

# What is the effect of Personnel Transitional Justice on Crime?

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## **Abstract**

What is the effect of transitional justice on crime in post-authoritarian states? An implicit assumption in the transitional justice literature is that by dealing with the human rights abuses committed by the previous regime, new democracies can improve the quality of human rights practices in the future. Personnel transitional justice, like most forms of transitional justice, should advance respect for human rights and lower crime levels. This should in particular apply to post-authoritarian purges, which remove staff of former authoritarian agencies, including agents of repression, from institutions of the state. But what happens when entire organizations of the old regime apparatus are purged? Using novel data on transitional justice, we argue that this particular transitional justice process—what we call a thorough purge—can actually hurt human rights practices in the countries that have implemented it. We suggest that by removing entire networks of former authoritarian state officials from office, thorough purges can help lay foundations for the establishment of clandestine criminal organizations, which can, paradoxically, increase crime levels, contrary to the intentions of policymakers in new democracies.

# 1 Crime and Transitional Justice

We are engulfed in an era of authoritarian backsliding, particularly in less established democracies that lack robust institutions. This has left many scholars wondering if authoritarian and conflict legacies are contributing to the vulnerability of new democratic polities, as exemplified by Poland, Hungary, Turkey and others. One such legacy is the lingering of former authoritarian elites in formal and informal positions of power in the aftermath of the democratic transition. If these elites successfully entrench themselves in positions of control, they can ultimately undermine the quality and stability of new democracies.

For this reason, Transitional Justice (TJ), that is policies that deal with members and collaborators of former authoritarian regimes (Kaminski, Nalepa & O’neill 2006) should be of paramount interest to scholars interested in the quality of democracy and preventing backsliding (Bates, Cinar & Nalepa 2019, Ang & Nalepa 2019a, Trejo, Albarracin & Tiscornia 2018). The first association many readers have with transitional justice is of the criminal trials involving those who, in the name of a repressive ideology, committed atrocities. Indeed, the event that founded the very discipline of transitional justice was the trial of Nazi perpetrators in Nuremberg (Teitel 2000). But transitional justice comes in a variety of forms, including the punishing, but also the managing and even recycling of former authoritarian elites, their collaborators, and secret informers.

Generally, mechanisms of transitional justice fall into four categories. Next to trials of former perpetrators, there are truth revelation procedures, purges, and victim compensation. Truth revelation procedures, which consist of both truth commissions and lustration processes, focus on uncovering human rights abuses and revealing information about those who committed such abuses in secret. Truth commissions are “bodies set up to investigate a past history of human rights abuses in a particular country, which can include violations by the military or other government forces or armed opposition forces” (Hayner 1994). Lustrations deal with secret informers of the former authoritarian regime

and take place through, for example, the opening of former secret police archives in order to uncover who worked as a secret collaborator or informer.<sup>1</sup> A purge denotes the disbanding of members of an ancien régime institution; it can target the leadership of the abusive regime, the rank-and-file, or both. The key distinction between truth revelation procedures and purges is that purges target human rights abusers or members of the former authoritarian regime whose exploitations or collaboration are *known*, such as the disbanding of the East German Stasi (Koehler 1999, Childs & Popplewell 2016, Miller 1998), or the dismissal of 13 Supreme Court justices in post-Noriega Panama (Human Rights Watch 1991). Truth revelation procedures, however, reveal abuses or forms of collaboration that thus far have been kept secret. Finally, there is victim compensation, which ranges from the return of expropriated wealth in monetary substitutes or in kind to purely symbolic public apologies.

Recently, several papers have examined the effects of transitional justice policies on various aspects of democracy. On the truth revelation side, Ang & Nalepa (2019*b*) found that truth commissions reduce political corruption; Bates et al. (2019) found that the severity of lustration reduces the association of economic wealth with political power; Ang & Nalepa (2019*a*) found lustration enhances the quality of representation. On the side of dealing with authoritarian violence, Frantz (2019) found that the sheer legacy of experiencing a military dictatorship increases the rate of homicides in a recovering democratic polity, while Trejo et al. (2018) discovered that criminal trials of former perpetrators brings those homicide rates down if they are consistent with recommendations of a truth commission.

In this paper, we demonstrate that while some forms of transitional justice enhance democracy, others may hurt it by inadvertently increasing levels of crime in the early years after transition. Attention to how transitional justice policies affect crime levels allows us to contribute to a growing scholarship on causes of authoritarian backsliding (Svolik 2018, Svolik 2019, Gandhi 2019, Bermeo 2003), as one of the factors that the literature blames for

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<sup>1</sup>Lustration is also called TJ vetting. See Bates et al. (2019) for a detailed explanation of TJ vetting.

creating conditions ripe for authoritarian take-overs is, alongside with polarization, the low faith in democratic ways of life. How young democracies, especially those recovering from a violent social order, deal with levels of criminal behavior, the preponderance of organized crime, and whether they are successful in establishing respect for human rights more broadly will influence citizens' trust in the democratic project as a whole and may determine its survival in the long run.

In developing our argument, we build on the efforts of Trejo et al. (2018) but tighten the pathway between the transitional justice mechanism and the occurrence of crime. We start by identifying a dependent variable closer to where fired former agents of repression may seek gainful employment: in organized crime and (often criminal) private business protection agencies. Hence, our first dependent variable is the extent to which business environments suffer as a result of organized crime. To see whether levels of crime are affected outside of the business world via the mechanisms we propose, similarly to Trejo et al., we use homicide rates as our second dependent variable. For our independent variable, we focus on purges: a transitional justice mechanism that releases agents of violence from working for the state. This mechanism ought to be more directly related to human rights violations than either criminal trials or truth commissions and, as we argue, ought to increase criminality rather than decrease it, because purges leave specialists trained in violence unemployed and seeking to apply their skills. The participation of these agents of repression in organized crime will depend on the supply of and the demand for violence: the amount of trained agents seeking employment and the extent of work opportunities in organizations in need of agents skilled in violence.

In order to get an analytical hold on the extent of the supply of the professionals trained in violence to the criminal world, within the category of purges we distinguish what we call thorough purges. In general, purges can be thorough or only extend to the leadership.

Whereas leadership-only purges are restricted to the top echelon of the enforcement apparatus, thorough purges fire *all* employees of the ancien régime institution, sometimes

by disbanding entire agencies and leaving what can amount to an army of professionals skilled in violence looking for employment.<sup>2</sup> This analysis is possible due to the disaggregated nature of the Global Transitional Justice dataset, which differentiates between the two types of purges.

Previewing our results, first, we find that thorough purges increase levels of violent and organized crime in general. Second, we find that thorough purges increase the occurrence of homicides, although not as consistently as organized crime. This finding runs contrary to existing literature on transitional justice, which finds that transitional justice can have a positive effect by decreasing homicides.

In order to shed light on the mechanism at play, in the next section, we use early post-Soviet Russia as a theory-building case study.<sup>3</sup> Russia in the years right after its transition can serve such a theory-building purpose as it demonstrates two phenomena that we are interested in. First, it shows how thorough purges of “power ministries,” which effectively leave without jobs the rank and file who are trained in violence, can inadvertently lead to the establishment of criminal organizations, the increasing number of which leads to higher levels of violent crime in the business world.

Second, the Russian case helps to explain why the positive relationship between thorough purges and homicides may be weak and inconsistent. Thorough purges may have an ambiguous effect on crime levels as measured by homicides as they not only lead professionals skilled in violence to seek employment in the criminal world, but also cleanse state agencies of qualified workers. Consequently, they hamstring the organizations re-

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<sup>2</sup>To be sure, in their analysis, (Trejo et al. 2018) could not examine the effect of purges on homicides, because the Transitional Justice Research Collaborative Dataset did not disaggregate purges—the removal from office of known members and collaborators of the former authoritarian regime—or distinguish them from lustration—the removal from office of secret collaborators of the former authoritarian regime (Dancy 2014).

<sup>3</sup>Case studies have been widely used for theory-building purposes in the Comparative Politics literature, for instance by Simmons (2016), who uses the case of Mexico’s 2007 *tortillazo* protests because it “creates new possibilities for theorizing about the intersection of markets and processes of social mobilization.” A case study is employed for similar purposes by Slater (2003) for whom the Philippines serves as “an ideal case to challenge the assumption that personalization signifies the underdevelopment of political institutions.” In future revisions of this paper, Russia will most likely serve as a motivating case, “situating the formal model” (Gehlbach & Sonin 2014).

sponsible for combating crime. Purged, understaffed, and incompetent institutions may under-report homicides. Finally, the case of Russia is a perfect example of how increased levels of organized crime and the incapacitated state can put democracies, and especially young democracies, in jeopardy.

After developing our theory in this way, we turn to a large-N analysis to show how thorough purges increase organized crime, as measured by the spread of violent crime in the business world, while failing to have a consistent effect on homicide rates. To test our hypotheses, we make use of an existing dataset, the World Economic Forum's Global Competitive Index, to measure the level of organized crime. We also enhance the measure of homicide rates by pooling data from several different sources, including the United Nations Office of Drugs and Crime (UNODC), the World Health Organization, and the World Bank. Our main independent variable of interest—the severity of post-authoritarian purges—is measured with our data newly collected data from the Global Transitional Justice Dataset.

## 2 The rise of the *siloviki*

Consider the two following scenarios unraveling in a former enforcement agency of the ancien régime in the aftermath of the democratic transition. In scenario A, the agency's leadership is fired, but the rank-and-file members may be reappointed, following a brief interview with a vetting commission.<sup>4</sup> Under this scenario, the leadership of the former repressive apparatus, even if it is interested in putting its expertise in violence to work in the criminal underground, lacks foot soldiers to carry out its orders. While we might observe heightened criminal activity briefly following the firing of the leadership,

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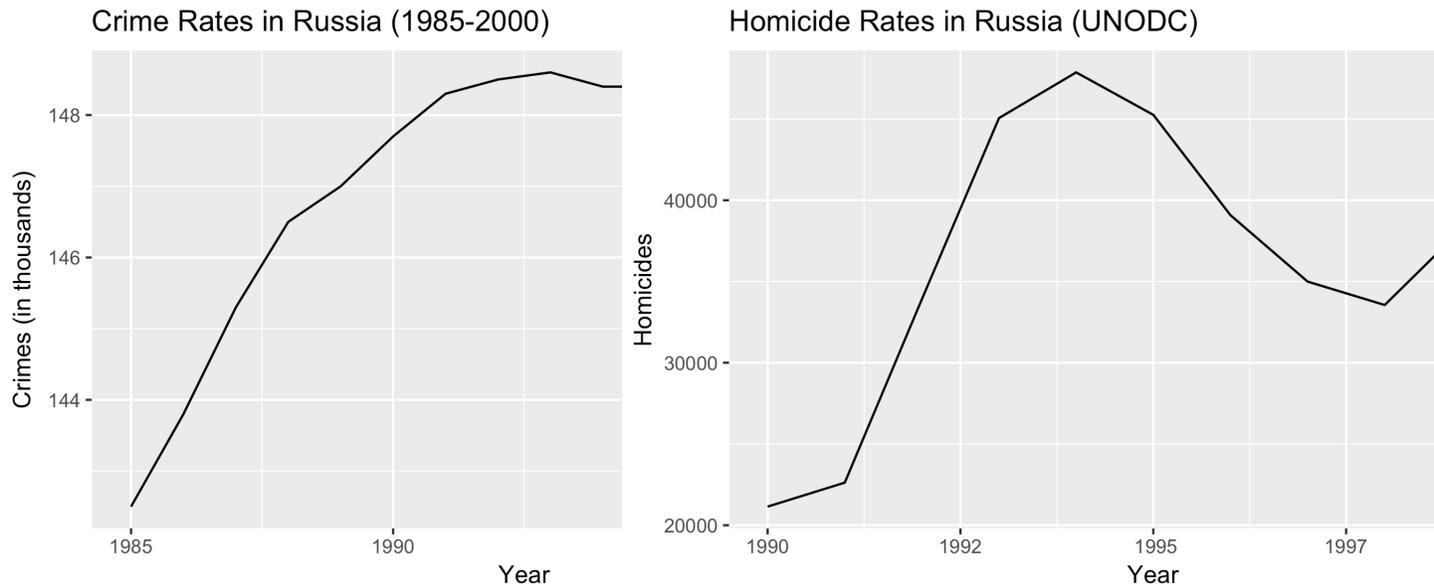
<sup>4</sup>Such a vetting commission is illustrated in Wladyslaw Pasikowski's famous film "Psy" (Dogs) produced in 1992 in Poland. It depicts a protagonist, Franz Mauer, who is a state security employee of the former communist secret police. After a successful screening by a vetting commission, he is re-employed by the new security agency of democratic Poland. In the opening scene asked *Do you swear to faithfully serve the new Polish Republic?*, Mauer responds *I do, to the very end, be it mine or hers.*

it is likely to be short-lived, particularly as former leaders may want to lay low to prevent drawing attention to themselves in order to avoid criminal prosecution for previous activity.

Contrast this with scenario B, where all employees of the enforcement agency—leaders *and* rank and file alike—are fired as a result of a thorough purge. The former leaders, should they want to apply their skills in repression, are able to set up and fully staff their criminal organizations, as their former skilled in violence employees are not allowed to be re-employed by the state, and thus also looking for jobs. In this scenario, criminal organizations are able to become influential in the long term, and we would expect the business climate to suffer from organized crime. Scenario A is illustrated by many countries from the third and fourth wave of democratic transitions (Poland, Romania, Lithuania and Latvia and Tunisia). Scenario B is illustrated by Russia's brief democratic spell in the early nineties.

In December 1991, the Soviet Union collapsed after Gorbachev resigned and handed over power to Yeltsin. The years that followed, known as the *likhie* or the 'roaring' nineties, were characterized by the rise of criminal violence, political instability and lawlessness. Scholars and pundits alike judge the ensuing chaos to be among the leading causes for Russians' disillusionment with democracy that paved the way to the country's democratic backsliding (Gel'man 2015, Favarel-Garrigues 2010), as ending violence has been part of the state-sponsored narrative legitimizing Putin's authoritarian rule (Wengle, Monet & Olimpieva 2018). While Russia shared some of the challenges facing former communist states with other countries in the region, a few were specific to Russia. Among the shared traits were rapid decentralization, market liberalization, the disappearance of Soviet era institutions, and the challenges of setting up functional replacements. Even the clashes between the reform-minded executive (Yeltsin and his liberal-minded reform team) and communist-dominated legislature that characterized Russia's politics after the transition were not atypical of the postcommunist transformations.

Figure 1: Homicide and Crime in Russia circa democratization



What set Russia dramatically apart especially from its former communist satellite counterparts were struggles with separatism and the preponderance of crime with extremely high numbers of Organized Crime Groups (OCG's) that the state was utterly incapable of dealing with. Crime rates in Russia were especially high during the nineties, starting in 1991 and peaking in 1993 (Varese 2001), which is the last year of the Russia's brief democratic spell (Geddes, Wright & Frantz 2014). Crime levels and OCG numbers rose alongside market liberalization and demands for the protection of property rights. The end of the command economy meant that more things and resources could be owned, and profits could be made. Consequently, competition over these assets intensified. The dissolution of the state gave this competition a criminal expression. In the words of Varese: "The increase in property and economic transactions leads to more opportunities to engage in criminal activities" (Varese 2001, 2). The two panels of Figure 1 above illustrate Russia's dramatic rise in organized crime (left) and homicides (right).

Why was the state incapable of preventing conflict over privatized assets? The first contributing factor was the entrance into the criminal world of former state employees and

in particular, of the numerous security elites from the so-called “power ministries”: the Ministry of Defense, Ministry of Internal Affairs, the KGB, the Prosecutor’s Office, and the Ministry of Foreign Affairs. In Russia, these former employees of key organs of coercion in the Soviet Union are referred to collectively as “siloviki”, which means, literally, “wielders of force.” The second contributing factor was that thorough purges of the power ministries left state institutions understaffed or staffed with incompetent employees. This is how McCarthy describes working for the Ministry of Internal Affairs: “...the poor salaries, low respect from the public, and increased risk of harm led to significant turn-over within the MVD’s forces, especially experienced officers who could easily find jobs in private security or organized crime”(McCarthy 2015, 86). The situation in the KGB was hardly any better. According to Yuri Gervis, formerly in the KGB investigation department:

“The professional employees are lost. For instance, the First, the so-called ‘spy section,’ has no investigators except for the chief of the section, who graduated from the FSB Academy. There is nobody to catch real spies, and therefore the FSB is making spies out of people who communicate with foreign organizations in the course of their work” (Soldatov & Borogan 2010, 39).

There were two causes behind the exodus of *siloviki* from the power ministries in the aftermath of the Soviet Union’s collapse: First, Boris Yeltsin used purges to weaken the power ministries, fearing their connections to the communist party would undermine the success of Russia’s transition to a liberal democracy. First and foremost, Yeltsin targeted KGB due to the organization’s role in the failed August Putsch of 1991. In 1992 Yeltsin ordered that the 137,000-strong central apparatus of the former KGB be reduced to 75,000 (a 46 percent reduction)(Volkov 2016, 131). While a substantial proportion of the former staff of the central apparatus was transferred in 1992-93 to the newly established bodies (SVR<sup>5</sup>, FAPSI<sup>6</sup>, etc.) and to regional FSB<sup>7</sup> directorates, 10,000 had to leave state security

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<sup>5</sup>Foreign Intelligence Service

<sup>6</sup>Federal Agency for Government Communication and Informatio

<sup>7</sup>Federal Security Service, the main descendant of the KGB

permanently. In 1992 an unprecedented cut in KGB staff was announced, from 36,000 to 2,800 (Varese 2001). By 1995 the number of operatives with seven to fifteen years of professional experience had decreased by a factor of five (Volkov 2016, 127).

The military also saw significant reductions of personnel via both leadership and thorough purges. Over 25,000 officers were dismissed on political grounds in 1991 with 40,000-50,000 ordered to be discharged each year in 1993 (Varese 2001). The budget of the army was reduced dramatically as well as its overall size, dropping from 2.8 million to less than 2 million people between 1992-1994 (Taylor 2003, 267).

Law enforcement agencies were not left untouched either. While there were no formal purges of law enforcement during Russia's brief democratic spell, some occurred prior to the transition.<sup>8</sup> In 1989, Ministry of Internal Affairs (MVD) dismissed 83,500 employees including 37,000 commissioned officers. In 1990 more than 30,000 employees left service (Volkov 2016, 132). Moreover, a huge number of MVD employees, up to 200,000, left MVD each year in 1991-1996 (Volkov 2016, 132). The Prosecutor's Office<sup>9</sup> lost about 39,000 people as the agency transitioned from USSR to RSFSR Procuracy (Smith 1996, 117).

Where purges were unfeasible, Yeltsin weakened the power ministries by fragmenting them (Volkov 2016, 130). KGB was, again, among the most affected: By 1993 it was split into five and by 1996 into seven separate organizations (Taylor 2011, Volkov 2016). The newly formed organizations had overlapping spheres of competence and jurisdiction that put them in a position of competition and discouraged cooperation and coordination.<sup>10</sup>

While many employees left as a result of Yeltsin's decree, there were other causes for the exodus of employees from the power ministries. Neither the prestige, security or

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<sup>8</sup>We note here that while contributing to the mechanisms outlined here, they were not picked up by our conservative coding strategy described below

<sup>9</sup>However, of all power ministries, Procuracy emerged the strongest after the transition and avoided being reformed in part due to the high levels of crime in the country: "The Procuracy successfully argued that the major upheaval in the country, including skyrocketing crime, made it an inopportune time to weaken the powers of the country's central law enforcement agency" (Taylor 2014).

<sup>10</sup>In the context of authoritarian regimes, Sheena Chesnut Greitens describes this strategy as consistent with coup-proofing by an executive who mostly feels threatened by elites, rather than by revolution from below. (Greitens 2016)

salary associated with *siloviki* status under the Soviet Union survived the regime transition. There was a significant reduction in spending on military and security forces under Yeltsin (Taylor 2011, 52) that resulted in lower wages. For instance, the budget of security services fell from 93 to about 38 billion rubles from 1994 to 1995 (Agentura n.d.). Finally, the policy of ‘glasnost’ (openness) and transparency about the historical past exposed the human rights abuses by state security organizations and especially the KGB in the Soviet Union. This further stigmatized working for state security organizations.<sup>11</sup> Of course, these voluntary departures resulting from the stigma placed on former KGB workers are not coded as purges in our dataset (they do not contribute to figures 7 or 2 above). Yet their effect—of removing agents trained in repression from employment in the state—is similar to purges.

Where did the *siloviki* turn for employment after they lost their jobs? According to some accounts, a large number of former police (the MVD) employees left directly for “the criminal underworld” where they could put their expertise in violence to immediate use. The path to crime of *siloviki* from more elite security agencies, such as KGB, was typically more checkered. Former KGB employees typically first took up working for private business protection organizations or private security firms (PSFs). Varese (2001) and Volkov (2016) explain the transition of *siloviki* into PSF employment by two factors: (1) the demand for protection by business owners, which in Russia was necessary because of the incapacitated state that could neither enforce agreements nor protect ownership rights; (2) the supply of skilled workers due to the thorough purges of state security organizations that placed on the job market an army of cadres highly trained in violence.

While some businesses turned to criminal groups for protection (or were coerced into doing so), others turned to PSF, staffed with former KGB-FSB, MVD and other former “power agency” elites. Technically PSFs were legal in Russia but the demarcation between

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<sup>11</sup>While no one in Russia was punished for the crimes of the past as Yeltsin renounced practices of “witch-hunts” (Smith 2002, 15), the year 1991 saw the famous episode in which a crowd of demonstrators knocked down the statue of Felix Dzerzhinski—the Soviet Union’s first head of secret police. This symbolized the state of the public attitude towards the KGB.

them and OCG's was unclear (Volkov 2016, Varese 2001). Former *siloviki*, even when employed in PSFs, frequently reached for illegal and violent methods and maintained tight connections to the existing criminal groups. A vivid illustration of criminal methods used by *siloviki* employed by OCGs and PSFs is given by Volkov:

“In September 1996, the police arrested the director general of the PPC Barrs Protection, former KGB major Vladimir Zhukov, and his driver. They were accused of beating and threatening the director of Petrotrade, the PPC's client company, and demanding 35 percent of the company's shares and twenty thousand U.S. dollars in payment for an alleged debt...According to FSB experts, about 15 percent of all private security agencies have connections with criminal groups” (Volkov 2016, 143).

The exodus of *siloviki* into the criminal world was among the key reasons for both the rising levels of crime and state's incapacity to deal with the issue <sup>12</sup> While many proponents of transitional justice advocate for using purges and lustrations as a way of settling scores with the past and holding those responsible for authoritarian atrocities accountable for their actions, the Russian case suggests an unintended consequence of broad approaches to accountability: Purges, and especially thorough purges, by displacing from employment both leaders of “power ministries” and their former employees trained in violence facilitate the transition of these agents of repression into organized crime. At first, these elites and their rank and file work in private protection, but their readiness to reach into the repertoire of violence instead of increasing the respect for property rights makes doing business costlier for potential investors. Gradually, by increasing their connections to the criminal underworld, employees of purged organizations join organized crime and contribute to the rising levels of violence.

In summary, Russia's thorough purges have been accompanied by rampant growth

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<sup>12</sup>For instance, in her book on legal reform in Russia, Smith cites a *Pravda* journalist: “Today not only is there an enormous increase in the number of actively operating gangs...but a phenomenon that is totally new to us is appearing – gangs made up of former military men and personnel from the Ministry of Internal Affairs (police) and KGB (people who have been expelled, discharged, cut back, or ordered out)...Groups like this are especially difficult to combat” (Smith 1996, 188).

of organized crime, as the former *siloviki* sought and found employment in the criminal underworld frequently through their work in private business protection firms. As organized crime is centered around the assets that could be owned and income that could be gained, we expect that as the severity of thorough purges increases in a country, the costs to businesses from organized crime will grow as well. We thus pose the following hypothesis:

*Hypothesis 1: Countries with higher severity of thorough purges will experience higher levels of organized crime than countries with lower severity of thorough purges, other factors held constant.*

Related to this hypothesis is another, which focuses on the more brutal outcome of organized violence, homicides. This hypothesis can be interpreted as building on the contributions of Trejo and his collaborators, except in a way that focuses on personnel forms of transitional justice:

*Hypothesis 2a: Countries with higher severity of thorough purges will experience higher homicide rates than countries with lower severity of thorough purges, other factors held constant.*

Yet when agents of repression join the criminal world after being purged from their jobs, they also leave their former places of employment understaffed. As a result, these positions are then filled with unskilled and incompetent workers. The resulting incapacitated state, and law enforcement in particular, may be unable to even document the growing levels crime. Hence we may observe an effect opposite to the one posed in hypothesis 2a above:

*Hypothesis 2b: Countries with higher severity of thorough purges will experience lower homicide rates than countries with lower severity of thorough purges, other factors held constant.*

It is also possible that both mechanisms outlined above are at play and that even as there are more crimes committed, many of them go unreported. The Russian case corroborates this ambiguous expectation. Enforcement institutions in Russia, such as the police, are frequently evaluated based on the percent of successfully solved cases<sup>13</sup>. In light of

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<sup>13</sup>According to (McCarthy 2014)“Another important feature of Russian police work is a performance assessment system which is primarily based on quantitative indicators. Informally called the *palochnaya sistema*

this method of evaluation and with decreased capacity to actually solve crimes, the police feel disincentivized to record crimes. Hence, to the extent that both effects may be working at cross purposes, we can formulate the “ambiguity hypothesis” as follows:

*Hypothesis 2c: Countries that have more severe thorough purges are not likely to experience a significant difference in homicide rates than countries with lower thorough purge severity, as the higher rate of murders is ultimately offset by the poor quality of reporting and low incentives to record instances of homicide caused by incapacitated state.*

Having clarified the mechanisms at work with the help of the case-study of Russia in the 1990s, we now turn to a large-N analysis to see if there is a wider pattern of thorough purges leading to increased levels of organized crime and homicides. In order to address them, we will draw on the originally created for this purpose, Global Transitional Justice Dataset, which we supplement with existing data sources.

### 3 Data

Our first dependent variable of interest, organized crime, is not a clearly demarcated concept. At what point does “normal” crime become organized? All the issues raised about reporting homicides should be especially relevant for reporting organized crime. Because of these difficulties, we use the World Economic Forum’s “Global Competitive Index” (GCI) dataset (Schwab 2017), which measures the presence and strength of organized crime with an Executive Opinion Survey asking local business executives: “In your country, to what extent does organized crime (mafia-oriented racketeering, extortion) impose costs on businesses?” Respondents’ answers were coded on a 1–7 scale, where 1 represents high cost and 7 represents no cost.<sup>14</sup> For ease of interpretation, we transformed

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(stick system, ticking system), it focuses on the number of activities completed by law enforcement to assess whether they are performing their duties adequately at the individual and department level. The number of cleared cases is an important aspect of the evaluation of police work. Hence, when cases cannot be cleared, police is incentivized to erase their record.”

<sup>14</sup>These questions were asked over the course of two periods. Responses were then aggregated for each period and a weighting mechanism was applied to each period in order to generate the final indicator for

the data. Specifically, we reverse-coded and normalized the values so that 0 represents the lowest level of organized crime, and 1 represents the highest level of organized crime. The data span from 2007 through 2017 for every country in our dataset. In the appendix, we replicate our analysis using an additional measure of organized crime: “business costs of crime and violence” (Schwab 2017).<sup>15</sup>

Second, in order to measure thorough purges, we make use of the Global Transitional Justice Dataset. This dataset, described in detail in Bates et al. (2019), disaggregates thorough purges into progressive and regressive purge events over time, beginning with the year of democratic transition and ending in either 2016 or the year of a country’s reversion to authoritarianism. In order to be counted, events have to take place at the government level—in the legislature, executive and/or judiciary branch—and have a nationwide scale. The GTJD spans from 1946 through 2016 and covers all countries that transitioned from either authoritarianism to democracy or conflict to peace in that time period. A progressive event is an event that moves the transitional justice process forward—a proposal of a bill, the passing of a bill in the legislature, the upholding of a bill by a constitutional court or the overriding of an executive veto. A regressive event is one that halts or weakens a transitional justice process, including the voting down, vetoing, or striking down of a transitional justice proposal or law. Thus-coded events produce an annual panel, with each country as a cross section and time since transition as the temporal dimension. To help understand the coding process of thus defined transitional justice events and their disaggregation into regressive and progressive events, Figure 6 in the appendix presents a snapshot of purge events (combining thorough and leadership-only purges) from Latvia.

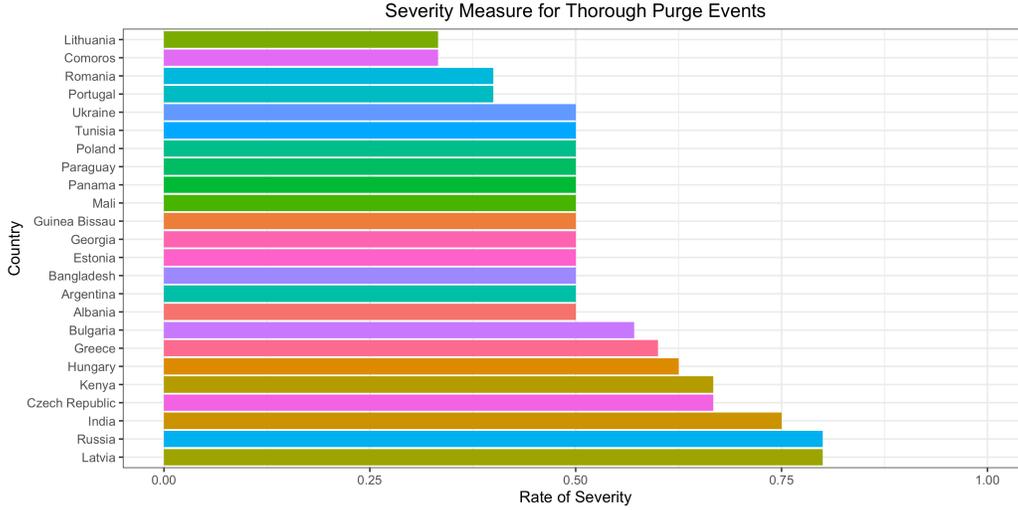
Figure 2 presents summary of thorough purges from the Global Transitional Justice

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each country-year observation. Detailed information about the survey, aggregation process, and weighting mechanism can be found in Appendix B of the *Global Competitiveness Report* (Schwab 2017).

<sup>15</sup>This additional measure, also from the Executive Opinion Survey of the World Economic Forum, asks the question: “In your country, to what extent does the incidence of crime and violence impose costs on businesses?” We apply the same recoding and normalizing mechanism to the aggregate data for business costs of crime and violence. For more information, including descriptive statistics of the organized crime and business cost of crime and violence variables, as well as other (non-original) data, see the the appendix.

Figure 2: Severity of Thorough Purges in Post-Authoritarian and Post-Conflict States with at least one event



Dataset.<sup>16</sup> Following Bates et al. (2019), severity is defined as

$$S = \frac{\sum_t (P^t)}{\sum_t (P^t + R^t) + 1}, \quad (1)$$

where  $t$  is the subscript over time,  $R^t$  is the number of a country's regressive events in period  $t$ , and  $P^t$  is the number of progressive events in period  $t$ .

What is most striking about this figure is that despite its very short democratic spell (only 3 years), Russia had one of the highest levels of severity of thorough purges, providing further support for the theory-building case study.<sup>17</sup>

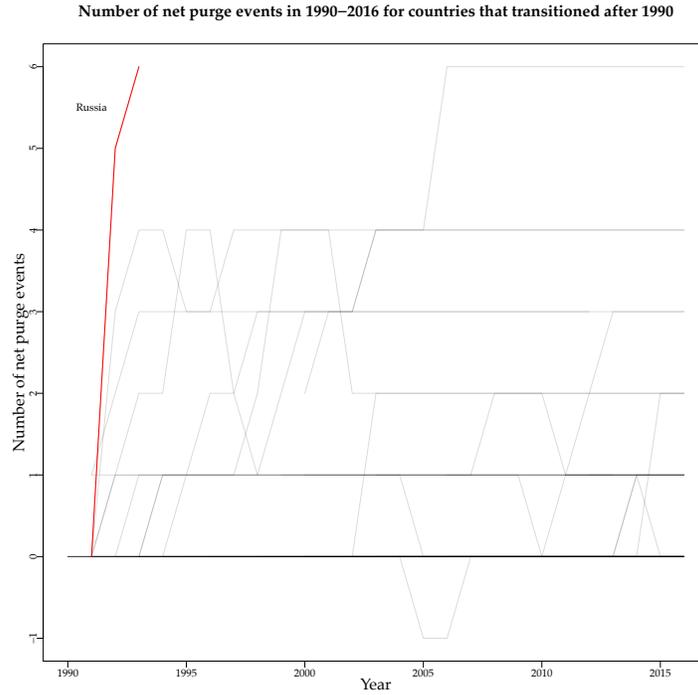
As further evidence for why Russia is a good example of the mechanism we suggest to be at work here, consider figure 3, which shows the annual net purge events (progressive net of regressive events) for every country in the GTJD that has democratized since 1990. Russia is highlighted to show the high number of net events, despite its brief foray into democracy.<sup>18</sup>

<sup>16</sup>Figure 7, included in the Appendix, provides a summary of leadership purges from the Global Transitional Justice Dataset. It is noteworthy that high levels of leadership purges are not necessarily associated with high levels of thorough purges.

<sup>17</sup>It also had a rather high level of leadership purge severity, as shown in figure 7 in the Appendix.

<sup>18</sup>In order to produce a measure of transitional justice severity that changes over time in response to the

Figure 3: Number of net purge events for countries that transitioned in or after 1990



Testing hypotheses 2a-2c, requires homicide data, which can be assembled from several different sources, none of which on its own has sufficient coverage to include all the country-years in the Global Transitional Justice Dataset. The World Bank provided us with a homicide rate from 1960 through 2018 for 264 countries, but has 52 % of missing data.<sup>19</sup> The World Health Organization has no missing data but only covers 2000, 2005, 2010, 2015, and 2016 for 183 countries.<sup>20</sup> Finally, the United Nations Office or Crime and Drugs

relative magnitude of regressive and progressive events, for our analysis, we use the following modification of the Bates et al. (2019) measure of severity:

$$TJS_{i,t} = \frac{\sum_{t=1}^{t=T} (P_{i,t})}{\sum_{t=1}^{t=T} (P_{i,t} + R_{i,t} + 1)}$$

This measure provides the annual number of cumulative progressive purge events over the cumulative total number of events plus 1. According to this measure, in the Latvian case illustrated above, the score of purge severity for 2016 is 0.692.

<sup>19</sup>These data are available at <https://data.worldbank.org/indicator/VC.IHR.PSRC.P5?>

<sup>20</sup>These data are available for download at <http://apps.who.int/gho/data/view.main.VIOLENCEHOMICIDEv>

provides data for 183 countries for 1995 through 2016 with about 44 % missing.<sup>21</sup> Only the WHO explains in greater detail how their homicide data is collected: using reports from national justice and healthcare systems report information using death certificates. Countries report this information using a specific nomenclature, the International Classification of Diseases (ICD). This nomenclature is revised periodically. As we explained above, homicide rates are a measure that must be used with great caution within a cross-country context, because of the differential quality of reporting these data. For this reason, we adopt the conservative practice of Trejo et al. (2018), who take the average rate of these three datasets, where available, and additionally a fourth source that we were not able to access (“the Homicide Monitor”). This practice leads to less biased results and more coverage than we would get by relying on only one of the sources.<sup>22</sup> All three datasets, and hence also the average provides the numbers of homicides per 100,000 persons. When only one of the three sources provided information for a specific country, we used that information for a given country-year, where two sources report values for a given country-year, we took the simple average of these two sources; for three, the average of the three sources.

In testing our hypotheses, we need to account for the possibility that thorough purges may be a response to poor state capacity. In other words, the employees of the former authoritarian state may have simply been bad employees, appointed either through a nepotistic or corrupt process. Were this the case, they may be replaced by better, not worse employees following the purge. If purges are a way of addressing poor state capacity, it is possible that the poor quality of the state, as opposed to purges themselves are the ultimate cause behind the increase in organized crime. Ideally, to control for this possibility, we would include in our regressions a measure of the professionalization or institutional-

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<sup>21</sup>These data are available for download at [https://dataunodc.un.org/GSH\\_app](https://dataunodc.un.org/GSH_app)

<sup>22</sup>Yet, even before averaging, the correlation between the three sources is pretty high: around .96 %. The greatest benefit of the averaging out procedure is the reduction of missing data. For instance, by relying on the UNOCD data alone, we are left with 22 % of missing data that has to be imputed (for imputation, we used the MICE package), but after the averaging procedure, we only have 12 % of missing values. Specifically, we used two methods to impute the data selecting from the built-in univariate imputation methods available in the mice package: 1) Linear regression, predicted values (which we use in the body of the paper) and 2) Predictive mean matching the results of which are reported in the appendix as a robustness check)

ization of the preceding authoritarian regime. In lieu of such a measure, we include several control variables to account for variation in state capacity, corruption, development, and state commitment to protecting against crime.

As a first control, we include a variable called “reliability of police services ”(RPS), to capture state capacity for combating organized crime. Taken from the WEF’s Executive Opinion Survey, RPS measures the extent to which police services can be relied upon to enforce law and order.<sup>23</sup> This variable in particular was a reasonable control to include because, as our Russian case study clearly suggests, the quality and reliability of law enforcement may affect the ability of organized criminal groups to operate.

For related reasons, we include a measure of political corruption. Corrupt political environments have been widely associated with the presence and growth of organized crime (Snyder & Duran-Martinez 2009, Lessing 2017, Trejo & Ley 2018). We take our measure of political corruption from the Varieties of Democracy’s political corruption index (Coppedge, Gerring, Lindberg, Skaaning & Teorell 2018), a continuous variable scaled from -1 to 0, where counter-intuitively, higher values represent lower levels of political corruption.<sup>24</sup>

Because poverty and crime are also widely considered to be related (Frantz 2019), we include the log of per capita GDP as an aggregate measure of overall development.

Another important control variable is related to our main independent variable of interest, thorough purges, is international transitional justice, which can act as an important commitment device for countries that join international transitional justice institutions, such as the International Criminal Court (ICC). The literature on the ICC suggests that states ratify the Rome Statute in part as a commitment mechanism—they become part of the ICC system in order to tie their hands, ensuring that they uphold human rights stan-

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<sup>23</sup>Specifically, the survey asks, “to what extent can police services be relied upon to enforce law and order?” where 1 represents not at all, and 7 represents to a great extent. We normalized this variable as well in order to ease interpretation.

<sup>24</sup>We note here, that we used a transformed version of this variable, as the original index varied from 0 to 1, with higher levels of corruption representing more corruption

dards at home (Simmons & Danner 2010).<sup>25</sup> This argument suggests that states aspiring to fulfill ICC requirements may combine purges with doubling down on respect for human rights. The theory of joining ICC as a hands-tying device has come under scrutiny from scholars who point out that instead the ICC may dissuade peaceful transitions to democracy (Nalepa & Powell 2016, Krcmaric 2018), act as an inducement to implement biased domestic transitional justice (Bates 2019), or that the countries most likely to ratify the Rome Statute are those most likely to find compliance the easiest, namely democracies with little domestic conflict (Chapman & Chaudoin 2013).

We nevertheless include a binary variable to indicate whether or not a country has ratified the Rome Statute of the ICC in a given year. Because we are ultimately interested in the relationship between thorough purges and human rights violations perpetrated by non-state actors, it is reasonable to include information about Rome Statute ratification as a measure of *state* commitment to protecting human rights.

Summary statistics and correlation matrices between our independent variables of interest and the control variables are presented in the appendix.

## 4 Analysis and Results

We begin with a set of regressions testing hypothesis 1. Obviously, the effect of purges on organized crime will not be immediate. We therefore use the lags of the net cumulative net severity purge severity measure. However, given that we have no specific priors on how many years it takes for a purge to move the *siloviki* into the criminal underworld, we include in our regressions lags of 1, 2, 5, 10, 15 and 20 years. All regressions include country as well as year fixed effects and clustered standard errors.<sup>26</sup>

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<sup>25</sup>The Rome Statute of the International Criminal Court is the treaty establishing the Court, which states sign when they agree to submit to the Court's jurisdiction.

<sup>26</sup>Analytically, such two-way fixed effects are equivalent to a difference-in-difference framework (Angrist & Pischke 2008).

## 4.1 Purges and organized crime

Table 1: Organized Crime and Thorough Purges

	Organized Crime					
	(1)	(2)	(3)	(4)	(5)	(6)
Thorough Purge (1 Year)	0.366*** (0.036)					
Thorough Purge (2 Year)		0.369*** (0.038)				
Thorough Purge (5 Year)			-0.058* (0.029)			
Thorough Purge (10 Year)				0.185*** (0.050)		
Thorough Purge (15 Year)					0.062 (0.093)	
Thorough Purge (20 Year)						0.090 (0.079)
Reliability of Police Services	-0.184** (0.067)	-0.195** (0.071)	-0.186** (0.071)	-0.208* (0.081)	-0.181* (0.082)	-0.158 (0.101)
Political Corruption Index	0.405* (0.194)	0.419* (0.193)	0.433* (0.203)	0.440* (0.194)	0.321 (0.186)	0.393 (0.201)
ICC Ratification	-0.109*** (0.013)	-0.107*** (0.013)	-0.106*** (0.013)	-0.096*** (0.012)	-0.092*** (0.013)	
GDP per capita	0.196 (0.115)	0.188 (0.116)	0.179 (0.118)	0.105 (0.117)	0.037 (0.123)	0.082 (0.173)

Note:

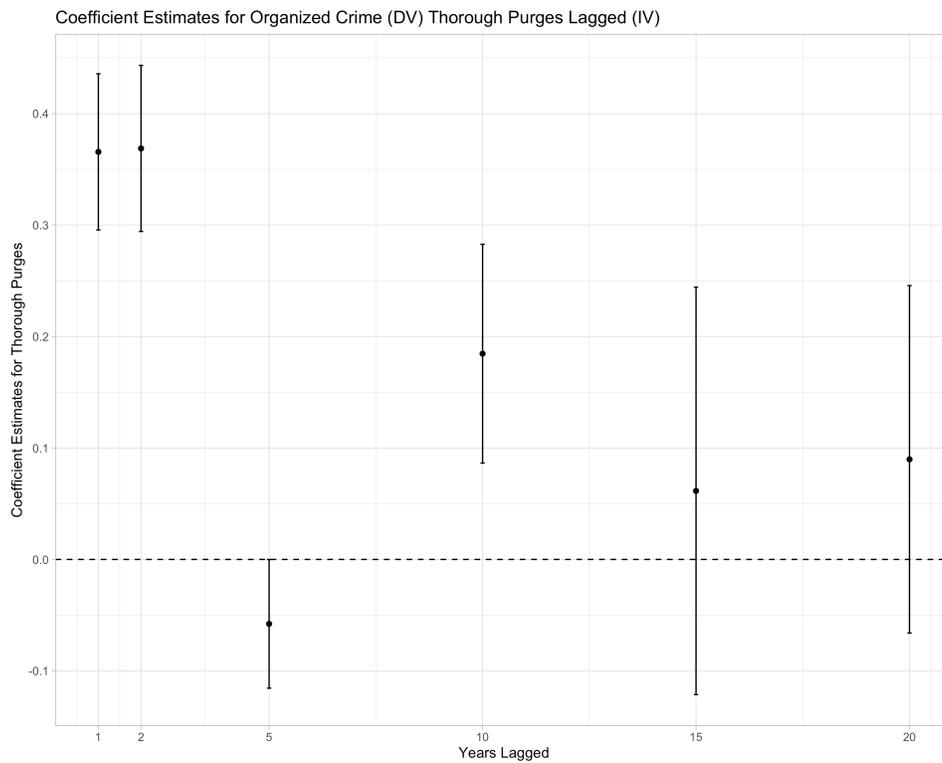
\*p<0.05; \*\*p<0.01; \*\*\*p<0.001  
Lagged Net Cum Positive Thorough Purge, country + year fixed effects, clustered SE

Table 1 indicates that thorough purges do indeed contribute to organized crime. A change in the severity score from 0 (signifying no progressive events) to 1 (signifying exclusively regressive events) increases the costs organized crime imposes on businesses by 36.6 percentage points (recall that both variables are normalized and measured on a scale from 0-1). This is particularly visible in the first and in the second year lags. The ten year lag also has a positive and statistically significant coefficient, however, the size of the effect is much smaller. With the exception of the five year lag, the effect of thorough purges on crime remains positive but is insignificant for fifteen and twenty year lags. In order to verify if it is indeed the disbanding of entire agencies that is driving this effect, we replicated

the analysis for the purges general category of, which combines leadership with thorough purges (see Table 4 in the Appendix). In these regressions, the coefficient values are very similar suggesting that it is rather the phenomenon of thorough purges that is driving the effect in all purges than the other way around.

Figure 4 below illustrates how different lags predict organized crime and suggests a drop-off 2 years after the purge. This is intuitive, as the greatest exodus into organized crime likely occurs directly following the purges. It is also intuitive that after 5 years, the effect would be close to zero, as the *siloviki* find less hazardous employment and the state becomes better skilled at combating organized crime.<sup>27</sup>

Figure 4: Coefficient Estimates for Thorough Purges (Lagged) on Organized Crime



In addition to purges, some of the control variables have significant effects. Most notably, the reliability of police services decreases, predictably, levels of organized crime and,

<sup>27</sup>In the Appendix, we also examine the stability of the thorough purge coefficients by gradually adding to the binary regression the control variables of Reliability of Police Services, the political corruption index, ICC ratification, and GDP per capita.

counter-intuitively, a decrease in political corruption increases the presence of organized crime. These effects are remarkably consistent across all lagged variables of purges. The ICC ratification (a dummy variable) has a negative effect on organized crime. A country's ratification of the Rome Statute, all other things held constant would decrease the level of organized crime by about 10 percentage points. Figure 8 in the appendix illustrates the coefficients for the control independent variables alongside the effect of lagged thorough purges.

As a robustness check, in Table 7 in the appendix, we have replicated this analysis for "business costs of crime and violence" (BCCV), which is another variable from the World Economic Forum's executive survey.<sup>28</sup> The results from these regressions largely corroborate the findings from the OC regressions.

Although these results are quite robust, a possible criticism of our dependent variable is that it relies on surveys and, thus, may fall short of the actual levels of crime on the ground, whether organized or not. Moreover, ultimately what makes citizens of a new democracy less likely to embrace a new policy is to what extent they feel threatened by crime in their daily lives. This is an argument for using homicide data, which we turn to in the next section.

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<sup>28</sup>Similarly to the organized crime variable, BCCV normalized on a scale from 0-1.

## 4.2 Purges and homicides

To examine the relationship between purges and homicide rates, we use exactly the same statistical model as in the subsection above, but for the dependent variable we use the homicide rate, which, recall, is measured as the number of homicides per 100,000 people.

Table 2: Homicide Rate and Thorough Purges

	Homicide Rate					
	(1)	(2)	(3)	(4)	(5)	(6)
Thorough Purge (1 Year)	1.077 (1.500)					
Thorough Purge (2 Year)		1.505 (1.604)				
Thorough Purge (5 Year)			4.230*** (0.489)			
Thorough Purge (10 Year)				7.397 (4.704)		
Thorough Purge (15 Year)					-5.638 (3.723)	
Thorough Purge (20 Year)						0.945 (1.620)
Reliability of Police Services	-1.351 (2.706)	-1.548 (2.794)	-1.216 (2.853)	-2.530 (3.167)	-1.290 (3.182)	0.203 (3.704)
Political Corruption Index	-7.296** (2.354)	-7.260** (2.355)	-7.699*** (2.309)	-4.472 (4.489)	-7.393* (3.437)	-15.092** (5.635)
ICC Ratification	0.056 (0.531)	0.068 (0.522)	0.100 (0.518)	0.254 (0.431)	0.374 (0.407)	
GDP per capita	-2.237 (2.983)	-2.257 (2.971)	-2.467 (2.957)	-3.427 (3.186)	-3.355 (3.522)	-7.525 (4.316)
Organized Crime	-0.505 (3.352)	-0.532 (3.344)	-0.199 (3.293)	-0.990 (2.316)	1.385 (2.519)	4.601** (1.654)

Note:

\*p<0.05; \*\*p<0.01; \*\*\*p<0.001  
Lagged Net Cum Positive Thorough Purge, country + year fixed effects, clustered SE

In these models, purges are no longer a significant predictor of homicides, except for the 5 year lag. Additionally, the effect of thorough purges is less stable. In table 9 in the appendix, which adds one independent variable at a time, we see that the coefficient varies in magnitude from almost 0 to over 1.2 before adding GDP per capita, though after adding political corruption it becomes significant and positive. In light of this volatility, we do not

put much stock in the ability of thorough purges to predict homicides, although we do note that the coefficient on the only significant lag (the 5th year lag) is positive, which is inconsistent with the findings of (Trejo & Ley 2018). Moreover, the effect is largely driven by thorough purges, because when the variable “thorough purge” is replaced with purge (as in table 8 in the appendix), the significance of the result disappears.<sup>29</sup> Among our control variables, the only one which is consistently significant is the political corruption index, which has a consistently negative effect on the homicide rate. That is, an increase in the political corruption index (a decrease in political corruption itself) from negative one to zero on this scale would decrease the homicide rate by around 7 murders per 100,000 persons. This, again, is quite counterintuitive.

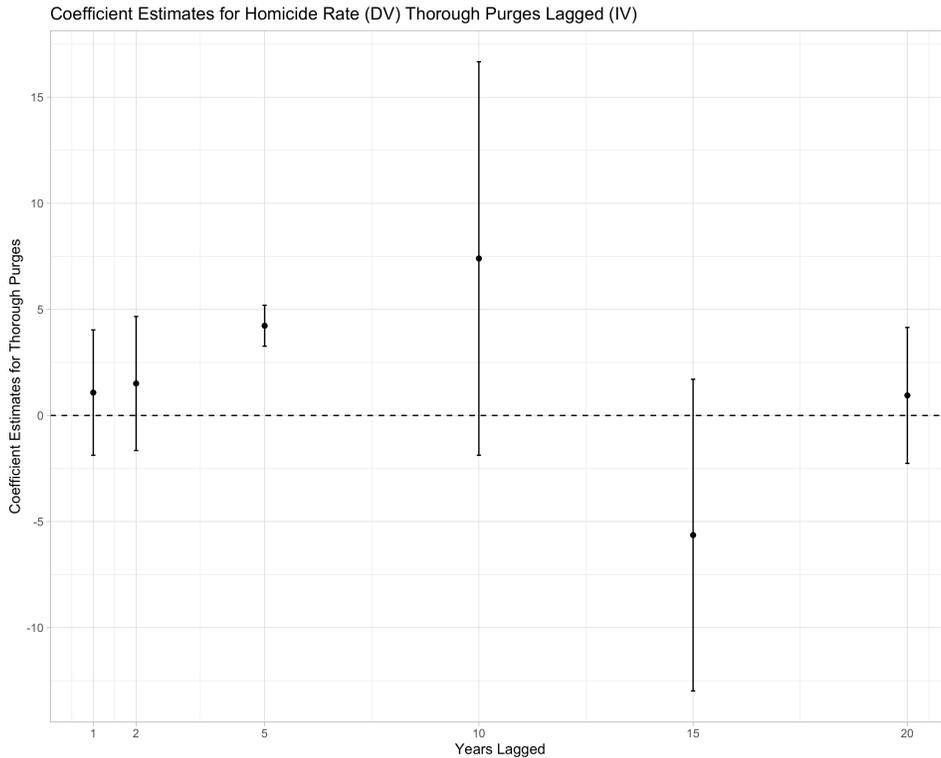
Figure 5 below illustrates how different lags predict homicide rate. It confirms the ambiguity hypothesis, as it suggests a relative increase until 10 years after the purge whereas a drop-off beginning 15 years after the purge. Figure 9 in the appendix illustrates the coefficients for the control independent variables alongside the effect of lagged thorough purges.

In summary, the analysis of homicide data is suggestive of support for the ambiguity hypothesis. While thorough purges contribute to homicides somewhat, the effect documents not only the release of agents of repression into the criminal underworld, but also the disbanding of agencies responsible for recording these crimes. So although “objective” data such as the homicide rate may be a better measure of the average citizen’s experiences under democracy, the benefits of such data may be outweighed by its reliance on (potentially inefficient) state agencies.

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<sup>29</sup>The caveat here, of course, is that Trejo and his collaborators do not use purges as their independent variable.

Figure 5: Coefficient Estimates for Thorough Purges (Lagged) on Homicide Rate



## 5 Conclusion

Post-authoritarian states face the hard task of reckoning with human rights violations committed by the ancien régime. Frequently, the hope is that after implementing mechanisms of transitional justice citizens will be able to enjoy their rights and freedoms better than under the previous regime. Dealing with the past may lead citizens to more fully embrace the new democratic order, contributing eventually to democracy’s consolidation. Yet some transitional justice processes, and personnel transitional justice specifically, may produce unintended consequences.

In this article, we focused on the consequences of purging institutions of the former authoritarian state. Agents of these institutions were no doubt collaborators of the former regime and some, if not most, may have retained loyalties to that regime. But firing them all comes with risks, particularly when experts trained in repression put their skills to use in the criminal underworld. The result of such thorough purges of state agencies could be

an increase in crime. Hence, instead of putting an end to human rights violations committed by the former regime, transitional justice may yet again put the personal integrity of citizens in jeopardy. We developed our theory using the case study of Russia, a state that was extremely keen on thorough purges during its short democratic spell. We link these purges to crime by focusing on the transition of the *siloviki* from communist security agencies like the KGB to organized crime directly or indirectly through private security firms. This informs several hypotheses we test using existing data and the, originally collected for this purpose, Global Transitional Justice Dataset.

Our findings corroborate the intuitions developed with the Russia case study up to a point. We were not able to consistently show that purges either increase or decrease homicides. This finding runs contrary to existing work in transitional justice (Trejo et al. 2018) and legacies of authoritarian rule (Frantz 2019). But it also calls for a more nuanced, and perhaps formal, theory of how the purging of different agencies contributes to the well-being of new democratic states, as well as how it fosters their support for democratically elected and accountable leaders.

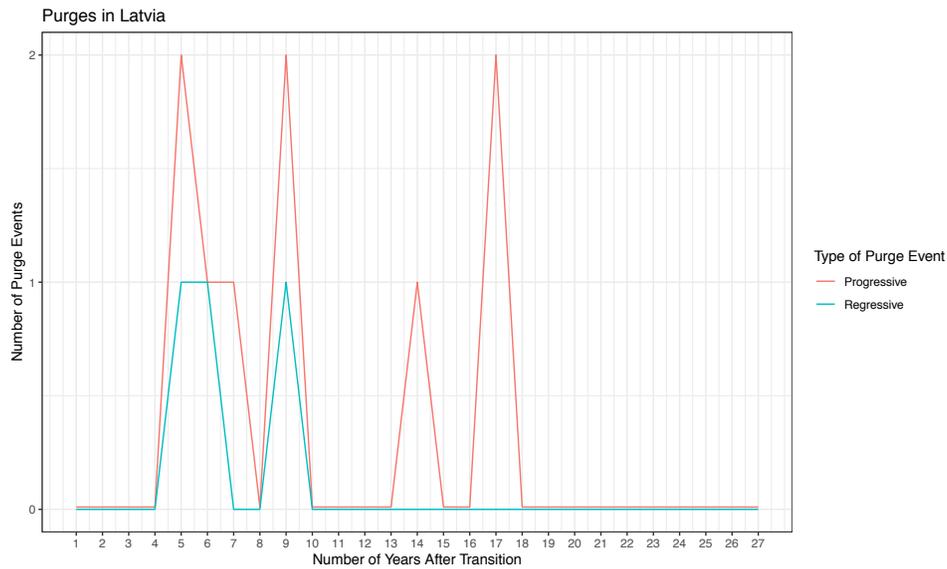
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Figure 6: Progressive (green) and Regressive (red) Purge Events in Latvia 1990-2016



## A Appendix

Table 3: Summary Statistics

Statistic	N	Mean	St. Dev.	Min	Pctl(25)	Pctl(75)	Max
Business Cost of Crime and Violence	292	4.113	0.976	1.763	3.375	4.858	6.195
Organized Crime	292	0.445	0.194	0.000	0.313	0.553	1.000
Reliability of Police Services	292	0.428	0.204	0.000	0.249	0.589	1.000
ICC Ratification	292	0.818	0.386	0	1	1	1
Public Corruption Index	292	-0.531	0.230	-0.902	-0.730	-0.373	-0.040
Homicide Rate	292	8.867	8.715	0.497	2.669	12.756	43.089
Per Capita GDP (logged)	292	8.498	1.119	5.865	7.495	9.388	10.394
Thorough Purge (1 Year)	289	0.199	0.274	0.000	0.000	0.500	0.750
Thorough Purge (2 Year)	286	0.199	0.275	0.000	0.000	0.500	0.750
Thorough Purge (5 Year)	277	0.196	0.274	0.000	0.000	0.500	0.750
Thorough Purge (10 Year)	250	0.194	0.272	0.000	0.000	0.500	0.750
Thorough Purge (15 Year)	221	0.186	0.266	0.000	0.000	0.500	0.750
Thorough Purge (20 Year)	169	0.155	0.257	0.000	0.000	0.500	0.750
Purge (1 year)	289	0.299	0.319	0.000	0.000	0.600	0.833
Purge (2 Year)	286	0.298	0.319	0.000	0.000	0.600	0.833
Purge (5 Year)	277	0.297	0.319	0.000	0.000	0.600	0.833
Purge (10 Year)	250	0.307	0.319	0.000	0.000	0.600	0.833
Purge (15 Year)	221	0.316	0.321	0.000	0.000	0.625	0.833
Purge (20 Year)	169	0.284	0.326	0.000	0.000	0.667	0.833

Figure 7: Severity of Leadership Purges in Post-Authoritarian and Post-Conflict States with at least one event

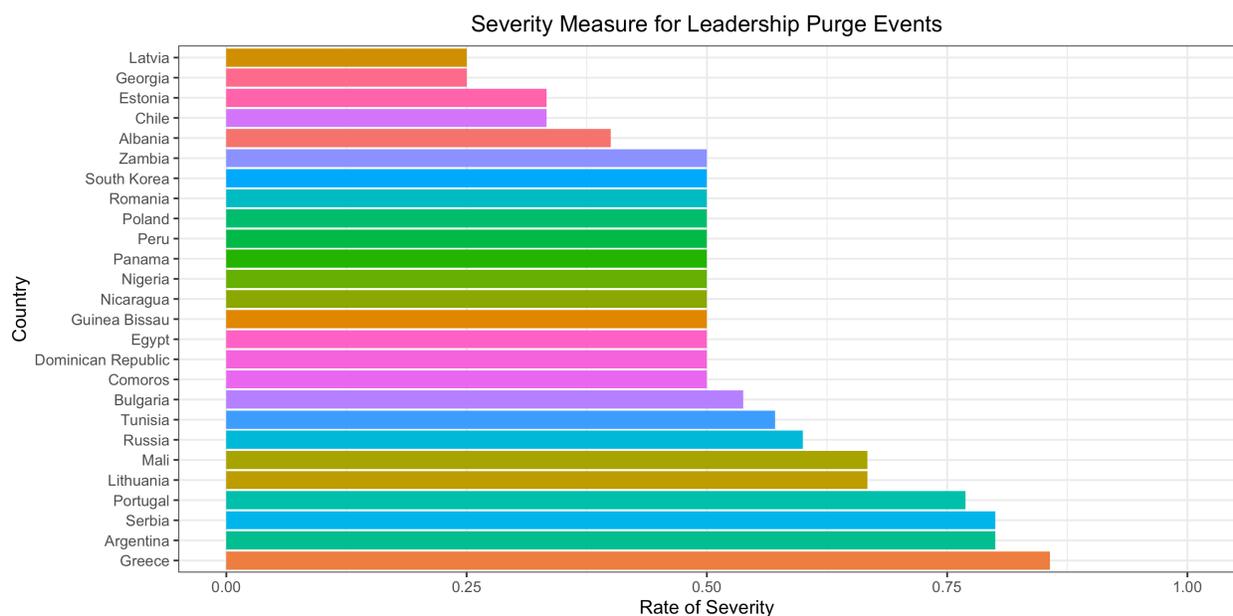


Table 4: Correlation Matrix (Using All Thorough Purge Lags)

	TP(1 year)	TP(2 year)	TP(5 year)	TP(10 year)	TP(15 year)	TP(20 year)	GDP	RPS	Pol. Corr.	ICC
TP(1 year)	1.00	1.00	1.00	1.00	0.99	0.95	-0.82	0.17	-0.75	-0.81
TP(2 year)	1.00	1.00	1.00	1.00	0.99	0.95	-0.83	0.17	-0.75	-0.81
TP(5 year)	1.00	1.00	1.00	1.00	0.99	0.95	-0.83	0.16	-0.75	-0.80
TP(10 year)	1.00	1.00	1.00	1.00	0.99	0.96	-0.84	0.20	-0.74	-0.82
TP(15 year)	0.99	0.99	0.99	0.99	1.00	0.98	-0.85	0.27	-0.73	-0.85
TP(20 year)	0.95	0.95	0.95	0.96	0.98	1.00	-0.85	0.28	-0.75	-0.86
GDPPC	-0.82	-0.83	-0.83	-0.84	-0.85	-0.85	1.00	-0.21	0.83	0.58
RPS	0.17	0.17	0.16	0.20	0.27	0.28	-0.21	1.00	0.06	-0.63
Pol. Corr.	-0.75	-0.75	-0.75	-0.74	-0.73	-0.75	0.83	0.06	1.00	0.43
ICC	-0.81	-0.81	-0.80	-0.82	-0.85	-0.86	0.58	-0.63	0.43	1.00

Figure 8: Coefficient Estimates for Thorough Purges (Lagged 1 Year) and Controls on Organized Crime

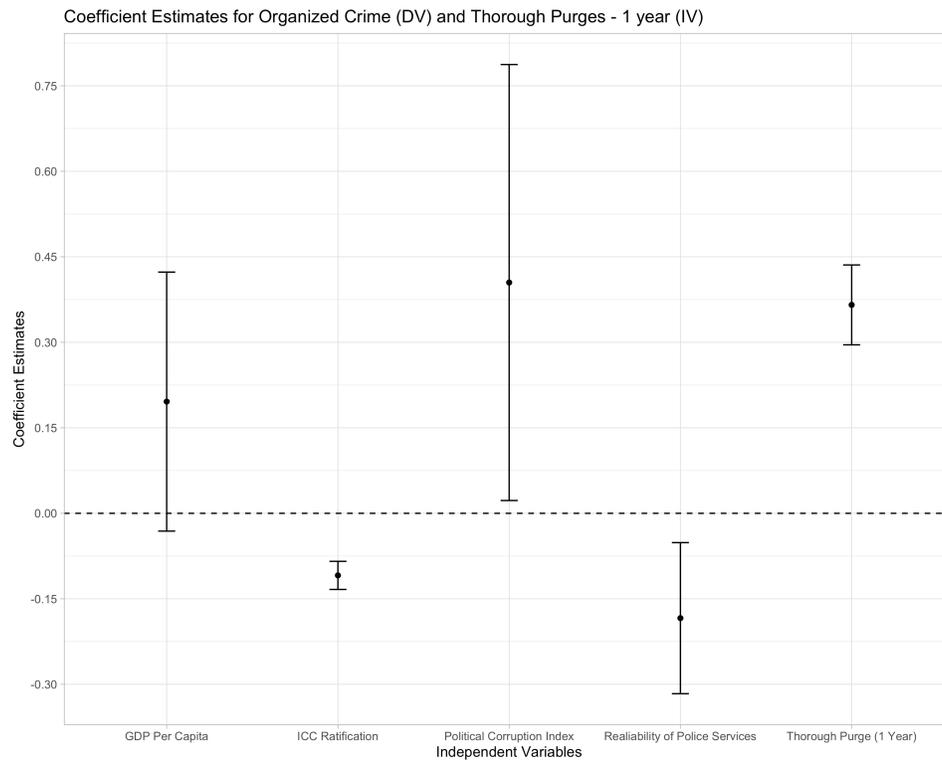


Table 5: Organized Crime and Purges

	Organized Crime					
	(1)	(2)	(3)	(4)	(5)	(6)
Purge (1 Year)	0.366*** (0.036)					
Purge (2 Year)		0.355*** (0.075)				
Purge (5 Year)			-0.060 (0.032)			
Purge (10 Year)				0.286 (0.409)		
Purge (15 Year)					0.050 (0.152)	
Purge (20 Year)						0.045 (0.067)
Reliability of Police Services	-0.184** (0.067)	-0.196** (0.071)	-0.186** (0.071)	-0.202* (0.080)	-0.182* (0.083)	-0.162 (0.101)
Political Corruption Index	0.406* (0.194)	0.422* (0.193)	0.433* (0.203)	0.440* (0.192)	0.336 (0.183)	0.405 (0.206)
ICC Ratification	-0.109*** (0.013)	-0.107*** (0.013)	-0.106*** (0.013)	-0.098*** (0.012)	-0.092*** (0.013)	
GDP per capita	0.198 (0.115)	0.190 (0.116)	0.179 (0.118)	0.112 (0.114)	0.041 (0.124)	0.096 (0.176)

Note:

\*p<0.05; \*\*p<0.01; \*\*\*p<0.001  
Lagged Net Cum Positive Purge, country + year fixed effects, clustered SE

Table 6: Organized Crime and Thorough Purges (1 Year)

	Organized Crime				
	(1)	(2)	(3)	(4)	(5)
Thorough Purge Occurred	0.392	0.397*** (0.003)	0.335*** (0.032)	0.336*** (0.032)	0.366*** (0.036)
Reliability of Police Services		-0.131 (0.072)	-0.141* (0.071)	-0.136 (0.071)	-0.184** (0.067)
Political Corruption Index			0.383 (0.195)	0.379 (0.195)	0.405* (0.194)
ICC Ratification				-0.090*** (0.005)	-0.109*** (0.013)
GDP per capita					0.196 (0.115)

Note:

\*p<0.05; \*\*p<0.01; \*\*\*p<0.001  
Lagged Net Cum Positive Thorough Purge, country + year fixed effects, clustered SE

Table 7: Business Cost of Crime and Violence and Thorough Purges

	Business Costs of Crime and Violence					
	(1)	(2)	(3)	(4)	(5)	(6)
Thorough Purge (1 Year)	0.577*** (0.033)					
Thorough Purge (2 Year)		0.537*** (0.040)				
Thorough Purge (5 Year)			-0.234*** (0.029)			
Thorough Purge (10 Year)				0.109 (0.066)		
Thorough Purge (15 Year)					0.029 (0.043)	
Thorough Purge (20 Year)						0.016 (0.078)
Reliability of Police Services	-0.182* (0.084)	-0.182* (0.088)	-0.150 (0.086)	-0.177 (0.092)	-0.174 (0.095)	-0.254* (0.107)
Political Corruption Index	0.247 (0.168)	0.279 (0.173)	0.318 (0.190)	0.329 (0.232)	0.146 (0.241)	0.287 (0.226)
ICC Ratification	-0.072*** (0.013)	-0.071*** (0.013)	-0.071*** (0.014)	-0.065*** (0.015)	-0.062*** (0.016)	
GDP per capita	0.004 (0.129)	-0.004 (0.129)	-0.010 (0.132)	-0.045 (0.150)	-0.094 (0.163)	0.039 (0.174)

Note:

\*p<0.05; \*\*p<0.01; \*\*\*p<0.001  
Lagged Net Cum Positive Thorough Purge, country + year fixed effects, clustered SE

Table 8: Homicide Rate and Purges

	Homicide Rate					
	(1)	(2)	(3)	(4)	(5)	(6)
Purge (1 Year)	1.234 (1.644)					
Purge (2 Year)		-1.597 (13.935)				
Purge (5 Year)			4.516 (2.549)			
Purge (10 Year)				2.509 (4.591)		
Purge (15 Year)					-3.088 (1.927)	
Purge (20 Year)						-0.033 (1.643)
Reliability of Police Services	-1.357 (2.707)	-1.395 (2.794)	-1.210 (2.853)	-2.093 (3.069)	-1.275 (3.196)	0.173 (3.742)
Political Corruption Index	-7.301** (2.354)	-7.160** (2.381)	-7.722*** (2.310)	-3.592 (4.311)	-8.467** (3.053)	-14.848* (5.775)
ICC Ratification	0.053 (0.533)	0.088 (0.523)	0.099 (0.517)	0.266 (0.430)	0.361 (0.408)	
GDP per capita	-2.221 (2.994)	-2.355 (2.968)	-2.463 (2.951)	-3.040 (3.237)	-3.601 (3.440)	-6.995 (4.623)
Organized Crime	-0.521 (3.355)	-0.365 (3.348)	-0.192 (3.292)	-0.302 (2.317)	1.132 (2.413)	4.782** (1.566)

Note:

\*p<0.05; \*\*p<0.01; \*\*\*p<0.001  
Lagged Net Cum Positive Purge, country + year fixed effects, clustered SE

Figure 9: Coefficient Estimates for Thorough Purges (Lagged 1 Year) and Controls on Homicide Rate

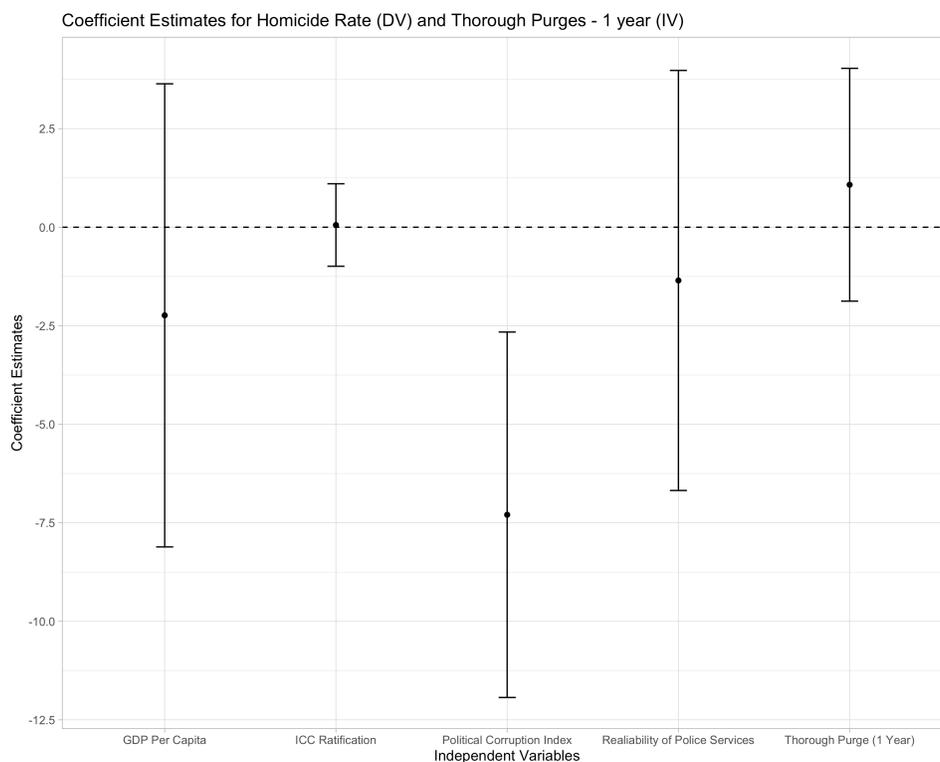


Table 9: Homicide Rate and Thorough Purges (1 Year)

	Homicide Rate					
	(1)	(2)	(3)	(4)	(5)	(6)
Thorough Purge Occurred	-0.0001	0.085 (0.106)	1.247** (0.408)	1.247** (0.409)	0.893 (0.535)	1.077 (1.500)
Reliability of Police Services		-2.031 (2.544)	-1.836 (2.632)	-1.829 (2.642)	-1.258 (2.569)	-1.351 (2.706)
Political Corruption Index			-7.190** (2.711)	-7.196** (2.715)	-7.500** (2.470)	-7.296** (2.354)
ICC Ratification				-0.117 (0.184)	0.111 (0.367)	0.056 (0.531)
GDP per capita					-2.335 (2.844)	-2.237 (2.983)
Organized Crime						-0.505 (3.352)

Note:

\*p<0.05; \*\*p<0.01; \*\*\*p<0.001  
Lagged Net Cum Positive Thorough Purge, country + year fixed effects, clustered SE