on the perceived quality of life in transition countries (e.g., Guriev and Zhuravskaya, 2009; Nikolova, 2016; Nikolova and Nikolaev, 2017; Otrachshenko et al., 2016; Popova, 2014; Skoglund, 2017). Most of the work on the persistence of Communism has focused on East Germany, mainly because the separation and later reunification of East and West Germany arguably presents a natural experiment (Alesina and Fuchs-Schündeln, 2007; Bauernschuster and Rainer, 2012; Friehe and Pannenberg, 2020). However, the nature of the communist regimes and the subsequent transition process in the CEE and FSU differed from those in the former German Democratic Republic (GDR). Finally, studies on *within*-country differences in life satisfaction in the CEE and FSU that also account for the nature of the personal connection to the regime are rare. To our knowledge, ours is the first study to investigate the long-term quality of life consequences of having ties to secret police informants while also accounting for Communist party membership. This allows a better understanding of the personal experiences with Communism and its long-term ramifications for the quality of life and socio-cultural outcomes in the transition region.

2 Background and hypotheses

2.1 Party members in the CEE and FSU

The former communist regimes rewarded those close to them and punished dissidents and individuals perceived as threatening the regime or its ideology. In between the group of privileged elites and enemies of the people were the informers recruited to provide information on particular individuals or groups to the secret police. Communist party members and informers were both regime trustees, yet their fates during Communism and after its fall differed markedly.

Communist party members were often rent-seekers and opportunists who saw the party as a career ladder. The regime officials often selected them as party members for their talent and human capital (Deter and Lange, 2022; Geishecker and Haisken-DeNew, 2004; Gerber, 2000; Hanley, 2003). These individuals enjoyed multiple economic and in-kind privileges through their party positions, such as vacations, housing, kindergarten, high educational attainment, and pleasant working conditions (Geishecker and Haisken-DeNew, 2004). Communist party membership was often

a prerequisite for certain high-ranking jobs and occupations and a mechanism to select individuals of interest to the regime (Libman and Obydenkova, 2015; Marks, 2004). While the party aimed at representing workers' interests and actively sought to increase the membership of low-skilled workers, members were mainly white-collar (Marks, 2004). In Bulgaria, Czechoslovakia, Hungary, Poland, and Russia, party members were predominantly male, married, highly educated, working in the administrative sector, and had parents who were party members (Marks, 2004). A quota determined party membership, and only about 10 percent of the population was a member (Libman and Obydenkova, 2013; 2015; Marks, 2004; Miller, 1982), underscoring the members' exclusiveness.

Empirical studies also suggest that the Communist privileges carried over after the regime changes (Pakulski et al., 1996; Szelenyi and Szelenyi, 1995; Tudoroiu, 2007). For example, at least a third of those with elite status in 1988 in Poland, Russia, and Hungary remained in the same or similar status in 1993 (Wasilewski, 1995). Furthermore, those connected to the Nomenklatura were more likely to become entrepreneurs after the regime change in the post-socialist countries (Ivlevs et al., 2021), likely because they inherited capital and connections from the old regime.

This Communist elite continuity is in line with other examples of elite persistence (Acemoglu et al., 2021; Robinson, 2013). Elites persist despite what North calls "discontinuous change" (p. 89) because societal change is often incremental rather than radical and because of informal constraints determined by deeply-rooted cultural structures (North, 1990). Furthermore, the continuation of elites after *de jure* change in political institutions, such as democratization, may coincide with elites holding on to *de facto* political power through wealth, the capture of political parties, violence, or bribery (Acemoglu and Robinson, 2008). Other family-level mechanisms of elite continuity include human capital transmission and kinship networks (Alesina et al. 2020).

Post-Communist elites used different tactics to preserve their status—some relied on their networks and past positions to acquire state-owned enterprises, others amassed economic and, later, political power through colluding with the mafia, and still others rebranded themselves as social democrats (Pakulski et al., 1996).

In the early transition years, former Communist party members also enjoyed higher incomes in Russia (Geishecker and Haisken-DeNew, 2004; Gerber, 2000) and the Czech Republic (Večerník, 1995). Bird et al. (1998) used telephone ownership in 1990 as a proxy for upper socialist class status in East Germany and found a positive income premium. Nevertheless, many of these benefits were due to selection into party membership and dissipated as the transition progressed. For example, by 1995, Russia's Communist party membership income premium had vanished (Geishecker and Haisken-DeNew, 2004). Similarly, Ivlevs et al. (2021) find that former Communist party connections do not help with entrepreneurial success—they facilitated business startups but not long-term business operations.

2.2 Informants in the CEE and FSU

The Communist regimes recruited party members and informants from different pools of individuals that typically did not overlap (Harrison, 2019). In contrast with

the party members, informants, who came from all walks of life, often operated secretly and provided information about colleagues, neighbors, and friends to the secret police. For example, in many factories and workplaces, informants documented the general mood and support for the authorities and management (Harrison and Zaksauskienė, 2016).

Individuals became informants for different reasons. Some were pressured or blackmailed; others were enticed by calling to their patriotic duty, trips abroad, opportunities for better jobs, or relocation from rural to urban areas (Harrison, 2019; Stan and Turcescu, 2005). While Communist party members tended to be loyal individuals with connections and high potential (Marks, 2004), informants were sometimes pressured to snitch on others by using “compromising material” to coerce them (Heinzen, 2007, p. 808). Often, the authorities used past indiscretions or minor offenses as leverage in the recruitment process. As Stan (2009, p. 6) explains:

Not all collaborations were voluntary, opportunistic and revengeful, as many informers spied out of fear for themselves and the well-being of family members, misplaced patriotism or blackmail. In such cases, the informers’ secret activity was neither rewarded financially nor resulting in a speedier promotion, better living conditions, and permission to travel abroad.

Assessing the size of the informant network in the FSU and CEE is challenging, though the sporadic evidence suggests that it was extensive, comprising at least about 1% of the population (Albats, 1994; Stan, 2009). For example, in Lithuania, informants either had formal agreements with the secret police or were “trusted persons” who did not sign documents (Harrison and Zaksauskienė, 2016). For a country of 3 million, in 1971, Lithuania had nearly 12,000 agents and trusted persons (Harrison and Zaksauskienė, 2016). In Bulgaria, 1% of the population worked with state security in 1981, and over the entire Communism period, 3% of the population worked with the secret police (Horne, 2017). In Romania, estimates about the agents and informers range from 400,000 to 1 million in a population of 22–23 million (Horne, 2017; Stan and Turcescu, 2005), or about 3% of the population (Horne, 2017). In Czechoslovakia, the estimates point to about 140,000 informers in a population of 15.5 million (Albats, 1994). In Hungary and Poland, the informant shares are estimated at 0.5% and 0.3% of the population, respectively (Horne, 2017). In Stalin’s Soviet Union, a 1935 report by the Communist Party Central Committee Secretary documents 270,777 informants for a population of 159 million (0.17% of the population) (Shearer, 2004), 200,000 by 1945 (or, based on our calculations, 0.11% of the population), and 380,000 by 1951 (comprising, based on our calculations, 0.2% of the population) (Heinzen, 2007).³ Albats (1994) documents an informant network of 2.9 million across the Soviet Union or about 1% of the population. Surveillance, in other words, was widespread and a part of life. Evidence from Lithuania suggests a concentration of informers in schools, universities, and research institutes (Harrison and Zaksauskienė, 2016).

³ The population figures are based on Andreev et al. (1993). The population of Soviet Union in 1946 was 170,548,000 inhabitants. The population in 1951 totaled 182,321,000.

Mass surveillance and the informer network were an open secret in communist societies in the CEE and FSU and ensured the subordination of the citizens (Harrison, 2019). In the FSU, the secret police's goal was to "manage loyalty," as every citizen was considered a potential threat (Harrison and Zaksauskienė, 2016).⁴ Certainly, being an informant did not come with the same perks, social status, and recognition as a Communist party member. Some informants likely associated their status with guilt or a sense of wrongdoing (Harrison, 2019) and a fear of being exposed after the fall of Communism.

2.3 Decommunization

The fall of the Berlin Wall and the collapse of the Soviet Union marked the beginning of the transition to democracy and a market economy in the CEE and FSU region. After the fall of Communism, countries in the FSU and the CEE took their own path in coming to terms with their past. Decommunization in the post-communist space took several forms: public trials of Communist officials and secret police officers and collaborators, formal declassification of former secret service files, informal and unofficial disclosure of past regime collaborators, and adoption of lustration laws (i.e., the public banning from office former secret police agents and informers).

Public trials of Communist party member officials have been an exception in post-communist countries (Stan, 2011). Some countries, such as Bulgaria, set up investigations of former Communists but pressed only minor charges, which did not convince the public or the prosecution of any wrongdoing. Only a few former secret police officials and Communist party members have been convicted in the Baltic States and Poland (Stan, 2009; 2011). In some cases, former Communist party members were charged with corruption charges. For example, in Bulgaria, the former dictator Todor Zhivkov and his aide were charged with corruption and appropriation charges and sentenced to several years in prison in 1992. Still, Zhivkov served the prison sentence under house arrest. An Appellate Court in 1995 stated that the trial should have never occurred since Zhivkov had immunity as a former head of state.

While East Germany and CEE countries (including the Baltics) generally passed lustration laws and declassified secret service files, those in the FSU did not (Stan, 2009). By the turn of the new millennium, all CEE countries except those comprising former Yugoslavia had adopted laws banning former regime collaborators from holding public office and, sometimes, academic posts and management positions (Stan, 2009). The lustration laws differed in their stringency, and in some cases (e.g., Hungary and Romania), they included public disclosure of collaborator status rather

⁴ Comparing communist informers and informers to the Nazi regime is challenging due to the limited information available. According to some accounts, the two groups may have shared similarities in that both were often coerced, with coercion appearing more pronounced in the Nazi German case (Weyrauch, 1985). Gestapo informers were typically not Nazi party members and were known to be unsympathetic to Nazi policies (Weyrauch, 1985) but others agreed to serve as informers in exchange for being released from imprisonment or having indiscretions forgiven (Hall, 2009). Unlike the Communist regimes, Gestapo tended to recruit informers from the ranks of foreign workers, clergy, and those arrested or imprisoned by Gestapo (Hall, 2009).

than exclusion from office (Stan, 2009). Official or unofficial lists containing the names of informants and collaborators of the former regimes have been published in several CEE countries. Some countries, such as East Germany, fully opened state secret police archives, while others, such as Romania, have only partially opened the archives (Stan, 2009). While many of the secret service files related to both victims and informants have been deliberately destroyed, the public exposure of particular names has often aimed to deter political opponents or expose prominent public figures (Kraske and Puhl, 2005).

In Czechoslovakia, Romania, Slovenia, and Poland, the lists have been published by unofficial sources, taking the form of “wild lustration” (Stan, 2011, p.319). In some cases, this unofficial lustration has undermined official decommunization efforts and led to “witch hunts.” Many individuals whose names appeared on the unofficial informers’ lists could not respond or defend themselves, creating a sense of injustice (Moltz, 2014). Moreover, the secret police files often did not contain information on the circumstances under which the informant operated and whether the informant volunteered or was blackmailed, which casts doubt on the truthfulness of these files (Moltz, 2014).

In Russia and most post-Soviet countries except the Baltics, Ukraine, and Georgia, however, adopting lustration laws, providing access to former secret police archives, and revealing former informants’ identities have not (yet) taken place (Stan, 2009). For example, human rights activist Galina Starovoytova proposed a lustration bill in Russia in 1992 that temporarily limited past Communist party members’, secret service officials’, and informants’ access to jobs in law firms, government, the media, and education. However, the bill was effectively dead after Starovoytova’s assassination in 1998 (Stan, 2009). The Russian Parliament even made it illegal to disclose the identities of secret police officers and collaborators.

There are several reasons for this lack of decommunization effort in the FSU countries, except for the Baltics, Ukraine, and Georgia. Right before the fall of the Soviet Union, many KGB files from the former republics were transferred to Moscow, which limited the ability of some of the republics to pursue decommunization strategies. In addition, the Central Asian republics, as well as Belarus, Azerbaijan, and Armenia, have witnessed civic conflict, or their Soviet-era leaders have retained political power (Stan, 2009), further obstructing decommunization efforts.

On the one hand, this lack of decommunization in the FSU could imply that the fear of being exposed as an informer or being connected to informers through familial links is quite strong in the FSU. On the other hand, given that such exposure has not occurred thirty years after the fall of Communism, it may mean that the issue is becoming less salient in society or that such exposure may not happen until political elites affiliated with the old regimes withdraw from the political arena.

2.4 Expected associations between connections to the former Communist party/secret service informants and present-day life satisfaction.

The expected long-term effects of personal or familial links to the former Communist party—either as an informant or party member—are likely complex and varied.

Given the importance of decommunization, we expect that the long-term psychological consequences of past regime connections depend on the societal-level attitudes related to the communist past. More specifically, we expect that and test whether the individual psychological consequences of connections with Communism depend on the decommunization efforts. To this end, we adopt lustration laws as a proxy for the decommunization culture of the country.

Specifically, we expect that the relationship between informant connections and life satisfaction depends on whether the respondent lives in a country with lustration laws or not. In countries where former informants were formally publicly exposed, those with informant connections may feel stigmatized, thus experiencing low life satisfaction. On the other hand, they may come to terms with the informant's past and even feel relieved that the truth is out and that they do not have to carry a burden anymore. Because some of the informants were pressured into this role, they may feel that they are finally relieved of the need of having to hide their past, often also from their family members.

Additionally, countries that have already gone through the de-communization process may have already worked through and adapted to their communist past. Anecdotal evidence suggests that young people in Eastern Europe are not interested in learning about former regime collaborators (Deutsche Welle, 2008). A 2007 Financial Times article suggests that only CEE politicians and old elites obsess over the secret service files, but ordinary people do not (Wagstyl and Cienski, 2007). The same article claims that "life goes on" over time, and opening up the files contributes to better public life. As such, in countries with lustration processes, past regime collaborators may already have been exposed and, as such, be relieved that the truth is public.

Conversely, in the countries without lustration laws, which are mostly the FSU countries, those with informant connections may feel guilt or shame associated with their own or their relatives' past activities. They may fear public scrutiny and social opprobrium if their former identities or those of their relatives are made public. We, therefore, expect that former informant status and the need to hide past identities carry a psychological burden in the countries without lustration laws, which are a proxy for decommunization efforts.

On the one hand, the former Communist regime's trustees and their relatives may experience lower levels of life satisfaction than those without such connections. This could be particularly true in the CEE and Baltic countries, where de-communization has been a prominent trend. In these countries, former Communist elites and their relatives may feel a loss of status, social stigma, or guilt, since human capital and entrepreneurial skills started to matter more than political loyalty (Stan, 2009; Szeleenyi and Kostello, 1996). They may also feel less satisfied with their lives because they have seen their preferred socio-political structures fail. For example, those who value communist principles related to equality may feel uncomfortable in a market economy. In this respect, the rise in inequality and uncertainty associated with the democratization and marketization processes may have been especially painful, which is a mechanism we test (see Tables 9 and 10).

On the other hand, former Communist party membership and the privileges and connections it brought may continue to deliver tangible or intangible benefits to

those connected to the old elites, manifesting itself in higher present-day life satisfaction. We expect that this is particularly true in the FSU region, where de-communization has not taken place (Stan, 2009). In some FSU countries, the old elites are still in power as part of retime-near elements in authoritarian regimes (Libman and Obydenkova, 2021). In many cases, old *nomenclatura* either stayed within the political elites, had only minor changes in their positions, or, worst case, was forced to retire earlier (Pakulski et al., 1996; Szelenyi and Szelenyi, 1995). Furthermore, former Communist party members gained from privatization and integrated into the new market economy reality (Gundacker and Fidrmuc, 2017; Guriev and Rachinsky, 2005; Pakulski et al., 1996; Wasilewski, 1995).

3 Econometric approach

We model the life satisfaction and preferences Y of individual i living in country c as:

$$Y_{ic} = \alpha + \beta C_{ic} + \pi I_{ic} + X'_{ic} \gamma + \eta_c + \varepsilon_{ic} \quad (1)$$

where C denotes personal and family ties to the former Communist party, I captures personal and family ties to former informants to the secret service, X denotes our control variables (such as age and its square, gender, education, employment and marital status, income, wealth index, ethnicity, religious denomination, household size, number of children, as well as urban or rural location, latitude, longitude, and elevation), and ε is the stochastic error term. The country dummies adjust for differences in institutions and culture, both related to dealing with the communist past (e.g., lustration laws) and the cultural component related to answering questions with a subjective nature, such as life satisfaction (Exton et al., 2015). We estimate Eq. (1) using ordinary least squares (OLS). Standard errors are robust to heteroskedasticity and clustered at the primary sampling unit (PSU) to account for the interdependence of characteristics of respondents living in the same locality.

At the outset, we acknowledge that the parameters π and β capture the conditional correlations (i.e., associations) between former Communist party membership and informant status, respectively, and our dependent variables rather than a causal effect. Both the Communist party and informant status variables are likely endogenous because individuals and households were selected by the party (or volunteered themselves) for these roles. Table A3 in the Appendix demonstrates that respondents with relatively high human capital and social status are more likely to be connected with the former Communist party. At the same time, those with less human capital and from lower social status families are more likely to be in the informant group, though the patterns are less clear-cut.

In separate regressions, we address such selection issues by controlling for parental education, occupation, and the number of books the respondent had while growing up, which are proxies for human capital (ability), social status, and the family environment. Research suggests that during and after the fall of Communism, parents could transfer their educational and social status to their children (Bukowski

et al. 2021; Hazans et al., 2008; Nieuwbeerta and Rijken, 1996). While we cannot account for unobservable characteristics or personality traits, our approach deals with certain endogeneity issues related to omitted variables and selection and furnishes confidence in our results.

In addition, we deal with selection issues by estimating Eq. (1) using weights generated after entropy balancing. This approach matches treatment and control groups based on an extended set of covariates and creates balancing weights that differ as little as possible from unitary weights (Hainmueller, 2012). Applying these weights in the regression analysis helps to account for the possible selection on observable characteristics. Compared to propensity score matching, entropy balancing is a more efficient approach. We calculate the weights based on age and its square, gender, latitude, longitude, elevation, and country dummies and use two moments of the covariate distribution for creating balancing weights. Since entropy balancing can be done for one treatment variable at a time, we perform two separate sets of matching, one for Communist party status and one for informant ties.

Additionally, we apply the instrumental variable approach proposed by Lewbel (2012). It uses heteroskedasticity-based instruments to identify the causal effect of ties to the previous regime. This approach allows for tackling possible endogeneity due to unobserved heterogeneity or selection using the internal instruments from the analysis sample and does not require exogenous instruments for identification. To apply this approach, we first regress Communist party membership and informant affiliation on a set of exogenous individual socio-economic and location characteristics, including age and its square, gender, latitude, longitude, elevation, and country dummies. We then predict residuals from each regression. Finally, we use the products of residuals and demeaned exogenous variables from the previous step as instruments of connections to the former Communist party and informants.

To increase the reliability of our results, we also provide specification curve analyses (Figs. 1 and 2) (Simonsohn et al. 2015, 2020). These specification curve analyses account for the fact that the particular way in which we have set up the models, including the choice of the control variables, the included countries, and the weighting scheme, are subject to researcher discretion. As such, we re-estimate variations of Eq. (1) and report the results. The idea behind these specification curves is to run several alternative specifications and present the results graphically, so the reader can quickly view the distribution of the results and their confidence intervals.

Finally, we test the robustness of our findings by replacing the country-fixed effects with a set of country-level controls. Specifically, we account for the different institutional and economic development of the analyzed countries by substituting country dummies with a set of country-level institutional and economic variables, including the share of income held by the top 1% earners in a country, corruption perceptions, the rule of law, and political stability indicators. We also provide heterogeneity analyses based on the institutional and economic characteristics of countries in our analysis sample.

In the baseline analysis, we estimate Eq. (1) using life satisfaction as the dependent variable. Additionally, we provide the results for other socio-economic outcomes and preferences, including satisfaction with own financial situation, preferences for redistribution, optimism, risk preferences, interpersonal trust, and preferences for democracy and market economy.

All in all, this large number of additional specifications increases the confidence in our results and helps uncover potential explanations underpinning our main findings and conclusions.

4 Data

We employ the 2016 Life in Transition Survey (LiTS), a nationally representative survey of individuals in CEE and the FSU countries collected by the European Bank for Reconstruction and Development and the World Bank. The survey polls about 1500 individuals per country in 34 countries, including all of the CEE and the FSU, except for Turkmenistan. The methodology in all countries is the same: face-to-face interviews, using a two-stage sampling procedure with strata based on geographical region and urban/rural location. Primary sampling units (PSUs) in each country include 75 locations of 20 households representing electoral districts or census enumeration areas.

The LiTS has several features that make it the most opportune information source for our analysis. The data for all countries are based on the same harmonized survey, which eliminates the need to match and synchronize data from different sources or time periods. Moreover, the LiTS contains rich information on individual socio-demographic characteristics, values, and past experiences. While the 2006 and 2010 LiTS waves contain information on Communist party membership, the 2016 wave is the only one to date that asked a unique set of questions related to personal or family experiences with being an informant.

5 Variables

Our main dependent variable, *life satisfaction*, is measured on a 5-point Likert scale based on responses to the question, “To what extent do you agree with the following statement? All things considered, I am satisfied with my life now,” whereby 1 corresponds to “Strongly disagree” and 5 to “Strongly agree.” Life satisfaction is a self-reported welfare measure frequently used in economic and policy analysis (Di Tella and MacCulloch, 2006; Graham and MacLennan, 2020; MacKerron, 2012; Nikolova and Graham, 2022; Otrachshenko et al., 2022). Furthermore, it is a broad well-being indicator that typically captures additional information not revealed by income or employment data alone. The most important determinants of life satisfaction are income, employment status, marital status, and education (Nikolova and Graham, 2022). Despite some challenges, self-reported life satisfaction measures are valid, reliable, and reflective of the underlying concept of well-being (OECD, 2013; Stone and Krueger, 2018). In addition, to better understand the multi-faceted consequences of past regime affiliations and the individual-level mechanisms, we use a broader set of dependent variables about financial well-being and preferences.

First, in additional analyses, we rely on *financial satisfaction*, based on the question: “All things considered, I am satisfied with my financial situation as a whole,” which is measured on the same 5-point scale as life satisfaction. Furthermore, we

add *redistribution preferences* based on the statement: “The gap between the rich and the poor in our country should be reduced,” where 1 means strongly disagree, and 5 means strongly agree. The next outcome we consider is *optimism*, measured as “Children who are born now will have a better life than my generation,” where 1 means strongly disagree, and 5 means strongly agree. In addition, we include *risk preferences* based on the statement: “Please, rate your willingness to take risks, in general, on a scale from 1 to 10, where 1 means that you are not willing to take risks at all, and 10 and means that you are very much willing to take risks.” Finally, we add *interpersonal trust* based on the statement: “Generally speaking, would you say that most people can be trusted, or that you can’t be too careful in dealing with people? Please answer on a scale of 1 to 5, where 1 means that you have complete distrust and 5 means that you have complete trust.”

In additional analyses, we also rely on *preferences for democracy* elicited using the question: “With which one of the following statements do you agree most?” with possible answers being “Democracy is preferable to any other form of political system,” “Under some circumstances, an authoritarian government may be preferable to a democratic one” and “For people like me, it does not matter whether a government is democratic or authoritarian.” Finally, we utilize a measure of *preferences for a market economy* based on the question: “With which one of the following statements do you agree most” with possible answers being “A market economy is preferable to any other form of economic system,” “Under some circumstances, a planned economy may be preferable to a market economy,” and “For people like me, it does not matter whether the economic system is organised as a market economy or as a planned economy.”

To facilitate the comparisons between the results across the different dependent variables, some of which are measured on a different scale and have different distributions, we transform all dependent variables to have a mean of 5 and a standard deviation of 1.

Our two key independent variables are Communist party membership and informant status. The Communist party membership variable is based on a survey question “Were you or any member of your family a member of the Communist party prior to 1989/1991?” In the CEE region, this question was asked about 1989, and in the FSU (including the Baltics), the question referred to 1991. Possible answers include the Communist party membership of the respondent himself/herself, their parents, other family members, nobody, or don’t know/refusal, which we code accordingly. For the baseline model, we aggregate those answers to create the dummy variable “Communist party membership” that equals one if a respondent or any family member was a Communist party member and zero otherwise. In additional specifications, we also use information about the Communist party membership of the respondent, their parents, and other family members.

The informant variable is based on the survey question, “While living under the pre-1989/91 government in your country, did you or any member of your family experience pressure to serve as an informant to the secret service?” The answers include the respondent, their immediate family, grandparents, other relatives, and don’t know/refusal. We define the variable “Informant,” which equals 0 if none in the respondent’s family served as a secret service informant, 1 if the respondent or

any of their relatives served as an informant, 2 if the respondent refused to answer the question, and 3 if the respondent reported not knowing about such affiliation with the former regime. Given the small share of respondents reporting affiliations with informants (Tables 2 and 3), it is impossible to distinguish in the empirical analyses between respondents who themselves served as informants and those who had family members with that task. Furthermore, unfortunately, we cannot distinguish between voluntary informants (i.e., those who signed up to help the secret police) vs. those who were pressured to do so. The wording of our question is such that we potentially only capture those who were forced, i.e., pressured to collaborate with the secret police. Including *don't know* answers and refusals to the question about informant collaborations in the regression analyses partially helps mitigate this issue.

Specifically, for both the informant and Communist party affiliation variables, we include the don't know and refusal responses in the analyses. Given these questions' sensitive nature, respondents who had affiliations to collaborators of the former regimes may refuse to provide an answer or claim that they do not know (Shoemaker et al., 2002). Therefore, these answer categories likely have informational value in this context.

Furthermore, our analysis includes individual and geographic controls frequently used in the literature (Ivlevs et al., 2021; Mavisakalyan et al., 2021; Nikolova et al., 2022). Specifically, the individual characteristics include age and its square, a dummy variable for being employed, a dummy for being married, gender, education, log of net household income in PPP, a wealth index summing the ownership of different durable goods, ethnicity dummies, religious denomination, household size, the number of children, a dummy for whether the respondent lives in the capital city, urban/rural dummy, latitude, longitude, and elevation. LiTS respondents report income in local currency units. To create a comparable household income measure for each country, we use the World Bank PPP conversion factors for private consumption and convert the local currency units into international dollars.

In separate regressions, we also include variables from the LiTS capturing elite and human capital status, namely, the number of books the respondent had in the childhood home, mother and father's education, and parental occupation.

In addition, in robustness checks, we use as additional variables the share of income held by the top 1% earners in a country from the World Inequality Database (WID), corruption perceptions, the rule of law, and political stability indices from the Varieties of Democracy (V-Dem) dataset (Coppedda et al., 2021).

6 Results

6.1 Summary statistics

Tables 2 and 3 document the percentage of respondents reporting any link to former Communist party members and informants. According to some sources, about 10% of citizens were Communist party members (Libman and Obydenkova 2013; 2015; Marks, 2004; Miller, 1982), and about 1% were informants (Albats, 1994; Stan,

Table 2 Share of respondents with links to the former Communist party members and informants, by country

Country	% of Communist party members	% of informants
<i>CEE and Baltics</i>		
Albania	23.20	20.85
Bosnia and Herzegovina	22.53	4.99
Bulgaria	24.61	1.82
Croatia	19.03	3.49
Czech Republic	32.49	8.25
Estonia	25.79	2.29
Hungary	11.52	2.83
Kosovo	12.89	13.99
Latvia	20.96	5.57
Lithuania	13.51	3.02
Montenegro	35.29	2.47
North Macedonia	24.68	4.65
Serbia	28.44	2.92
Slovak Republic	19.22	1.80
Slovenia	16.22	0.75
Poland	15.16	6.25
Romania	27.31	4.11
<i>Post-Soviet countries (excl. Baltics)</i>		
Armenia	31.48	0.30
Azerbaijan	14.61	12.81
Belarus	38.56	1.66
Georgia	29.08	2.09
Kazakhstan	26.54	0.33
Kyrgyz Republic	20.33	2.47
Moldova	14.83	5.33
Russian Federation	28.38	2.63
Tajikistan	16.43	0.62
Ukraine	32.61	2.18

Note: The table reports % of respondents in the analysis sample who reported any link to the Communist party or being an informant for the former secret police based on the LiTS III survey

2009). Based on the LiTS, the percentages reported in Table 3 and A2 are higher, likely because they capture the links to the Communist party for the whole family, including distant relatives, not just a single respondent. The figures on respondent's own membership in the Communist party or own status as an informant are lower than the 10% reported in the literature: 3.65% for Communist party membership and 0.44% for informants in CEE and Baltics, and 2.42% and 0.15% for Communist party membership and informants in the FSU countries, respectively.

On average, about 22% of CEE respondents in our analysis sample report any links to the former Communist party. About 5.3% of respondents report that any

Table 3 Communist party members and informants in the analysis sample, by personal or familial affiliation

	CEE and Baltics				Post-Soviet countries (excl. Baltics)			
	Communist party member		Informant		Communist party member		Informant	
	<i>N</i>	% of the sample	<i>N</i>	% of the sample	<i>N</i>	% of the sample	<i>N</i>	% of the sample
None	13,437	69.84	14,887	77.37	7,798	67.2	10,302	88.78
Yourself	702	3.65	84	0.44	281	2.42	17	0.15
Immediate family/parents	1996	10.37	139	0.82	1,527	13.16	35	0.30
Grandparents	n.a	n.a	182	0.95	n.a	n.a	93	0.80
Other relatives	1526	7.93	618	3.21	1,118	9.63	180	1.55
Refusal	436	2.27	1059	5.5	68	0.59	162	1.40
Don't know	1144	5.95	2272	11.81	812	7	815	7.02
Total	19,241	100	19,241	100	11,604	100	11,604	100

Notes: n.a. = not available since the question on the Communist party membership of grandparents was not asked. CEE and Baltics include Albania, Bosnia and Herzegovina, Bulgaria, Croatia, the Czech Republic, Estonia, North Macedonia, Hungary, Kosovo, Latvia, Lithuania, Montenegro, Poland, Romania, Serbia, Slovakia, and Slovenia. Post-Soviet countries include Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russia, Tajikistan, and Ukraine

member was pressured to serve as an informant. As shown in Table A2, the lowest percentage of respondents with links to the former Communist party is in Hungary (11.5%), while the highest is in Montenegro (35.3%). The percentage of informants in CEE ranges from 0.75% in Slovenia to 20.85% in Albania. While the survey percentage for Albania may appear high, according to historical sources, about 25% of the population is estimated to have worked as informants (Horne 2017). In the FSU, about 25% of respondents have links to the former Communist party, with a minimum of 14.6% in Azerbaijan and 38.6% in Belarus. About 2.8% have any links to former secret service informants, ranging from 0.3% in Armenia and Kazakhstan to 12.8% in Azerbaijan. The number of self-reported informants in the FSU region is thus smaller than that in the CEE, even though the share of the “don’t know” and refusals to the question is similar across the two regions.

We next discuss the difference in the main socio-economic characteristics between “communists,” i.e., those with connections to the former Communist party either by being a member themselves or having affiliated family members (Table 4) and “informants,” i.e., individuals who either themselves served as an informant for the regime or had relatives who did that (Table 5). In each case, we show the results for CEE and Baltics separately from those for the post-Soviet countries.⁵

As Table 4 shows, individuals affiliated with the former Communist party have, on average, higher household incomes and wealth, are better educated, and had more books at home in their childhood. Table A1 further explores the determinants of having a Communist party or informant affiliation status and supports this conclusion. For example, having more books in the parental home and educated fathers who worked in public administration increase the probability of having Communist party connections. In line with Marks (2004), this evidence implies that the former Communist party members had an elite status that may have carried over to today’s market economy. Yet, Table A1 reveals that those with Communist party connections in both CEE and FSU countries are less likely to be employed. This may suggest that former Communists and their relatives may now face labor market discrimination, despite their high human capital, connections, and pedigree.

Table 5 demonstrates that in CEE and Baltic countries, informants have, on average, lower household incomes but slightly higher wealth, are more likely to be employed, married, have larger household sizes, and have more children. They are also lower educated than non-informants, although there are no differences in the number of books in the parental home during childhood. In the FSU countries, informants are also more likely to be employed and married, though they have smaller household sizes and fewer children than non-informants. Also, they are more likely to have primary or secondary education and less likely to have tertiary

⁵ CEE and Baltics countries in our sample include Albania, Bosnia and Herzegovina, Bulgaria, Croatia, the Czech Republic, Estonia, North Macedonia, Hungary, Kosovo, Latvia, Lithuania, Montenegro, Poland, Romania, Serbia, Slovakia, and Slovenia. The FSU (“post-Soviet”) countries include Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russia, Tajikistan, and Ukraine. Uzbekistan is not included in the analysis since there is no data available on informants in this country. Given their EU orientation and overall transition trajectory, the Baltic states (Estonia, Latvia, and Lithuania) are included in the “CEE and Baltics” and not in the “post-Soviet” subsample.

Table 4 Descriptive statistics, by former Communist party membership status

	CEE and Baltics				Post-Soviet countries (excl. Baltics)				
	Com. Party mem. = 1		Com. Party mem. = 0		Com. Party mem. = 1		Com. Party mem. = 0		
	Mean	Std. dev.	Mean	Std. dev.	Mean	Std. dev.	Mean	Std. dev.	
	<i>N</i> = 4224	<i>N</i> = 13,437	<i>N</i> = 2926	<i>N</i> = 7798					
					in means			in means	
					<i>p</i> -value			<i>p</i> -value	
Life satisfaction	5.02	0.98	5.00	0.98	4.87	1.06	4.89	1.05	0.58
Satisfaction with own financial situation	4.98	0.99	4.99	0.98	4.81	1.04	4.87	1.03	0.00
Satisfaction with the present state of the economy	4.83	0.94	4.95	0.94	4.92	1.06	5.01	1.04	0.00
Interpersonal trust	5.07	0.96	5.03	0.95	4.97	1.06	4.94	1.06	0.09
Preferences for reducing the gap between rich and poor	5.22	0.88	5.10	0.97	4.90	1.06	4.87	1.05	0.15
Optimism for children's future	4.88	1.01	4.91	0.98	5.08	1.04	5.08	1.00	0.84
Risk preferences	5.02	0.98	4.98	0.96	5.02	1.03	4.93	1.03	0.00
Log of income	6.72	0.69	6.64	0.78	6.18	0.94	5.95	1.00	0.00
Employed (1 = yes)	0.46	0.50	0.49	0.50	0.47	0.50	0.46	0.50	0.30
Age	55.69	16.61	51.06	18.11	51.42	16.37	45.73	16.87	0.00
Married	0.55	0.5	0.52	0.50	0.61	0.49	0.64	0.48	0.00
Household size	2.38	1.32	2.26	1.53	2.96	1.72	3.32	1.86	0.00
Number of children	0.34	0.72	0.46	0.88	0.69	1.04	0.93	1.20	0.00
Wealth index	5.43	1.65	5.48	1.66	4.66	1.70	4.46	1.72	0.00
Has a higher education (1 = yes)	0.27	0.44	0.20	0.40	0.37	0.48	0.26	0.44	0.00
Books:									
0–10 books	0.26	0.44	0.29	0.46	0.15	0.36	0.27	0.44	0.00
11–25 books	0.23	0.42	0.26	0.44	0.27	0.44	0.29	0.45	0.10
26–100 books	0.27	0.45	0.26	0.44	0.3	0.46	0.26	0.45	0.00

Table 4 (continued)

	CEE and Baltics			Post-Soviet countries (excl. Baltics)		
	Com. Party mem. = 1 N = 4224	Com. Party mem. = 0 N = 13,437	Difference in means p-value	Com. Party mem. = 1 N = 2926	Com. Party mem. = 0 N = 7798	Difference in means p-value
	Mean	Std. dev.		Mean	Std. dev.	
101-200	0.11	0.31	0.29	0.13	0.33	0.09
200+	0.11	0.32	0.26	0.12	0.32	0.07
Missing information	0.02	0.13	0.15	0.03	0.16	0.04

Notes: Com. Party mem. = Communist party membership and equals 1 if anyone in a family or the respondent her/himself had a Communist party affiliation and 0 otherwise. The wealth index is a summative index that ranges from 0 to 7, based on ownership of a telephone (including mobile), color TV, computer/laptop/tablet, washing machine, car, bicycle, and motorcycle. The books variable is based on the number of books (excluding magazines, newspapers, and school books) in the respondent's childhood home. The log of income is based on the natural logarithm of the net monthly household income in PPP. The World Bank PPP conversion factor for private consumption was used to convert local currency units to international dollars. See the notes in Table 3 for country groupings

Table 5 Descriptive statistics, by informant status

	CEE and Baltics						Post-Soviet countries (excl. Baltics)					
	Informant = 1			Informant = 0			Informant = 1			Informant = 0		
	<i>N</i> = 1023			<i>N</i> = 14,887			<i>N</i> = 325			<i>N</i> = 10,302		
	Mean	Std. dev.	Mean	Std. dev.	<i>p</i> -value	Difference in means	Mean	Std. dev.	Mean	Std. dev.	Difference in means	
Life satisfaction	4.95	0.99	5.02	0.97	0.04		4.75	0.94	4.90	1.06	0.02	
Satisfaction with own financial situation	5.12	0.96	4.97	0.98	0.00		4.95	0.90	4.86	1.04	0.11	
Satisfaction with the present state of the economy	5.20	0.95	4.88	0.94	0.00		5.16	0.91	4.98	1.06	0.00	
Interpersonal trust	5.15	0.93	5.02	0.96	0.00		4.96	0.89	4.95	1.06	0.89	
Preferences for reducing the gap between rich and poor	4.90	0.94	5.18	0.94	0.00		4.28	1.13	4.90	1.04	0.00	
Optimism for children's future	5.19	0.87	4.86	0.99	0.00		4.93	0.87	5.10	1.02	0.00	
Risk preferences	5.18	0.88	4.98	0.98	0.00		5.05	0.78	4.96	1.04	0.14	
Log of income	6.32	1.59	6.66	0.67	0.00		6.03	0.86	6.02	0.99	0.89	
Employed (1 = yes)	0.58	0.49	0.48	0.50	0.00		0.58	0.5	0.47	0.50	0.00	
Age	49.35	17.12	52.77	17.81	0.00		45.49	16.8	47.13	16.89	0.09	
Married	0.63	0.48	0.52	0.5	0.00		0.73	0.44	0.63	0.48	0.00	
Household size	2.87	1.58	2.51	1.48	0.00		2.98	1.41	3.25	1.85	0.01	
Number of children	0.54	0.92	0.43	0.84	0.00		0.74	0.95	0.88	1.18	0.04	
Wealth index	5.63	1.61	5.39	1.69	0.00		4.1	1.73	4.55	1.71	0.00	
Has a higher education (1 = yes)	0.28	0.45	0.21	0.40	0.00		0.18	0.39	0.3	0.46	0.00	
Books:												
0-10 books	0.3	0.46	0.29	0.45	0.61		0.47	0.5	0.23	0.42	0.00	
11-25 books	0.23	0.42	0.25	0.43	0.24		0.23	0.42	0.28	0.45	0.03	
26-100 books	0.25	0.43	0.27	0.44	0.37		0.17	0.38	0.27	0.45	0.00	
101-200	0.1	0.29	0.09	0.29	0.88		0.07	0.26	0.1	0.3	0.10	

Table 5 (continued)

	CEE and Baltics				Post-Soviet countries (excl. Baltics)			
	Informant = 1		Informant = 0		Informant = 1		Informant = 0	
	N = 1023	N = 14,887	Difference in means	p-value	N = 325	N = 10,302	Difference in means	p-value
	Mean	Std. dev.	Mean	Std. dev.	Mean	Std. dev.	Mean	Std. dev.
200+	0.1	0.31	0.08	0.27	0.03	0.18	0.08	0.27
Missing information	0.02	0.14	0.02	0.15	0.03	0.17	0.03	0.18

Notes: Informant equals 1 if anyone in a family or her/himself served as an informant for the regime and 0 otherwise. The wealth index is a summative index that ranges from 0 to 7, based on ownership of a telephone (including mobile), color TV, computer/laptop/tablet, washing machine, car, bicycle, and motorcycle. The books variable is based on the number of books (excluding magazines, newspapers, and school books) in the respondent's childhood home. The log of income is based on the natural logarithm of the net monthly household income in PPP. The World Bank PPP conversion factor for private consumption was used to convert local currency units to international dollars. See the notes in Table 3 for country groupings

education, be less wealthy, and have fewer books in the parental home than non-informants. In both CEE and the FSU countries, informants also have lower life satisfaction than non-informants. Table A1 looks at the determinants of informant connections and reveals that the father's education and occupation do not seem to matter for informant status. Yet, those connected to informants in the CEE seem to come from homes with high-human capital (as measured by the number of books), while those in the FSU seem to be from rather low-human capital households.

Given the sensitive nature of questions regarding links to the past regime, in Table A2, we also check the determinants of responding "don't know" or refusing to respond to the questions regarding a Communist party or informant affiliation status. As Table A2 shows, those who don't know or refuse to respond to those questions are likely to be younger and also more likely to say "don't know" or refuse to answer the questions regarding the number of books in childhood, mother's and father's education, and mother's and father's occupation. It is thus most likely that those respondents may truly not know about their families' past.

6.2 Baseline regression results

Table 6 shows the life satisfaction consequences of affiliations with the former Communist Party and secret informants. models (1)–(5) demonstrate the results for CEE countries and the Baltics, while models (6)–(10) detail the main findings for the FSU (excluding the Baltic states). We present models with and without controls for family status, parental human capital, and occupation, estimations with entropy balancing weights for party membership or informant affiliation, and the Lewbel IV results. In all regression results in Table 6, we offer estimations based on any link to the Communist party membership as the key independent variable. In addition, Table A3 in the Appendix presents additional results distinguishing between own, parental, and other family members' Communist party membership. Such detailed estimates are not possible for the informant status variable, given the small number of observations.

The first conclusion from Table 6 is that the patterns in our coefficient estimates are relatively similar across the results based on different estimation techniques. We first focus on the OLS results in models (1) and (6) and discuss the other results later. Based on model (1), we conclude that affiliations with the former Communist party negatively correlate with life satisfaction in the CEE and the Baltics. The coefficient estimate for any links to the former ruling party is marginally statistically significant at the 10 percent level. In line with our theoretical framework and the historical narrative about lustration "cultures," the opposite is true in the FSU, where individuals with connections to the former Communist party enjoy higher life satisfaction than those without them (model (6) of Table 6). While having a former secret police informant in the family is unassociated with life satisfaction in the CEE/Baltics today, such links seem to have long-term psychologically scarring consequences in the FSU, where the coefficient estimate is negative and marginally statistically significant.

Table 6 Communist party membership, informant status, and life satisfaction

	CEE and Baltics					Post-Soviet countries (excl. Baltics)				
	OLS	OLS	OLS with entropy balancing weights for com. party	OLS with entropy balancing weights for informants	Lewbel IV	OLS	OLS	OLS with entropy balancing weights for com. party	OLS with entropy balancing weights for informants	Lewbel IV
Dependent variable: life satisfaction	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Communist party member (Any link)	-0.039*	-0.044**	-0.040*	-0.056	-0.037*	0.069**	0.071***	0.071**	0.057	0.072***
Communist party member (Refusal)	(0.021)	(0.020)	(0.020)	(0.045)	(0.020)	(0.027)	(0.027)	(0.028)	(0.069)	(0.027)
Communist party member (Don't know)	-0.044	-0.038	-0.078	-0.011	-0.038	-0.045	-0.038	-0.024	-0.286	-0.001
Informant (Any link)	(0.058)	(0.057)	(0.063)	(0.095)	(0.057)	(0.127)	(0.128)	(0.137)	(0.232)	(0.129)
Informant (Refusal)	-0.054	-0.054	-0.042	-0.186**	-0.056	0.075*	0.075*	0.060	0.148**	0.073*
	(0.038)	(0.037)	(0.043)	(0.073)	(0.038)	(0.041)	(0.041)	(0.054)	(0.072)	(0.041)
	-0.054	-0.060	-0.063	-0.092**	-0.038	-0.116*	-0.106*	-0.133	-0.100*	-0.129**
	(0.055)	(0.054)	(0.056)	(0.042)	(0.057)	(0.062)	(0.061)	(0.081)	(0.057)	(0.061)
	-0.054	-0.058	-0.015	-0.003	-0.052	0.110	0.110	0.141	0.176	0.100
	(0.057)	(0.057)	(0.071)	(0.079)	(0.058)	(0.084)	(0.083)	(0.095)	(0.109)	(0.084)

Table 6 (continued)

	CEE and Baltics					Post-Soviet countries (excl. Baltics)				
	OLS	OLS	OLS with entropy balancing weights for com. party	OLS with entropy balancing weights for informants	Lewbel IV	OLS	OLS	OLS with entropy balancing weights for com. party	OLS with entropy balancing weights for informants	Lewbel IV
Dependent variable: life satisfaction	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Informant (Don't know)	-0.096*** (0.032)	-0.093*** (0.032)	-0.097*** (0.037)	-0.110** (0.046)	-0.099*** (0.032)	0.003 (0.048)	0.006 (0.048)	0.086 (0.056)	-0.049 (0.067)	0.003 (0.048)
Parental education	no	yes	yes	yes	yes	no	yes	yes	yes	yes
Parental occupation	no	yes	yes	yes	yes	no	yes	yes	yes	yes
No. of books in childhood	no	yes	yes	yes	yes	no	yes	yes	yes	yes
Entropy balancing weights for Comm. party	no	no	yes	no	no	no	no	yes	no	no
Entropy balancing weights for informants	no	no	no	yes	no	no	no	no	yes	no
Observations	19,241	19,241	19,241	19,241	19,241	11,604	11,604	11,604	11,604	11,604
R-squared	0.154	0.159	0.154	0.174	0.144	0.230	0.233	0.225	0.261	0.223

Notes: * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$. The dependent variable is standardized with a mean of 5 and a standard deviation of 1. All regressions include age and its square, a dummy for being employed, a dummy for being married, gender, education, log(income), wealth index, ethnicity dummies, religious denominations, household size, no. of children, living in a capital, urban/rural dummy, latitude, longitude, elevation, and country fixed effects. Robust standard errors clustered at the primary sampling unit level are in parentheses. See the notes to Table 3 for country groupings

These results likely reflect the different present-day attitudes towards the former communist regimes and their collaborators in the CEE/Baltics and FSU regions. As we detail in Section 2, the public exposure of those who benefited from the regime or served as informants has taken place in the CEE/Baltics regions but not in the FSU. Because the declassification of secret service files has not yet taken place in the FSU, those connected with the Communist party may still enjoy the benefits of past privilege, connections, and status. At the same time, those who worked as snitches may fear that they or their relatives will get exposed and become the subject of public wrath.

Furthermore, panels A and B in column (1) in Table A3 in the appendix reveal that parental and family Communist party affiliations drive the negative life satisfaction consequences related to Communist party affiliations in the CEE and the positive ones in the FSU. Therefore, in the CEE and Baltics, the relatives and children of former Communists are paying the psychological price of regime affiliation. In the FSU, the relatives and children of those connected to the former ruling party enjoy higher life satisfaction.

We also explore whether our results are due to the differential household selection into the Communist party and informant status. In models (2) and (7) in Table 6, we control for the mother and father's education and occupation and the number of books in childhood. The coefficient estimates remain similar in all cases, and the main conclusions do not change. If anything, their statistical significance becomes stronger, suggesting that selection based on status and family human capital does not seem to be the main driver of our results, which is in line with Bird et al. (1998). Finally, we use entropy balancing weights and the Lewbel IV approach. Columns (3) and (8) in Table 6 present the results after balancing the covariates that affect the Communist party membership, columns (4) and (9)—after balancing the covariates that affect informant affiliation, and columns (5) and (10) present the Lewbel IV results. These findings are also in line with our baseline results.

So far, we have only discussed the direction of the coefficient estimates but not their magnitudes and economic significance. Since the dependent variable in Table 6 is standardized to have a mean of 5 and a standard deviation of 1, having ties with the former Communist party reduces life satisfaction by 4.4% of a standard deviation in CEE countries and increases life satisfaction by 7.1% of a standard deviation in the FSU, while having an informant affiliation reduces life satisfaction in the FSU by 10.6% of a standard deviation (see columns (2) and (7) in Table 6). Although these results are seemingly modest in magnitude, they are economically significant, given their persistence for three decades after the fall of the communist regime.

6.3 Robustness checks

Figures 1 and 2 provide specification curve analyses based on different modifications of Eq. (1) and including and excluding different covariates or analysis countries. The upper part of those figures shows the coefficient estimates on the Communist party membership and informant affiliation and the associated 95% confidence intervals. The lower part of those figures shows the model specification details (i.e.,

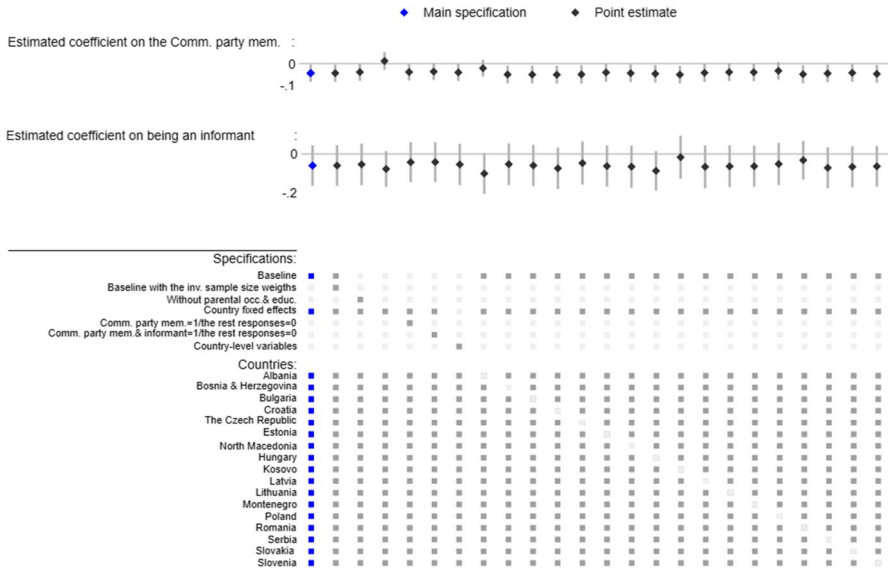


Fig. 1 Specification curve, CEE and Baltics. *Notes:* The dependent variable is life satisfaction. Estimated coefficients with their 95% confidence intervals are shown. The baseline specification is the specification reported in column (2) of Table 6 and includes age and its square, a dummy for being employed, a dummy for being married, gender, education, log(income), wealth index, ethnicity dummies, religious denominations, household size, no. of children, living in a capital, urban/rural dummy, latitude, longitude, elevation, controls for mother’s and father’s education, controls for mother’s and father’s occupation, no. of books in childhood, and country fixed effects

which controls and countries are included or excluded). In both figures, the first model (in blue) is based on models (2) and (7) from Table 6 that includes individual socio-economic characteristics from Eq. (1) and controls for parental education, occupation, and the number of books when growing up in the parental home. We then offer specifications with the inverse sample size weights (to ensure that countries with more observations are not driving the results), excluding controls for family background, omitting all individual socio-economic controls, alternative coding of “don’t know” and refusal responses as 0, using country-level variables instead of country fixed effects, and excluding one country from the sample at a time. As shown in the upper part of both figures, the patterns in the coefficient estimates on the ties to the previous regime remain rather stable regardless of the model specification. The results are somewhat less robust in the case of being an informant in the FSU countries (Fig. 2). The coefficient estimates on being an informant are consistently negative in all specifications with confidence intervals that overlap with the baseline specification but are marginally statistically significant or are sometimes not significant. This is likely due to the small size of this group in the FSU countries (see Tables 2 and 3), suggesting that the results related to being an informant should be interpreted with caution.

Our main specifications include country dummies, capturing any country-specific differences in institutional and economic development and unobservable cultural

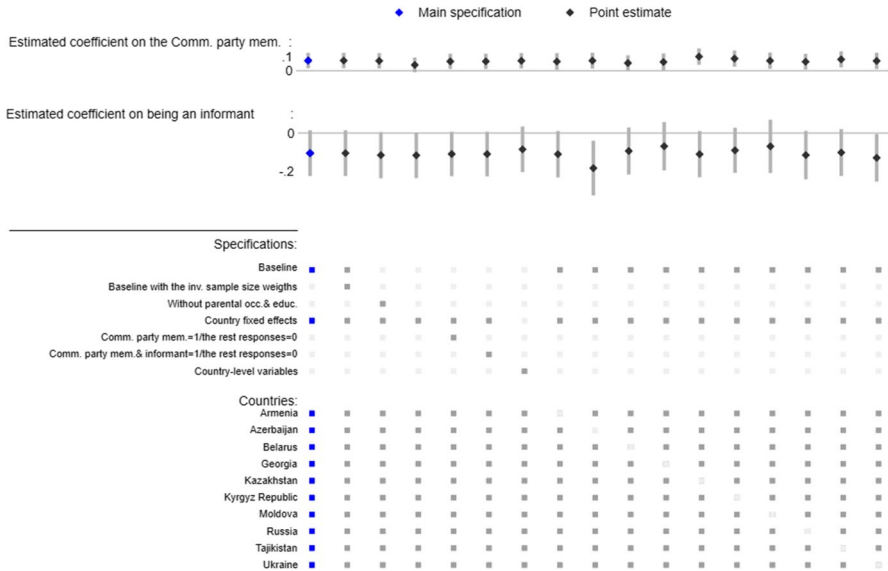


Fig. 2 Specification curve, post-soviet countries (excl. Baltics). *Notes:* The dependent variable is life satisfaction. Estimated coefficients with their 95% confidence intervals are shown. The baseline specification is the specification reported in column (7) of Table 6 and includes age and its square, a dummy for being employed, a dummy for being married, gender, education, log(income), wealth index, ethnicity dummies, religious denominations, household size, no. of children, living in a capital, urban/rural dummy, latitude, longitude, elevation, controls for mother’s and father’s education, controls for mother’s and father’s occupation, no. of books in childhood, and country fixed effects

characteristics, such as differences in answering subjective questions or trustworthiness. To take into account the effects of institutions and economic situation in our analysis more explicitly, in additional specifications, instead of country dummies, we control for the rule of law, perceptions of corruption, political stability, and the share of income held by the top 1% earners in a country. As Table A4 in the appendix demonstrates, this modification of our empirical model does not alter the main conclusion regarding the effects of former Communist party connections in both CEE and FSU and regarding the effects of informant connections in CEE, suggesting that both the baseline and the modified specifications adequately control for the development specifics of the analyzed countries. The effects of informant connections in FSU remain negative but become insignificant, suggesting that this result is less robust.

6.4 Mechanisms and alternative explanations

6.4.1 Country-level mechanisms and explanations

Our results thus far suggest that the links with the Communist party and informant variables have a differential impact in CEE and FSU countries. Former Communist party members enjoy a life satisfaction premium in the FSU but are less satisfied

with their lives in CEE. Former informant connections are not associated with life satisfaction in CEE today but are negatively associated with life satisfaction in the FSU.

To understand the mechanisms behind our results for links with the Communist party and informant variables, we first split the sample according to whether or not the respondent's country of residence has enacted lustration laws, which is a proxy for the decommunization culture (see Table 1). Respondents with regime ties in countries with lustration laws may experience lower life satisfaction due to the guilt and shame associated with the process. Alternatively, countries with decommunization cultures may have already come to terms with their communist past, thus not leaving a permanent mark on the former regime collaborators' long-term quality of life.

In line with expectations and the intuition detailed in Section 2, the impact of connections to former Communist party members and informants differs for countries without and with lustration laws (columns (1) and (2) of Table 7, respectively).

Table 7 Communist party membership, informant status, and life satisfaction in countries with and without lustration laws, OLS

	Countries without lustration laws (1)	Countries with lustration laws (2)
Communist party member (Any link)	0.045* (0.025)	-0.041* (0.022)
Communist party member (Refusal)	0.071 (0.079)	-0.100 (0.066)
Communist party member (Don't know)	0.022 (0.036)	-0.027 (0.043)
Informant (Any link)	-0.109* (0.056)	-0.039 (0.059)
Informant (Refusal)	0.062 (0.071)	-0.077 (0.061)
Informant (Don't know)	-0.004 (0.036)	-0.137*** (0.039)
Observations	14,836	16,009
R-squared	0.205	0.171

Notes: * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$. Robust standard errors clustered at the PSU level are in parentheses. The dependent variable is life satisfaction standardized with a mean of 5 and a standard deviation of 1. Countries with lustration laws are Albania, Bulgaria, the Czech Republic, Estonia, Georgia, Hungary, Latvia, Lithuania, North Macedonia, Poland, Romania, Serbia, Slovakia, and Ukraine. Countries without lustration laws are Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Croatia, Kazakhstan, Kosovo, Kyrgyzstan, Moldova, Montenegro, Russia, Slovenia, and Tajikistan (see Table 1 for details). All regressions include age and its square, a dummy for being employed, a dummy for being married, gender, education, $\log(\text{income})$, wealth index, ethnicity dummies, religious denominations, household size, no. of children, living in a capital, urban/rural dummy, latitude, longitude, elevation, controls for mother's and father's education, controls for mother's and father's occupation, no. of books in childhood, and country fixed effects

In countries without lustration laws, we find a positive association between being a former Communist party member and life satisfaction and a negative link between being an informant and life satisfaction.

In countries with lustration laws, the consequences of links to the Communist party and informants are negative for life satisfaction, though the latter association is not statistically significant. At the same time, the estimate on reporting “don’t know” is negative and statistically significant. This result suggests that informant connections may still impose a psychological cost today due to the public knowledge of such connections, if the “do not know” responses signify hesitancy to reveal those connections even many years after the regime’s fall. All in all, our results suggest that lustration laws could be a mechanism explaining the patterns we document in Table 6.

In addition to decommunization efforts, our results could be driven by the divergent economic performance and political institutions in CEE and FSU countries. To test this possibility, in Table 8, we split the analysis sample based on countries’ standing on different macroeconomic indicators, such as GDP per capita, GDP performance relative to the beginning of the transition, political stability, the rule of law, and EU membership. For example, the prospect of joining the EU has shaped the transition process in many of the CEE and Baltic countries and explains the different trajectories that CEE/Baltics and FSU countries took (Åslund, 2007; Lane, 2007; Nikolova and Nikolaev, 2017; Otrachshenko et al., 2016). Generally, countries that followed an EU membership path have implemented governance and macroeconomic reforms, which have helped them modernize and democratize. We explore to what extent EU membership underpins the results we see.⁶

Table 8 reveals that former Communist party members living in more politically stable countries are less satisfied with their lives. In contrast, those living in less politically stable countries are more satisfied with their lives compared with those without ruling party affiliations (models (5) and (6) in Table 8). This may be because political turmoil allows for elite persistence and the retention of economic and political power. A similar pattern whereby former Communist party affiliations are positively associated with life satisfaction in more dysfunctional societies with poor economic performance emerges when we split the sample based on the rule of law and the EU membership status and GDP, but the results are not statistically significant.

Meanwhile, those with informant connections living in countries with a lower GDP per capita, less politically stable countries, and non-EU members are less satisfied with their life. This may indicate that such volatile conditions make their affiliations with the past political regimes a liability and their lives and social status more vulnerable and precarious.

All in all, these results suggest that decommunization efforts and especially the political situation of the countries may matter for the life satisfaction outcomes of those with former regime affiliations. We explore the potential individual-level mechanisms in the next section.

⁶ The details of how we define the particular country groupings in Table 8 are available in Table A5 in the appendix.

Table 8 Communist party membership, informant status, and life satisfaction, country heterogeneity results

	Countries with high GDP per capita	Countries with low GDP per capita	Countries with high performance in GDP per capita relative to 1995	Countries with low performance in GDP per capita relative to 1995	Countries with a higher political stability index	Countries with a lower political stability index	Countries with a high rule of law	Countries with a low rule of law	EU Members	Non-EU Members
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Communist party member (Any link)	-0.020 (0.022)	0.032 (0.025)	-0.028 (0.024)	0.029 (0.024)	-0.067*** (0.023)	0.062*** (0.023)	-0.009 (0.021)	0.014 (0.026)	-0.026 (0.023)	0.021 (0.023)
Communist party member (Refusal)	-0.113 (0.074)	0.059 (0.072)	-0.067 (0.079)	-0.050 (0.071)	-0.054 (0.057)	-0.026 (0.095)	-0.059 (0.072)	-0.023 (0.076)	-0.119 (0.080)	0.020 (0.066)
Communist party member (Don't know)		0.003 (0.040)	0.015 (0.048)	0.010 (0.038)	-0.065 (0.043)	0.045 (0.037)	-0.017 (0.039)	0.027 (0.040)	-0.000 (0.043)	0.010 (0.036)
Informant (Any link)	-0.031 (0.067)	-0.132*** (0.052)	-0.085 (0.065)	-0.025 (0.056)	-0.008 (0.063)	-0.135*** (0.053)	-0.095 (0.060)	-0.086 (0.055)	-0.064 (0.072)	-0.100*** (0.049)
Informant (Refusal)	0.024 (0.058)	-0.042 (0.076)	-0.156 (0.098)	0.014 (0.059)	-0.060 (0.062)	0.056 (0.074)	-0.006 (0.058)	-0.043 (0.085)	-0.007 (0.063)	-0.012 (0.070)

Table 8 (continued)

	Countries with high GDP per capita	Countries with low GDP per capita	Countries with high performance in GDP per capita relative to 1995	Countries with low performance in GDP per capita relative to 1995	Countries with a higher political stability index	Countries with a lower political stability index	Countries with a high rule of law	Countries with a low rule of law	EU Members	Non-EU Members
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Informant (Don't know)	-0.052	-0.104***	-0.158***	-0.040	-0.088**	-0.054	-0.049	-0.117***	-0.077*	-0.072*
Observations	15,957	14,888	12,092	16,483	14,691	16,154	16,475	14,370	12,703	18,142
R-squared	0.171	0.198	0.208	0.183	0.145	0.207	0.185	0.195	0.184	0.188

Notes: * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$. Robust standard errors clustered at the PSU level are in parentheses. The dependent variable is life satisfaction standardized with a mean of 5 and a standard deviation of 1. See Table A5 for country groupings. All regressions include age and its square, a dummy for being employed, a dummy for being married, gender, education, log(income), wealth index, ethnicity dummies, religious denominations, household size, no. of children, living in a capital, urban/rural dummy, latitude, longitude, elevation, controls for mother's and father's education, controls for mother's and father's occupation, no. of books in childhood, and country fixed effects

6.4.2 Individual-level mechanisms and explanations

We investigate several additional mechanisms that could underlie our findings in addition to the decommunization culture and the country context with the help of additional dependent variables. Specifically, we explore outcomes related to respondents' current financial satisfaction, risk and redistribution preferences, interpersonal trust, and optimism about their children's future.

As detailed in Table 9, in addition to being less satisfied with their lives, former Communist party members in CEE countries are also less satisfied with their financial situation and more likely to prefer reducing income inequality in their country. This may, in part, explain the life dissatisfaction of those with Communist party connections compared with those without such ties. This is an interesting finding, given that those with Communist party connections have higher incomes than those without (Table 4 and Table A1).

Furthermore, interestingly, former regime affiliates in both CEE and FSU countries (except for informants in the FSU) are more risk-loving, suggesting that risk preferences could be a coping strategy for those connected to the former regime during the transition to a market economy, possibly out of necessity. For instance, recent work by Ivlevs et al. (2021) shows that those with former Communist party links in the CEE were more likely to start a business, and starting a business is often correlated with risk tolerance (Kerr et al., 2019). Communist party membership and informant status also entailed a certain degree of opportunism, which may have persisted after the regime change.

Moreover, we checked whether those with regime affiliations have different attitudes towards their children's future than those without regime affiliations. Specifically, the results we document in our main specifications are driven by the children of those directly linked to the Communist party (Table A3). We wanted to explore how these individuals perceive their own children's future and whether we can find some further evidence for the inter-generational persistence of past regime affiliations. In this way, we are effectively examining how the children of the former Communist elites view their own children's future. Specifically for the FSU, former Communists and their relatives are more optimistic about their children's future (Table 9, model (3)), likely because of this cohort's financial means (Table A1) and the ability to transfer their fortunes to their offspring.

In the CEE, informants are also optimistic about their children's future, while in the FSU, they have less optimism for children's future. Similarly, informants in the CEE are more likely to trust people, while in the FSU, there are no differences in trust between those with and without informant links. These findings align with our expectations and results regarding decommunization (Section 2 and Table 7). In other words, in the CEE countries, most of which have passed lustration laws, former informants are no longer worried about their children's future and trust other people, which is still not the case in the FSU, where there have been few decommunization efforts and a threat of public exposure in the future.

In Table 10, we also study the former regime affiliates' attitudes toward democracy and a market economy. In both the CEE and FSU, those with former communist connections are less likely to prefer a market to a planned economy. In the CEE, they

Table 9 Communist party membership, informant status, and additional socioeconomic outcomes

Dependent variables:	Satisfaction with own financial situation (1)	Preferences for reducing the gap between rich and poor (2)	Optimism for children's future (3)	Risk preferences (4)	Interpersonal trust (5)
Panel A: CEE and Baltics					
Communist party member (Any link)	-0.078** (0.020)	0.124*** (0.021)	-0.002 (0.022)	0.047** (0.019)	0.024 (0.023)
Communist party member (Refusal)	-0.035 (0.057)	-0.131* (0.068)	0.062 (0.059)	-0.012 (0.054)	-0.054 (0.061)
Communist party member (Don't know)	-0.049 (0.037)	-0.068 (0.042)	-0.059 (0.042)	0.057 (0.039)	0.040 (0.041)
Informant (Any link)	0.053 (0.059)	-0.175*** (0.042)	0.097** (0.038)	0.124*** (0.041)	0.145*** (0.043)
Informant (Refusal)	-0.018 (0.052)	-0.165*** (0.058)	0.075 (0.055)	-0.005 (0.051)	0.036 (0.055)
Informant (Don't know)	-0.045 (0.028)	-0.198*** (0.033)	0.023 (0.033)	-0.026 (0.030)	-0.014 (0.029)
Observations	19,199	18,978	18,009	18,842	18,749
R-squared	0.173	0.058	0.132	0.216	0.070
Panel B: Post-Soviet countries (excl. Baltics)					
Communist party member (Any link)	0.027 (0.025)	0.034 (0.027)	0.044* (0.026)	0.069*** (0.026)	0.033 (0.029)
Communist party member (Refusal)	-0.011 (0.106)	-0.007 (0.145)	-0.088 (0.130)	-0.077 (0.101)	0.224* (0.127)
Communist party member (Don't know)	0.095** (0.039)	-0.032 (0.047)	0.101** (0.045)	0.015 (0.039)	-0.002 (0.055)
Informant (Any link)	0.068 (0.057)	-0.528*** (0.081)	-0.155** (0.065)	0.005 (0.053)	0.114 (0.072)

Table 9 (continued)

Dependent variables:	Satisfaction with own financial situation (1)	Preferences for reducing the gap between rich and poor (2)	Optimism for children's future (3)	Risk preferences (4)	Interpersonal trust (5)
Informant (Refusal)	0.120 (0.077)	-0.114 (0.095)	0.063 (0.076)	0.166** (0.083)	0.038 (0.090)
Informant (Don't know)	0.017 (0.044)	-0.006 (0.060)	-0.027 (0.049)	-0.169*** (0.054)	-0.019 (0.055)
Observations	11,602	11,378	10,604	11,611	11,634
R-squared	0.295	0.117	0.197	0.185	0.099

Notes: * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$. All dependent variables are standardized with a mean of 5 and a standard deviation of 1. OLS estimates are reported. All regressions include age and its square, a dummy for being employed, a dummy for being married, gender, education, log(income), wealth index, ethnicity dummies, religious denominations, household size, no. of children, living in a capital, urban/rural dummy, latitude, longitude, elevation, controls for mother's and father's education, controls for mother's and father's occupation, no. of books in childhood, and country fixed effects. Robust standard errors clustered at the PSU level are in parentheses. See the notes to Table 3 for country groupings

Table 10 Communist party membership, informant status, and preferences for market economy and democracy

	Preferences for market economy				Preferences for democracy			
	CEE and Baltics		Post-Soviet countries (excl. Baltics)		CEE and Baltics		Post-Soviet countries (excl. Baltics)	
	A market economy is preferred (default = planned economy)	The economic system does not matter (default = planned economy)	A market economy is preferred (default = planned economy)	The economic system does not matter (default = planned economy)	Democracy is preferred (default = authoritarian political system)	The political system does not matter (default = authoritarian political system)	Democracy is preferred (default = authoritarian political system)	Political system does not matter (default = authoritarian political system)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
Communist party member (Any link)	-0.050***	0.004	-0.045***	-0.006	-0.031***	0.007	-0.004	-0.017
Communist party member (Refusal)	(0.010)	(0.010)	(0.013)	(0.013)	(0.012)	(0.010)	(0.014)	(0.013)
	-0.026	-0.002	0.072	-0.083	-0.057*	0.035	0.142**	-0.114**
Communist party member (Don't know)	(0.029)	(0.031)	(0.063)	(0.066)	(0.030)	(0.030)	(0.070)	(0.052)
	-0.014	0.032*	0.004	-0.003	-0.010	0.036*	0.060**	-0.016
Informant (Any link)	(0.021)	(0.019)	(0.024)	(0.022)	(0.020)	(0.019)	(0.025)	(0.020)
	0.014	-0.028	-0.034	-0.029	0.002	-0.057***	-0.053	0.042
Informant (Refusal)	(0.024)	(0.022)	(0.035)	(0.038)	(0.023)	(0.019)	(0.038)	(0.035)
	-0.058**	0.043	0.025	-0.009	-0.072**	0.040	0.046	0.007
	(0.028)	(0.028)	(0.058)	(0.049)	(0.030)	(0.029)	(0.056)	(0.047)

Table 10 (continued)

	Preferences for market economy				Preferences for democracy			
	CEE and Baltics		Post-Soviet countries (excl. Baltics)		CEE and Baltics		Post-Soviet countries (excl. Baltics)	
	A market economy is preferred (default = planned economy)	The economic system does not matter (default = planned economy)	A market economy is preferred (default = planned economy)	The economic system does not matter (default = planned economy)	Democracy is preferred (default = authoritarian political system)	The political system does not matter (default = authoritarian political system)	Democracy is preferred (default = authoritarian political system)	Political system does not matter (default = authoritarian political system)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Informant (Don't know)	0.001	0.013	-0.001	-0.004	-0.018	0.020	0.023	0.001
	(0.014)	(0.015)	(0.030)	(0.027)	(0.015)	(0.014)	(0.029)	(0.025)
Observations	17,269	17,269	10,669	10,669	17,919	17,919	10,810	10,810

Notes: * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$. Marginal effects after multinomial logit are presented. The dependent variable in columns (1)-(4) is based on a survey question "With which one of the following statements do you agree most? 1 = A market economy is preferable to any other form of economic system, 2 = Under some circumstances, a planned economy may be preferable to a market economy, 3 = For people like me, it does not matter whether the economic system is organised as a market economy or as a planned economy." The dependent variable in columns (5)-(8) is based on a survey question "With which one of the following statements do you agree most? 1 = Democracy is preferable to any other form of a political system, 2 = Under some circumstances, an authoritarian government may be preferable to a democratic one, 3 = For people like me, it does not matter whether a government is democratic or authoritarian". All regressions include age and its square, a dummy for being employed, a dummy for being married, gender, education, log(income), wealth index, ethnicity dummies, religious denominations, household size, no. of children, living in a capital, urban/rural dummy, latitude, longitude, elevation, and country fixed effects. Robust standard errors clustered at the primary sampling unit level are in parentheses. See the notes in Table 3 for country groupings

are also less likely to prefer democracy over authoritarian political systems. These results also align with the findings in Table 9, suggesting that those with former Communist party ties are dissatisfied with their financial situation and have strong preferences for redistribution. All of these results point to the fact that in the CEE region, former Communist members and their relatives have preferences and beliefs associated with the system that Communism offered, which may explain their life dissatisfaction, although they are doing well economically. In contrast, informants in both CEE and the FSU do not show any specific preferences for or against market economy and democracy.

6.5 The costs and benefits of past regime affiliations based on the life satisfaction valuation approach

In this section, using the life satisfaction valuation approach, we calculate the price tags (i.e., “shadow prices”) of the Communist party membership and being an informant. This method allows computing an implicit monetary value of non-market goods, such as friendship or meeting family members, or compensatory packages for unemployment, ailments, or death of family members (Ferrer-i-Carbonell and Praag 2002; Oswald and Powdthavee, 2008; Powdthavee, 2007, 2008; Powdthavee and Van Den Berg 2011).⁷

The idea is to use the estimates from Eq. (1) to compute the marginal rate of substitution between the respondent’s net monthly household income and the benefit/cost of connections to the former Communist party or informants while maintaining the same level of life satisfaction. The price tag shows the rate at which an average respondent is willing to give up their life satisfaction premium from former Communist party ties or the amount they need to be compensated for a life satisfaction loss due to the Communist party membership/serving as an informant.

To compute the price tags of Communist party membership or being an informant, we estimate Eq. (1) using an ordinary least squares (OLS) estimator that allows us to interpret the estimated coefficients straightforwardly. Specifically, following Powdthavee and Van Den Berg (2011):

$$SP = y \times \left(\exp\left(\frac{\beta^{Com./Inf.}}{\beta^{\ln(Inc.)}}\right) - 1 \right) \quad (2)$$

where SP is the estimated price tag associated with the Communist party membership or serving as an informant for an average individual in our sample, y is the average income in our sample in international dollars, and β is the estimated set of coefficients of the Communist party membership ($Com.$), informant ($Inf.$), and the natural logarithm of income ($\ln(Inc.)$).

Table 11 shows the results. In the first part of this table, the significance and signs of the estimated coefficients for CEE and Baltic countries (columns 1) and

⁷ One disadvantage of this approach, especially with cross-sectional data, is that it assumes that current income only affects present-day life satisfaction but ignores the possibility that individuals will use part of their current income in the future (Knabe and Rätzl, 2011).

Table 11 Price tags, OLS estimates

	CEE and Baltics (1)	Post-Soviet countries (excl. Baltics) (2)
Communist party member (Any link)	-0.044** (0.020)	0.071*** (0.027)
Communist party member (Refusal)	-0.038 (0.057)	-0.038 (0.128)
Communist party member (Don't know)	-0.054 (0.037)	0.075* (0.041)
Informant	-0.060 (0.054)	-0.106* (0.061)
Refusal	-0.058 (0.057)	0.110 (0.083)
Don't know	-0.093*** (0.032)	0.006 (0.048)
Estimated Price Tag (in int.\$ per household per month):		
Communist Party Membership	-183.88	442.19
Informant	-260.99	-810.44
Average monthly household income (int.\$)	780.55	415.72
Observations	19,241	11,604
R-squared	0.159	0.233

Notes: * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$. The dependent variable is life satisfaction standardized with a mean of 5 and a standard deviation of 1. Robust standard errors clustered at the PSU level are in parentheses. Price tags in bold are based on statistically significant coefficients. All regressions include age and its square, a dummy for being employed, a dummy for being married, gender, education, log(income), wealth index, ethnicity dummies, religious denominations, household size, no. of children, living in a capital, urban/rural dummy, latitude, longitude, elevation, controls for mother's and father's education, controls for mother's and father's occupation, no. of books in childhood, and country fixed effects. See the notes in Table 3 for country groupings

post-Soviet countries (columns 2) correspond to estimates from the baseline models in columns (2) and (7) of Table 6. In the second part of Table 11, we present the estimated price tags of the Communist party membership and of serving as an informant.

The estimated psychological cost associated with the Communist party membership in CEE and Baltic countries is 183.88 international dollars per household per month (int.\$/household/month). This means that the life satisfaction cost associated with having links to the former ruling party in the CEE and the Baltics is about 183.88 int.\$/household/month. Given an average household monthly income in the CEE and Baltic countries of 780.55 int.\$/household/month in our sample, the psychological costs of the former Communist party membership amount to one-third of that income. Having informant links in the CEE and Baltic countries is unassociated with any losses since there is no statistically significant association between this variable and life satisfaction.

In the post-Soviet countries, the benefit associated with Communist party connections is equivalent to 442.19 int.\$/household/month.⁸ Simultaneously, being an informant brings costs to life satisfaction in the post-Soviet countries equivalent to 810.44 int.\$/household/month. Given that in the FSU, the average household monthly income in our sample is 415.72 int.\$/household/month, the estimated premium for being a former Communist party member is comparable to the average household monthly income, while being an informant brings a considerable loss, which is twice higher than the average household monthly income.

7 Conclusion

We examine whether personal or familial trustee ties to the former Communist regimes matter for current life satisfaction in CEE and FSU. The results reveal that the former regimes had a long-lasting effect on individuals and their families belonging to the Communist elite and those forced to serve as informants. Specifically, those connected to the former Communist Party in the CEE and informants in the FSU incurred long-term psychological costs from having associations with these trustee positions.

At the same time, former Communist party members and their families in the FSU were not only privileged and successful during Communism but are also more satisfied with their lives today, likely because their status, connections, and opportunities persist. Informants and their relatives in the CEE do not seem to suffer any psychological costs related to their past, meanwhile. Our results provide evidence for elite persistence in the FSU, which poor political institutions and instability likely facilitate.

We show evidence that our results are due to the decommunization efforts in the FSU and the CEE. Decommunization has generally been strong in the CEE region. For example, the post-communist societies in the CEE and the Baltics passed lustration laws and published lists with the names of former informants. Those with such connections have likely already experienced and adapted to social scrutiny and discrimination in these countries. Such individuals are also optimistic about their children's future. In the FSU, however, former informants' identities have remained secret. This may mean that this group and their relatives may fear the social backlash if lustration laws require declassifying secret service files. These results about the fear of exposure are also in line with informants' dissatisfaction in countries with poor economic and institutional performance. We also find evidence that former informers in the FSU are pessimistic about their children's future, in line with our interpretation.

⁸ In fact, the sources of this life satisfaction benefit are the parents' and other relatives' former ruling party membership. The corresponding compensating amounts for parents and other relatives' membership are 442.19 int.\$/household/month and 615.17 int.\$/household/month.

Several interesting findings stand out when we quantify the monetary equivalents of the life satisfaction gains/losses associated with trustee status. First, in the FSU countries, the monetary compensation for the psychological costs of being affiliated with former informants is twice as high as the monetary equivalent of the life satisfaction benefit from ties to the former Communist party. In other words, former Communist party members enjoy life satisfaction gains approximately equivalent to their monthly household incomes. In contrast, former informants lose the equivalent of twice their monthly household income. In CEE and Baltic countries, membership in the former Communist party is approximately equivalent to one-third of monthly income loss. These results suggest that the Communist regimes produced clear winners and losers and, as such, complement recent literature on the topic (Deter and Lange, 2022; Ivlevs et al., 2021).

We acknowledge several limitations. First, because the LiTS dataset only included the informant question in the 2016 survey, over-time analyses and studying adaptation are not possible. Furthermore, we have a small number of individuals who identified as informants in the FSU region, which means that the results should be interpreted with caution. While we do not have exogenous variation in Communist party membership or informant status, in addition to OLS, we use Lewbel IV and techniques that account for selection on observables.

Our study is the first to provide evidence on the long-term quality of life patterns of different trustees of the communist regime, namely, former Communist party members and those coerced to serve as informants. Yet, it opens several additional opportune avenues for future research. First, while data limitations preclude us from distinguishing between different ranks of party members, future work should also try to include this dimension. Those with top administrative positions in the Communist party and their relatives enjoyed more privileges than regular members. Additional qualitative and quantitative analysis using archival data from CEE and FSU countries may shed more light on how the quality of life of the elite members and their networks changed after the fall of Communism and whether and how elite continuity ensued. It is also interesting to examine whether the former Communist party's elite networks, winners, and losers of Communism shaped overall and intergenerational wealth and income inequalities in the region. Second, we have attempted to mitigate selection and omitted variables issues to the best extent possible given the data. However, our results should still be interpreted with caution as we do not have exogenous variation in the regime status affiliation. Future work should establish causality by using panel data, as in Deter and Lange (2022) for East Germany, or by finding credible instruments for Communist party membership and informant status. The latter may prove an arduous task, especially for FSU countries, though an instrument for former Communist party membership in CEE has already been proposed and used in the literature (Ivlevs and Hinks, 2018; Ivlevs et al., 2021).

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Data Availability The LITS III survey is available for download from the website of the European Bank for Reconstruction and Development (EBRD): <https://www.ebrd.com/what-we-do/economic-research-and-data/data/lits.html>

Declarations

Conflict of interest Milena Nikolova is an Editor of the Journal of Population Economics. She has no further competing interests. Olga Popova is an Associate Editor of the Journal of Population Economics. She has no further competing interests. Vladimir Otrachshenko has no competing interests to disclose.

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References

- Acemoglu D, Robinson JA (2008) The persistence and change of institutions in the Americas. *South Econ J* 75(2):281–299
- Acemoglu D, Johnson S, Robinson JA (2001) The colonial origins of comparative development: an empirical investigation. *Am Econ Rev* 91(5):1369–1401
- Acemoglu D, Egorov G, Sonin K (2021) Institutional change and institutional persistence. In: Bisin A, Federico G (eds) *The Handbook of Historical Economics*. Elsevier, pp 365–389
- Albats Y (1994) *The State Within a State: The KGB and its Hold on Russia Past, Present and Future*. Farrar, Straus & Giroux, New York
- Alesina AF, Seror M, Yang DY, You Y, Zeng W (2020) Persistence despite revolutions. *Natl Bur Econ Res Bull Aging Health, Working Paper* 27053
- Alesina AF, Fuchs-Schündeln N (2007) Goodbye Lenin (or not?): The effect of communism on people’s preferences. *Am Econ Rev* 97(4):1507–1528
- Andreev M, Darsky L, Khar’kova, T. (1993) *Naselenie Sovetskogo Soyuza, 1922–1991*. Nauka, Moscow
- Appel H (2005) Anti-Communist justice and founding the post-communist order: lustration and restitution in Central Europe. *East Eur Polit Soc* 19(3):379–405
- Åslund A (2007) *How Capitalism was built*. CUP, Cambridge

- Bauernschuster S, Rainer H (2012) Political regimes and the family: how sex-role attitudes continue to differ in reunified Germany. *J Popul Econ* 25(1):5–27
- Bird EJ, Frick JR, Wagner GG (1998) The income of socialist upper classes during the transition to capitalism: evidence from longitudinal East German data. *J Comp Econ* 26(2):211–225
- Bukowski P, Clark G, Gáspár A, Pető R (2022) Social Mobility and Political Regimes: Intergenerational Mobility in Hungary, 1949–2017. *J Popul Econ* 35(4):1551–1588
- Clark AE (2018) Four decades of the economics of happiness: where next? *Rev Income Wealth* 64(2):245–269
- Coppedge M, Gerring J, Knutsen CH, Lindberg SI, Teorell J, Alizada N et al (2021). V-Dem Dataset v11.1. Varieties of Democracy (V-Dem) Project (2021). <https://doi.org/10.23696/vdemds21>
- Dell M (2010) The persistent effects of Peru's mining mita. *Econometrica* 78(6):1863–1903
- Deter M, Lange M (2022) Are the supporters of socialism the losers of capitalism? Conformism in East Germany and transition success. *Eur J Political Econ*, 102252. <https://doi.org/10.1016/j.ejpoleco.2022.102252>
- Di Tella R, MacCulloch R (2006) Some uses of happiness data in economics. *J Econ Perspect* 20(1):25–46
- Deutsche Welle (2008) Bulgaria explores officials' ties to communist secret service. Retrieved from <https://www.dw.com/en/bulgaria-explores-officials-ties-to-communist-secret-service/a-3185229>
- Easterlin RA (2009) Lost in transition: life satisfaction on the road to capitalism. *J Econ Behav Organ* 71(2):130–145
- Exton C, Smith C, & Vandendriessche D (2015) Comparing happiness across the world: does culture matter? *OECD Rep* <https://doi.org/10.1787/18152031>
- Ferrer-i-Carbonell A, Van Praag BM (2002) The subjective costs of health losses due to chronic diseases: An alternative model for monetary appraisal. *Health Econ* 11(8):709–722
- Friehe T, Pannenberg M (2020) Time preferences and political regimes: evidence from reunified Germany. *J Popul Econ* 33(1):349–387
- Fuchs-Schündeln N, Schündeln M (2020) The long-term effects of Communism in Eastern Europe. *J Econ Perspect* 34(2):172–191
- Geishecker I, Haisken-DeNew JP (2004) Landing on all fours? Communist elites in post-Soviet Russia. *J Comp Econ* 32(4):700–719
- Gerber TP (2000) Membership benefits or selection effects? Why former communist party members do better in post-Soviet Russia. *Soc Sci Res* 29(1):25–50
- Graham C, MacLennan S (2020) Policy insights from the new science of well-being. *Behav Sci Pol* 6(1):1–20
- Gruen C, Klasen S (2012) Has transition improved well-being? *Econ Syst* 36(1):11–30
- Gundacker L, Fidrmuc J (2017) Oligarchs and social capital in Russian regions: a quantitative assessment. *Empirica* 44(3):509–527
- Guriev S, Melnikov N (2018) Happiness convergence in transition countries. *J Comp Econ* 46(3):683–707
- Guriev S, Zhuravskaya A (2005) The role of oligarchs in Russian capitalism. *J Econ Perspect* 19(1):131–150
- Guriev S, Zhuravskaya E (2009) (Un)Happiness in transition. *J Econ Perspect* 23(2):143–168
- Hainmueller J (2012) Entropy balancing for causal effects: a multivariate reweighting method to produce balanced samples in observational studies. *Polit Anal* 20(1):25–46
- Hall CM (2009) An army of spies? The Gestapo spy network 1933–45. *J Contemp Hist* 44(2):247–265
- Hanley E (2003) A party of workers or a party of intellectuals? Recruitment into Eastern European communist parties, 1945–1988. *Soc Forces* 81(4):1073–1105
- Harrison M (2019) Contracting for counterintelligence: the KGB and Soviet Informers of the 1960s and 1970s. Available at SSRN <https://doi.org/10.2139/ssrn.3381522>
- Harrison M, Zaksauskienė I (2016) Counter-intelligence in a command economy. *Econ Hist Rev* 69(1):131–158
- Hazans M, Trapeznikova I, Rastrigina O (2008) Ethnic and parental effects on schooling outcomes before and during the transition: evidence from the Baltic countries. *J Popul Econ* 21(3):719–749
- Heinzen JW (2007) Informers and the state under late Stalinism: informant networks and crimes against “socialist property.” *Kritika Explor Russ Eurasian Hist* 8(4):789–815
- Horne CM (2017) Classifying countries within the transitional justice typology. In: Horne CM (ed) *Building trust and democracy: Transitional justice in post-communist countries*: Oxford Scholarship Online: Oxford University Press
- Ishiyama JT (1997) The sickle or the rose? Previous regime types and the evolution of the ex-communist parties in post-communist politics. *Comp Pol Stud* 30(3):299–330

- Ivlevs A, Hinks T (2018) Former communist party membership and bribery in the post-socialist countries. *J Comp Econ* 46:1411–1424
- Ivlevs A, Nikolova M, Popova O (2021) Former Communist party membership and present-day entrepreneurship. *Small Bus Econ* 57(4):1783–1800
- Kerr SP, Kerr WR, Dalton M (2019) Risk attitudes and personality traits of entrepreneurs and venture team members. *Proc Natl Acad Sci* 116(36):17712–17716
- Kitschelt H (1995) Formation of party cleavages in post-communist democracies: theoretical propositions. *Party Polit* 1(4):447–472
- Knabe A, Rätzl S (2011) Scarring or scaring? The psychological impact of past unemployment and future unemployment risk. *Econ* 78(310):283–293
- Kraske M, Puhl J (2005) Eastern europe probes secret police informants 15 yearson. *Der Spiegel*. Retrieved from: <https://www.spiegel.de/international/spiegel/healing-from-communism-easterneurope-probes-secret-police-informants-15-years-on-a-348967.html>
- Lane D (2007) Post-Communist states and the European Union. *J Communist Stud Transit Polit* 23(4):461–477
- Lange M (2021) The legacy of state socialism on attitudes toward immigration. *J Comp Econ* 49(3):733–750
- Lewbel A (2012) Using heteroscedasticity to identify and estimate mismeasured and endogenous regressor models. *J Bus Econ Stat* 30(1):67–80
- Libman A, Obydenkova AV (2021) Historical legacies of communism: modern politics, society, and economic development. Cambridge, UK: Cambridge University Press
- Libman A, Obydenkova A (2013) Communism or communists? Soviet legacies and corruption in transition economies. *Econ Lett* 119(1):101–103
- Libman A, Obydenkova AV (2015) CPSU legacies and regional democracy in contemporary Russia. *Polit Stud* 63:173–190
- Lichter A, Löffler M, Sieglöcher S (2020) The long-term costs of government surveillance: insights from Stasi spying in East Germany. *J Eur Econ Assoc* 19(2):741–789
- MacKerron G (2012) Happiness economics from 35 000 feet. *J Econ Surv* 26(4):705–735
- Marks GN (2004) Communist party membership in five former Soviet bloc countries, 1945–1989. *Communism Post-Commun* 37(2):241–263
- Mavisakalyan A, Otrachshenko V, Popova O (2021) Can bribery buy health? Evidence from post-communist countries. *J Comp Econ* 49(4):991–1007
- Michalopoulos S, Papaioannou E (2017) *The Long Economic and Political Shadow of History: Europe and the Americas*. CEPR Press, London
- Miller JH (1982) The Communist party: trends and problems. In: Brown A, Kaser M (eds) *Soviet Policy for the 1980s*. Springer, St Antony's series. Palgrave Macmillan, London, pp 1–34
- Moltz R (2014) *Dealing with communist legacies: the politics of lustration in Eastern Europe*. Dissertation. University of Minnesota. Retrieved from: <https://conservancy.umn.edu/handle/11299/162684>
- Nalepa M (2010) *Skeletons in the closet: transitional justice in post-communist Europe*. Cambridge, UK: Cambridge University Press
- Nieuwbeerta P, Rijken S (1996) Educational expansion and educational reproduction in Eastern Europe, 1940–1979. *Czech Sociological Review* 4(2):187–210
- Nikolova M (2016) Minding the happiness gap: political institutions and perceived quality of life in transition. *Eur J Polit Econ* 45(Supplement):129–148
- Nikolova M, Graham C (2022) The economics of happiness. In: Zimmermann KF (ed) *Handbook of Labor, Human Resources and Population Economics*. Springer International Publishing, Cham, pp 1–33
- Nikolova M, Nikolaev B (2017) Does joining the EU make you happy? Evidence from Eastern Europe. *J Happiness Stud* 18(6):1593–1623
- Nikolova M, Popova O, Otrachshenko V (2022) Stalin and the origins of mistrust. *J Public Econ* 208:104629
- North DC (1990) *Institutions, institutional change and economic performance*. Cambridge University Press, Cambridge
- Nunn N (2009) The importance of history for economic development. *Annu Rev Econ* 1(1):65–92
- Nunn N (2014) Chapter 7 - Historical Development. In: Aghion P, Durlauf SN (eds) *Handbook of economic growth* (Vol. 2, pp. 347–402) Elsevier. <https://doi.org/10.1016/B978-0-444-53538-2.00007-1>

- Nunn N (2020) The historical roots of economic development. *Science* 367(6485). <https://doi.org/10.1126/science.aaz9986>
- OECD (2013) OECD guidelines on measuring subjective well-being. OECD Publishing, Paris
- Oswald AJ, Powdthavee N (2008) Does happiness adapt? A longitudinal study of disability with implications for economists and judges. *J Public Econ* 92(5–6):1061–1077
- Otrachshenko V, Popova O, Tavares J (2016) Psychological costs of currency transition: evidence from the euro adoption. *Eur J Polit Econ* 45:89–100
- Otrachshenko V, Tyurina E, Nagapetyan A (2022) The economic value of the Glass Beach: Contingent valuation and life satisfaction approaches. *Ecol Econ* 198:107466
- Pakulski J, Kullberg JS, Higley J (1996) The persistence of postcommunist elites. *J Democr* 7(2):133–147
- Pop-Eleches G, Tucker JA (2014) Communist socialization and post-communist economic and political attitudes. *Elect Stud* 33:77–89
- Popova O (2014) Can religion insure against aggregate shocks to happiness? The case of transition countries. *J Comp Econ* 42(3):804–818
- Powdthavee N (2007) Are There Geographical Variations in the Psychological Cost of Unemployment in South Africa? *Soc Indic Res* 80(3):629–652
- Powdthavee N (2008) Putting a price tag on friends, relatives, and neighbours: using surveys of life satisfaction to value social relationships. *J Socio-Econ* 37(4):1459–1480
- Powdthavee N, Van Den Berg B (2011) Putting different price tags on the same health condition: Re-evaluating the well-being valuation approach. *J Health Econ* 30(5):1032–1043
- Robinson JA (2013) Elites and institutional persistence. In: Amsden AH, DiCaprio A, Robinson JA (eds) *The role of elites in economic development*. Oxford University Press, Oxford, pp 29–52
- Rumin S (2007) Gathering and managing information in vetting processes. In: Mayer-Rieckh A, Greiff PD (eds) *Justice as Prevention: Vetting Public Employees in Transitional Societies*, New York: Social Science Research Council, pp 402–446
- Shearer DR (2004) Elements near and alien: passportization, policing, and identity in the Stalinist state, 1932–1952. *J Mod Hist* 76(4):835–881
- Shoemaker PJ, Eichholz M, Skewes EA (2002) Item nonresponse: distinguishing between don't know and refuse. *Int J Publ Opin Res* 14(2):193–201
- Simonsohn U, Simmons JP, Nelson LD (2020) Specification curve analysis. *Nature Human. Behav* 4(11):1208–1214
- Simonsohn U, Simmons JP, Nelson LD (2015) Better P-curves: Making P-curve analysis more robust to errors, fraud, and ambitious P-hacking, a Reply to Ulrich and Miller (2015). *J Exp Psychol, General* 144(6):1146–1152
- Skoglund E (2017) The happiness gap between transition and non-transition countries. *IZA World of Labor* 1–11. <https://doi.org/10.15185/izawol.357>
- Spolaore E, Wacziarg R (2013) How deep are the roots of economic development? *J Econ Lit* 51(2):325–369
- Stan L (2009) *Transitional justice in Eastern Europe and the former Soviet Union: Reckoning with the communist past*. Routledge, New York
- Stan L (2011) Vigilante justice in post-communist Europe. *Communis Post-Commun* 44(4):319–327
- Stan L, Turcescu L (2005) The devil's confessors: priests, communists, spies, and informers. *East Eur Polit Soc* 19(4):655–685
- Stone AA, Krueger AB (2018) Understanding subjective well-being. In Stiglitz J, Fitoussi J, Durand M (Eds.), *For good measure: Advancing Research on Well-being Metrics Beyond GDP* (pp. 163–201). OECD Publishing, Paris. <https://doi.org/10.1787/9789264307278-en>.
- Stone AA, Mackie CE (2013) *Subjective well-being: measuring happiness, suffering, and other dimensions of experience*. Washington, DC: National Academies Press
- Szelenyi I, Kostello E (1996) The market transition debate: toward a synthesis? *Am J Sociol* 101(4):1082–1096
- Szelenyi I, Szelenyi S (1995) Circulation or reproduction of elites during the postcommunist transformation of Eastern Europe: introduction. *Theory Soc* 24(5):615–638
- Tudoroiu T (2007) Rose, orange, and tulip: the failed post-Soviet revolutions. *Communis Post-Commun* 40(3):315–342
- Večerník J (1995) Changing earnings distribution in the Czech Republic: survey evidence from 1988–1994. *Econ Transit* 3(3):355–371
- Voigtländer N, Voth H-J (2012) Persecution perpetuated: the medieval origins of anti-Semitic violence in Nazi Germany. *Q J Econ* 127(3):1339–1392

- Voth H-J (2021) Chapter 9 - Persistence – myth and mystery. In: Bisin A, Federico G (eds) *The Handbook of Historical Economics*, Academic Press, pp 243–267
- Wagstyl S, Cienski J (2007) Poland risks its stability to tackle the sins of the past. *The Financial Times*. <https://www.ft.com/content/7b5e6c7a-ace0-11db-a446-0000779e2340>.
- Wasilewski J (1995) *Communist nomenklatura in post-communist Eastern Europe: winners or losers of transformation*. Polish Academy of Sciences, Warsaw
- Welsh HA (1996) Dealing with the communist past: Central and East European experiences after 1990. *Eur Asia Stud* 48(3):413–428
- Weyrauch WO (1985) Gestapo informants: facts and theory of undercover operations. *Colum J Transnat'l* 124:553
- Zabylina Y (2017) Lustration beyond decommunization: responding to the crimes of the powerful in Post-Euromaidan Ukraine. *State Crime Journal* 6(1):55–78

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