

Short-Term Shocks, Long-Term Shifts: Nonviolent Political Movements and Economic Activity

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Abstract

This article aims to shed light on the economic consequences of the nonviolent campaigns (NVCs) across the world. The current era is shaped with various political transformations that are often driven by political movements that engage in NVCs. Some of them are successful and result in regime change while others fail and are unable to reach their goals. At the same time, there is contention among researchers as to what are the outcomes of NVCs. Economic outcomes of NVCs are understudied: some authors state that democratization (which can be a result of a NVCs) can lead to positive economic outcomes, while others believe that NVCs are detrimental to various economic parameters. These critical gaps are addressed in this work by focusing on the establishment of the causal effect of NVCs on economic growth and analyzing its variation depending on campaign's type – successful, failed or leading to democratization. Our dataset, that enhanced NAVCO 1.3 by addition of previously overlooked cases, encompasses time period from 1950 until 2022. The results show that at average NVCs have a weak, but significant short-term and medium-term negative effect on national income. At the same time, democratizing NVCs do not lead to negative economic outcomes in medium-term albeit there is a negative and insignificant short-term shock. In other words, campaigns that initiate a democratic transition effectively neutralize the long-term negative economic consequences of instability and shock caused by NVCs.

Keywords: Nonviolent campaigns, Civil resistance, Democratization, Democratic transition, Economic performance, Economic growth, Revolutions.

JEL: O10, O57, P30

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Introduction

In an era shaped by profound political transformations, from the streets of Tunisia to the squares of Hong Kong, the power of ordinary citizens mobilizing for change has attracted significant global attention. These movements, frequently opting for a nonviolent approach in favor of a disciplined strategy of mass civil resistance, have effectively led to the overthrow of autocratic rulers and the creation of new political spaces. The remarkable success of nonviolent maximalist campaigns (NVC) in fostering democratic institutions – both in short-term (e.g. Chenoweth & Stephan, 2011) and long-term (e.g. Kadivar, 2018)¹ – is now a well-established result. Consequently, it provides a critical foundation for exploring the less understood, yet equally vital, economic outcomes of these powerful social phenomena.

The economic consequences of nonviolent uprisings extend beyond the immediate political implications of the ballot box and constitutional reforms. A plausible, albeit optimistic, hypothesis posits that the democratic institutions established by NVCs have the potential to facilitate economic prosperity. This perspective is corroborated by the comprehensive economic literature on the effect of democratization on economic growth (Acemoglu et al., 2019; Papaioannou & Siourounis, 2008; Rodrik & Wacziarg, 2005). For example, Acemoglu et al. (2019) shows that democratization brings about a 20 percent higher GDP per capita over the subsequent 25 years than a country would have if it had remained authoritarian. Moreover, it was shown that democratization occurring as a consequence of NVCs is of a stronger nature than other types of democratization (Fetrati, 2023; Johnstad, 2010; Olar, 2024) that provide a rationale for the anticipation of enhanced economic dividends. Nevertheless, the inherent characteristics of a maximalist campaign, in essence, constitute a fundamental challenge to the prevailing order, thereby resulting in the triggering of profound instability. New revolutionary regimes, even those originating from peaceful movements, are frequently characterized by fragility and contestation.

The profound examples are the Tunisian revolution of 2011 and the Egyptian revolution of 2011. Both were successful nonviolent campaigns and the most successful cases of the Arab Spring which did not lead to civil wars and massive humanitarian crises (Mako & Moghadam, 2021). However, the Tunisian revolution resulted in the massive political polarization and conflict, specifically, around the role of Islam in the government, which in turn resulted in a political crisis in 2013 (Berman, 2019). The negative economic consequences also were present, as political instability was followed by deterioration of macroeconomic parameters, for instance, average economic growth in the post-revolutionary 10-year period became lower than it was in pre-revolutionary 10-year period (Nabi, 2021). At the same time, various shocks related to political instability such as partisan conflict and terrorist attacks were followed by negative returns from Tunisian stock market (Souffargi & Boubaker, 2024). Finally, the post-revolutionary decade ended in a democratic backsliding and authoritarian power grab by president Kais Saied, which were facilitated by economic crisis and by significant loss of trust in political elites (Blackman, 2024). The Egyptian revolution is another example of a successful nonviolent campaign which reached a goal of ousting an authoritarian leader. However, the following democratization was short lived, as the

¹ See Korotayev et al. (2024) for a comprehensive review of the political consequences of NVCs.

new president Mohamed Morsi was toppled by military authorities in 2013, who afterwards established the authoritarian regime of Abdel Fattah el-Sisi (Springborg, 2016). Similarly to Tunisian case, the Egyptian revolution resulted in significant political polarization (Weber et al., 2013), and in economic problems, as Egypt has lost its GDP per capita growth, its tourist revenue and its investment-to-GDP ratio (Echevarría & García-Enríquez, 2020).

Thus, the successful NVCs can potentially result in capital flight, disrupted production, and political chaos, which can severely impact an economy well in advance of the realization of any “democratic dividend”. To date, the extant literature on the issue of economic effect of NVCs is limited, and at best demonstrates an absence of effect: Braithwaite et al. (2014) found negligible negative effect of NVCs on foreign direct investments while studying only effect of ongoing campaigns; Biglaiser et al. (2024) show the absent effect of ongoing NVCs on sovereign bond ratings; and Stoddard (2013) reports that after successful NVCs there is an increase in life expectancy compared to the global trend, whereas after unsuccessful ones, there is a backwardness.

The issue is further complicated by the considerable, albeit academically neglected, landscape of failed NVCs. While success stories are frequently the focus of public attention, it should be noted that almost a half of all NVCs are unsuccessful², and the consequences of these campaigns are largely unclear. On the one hand, the failure of a movement can, paradoxically, lay the foundations for future liberalization as an elite response to a threat of revolution. For instance, the 2007 Saffron Revolution in Myanmar, during which widespread protests were led by Buddhist monks and pro-democracy activists, was suppressed by the ruling military junta. However, a year after the new constitution was adopted and elections were scheduled for 2010 with the goal of establishing a “Discipline-flourishing Democracy”. It is acknowledged that both the constitution referendum and elections were not without controversy and were subject to accusations of fraud. However, these events did mark the beginning of a process of liberalization, as evidenced by the amnesty for political prisoners, including Aung San Suu Kyi, a leading figure in the democratic opposition. A parallel can be drawn with a large-scale protest in Algeria in 1988, which had been violently suppressed by the one-party regime, yet initiated a chain of democratization, eventually culminating in the first multi-party election in 1991³.

Conversely, a failed NVC has the potential to provoke a reactionary authoritarian backlash. Protests in Hong Kong in 2019-2020 are the example of how large NVC was followed by rapid autocratization via the installation of national security law by mainland authorities which led to severe limitations for universities, mass media, and judiciary system (Lai, 2023). A lot of civil society organizations were under attack from authorities after 2020 due to their ties with the pro-democracy movement, and many were disbanded since (Lee, 2025). Another example is Turkey, where 2013 Gezi Park protests were quite large and a widely supported campaign whose aim was to protect Gezi Park in Istanbul from urban renewal. However, the campaign also had political goals which it was unable to reach and some authors consider these protests a turning point for the

²According to the most widely utilized database – NAVCO (Chenoweth & Shay, 2020) – 52% of NVCs reached full or limited success. However, this percentage may be overestimated due to selection bias in the form of “streetlight effect” (see Dworschak, 2023).

³Nevertheless, the landslide victory of the Islamic opposition resulted in civil war (1992-2002) since the military refused to accept the results.

country's autocratization, since the ruling party began to consolidate power in the aftermath (Acar & Uluğ, 2025; Sözen, 2020).

Finally, the aforementioned discussion brings into question the very nature of the democratization process itself. The findings of Acemoglu et al. (2019) suggest a significant average effect of democracy on growth, yet they also open the door for investigating the potential for heterogeneous effects. The economic outcomes of a political transition may depend critically on how democracy is achieved. There are compelling reasons to expect that “democratization from below”, driven by the mass mobilization in the form of NVC, creates a different set of political and economic conditions than “democratization from above”, which is a relatively smooth transition controlled by powerholders. Thus, a revolutionary democratization may lead to a more radical restructuring of institutions, for better or worse, while an evolutionary one may produce more predictable, albeit probably less transformative changes. This potential for divergent paths based on the mode of transition remains a crucial and under-investigated frontier, holding the key to a more complete understanding of the economic impact of NVCs.

The estimation of the causal effect of NVCs on GDP per capita, a conventional metric of economic performance, is complicated by several challenges. Figure 1 illustrates the dynamics of log GDP per capita in countries that experienced the NVCs at year 0, relative to countries that did not face the same challenge at the same time. Firstly, as evidenced by the graph and previous discussion, there is a pronounced heterogeneity of the effect depending on the outcome: was it successful or not and did it lead to democratization. One can see that any NVCs leads to negative economic consequences since such countries are progressively falling behind the rest of the world in GDP per capita. Intriguingly, the campaigns that resulted in democratization exhibited the most pronounced negative impact on the economy, contradicting the findings of studies examining the impact of democratization on the economy. However, there is a challenge of selection-into-treatment group that should be properly addressed, because of which the descriptive plot below might be misleading, though showing a preliminary picture.

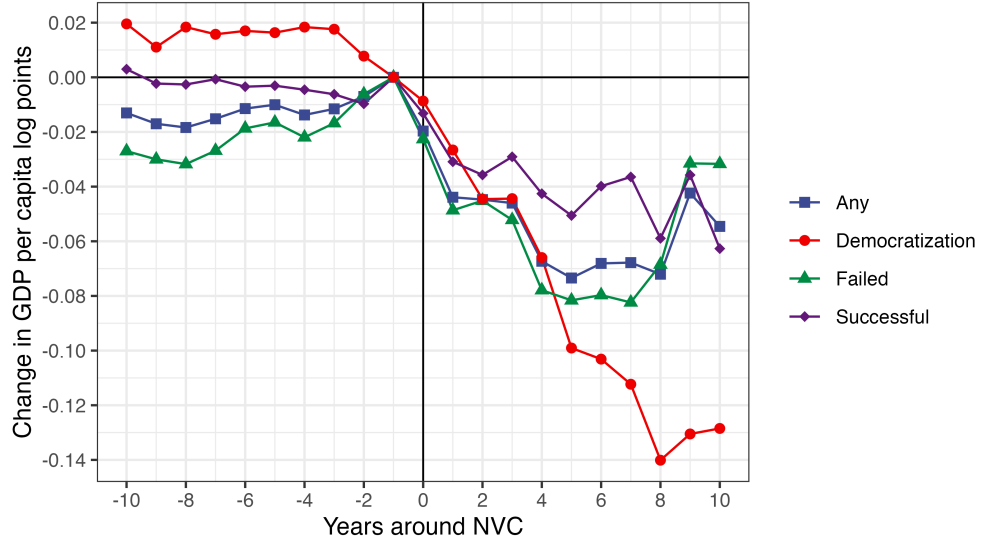


Fig. 1. GDP per capita around different types of nonviolent campaigns.

Note: The graph shows the mean difference in log of GDP per capita between countries that experienced some type of NVC and those that did not in the same year; the data points are normalized to 0 in the year just before ($t = -1$) the NVC.

Data: Campaigns and their characteristics are based on NAVCO 1.3 (Chenoweth & Shay, 2020); democratization is defined as a transition from a closed or electoral autocracy to full or electoral democracy, as classified using the V-Dem data (Coppedge et al., 2025); GDP per capita is based on PPP in constant 2021 international dollars from Gapminder (2024); see Section 2.2 for more details.

The present study aims to address these critical gaps by focusing on the establishment of the causal effect of NVCs on economic growth and analyzing its variation depending on campaign’s type. The research contributes to the field in two ways. From a theoretical point of view, the novelty lies in the first comprehensive and general estimation of the effect of NVCs of different types. From a practical point of view, the study utilizes a matching strategy for difference-in-differences design, rather than the usual two-way fixed effect model.

The rest of the paper is organized as follows. Section 1 presents a review of theoretical and empirical works focused on interplay between revolutionary movements and economic outcomes, as well as between democratization and economic outcomes. In this section we also formulate our main hypotheses. Consequently, Section 2 details the empirical strategy by introduction of difference-in-difference designs. Subsequently, the choice of data and estimators is described. Section 3 presents the results obtained by panel matching. Section 4 discusses the findings and concludes the paper.

1 Theoretical background

One issue to address right away is a choice to focus on nonviolent maximalist campaigns as an independent variable and a trigger for economic changes. The main reason is that operationalization of NVCs is very close to modern operationalization of revolutions. For instance, Chenoweth and Stephan (2011), authors of NAVCO dataset define “maximalist campaign” as “a series of observable, continual, purposive mass tactics in pursuit of a political objective” (Chenoweth & Stephan, 2011, p. 14) and maximalist goals are “regime change, antioccupation, and secession” (Chenoweth & Stephan, 2011, p. 68). At the same time, modern definitions of revolution are very similar. For instance, George Lawson’s definition of revolution is “a collective mobilization that attempts to

quickly and forcibly overthrow an existing regime in order to transform political, economic, and symbolic relations” (Lawson, 2019, p.5). Modern definitions of revolutions focus on mobilization and political goals, which makes them and maximalist campaigns largely overlapping concepts in modern Political Science. Moreover, regarding nonviolence, research shows that nonviolent revolutions are the absolute majority of modern revolutions and nonviolent tactics became the norm for opposition movements (Chenoweth & Shay, 2020). Therefore, we believe that NVCs are not simply a category of protest activity, they are revolutionary events, and they are expected to bring certain political or economic changes. Moreover, NVCs are also a major trend in politics as they are a mainstream method of opposition attempts to change politics.

1.1 Economic consequences of democratization

The relationship between revolutions, democracy and economic growth is the subject of extensive academic research. Democratic institutions are often associated with economic development through mechanisms that promote property rights, reduce corruption and encourage investment (Olson Jr, 1963). Acemoglu et al. (2008) argue that inclusive political institutions are fundamental to long-term economic growth. Their work suggests that, on average, democracies, by ensuring greater participation in the political process, create an environment that stimulates economic development. However, empirical studies provide mixed evidence on the impact of democratization on economic growth. Barro (1991, 1996) considers that while there is a positive relationship between the rule of law and economic growth, the direct impact of democracy is ambiguous. In the later work of Acemoglu et al. (2019) it is shown that a transition to democracy is associated with significant growth of GDP per capita.

The effect of democratization on the economy is a topic for discussion. Firstly, it is important to notice that while democracy is considered to have positive effects on society as a whole, studies on economic output of democracy can be quite diverse. Tavares and Wacziarg (2001) find that while democracy increases human capital, it decreases physical investment rates. In the authors’ opinion, democracies are more responsive towards poorer parts of the population. Democracy leads to less inequality and more access to education, but this negatively affects the accumulation of physical capital (Tavares & Wacziarg, 2001).

Baum and Lake (2003) find that democracy has an effect on growth through indirect means such as life expectancy and secondary education. Authors theorize that due to democratization countries start to provide better public services which influence human capital growth. Democracy is also associated with a reduced risk of market crashes (Apergis, 2017). Democracy stimulates more businesses to participate in the economy (Ho et al., 2018) because democracies have less bureaucratic barriers and less costs to enter the market.

A meta-analysis by Doucouliagos and Ulubaşoğlu (2008) failed to find a direct effect of democracy on economic growth. Authors find that democracy is positively associated with human capital formation and economic freedom but also with higher government spending and less free international trade (Doucouliagos & Ulubaşoğlu, 2008). A meta-analysis by Colagrossi et al. (2020) is based on 188 studies containing 2047 models on the relationship between democracy and economic

growth. Authors find a positive correlation between democracy and economic growth. Moreover, authors compare this effect to the effect of human capital on economic growth and find that the effect of democracy is weaker. The effect of democracy on growth is small as authors state themselves (Colagrossi et al., 2020).

Some works, however, do not find a significant effect of democracy on human capital, thus, putting this indirect link under doubt (Dahlum & Knutsen, 2017). The same is true for reducing inequality, while there is evidence democratization increases government taxation and revenue as a share of GDP (Acemoglu et al., 2015).

At the same time there is a good reason to believe that revolutions can bring democratization. As Tilly (2000) states, revolutions are one of the circumstances that can lead towards democratization, on par with various other mechanisms. In Tilly's opinion, revolutions' net effect in the 20th century usually had some degree of democratization, due to the fact that they require some new and more inclusive coalitions from political actors and ruling classes. It is important to note, however, that revolutions can also fail to bring democratization. Nevertheless, it is a valid link, and considering aforementioned connection between democracy and economic growth we believe that democratizing NVCs might be followed by economic growth.

1.2 Revolutions and their political outcomes

In turn, there are currently quite few studies that focus on the economic consequences of nonviolent protest campaigns. One can cite many works that have investigated how protest campaigns change the characteristics of the political regime depending on their success or failure (Celestino & Gleditsch, 2013; Karatnycky & Ackerman, 2004; Kim & Kroeger, 2019). Work in this area can be traced back to Gene Sharp's work, which argued for the effectiveness of nonviolent resistance to foreign occupation (Sharp, 1973). Subsequently, events in the late 1980s: in South Africa (Zunes, 1999), during the First Intifada (Crow et al., 1990) and in Eastern Europe (Hadjar, 2003) laid the foundation for the studies of nonviolent protests as a tool for regime transformation. At the same time, despite the proven significant political changes resulting from protest campaigns, the study of their economic consequences is virtually undeveloped: those studies that have been conducted to date will be detailed further below (Beissinger, 2022; Biglaiser et al., 2024; Braithwaite et al., 2014; Stoddard, 2013).

However, before turning to the economic consequences of the revolutionary uprisings, it is necessary to analyze what their consequences have generally been identified so far. As mentioned above, the political consequences of revolutions are researched quite extensively. It has been shown in numerous studies that unarmed protest campaigns lead to democratic transit, while in the armed ones, such a probability is low (Beissinger, 2022; Celestino & Gleditsch, 2013; Chenoweth & Stephan, 2011; Karatnycky & Ackerman, 2004; Kim & Kroeger, 2019). The probability of democratic transit is also affected by the GDP per capita at the moment of revolutionary mobilization (Celestino & Gleditsch, 2013; M. Dahl & Gleditsch, 2023; Dahlum, 2019; Kim, 2017). A country's higher education coverage rate and higher level of urbanization also increase the likelihood of democratic transit (Dahlum, 2019, 2023), chances of democratic transit are also higher in more

ethnically and religiously homogeneous countries (Kim, 2017). In addition, the level of democracy prior to revolutionary mobilization matters: higher levels of democracy also have a positive impact on the likelihood of democratic transit (Chin et al., 2023).

Many works point out that democratic transit achieved through unarmed revolutions shows higher parameters of democratization than non-revolutionary democratic transit (Bethke & Pinckney, 2021; Johnstad, 2010; Lambach et al., 2020; Rød et al., 2020). This also applies to a greater increase in various related indicators, such as freedom of expression. However, these conclusions should be treated with a certain degree of caution. In studying protest campaigns and their consequences, many authors emphasize the various achievements of pro-democratic protests, while ignoring their failures, as well as ignoring revolutionary transformations unrelated to democratic transformations.

Considering other socio-political effects besides democratization, it is worth mentioning the growing inclusiveness of ethnic groups and their inclusion in the political life of the country after unarmed protest campaigns (Ives, 2022). At the same time, the inclusiveness of ethnic groups increases much more significantly as a result of successful unarmed revolutions than in cases of democratization without revolutionary mobilization or armed revolutions. The status of women, discriminated social and ethnic groups increases substantially after unarmed revolutionary demonstrations if these groups participate in them (Bogati et al., 2023). At the same time, inclusiveness does not increase if these groups do not participate in the protest campaign. Moreover, it is argued that democratization, which is associated with unarmed revolution, is accompanied by an increase in the V-Dem “equal distribution of resources” index, which shows equal access to political power and resources. At the same time, as Mark Beissinger writes, the growth of this index is not big in case of “urban civic revolutions” (Beissinger’s term which de facto replaces unarmed protest campaigns in his work) in comparison with armed social revolutions. According to Beissinger’s study, the Gini index of economic inequality also declines only after successful social revolutions (Beissinger, 2022). It was also found that successful unarmed revolutions do not lead to the decrease in corruption level (Ammons & Shakya, 2024), which is also supported by Beissinger, who shows that only successful social revolutions lead to a significant decrease in corruption (Beissinger, 2022).

1.3 Economic consequences of revolutions

When it comes to the economic consequences of revolutionary uprisings, there are only a few works. Probably the first study that addressed this topic using modern methods and a large amount of data is the work of Stoddard (2013). Stoddard’s work argues that successful nonviolent campaigns increase GDP per capita, but that this effect is statistically insignificant. Overall, due to methodological problems, this paper was unable to obtain applicable results on the relationship between revolutionary campaigns and the subsequent rise or fall in GDP per capita. Among the intriguing and confirmed findings of the paper is the slowdown in life expectancy growth after any (armed or unarmed) revolutionary episodes.

Braithwaite et al. (2014) achieved significant results. The authors demonstrated that revolu-

tionary uprisings lower foreign direct investment in a country, and this is especially true for armed revolutionary uprisings. At the same time, Glen Biglaiser and co-authors show that armed revolutionary demonstrations significantly lower government bond ratings, while unarmed demonstrations do not lead to such a decline (Biglaiser et al., 2024).

In turn, Beissinger (2022) writes about the economic consequences of revolutions, probably more than anyone else, comparing countries that have experienced revolutionary uprisings with countries that have not. Urban civic revolutions (which are basically unarmed revolutionary campaigns) lead to less economic losses in comparison with social revolutions (which are almost all armed), but they still lead to economic growth slowing down when compared to countries which have not experienced revolutionary processes (Beissinger, 2022).

Considering the aforementioned, it can be noted that we know almost nothing about the economic consequences of unarmed revolutionary uprisings. The situation is better in the case of armed revolutions: the studies above show that foreign direct investment falls significantly as a result of armed revolutions (Braithwaite et al., 2014), government bond ratings also fall (Biglaiser et al., 2024), in addition, armed revolutions lead to high economic costs (Beissinger, 2022). It is also possible to refer to older studies of the effects of revolutions, where individual cases of armed revolutions were also demonstrated to have a negative effect on economic development (Eckstein, 1982, 1986).

In the almost complete absence of studies of the economic consequences of unarmed revolutions, it is still possible to rely on studies of their socio-political consequences to provide a foundation for further research. And as shown above, a huge amount of research shows that unarmed revolutions lead to democratic transit or to an increase in the indicators associated with it. At the same time, modern studies using a large amount of data sometimes demonstrate that democracy has a positive effect on economic growth, though the effect is arguable and not direct (Knutsen, 2012, 2013). In the context of the plethora of papers in which unarmed revolutions lead to a plethora of various positive effects of democracy, it seems even strange that so many researchers have not conducted detailed studies of how unarmed revolutions affect economic growth and whether they do. However, if we take into account the evidence on the impact of democracy on economic growth, it seems plausible to suggest that unarmed revolutions can lead to economic growth through the liberalization of economic institutions. Moreover, the studies cited above provide strong evidence of increased inclusiveness of various social and ethnic groups as a result of unarmed revolutions (Bogati et al., 2023; Ives, 2022). If these groups were previously excluded from the country's economic processes, their subsequent inclusion should have a positive effect on economic performance. Finally, if we talk about less discussed causes of potential economic growth, we can note that revolutionary movements often have external allies. In the case of armed revolutions, we can speak of a socialist lean and the presence of external allies with this lean (Clarke, 2023). But in the case of unarmed revolutions, external support, including economic support, is also quite possible. For example, the “color” revolutions were quite openly supported by the United States and various pro-American NGOs (Mitchell, 2022), and if the revolutionary movements were victorious, it is possible that the new government could receive additional economic support and new trading

partners.

However, despite all of the above, it is worth noting that there is a large body of research that concludes that revolutions lead to rather negative effects (Ades & Chua, 1997; Barro & Lee, 1993; Huntington, 2006), however, these studies do so without distinguishing between different types of instability, and rather focusing on violent instability, where the priority after victory is often the rapid (and often violent) redistribution of resources, which is unlikely to have a positive impact on the level of economic activity. In general, Beissinger's tests confirm this logic: the consequences of successful and unsuccessful social revolutions are steep declines in GDP per capita, while after successful and unsuccessful urban civil revolutions this decline is much less pronounced. However, Beissinger's analysis also shows that unsuccessful unarmed revolutions lead to economic growth, and that some countries have even experienced a surge in foreign investment after the suppression of revolutionary movements (Beissinger, 2022).

Thus, there are many arguments for both positive economic effects of campaigns and negative ones. However, taking one of these positions means either relying on partly biased studies that present campaigns as an undeniable good, or relying on studies that view campaigns as their most radical form - civil war. In this regard, another argument can be offered: while political change because of revolutions can be almost instantaneous, economic change takes time. In addition, while the economic damage from armed revolutions is not questioned, unarmed campaigns can hardly be described as destructive. Moreover, this is true for both successful and unsuccessful cases, as in the case of successful ones the new government is unable to significantly affect the economic situation in the short term, while in the case of unsuccessful ones the status quo is maintained or slow co-optation begins, as it happened in Saudi Arabia after Arab Spring (Mabon, 2012), where following the suppression of the protests, a government program was launched that provided for immediate payment of two months' salaries to civil servants, discounts on education, and significant investment in infrastructure.

Why are nonviolent revolutions unlikely to lead to an economic collapse? Firstly, they do not employ violent and armed tactics which means that there are few fatal casualties among the population and minimal damage to public property. Secondly, unlike social revolutions, pro-democratic nonviolent movements do not employ political repressions and do not pursue total redistribution of capital. This prevents exodus of rich people and people from the public administration apparatus from the country. Finally, while there is no evidence of economic growth, successful nonviolent campaigns are quite likely to find external support from other countries which guarantees that they will not be excluded from international trade or isolated.

2 Methods

2.1 Empirical strategy and Estimator

A usual empirical strategy to assess the effect of some event in the panel data is difference-in-difference design. Its main assumption is the parallel trends between control and treated group before treatment (NVC). Putting differently, states who will experience NVC some time in the future is a treated group, while states who have the same past trajectories as in treated group

(in economy, regime type, etc.) is a control group. Because of that similarity in pre-treatment period, control group is a good proxy how the treated group would have changed over time without treatment. Thus, using potential outcome framework, DiD estimate the average effect on treated (ATT) as follows:

$$\tau_{ATT} = [\mathbb{E}(Y_{1i}|D_i = 1) - \mathbb{E}(Y_{0i}|D_i = 1)] - [\mathbb{E}(Y_{1i}|D_i = 0) - \mathbb{E}(Y_{0i}|D_i = 0)] \quad (1)$$

where additional subscript for Y_i shows the time relative to treatment: 0 - before treatment and 1 - after treatment. In other words, τ_{DiD} is the difference between trends in treated and control group. In (1) the simplest version with two periods is demonstrated, but it can be easily generalized to more periods.

As was mentioned before, the main assumption is the parallel trends (PTA) between groups, which also implicitly suggests the absence of time-varying confounding. In case of revolutions and economy there is a plethora of unobserved factors that might violate it, if one just finds states for control group which have the same development level as states in the treated group. Thus, instead of usual PTA, conditional PTA is introduced. In terms of potential outcomes, it means $\mathbb{E}[Y(0)_{1i} - Y(0)_{0i}|D_i = 1, \mathbf{X}_i] = \mathbb{E}[Y(0)_{1i} - Y(0)_{0i}|D_i = 0, \mathbf{X}_i]$. In other words, the potential trend in case of no treatment is the same in both groups, conditional on covariates. If the set of variables in $\mathbf{X}_i$ is sufficient to construct such groups that there would be no difference in trends before treatment adoption, so τ_{ATT} from (1) is 0 before NVC, then $\hat{\tau}_{DiD}$ is a consistent estimate of τ_{ATT} .

The popular strategy is to use two-ways fixed effect OLS model, but it “heavily rely on parametric assumptions, offer few diagnostic tools and make it difficult to intuitively understand how counterfactual outcomes are estimated” (Imai et al., 2023, p. 587). Moreover, it engenders “forbidden comparisons” when early-treated countries are utilized as controls for later-treated countries. Because of that, as an estimator for difference-in-difference, panel matching (Imai et al., 2023) is used that combines usual DiD with matching methods for panel data. It, firstly, matched countries by their treatment histories in a respective time t , ensuring treatment and control groups differ only by treatment in $t, \dots, t + h$, where h denotes the end time of treatment. Consequently, balancing on covariates is performed to address selection into treatment and then usual ATT is calculated. Such DiD strategy relaxes the strict exogeneity assumption by relying on sequential ignorability, a concept which is nearly equivalent to PTA. This can be partially tested empirically, with pre-treatment trajectories in dependent and control variables required to be similar in the treated and control groups. The existence of such a similarity implies that, in the presence of time-varying unobserved confounders, past treatment history, shared similarity in covariates’ trajectories, and exact match on time will reach conditional PTA and make causal identification possible.

Thus, the primary decision for the researcher to make is how to effectively control for past to get desired parallel trends. The number of pre-treated periods to control for is a decision which is open to ambiguity. On the one hand, a longer pre-treatment period will facilitate the identification of the most appropriate control group. However, on the other hand, it will significantly reduce

the sample size and the quality of the control group, since there will be fewer countries to choose from to recreate characteristics of the treated. The current study will examine a five-year period prior to the NVC as we consider this length to be sufficient to verify the PTA⁴. In turn, to provide a comprehensive overview of the subject, a decade was selected following the start of NVC as a window for effect estimation.

The final technical points should be made. Firstly, we match upon covariates' histories prior to NVC to assure that controls are not subject to posttreatment bias. Secondly, to calculate variance, block bootstrap is used and the percentile confidence interval are shown, which are robust to possible asymmetry of estimates distribution (though they are more conservative). Finally, to balance treated and control groups upon covariates, CBPS weighting is used that is robust to misspecification and effective (Imai & Ratkovic, 2014).

2.2 Data & Operationalizations

The independent variable is sourced from NAVCO 1.3 (Chenoweth & Shay, 2020) that covers period from 1900 to 2019 and characterizes campaigns by tactic (violent or nonviolent), degree of success (full success, limited success or failure) and some others. Firstly, we limited the time span to the period from 1950 onwards since prior to that date, the availability of data on control variables is sparse. Secondly, we include to the sample only those NVCs which goal was "regime change" in NAVCO terminology, thus omitting secessionist or national-liberation movements. Thirdly, the dataset was expanded to encompass cases from 2019 to 2022 and other cases that had been overlooked in the original dataset in order to enhance the comprehensiveness of the data. For this task, we use NEVER dataset (Chin et al., 2023) as well as add some other campaigns. The cases can be found in Table A1, while the descriptive statistic of campaigns by source – original NAVCO 1.3 or with add-ons – can be found in Table A2 in the Appendix. The treatment categories are constructed as follows:

1. Any NVCs. This variable takes the value 1 for countries that experienced any NVC from the start year until 10 years after its start. It takes a value of 0 if there was no campaign (violent or non-violent) in the given year and no campaign in the previous 10 years. Thus, there is no treatment reversals and countries that experienced sequential campaigns are excluded⁵.
2. Successful / failed NVCs. This variable takes the value 1 for countries that experienced successful / failed NVCs from the start year until 10 years after its start. Thus, there is no treatment reversals. It takes a value of 0 if there was no campaign (violent or non-violent and

⁴We have also changed this window to 6 and 4 years. The results remain unchanged.

⁵For example, Egypt from 2011 to 2023 is excluded since there was a revolution in 2011 and subsequent revolution in 2013. Nevertheless, such a strategy may reasonably give rise to concerns. To illustrate, one may consider whether the counter-revolution of 2013 and the subsequent economic development were consequences of the 2011 revolution. On the one hand, it appears peculiar to juxtapose the two treatments (the revolutions of 2011 and 2013), given that it cannot be asserted with certainty that Egypt's economic growth following 2011 was attributable exclusively to the success of the pro-democracy opposition. Conversely, the subsequent economic development was predominantly attributable to the authoritarian shift that occurred in 2013, a development that was, in turn, initiated by the 2011 revolution. In the main text of the paper, such cases are excluded from the analysis (i.e., the treatment reversal). However, the results with allowance of treatment reversal are demonstrated in Appendix C.1. In many ways, the conclusions of our work remain unchanged; however, it is noteworthy that with the second empirical strategy, the economic effects appear more optimistic.

successful / failed) in the given year and no campaign in the previous 10 years. Countries that experienced sequential campaigns are excluded. It should be noted that “success” is operationalized as full success in NAVCO’s terminology, while “failed” includes fail and limited types.⁶

3. Democratizing NVCs. This variable takes the value 1 for countries that experienced NVCs such that 2 years after the end its regime type changed from a closed or electoral autocracy to full or electoral democracy, as classified using the V-Dem variable *v2x_regime* (Coppedge et al., 2025). It takes a value of 0 if there was no campaign (violent or non-violent) in the given year and no campaign in the previous 10 years. Countries that experienced sequential campaigns are excluded⁷.

The last treatment variable – *democratizing NVCs* – requires some discussion on democratization operationalization. In Political Science there are two main approaches to operationalize democracy for various studies of its effects. The first one is a dichotomous approach, which divides all regimes into non-democratic and democratic ones. This approach is represented mostly by Sartori (1991) and Adam Przeworski and co-authors (Alvarez et al., 1996; Przeworski et al., 1996). The main point of the dichotomous approach is that there is a certain threshold after which the regime can be called democratic. The strong point of the approach is its simplicity while the obvious disadvantages are a loss of nuance and an overlook of hybrid regimes. At the same time, there is an arguably much more popular continuous approach that treats regimes as a spectrum between non-democracy and democracy. The continuous approach is represented by such scholars as Bollen (1990), R. A. Dahl (2008), Coppedge and Reinicke (1990) and many others. It is also worth noting that continuous metrics of democracy are used by various ratings and indices such as Polity IV and V-Dem. Considering the continuous approach some scientific works can quite confidently demonstrate that it is more representative for measuring regimes. For instance, Elkins (2000) addresses the debate on choosing continuous or dichotomous approaches towards regimes. Author tests validity and reliability of different approaches to democracy specifically in relation to international conflicts and regime stability. Elkins (2000) concludes that graded measures of democracy outperform dichotomous ones: they are predicting more theoretically relevant outcomes and are more reliable. At the same time, there are scientific works that manage to highlight advantages of more minimalistic approaches to democracy. Møller and Skaaning (2010) challenge what they

⁶Note, in NAVCO full success is defined as that “the campaign achieved 100% of its stated goals within a year of the peak of activities & the success was a direct result of campaign activities” (Chenoweth & Shay, 2020, p. 11). However, some authors (Turner, 2023) noted that such “attainment approach” when success fully depends on stated demands but not all consequences, which include both unintended positive and negative outcomes, is too general and therefore “the dichotomy of success or failure is problematic since all revolutions fail to meet at least some of the expectations of those who conduct them” (Beck et al., 2022, p. 87). The prominent example is already mentioned 2011 revolution in Egypt that reached its short-term goals (and thus indicated as full success in NAVCO), but transformation was overturned because of 2013 counter-revolution. However, despite its shortcomings, this classification enables us to provide at least some objective and verifiable assessment of the campaign’s success, which is why we utilize it.

⁷It should be noted, many contemporary NVCs as a main goal state overthrow of corrupt government (Beissinger, 2022) whereas democratization is not the main one. Meanwhile, the majority of cases in the data, which goal is stated as “regime change” in NAVCO terminology, can be considered as pro-democracy movements since they are aimed at greater control of public power by citizens, so to modify an institutional structure to include the masses in governance.

term the “radial delusion” in conceptualizing democracy which is the tendency to build overly expansive definitions with many dimensions, which can dilute analytic clarity. They argue for a narrow, minimal definition of democracy centered on contested elections and civil liberties, distinguishing it sharply from other political concepts such as liberalism or good governance. Møller and Skaaning (2010) also suggest that more minimalistic approaches are less vulnerable to historic and cultural biases.

Another potential problem with dichotomous measures of democracy is deciding where to put the threshold. As some authors state, there are no universally recognized and agreed upon methods of conducting a dichotomous measurement of democracy. As Bogaards (2012) states, some studies do not even provide justifications for their categorization of democratic and non-democratic regimes.

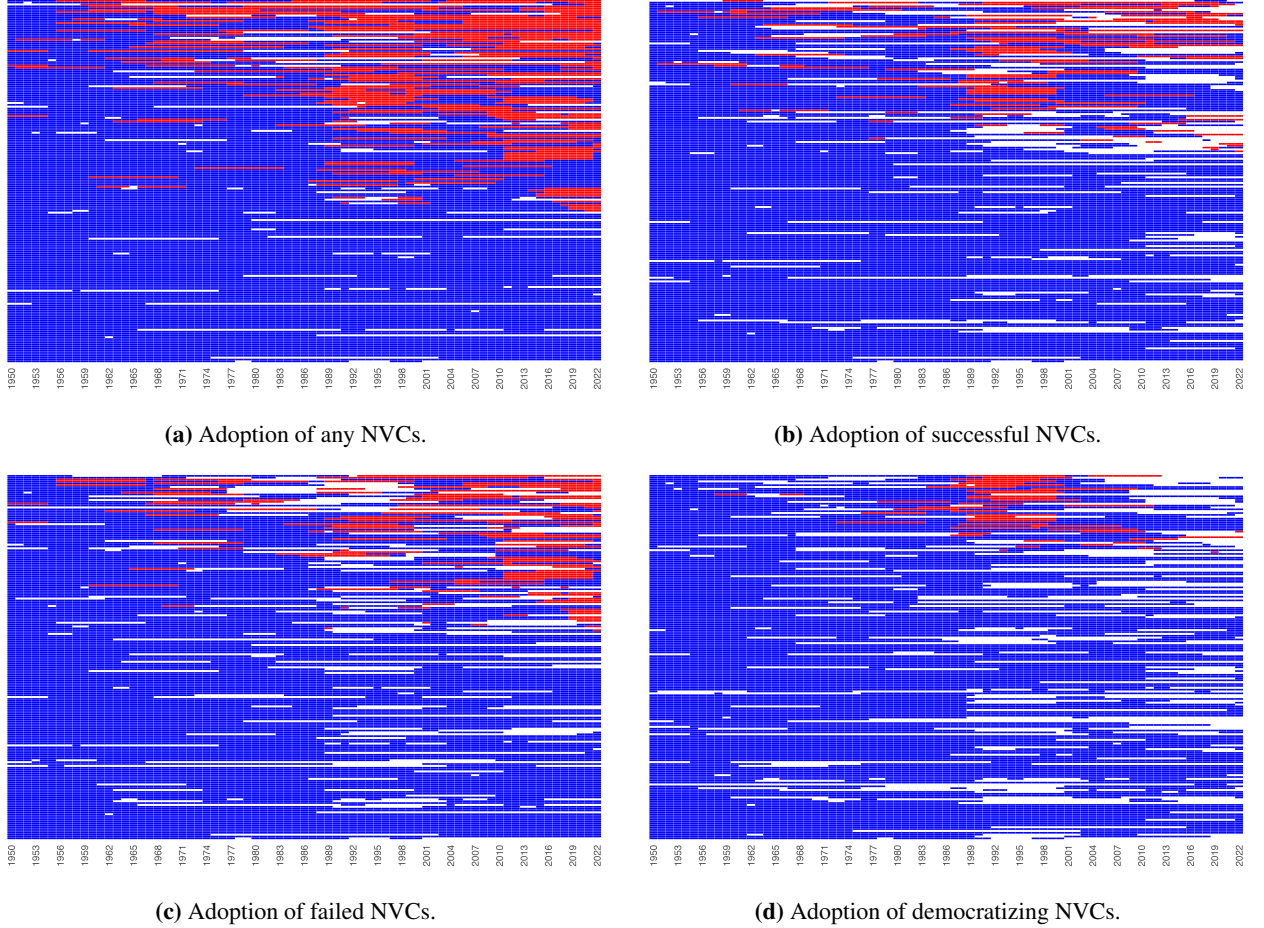
There are multiple justifications and works that state why studies should use either continuous or dichotomous operationalizations. However, as Bogaards (2012) notes there is also a third “agnostic” approach to this question. In this particular case, being “agnostic” means putting aside methodological infighting and attempts to prove that a specific measurement is superior but rather choose metrics on the basis of specific research aims of the specific study. In this regard, Collier and Adcock (1999) perform an analysis of various justifications for either gradation measurements or binary ones, and they come to a conclusion that various arguments in favor of one approach can be reshaped to another approach. Authors advocate for a pragmatic approach where the choice of a method of measuring democracy must be dependent on the research aims and scope. In this particular study the main aim is to understand the economic consequences of NVCs. Moreover, we aim to understand not only how NVCs affect future growth in general but also how NVCs with different consequences for the regime affect future economic growth. In this context, it is not important for us what grade of democracy the regime became after NVC but rather was NVC generally democratizing or not. Thus, we do not need to use continuous measurements of democracy. As Collier and Adcock (1999) state, transitions to democracy are generally seen as discrete occurrences that require a dichotomous approach. Therefore, we operationalize democratization as a transition from a closed or electoral autocracy to electoral or liberal democracy based on a V-Dem Regimes of the world measure. The measure only has 4 regime types which provides for a straightforward threshold.

The final set of independent variables and their adoption over time is presented in Figure 2. In turn, one can find the share of treated observations over time in the Appendix, Figure A1. One note that should be done is that successful and democratizing NVCs do not overlap much as evident from Table 1. Indeed, many events that succeed in causing the resignation of incumbent may not lead to a change in the type of regime. Moreover, after the end of NVCs, the highest probability for a country is to maintain its regime rather than move to a new one, as shown in Table A3 in the Appendix.

As a dependent variable the GDP per capita is used from Gapminder (2024). It combines 3 different datasets on GDP per capita, namely Maddison project, Penn Tables and World Bank. The final variable is measured in international 2017 dollars in PPP, we exploit its logarithmic version.

Tab. 1. Success of NVCs and following democratization, 1950–2022

	Democratization		Total
	0	1	
Success			
0	177 (62%)	14 (26%)	191 (56%)
1	108 (38%)	40 (74%)	148 (44%)
Total	285 (100%)	54 (100%)	339 (100%)

**Fig. 2.** Treatment adoption in the data, 1950–2022.

Note: Blue and red depict control and treated groups respectively; white shows observations that are excluded from the analysis.

As control variables we use mean years of schooling of adults aged 25 and older considering it as a proxy for human capital, that is a combination of Barro and Lee (2013, till 2010) and UNDP (2022, from 2011) datasets.⁸ Regime type is operationalized as V-Dem regime type variable *v2x_regime* that categorizes countries into full autocracies, electoral autocracies, electoral democracies and full democracies (Coppedge et al., 2025);⁹ from V-Dem we also take regime durability (that is the

⁸Note, the Barro and Lee dataset only provides data for five-year periods. That is why we used linear extrapolation to address missing values. In addition, when the Barro and Lee dataset is combined with UNDP data, there is a remarkable jump at the point of connection in the 2011 year. To smooth it out, we used growth rates instead of absolute values, which do not show any clear differences between the two sets of data around the year of connection. Thus, firstly, we calculated the year-on-year growth index in each dataset, then combined them in 2010, and then multiplied the cumulative product of the annual growth index by the first available value of the mean years of schooling from the Barro and Lee dataset in 1950.

⁹Note, V-Dem data on the countries of the former Soviet Union and the Warsaw Pact does not contain regime type classification prior to 1990, thus excluding from the analysis the majority of cases of anti-communist revolutions from the third wave of

number of years since the last regime change) to control for the stability of institutions, because even authoritarian ones have the capacity to facilitate a smooth and seamless transition for nations experiencing periods of political and economic turbulence. We include crude oil production measured in kilowatt-hours per capita and taken from Our World in Data project (Our World in Data, 2025) to control for “oil curse”. Also, we include a log of child mortality as an additional control for development level and log of population to control for country’s size; both variables are sourced from UN (United Nations, 2024). We introduce full lags $t = -5, \dots, t = -1$ to the models to balance control and treatment groups by past trends.

3 Results

The baseline analysis, presented in Figure 3, illustrates the aggregate impact of all NVCs on GDP per capita over the decade following the campaign’s onset. The findings of the study indicate a substantial and statistically significant negative effect on the economy. During the campaign period itself – at average 2 years – the economy experiences a sharp decline. This initial economic disruption is likely attributable to the inherent turmoil in mass mobilization, such as strikes, protests, and general uncertainty. Such turmoil has been shown to hinder commercial activity, deter investment, and disrupt supply chains. It is important to note that this negative trend continues in the years following the end of the campaign, with subsequent effects that remain significant.

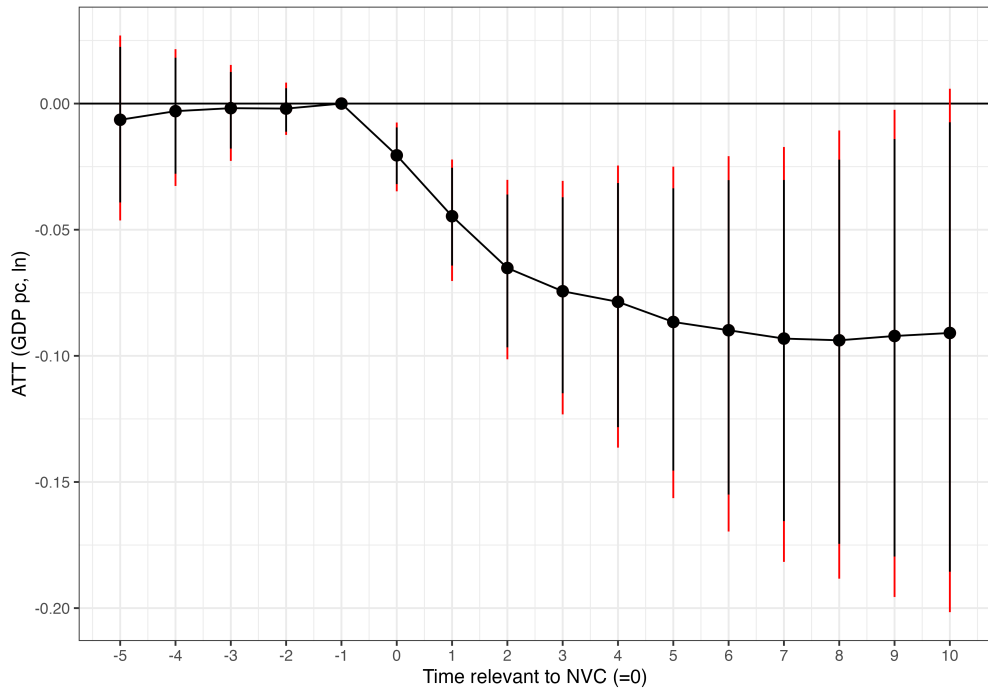


Fig. 3. Average effect of any nonviolent campaigns (ATT) on economic development in 10 years window.

Note: Estimates obtained via panel matching estimator for 5 years before and 10 years after the onset of campaign; to obtain balance between treatment and control group, the CBPS weighting is exploited by past 5-year $\{-5, \dots, -1\}$ tendencies in control variables; treatment reversal is forbidden; black and red lines correspond to 90% and 95% confidence intervals respectively, which estimated via block bootstrapping with 1000 iterations.

democratization. We therefore categorize these countries as full autocracies ($v2x_regime = 0$) from 1950 to 1990 to enhance the analysis.

In order to comprehend the drivers of this aggregate effect, the data was disaggregated by campaign outcome. As illustrated in Figure 4, the economic trajectory following successful NVCs, where protesters' demands were at least partially met, is broadly consistent with the aggregate trend that was previously observed. However, the magnitude of the decline is slightly less pronounced. Moreover, while the negative effect is significant in the immediate aftermath of the campaign, it appears to lose statistical significance towards the end of the ten-year observation period. This may suggest that while a successful extra-institutional change in a political landscape initially generates significant economic costs, the establishment of a new political settlement may pave the way for a slow, eventual recovery.

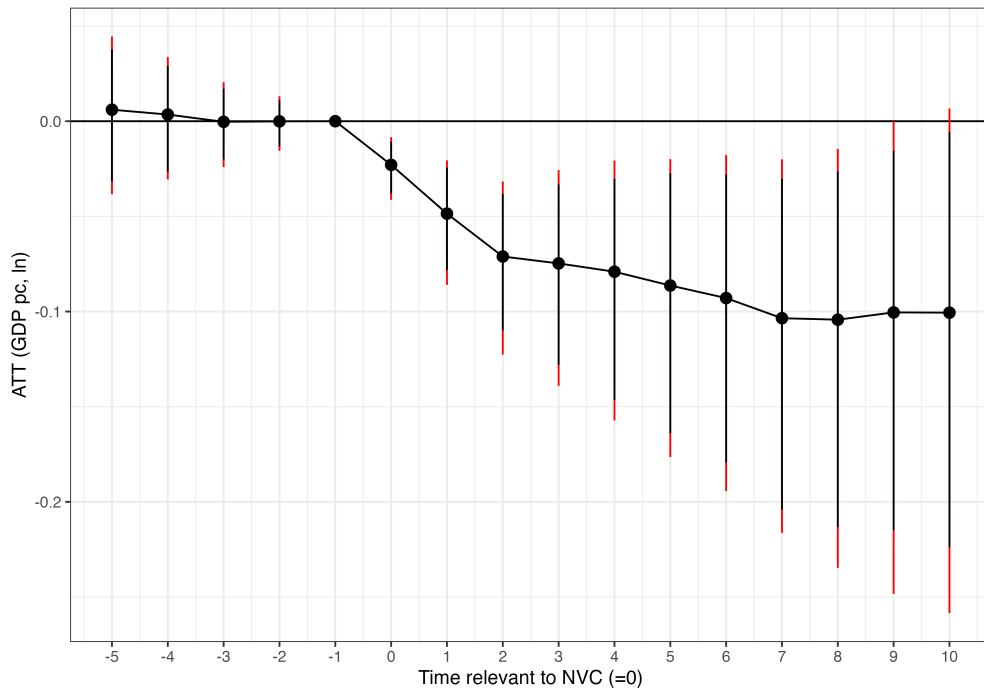


Fig. 4. Average effect of successful nonviolent campaigns (ATT) on economic development in 10 years window.

Note: Estimates obtained via panel matching estimator for 5 years before and 10 years after the onset of campaign; to obtain balance between treatment and control group, the CBPS weighting is exploited by past 5-year $\{-5, \dots, -1\}$ tendencies in control variables; treatment reversal is forbidden; black and red lines correspond to 90% and 95% confidence intervals respectively, which estimated via block bootstrapping with 1000 iterations.

Conversely, Figure 5 illustrates the consequences of unsuccessful NVCs. The economic trajectory in this scenario does not deviate considerably from the previous findings. The analysis reveals that unsuccessful campaigns have a negative (but statistically insignificant) impact on GDP per capita throughout the entire ten-year period that is less pronounced in comparison with successful NVCs.

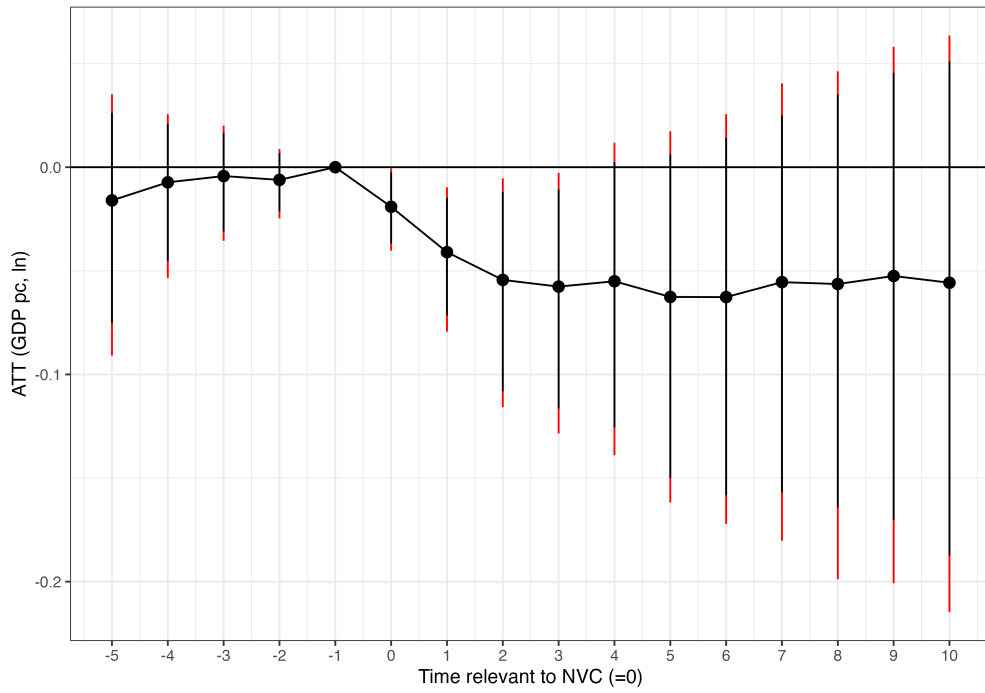


Fig. 5. Average effect of failed nonviolent campaigns (ATT) on economic development in 10 years window.

Note: Estimates obtained via panel matching estimator for 5 years before and 10 years after the onset of campaign; to obtain balance between treatment and control group, the CBPS weighting is exploited by past 5-year $\{-5, \dots, -1\}$ tendencies in control variables; treatment reversal is forbidden; black and red lines correspond to 90% and 95% confidence intervals respectively, which estimated via block bootstrapping with 1000 iterations.

Figure 6 isolates the effect of NVCs that are followed by a transition to democracy within two years, irrespective of whether the campaign was “successful” for the protesters. In contrast to the substantial downturns that were previously observed, the democratizing NVCs do not appear to be associated with a significant negative economic effect. The model demonstrates a marginal and statistically insignificant decline in GDP per capita during and immediately following the campaign, subsequently returning to the pre-campaign trend. Moreover, the trajectory indicates the possibility of an acceleration in economic growth towards the close of the decade. This finding is critical, as it strongly implies that the substantial detrimental economic impact observed for NVCs as a whole is not an inherent feature of all mass mobilization. Conversely, the negative economic effects are primarily a result of the campaigns that fail to democratize, which appear to be the main cause of the economic recovery that follows the instability and shock caused by NVCs.

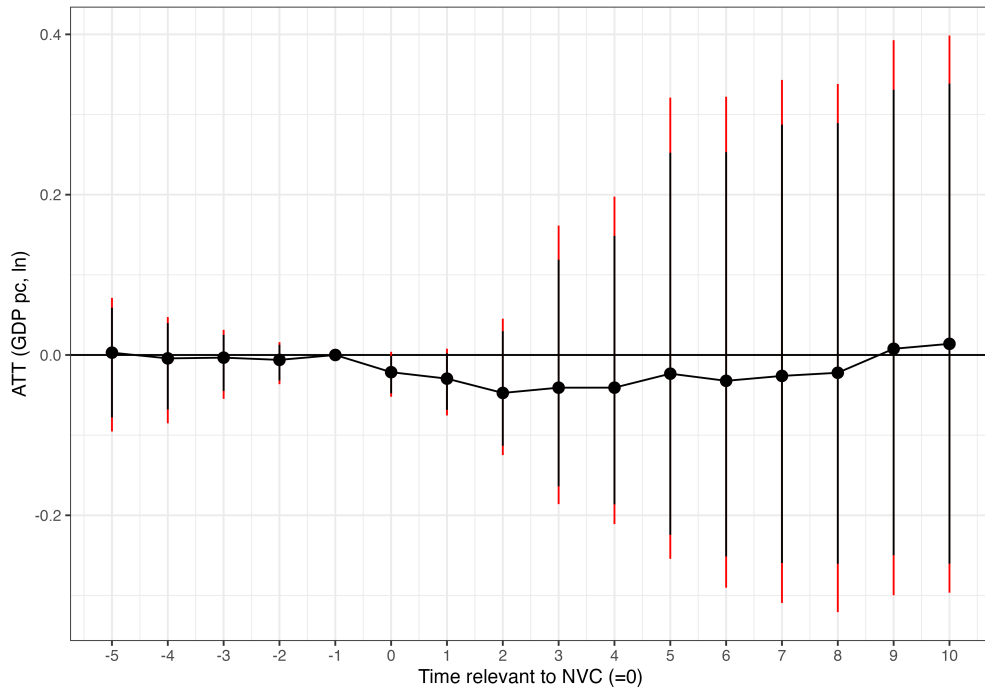


Fig. 6. Average effect of democratizing nonviolent campaigns (ATT) on economic development in 10 years window.

Note: Estimates obtained via panel matching estimator for 5 years before and 10 years after the onset of campaign; to obtain balance between treatment and control group, the CBPS weighting is exploited by past 5-year $\{-5, \dots, -1\}$ tendencies in control variables; treatment reversal is forbidden; black and red lines correspond to 90% and 95% confidence intervals respectively, which estimated via block bootstrapping with 1000 iterations.

In summary, the analysis conducted indicates that NVCs exert a substantial and statistically significant negative influence on long-term economic development as demonstrated in Figure 7 that shows the change in GDP per capita in percentage points after 10 years of selected types of NVCs. On average, a country that experiences an any NVC has a GDP per capita that is 9% lower a decade after the event's onset, with a confidence interval ranging from -20% to 0%. However, this aggregate finding obscures the presence of some underlying heterogeneity. When disaggregated by outcome, successful campaigns (with a point estimate of -10%) appear to have bigger negative impact than failed campaigns (-5%). Nevertheless, this suggests that while the political turmoil of any major challenge to a regime is associated with a negative economic trajectory, the long-term cost cannot be definitively attributed to either the success or failure of the protesters alone.

Indeed, the most compelling insight emerges from an examination of the political aftermath of these campaigns. For the subset of NVCs that initiate a democratic transition, the long-term negative economic consequences are effectively neutralized. The mean effect for democratizing NVCs is +1% and is completely insignificant at any reasonable confidence level. This finding indicates that the establishment of democratic institutions is the critical factor that mitigates the long-run economic damage associated with political upheaval.

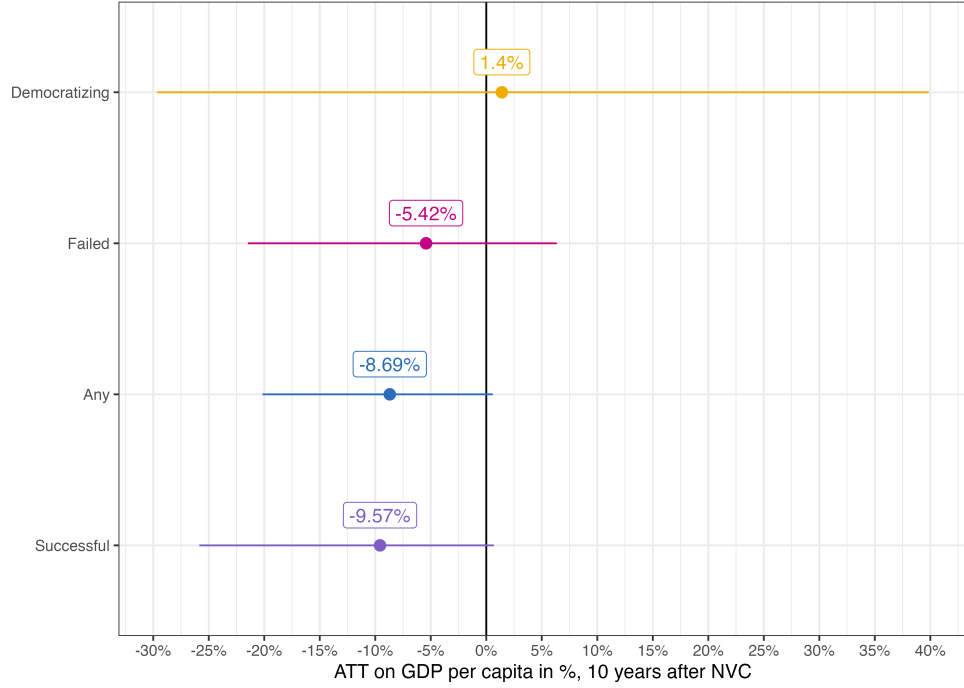


Fig. 7. Average effect of NVC (ATT) on economic development after 10 years in %.

Note: The transition from ATT in log points to percentage points is calculated as $\tau^{pc} = \exp(\tau^{log}) - 1$.

4 Discussion & Conclusion

Previous research on the results of nonviolent campaigns was rather inconclusive. There is an opinion that states that democratize, including democratization through revolutionary means, leads to economic growth. On the other hand, there is an opinion that deems revolutionary events detrimental to a country's economy. Considering this ambiguity in existing studies and the lack of wide comprehensive studies on the subject of relationship between NVCs and economic outcomes, we believe that our work can help to understand this relationship better.

Lewis-Beck (1979) studied the Cuban revolution and suggested that there are three main scenarios of economic consequences after the initial shock: conservative (economic performance drops), Marxist (economic performance grows), and Thermidorian (economic performance stays the same). While the Cuban revolution was an armed, social revolution, and we studied NVCs which are basically unarmed, political revolutions, these models show that theoretical expectations of economic outcomes are largely dependent on our position considering if political change was for the better or worse, and that we always expect some initial shock in case of revolutionary events. The results of our study partly confirm this logic.

Our results show that any nonviolent campaigns have a weak, but significant short-term and medium-term negative effect on economic performance. The examples of the Tunisian revolution and the Egyptian revolution provided above can show how some NVCs lead to political and economic turmoil. At the same time, our results show that democratizing NVCs do not lead to negative economic outcomes. In other words, such campaigns that initiate a democratic transition, the long-term negative economic consequences are effectively neutralized. Meanwhile, it should be noted they also do not lead to positive outcomes.

The example that can brightly illustrate our results on how democratizing NVCs can lead to economic growth is the Serbian revolution in 2000, also known in the literature as the Bulldozer Revolution and considered the first in the chain of color revolutions (Beissinger, 2007). The mass mobilization in the country was ignited after the presidential elections that were conducted on September 24, 2000. In this election, an incumbent president Slobodan Milošević was challenged by an opposition candidate Vojislav Koštunica. Koštunica has acquired more votes than Milošević, however, the results provided by the government suggested that the second round is necessary while the opposition stated that exit polls results strongly indicate that Koštunica reached an absolute majority (Bujošević & Radovanović, 2003). This contention had led to mass protests by the end of September organized by political actors from the opposition and “Otpor!” civic movement.

The pinnacle of revolution was the 5th of October. On this day there were several violent episodes such as burning of the parliament and the seizure of administrative buildings, while at the same time police and army units generally remained passive and ignored orders to disperse protesters (Bujošević & Radovanović, 2003). The revolution received its unique name due to the protester storming Radio Television of Serbia building with a bulldozer. After the protests on October 5, Milošević resigned and Vojislav Koštunica was proclaimed a winner of presidential election.

Similar to many other Eastern European countries Serbia went through various transformations in the 1990s which in Yugoslavian case were complicated even further because of war. Nevertheless, Serbia stopped being a Communist one-party state, although the regime was not considered a democracy, since power was still largely remaining solely in the hands of politicians from Socialist party. The Bulldozer revolution changed that quite rapidly: Polity IV index, for instance, had risen from -6 in 2000 to 7 in 2001, basically indicating transformation from full autocracy into democracy in a year. Various political achievements were gained such as freedom of press, rule of law and individual political freedoms (McMahon & Forsythe, 2008). At the same time Serbian economics also started to improve. In the 2000s until the economic crisis of 2008/2009 Serbian GDP was growing 5% a year, inflation declined and the privatization process was quite rapid (Uvalic et al., 2011). It is important to note, however, that this period of growth was far from flawless as there were various problems with the private sector and workers’ rights (Bedo et al., 2011). Nevertheless, it was a period of growth after democratizing NVC.

The mechanism of this growth was directly connected with the regime change due to the revolution. In the 1990s, Serbia was practically isolated due to sanctions and military conflict with its neighbours and NATO. Sanctions were quite harsh, severely affecting trade, air travel and leading to shrinking GDP (Uvalic et al., 2011). The situation after the revolution became completely reversed. Trade with Europe was reinstated, Serbia received foreign aid and got into talks on joining the European Union. The foreign direct investment also grew significantly in the 2000s (Khodunov, 2022). In general, an argument can be made that transition to democracy managed to break isolation and include it into global economics which became a main driver for growth. It is important to remember that Serbian growth was not very sustainable and had its problems, but it was a consequence of regime change.

The mechanisms of how revolutionary democratization might affect growth are going to be subjects of scientific research for a long time, since they are complex and various. But the example of Serbia can show how it might work. On the other hand, aforementioned examples of Tunisia or Hong Kong show how some NVCs lead to more political and social instability or problems that lead to inability to provide drivers for economic growth.

These results have important implications for political economy and the study of democratization processes. They challenge the prevailing assumption that political upheaval inevitably imposes severe economic costs and, conversely, that a successful pro-democracy campaign can produce rapid positive economic outcomes. On the other hand, while extensive research has shown the detrimental economic effects of violent conflict, the current study shows that nonviolent campaigns do not, on average, impose a comparable economic burden. This result, which reflects the apparent heterogeneity of the effect of instability on economic activity in a country, is indicative of the misleading estimates of the effect of instability that have been obtained before (see Ades & Chua, 1997).

In addition, the results are partly consistent with the existing literature on the relationship between democratization and welfare. Rodrik and Wacziarg (2005) wrote that democratization in authoritarian countries does not lead to economic decline, but contributes to an economic “boom” in the short run. Our study, which indirectly examines revolutionary democratization, on the one hand, confirms their conclusion that a democratizing nonviolent successful campaign does not have a significant negative impact on economic activity in the short run, but casts doubt on the second thesis of quick economic dividends. We note separately, however, that it is plausible to assume that the institutional restructuring that begins after nonviolent revolutionary democratization generally does not suffer clear economic damage, as has been suggested by some authors.

Acknowledgements

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A Appendix: Data Description

Tab. A1. NVCs used in the analysis, NAVCO 1.3, NEVER and authors' campaigns, 1950–2022

n	Country	Campaign	Start year	End year	Succ.	Dem.	Source
1	Lebanon	White Revolution	1951	1952	1	0	N
2	Panama	Anti-Arias	1951	1951	1	0	C
3	China	Hundred Flowers Movement	1956	1957	0	0	N
4	Haiti	anti-Maglore movement	1956	1956	1	0	N
5	Hungary	Hungarian anti-communist	1956	1956	0	0	N
6	Poland	Poznan protests	1956	1956	0	0	N
7	Colombia	anti-Rojas	1957	1957	1	0	N
8	Guatemala	Pro-Ydigoras Fuentes	1957	1957	1	0	C
9	Venezuela	anti-Jimenez campaign	1958	1958	1	1	N
10	El Salvador	Anti-Lemus campaign	1960	1960	1	0	N
11	Japan	Anti-Kishi Campaign	1960	1960	0	0	N
12	South Korea	Student Revolution	1960	1960	1	0	N
13	Turkey	Students Lead Protest for Regime Change	1960	1960	1	0	N
14	Dominican Republic	anti-Balaguer strikes	1961	1962	1	0	N
15	Guatemala	Anti-Ydigoras	1962	1962	0	0	N
16	Peru	APRA / Anti Coup	1962	1962	0	0	C
17	Benin	Benin anti-government protests	1963	1963	1	0	N
18	Congo - Brazzaville	Les Trois Glorieuses	1963	1963	1	0	C
19	Bolivia	Bolivian anti-government protests	1964	1964	0	0	N
20	Sudan	October Revolution	1964	1964	1	0	N
21	Ecuador	1965 Anti-Junta Campaign	1965	1966	1	0	N
22	Greece	Greece premier protest	1965	1966	0	0	N
23	Burkina Faso	Anti-Yameogo	1966	1966	1	0	C
24	El Salvador	FUSS / Labor Movement	1967	1972	0	0	C
25	Nicaragua	Aguero Rocha Supporters	1967	1967	0	0	C
26	Spain	Student Movement	1967	1969	0	0	C
27	Brazil	Student Anti-Military I	1968	1968	0	0	C
28	Egypt	Egyptian Student Movement	1968	1968	0	0	C
29	Mexico	Mexican student democracy protests	1968	1968	0	0	C
30	Pakistan	anti-Khan campaign	1968	1969	0	0	N
31	Poland	Poland Anti-Communist I	1968	1968	0	0	N
32	Senegal	Senagalese Students / Workers (UDES / UNTS)	1968	1968	0	0	C
33	Tunisia	Tunisian Student Movement	1968	1968	0	0	C
34	Argentina	Cordobazo / Rosariazo	1969	1969	0	0	C
35	Poland	Poland Anti-Communist II	1970	1970	0	0	N
36	Turkey	Anti-government protests	1970	1971	1	0	N
37	Madagascar	Anti-Tsirana	1972	1972	1	0	N
38	Greece	Greek anti-military	1973	1974	1	1	N
39	Portugal	Carnation Revolution	1973	1974	1	1	N
40	Thailand	student protests	1973	1973	1	0	N
41	Uruguay	Anti-Coup	1973	1973	1	0	C

Tab. A1. NVCs used in the analysis, NAVCO 1.3, NEVER and authors' campaigns, 1950–2022
(continued)

n	Country	Campaign	Start year	End year	Succ.	Dem.	Source
42	India	Anti-Indira Campaign (Phase 1)	1975	1975	0	0	N
43	China	Democracy Movement	1976	1979	0	0	N
44	Poland	Warsaw Worker's Uprising	1976	1976	0	0	N
45	Spain	The Citizens movement	1976	1977	1	1	C
46	Argentina	pro-democracy movement	1977	1983	1	1	N
47	Bolivia	Bolivian anti-juntas	1977	1982	1	0	N
48	Brazil	Student Anti-Military II	1977	1977	0	0	C
49	El Salvador	El Salvador anti-junta	1977	1980	0	0	N
50	India	Anti-Indira Campaign (Phase 3)	1977	1977	1	1	N
51	Iran	Iranian Revolution	1977	1979	1	0	N
52	Pakistan	Anti-Bhutto	1977	1977	1	0	N
53	Peru	Anti-Military	1977	1978	1	0	C
54	Sierra Leone	Student Uprising	1977	1977	0	0	C
55	Nicaragua	Anti-Somoza Strike	1978	1978	0	0	N
56	South Korea	South Korean anti-junta	1979	1980	0	0	N
57	Taiwan	Taiwan pro-democracy	1979	1985	1	0	N
58	Poland	Solidarity	1980	1989	1	1	N
59	South Korea	Student's Anti-Chun Protest	1982	1987	0	1	N
60	Chile	anti-Pinochet campaign	1983	1989	1	1	N
61	Pakistan	pro-dem movement	1983	1983	0	0	N
62	Philippines	People Power	1983	1986	1	1	N
63	Suriname	Anti-Bouterse	1983	1984	0	0	N
64	Brazil	diretas ja	1984	1985	1	1	N
65	Panama	Panama 1984 Electoral Protest	1984	1984	0	0	C
66	Uruguay	Uruguay anti-military campaign	1984	1985	1	1	N
67	Bolivia	Anti-Siles Zuazo	1985	1985	0	1	N
68	Haiti	anti-Duvalier campaign	1985	1986	1	0	N
69	Sudan	anti-Jaafar	1985	1985	1	0	N
70	Pakistan	Anti-Zia al-Haq	1986	1986	0	0	N
71	Paraguay	Anti-Stronato	1986	1988	0	0	C
72	South Korea	South Korean anti-military	1986	1987	1	1	N
73	Bangladesh	anti-Ershad campaign	1987	1990	1	1	N
74	Estonia	Singing Revolution	1987	1991	1	1	N
75	Fiji	Indo-Fijian Anti-Coup Campaign	1987	1987	0	0	N
76	Haiti	Anti-National Governing Council (CNG)	1987	1987	0	0	N
77	Mexico	anti-PRI campaign	1987	2000	1	1	N
78	Panama	anti-Noriega campaign	1987	1989	0	1	N
79	Romania	anti-Ceausescu movement	1987	1989	0	1	N
80	Belarus	Belarus anti-communist	1988	1991	1	1	N
81	Lithuania	pro-democracy movement/Sajudis	1988	1991	1	1	N
82	South Korea	Anti-Roh Tae Woo	1988	1992	0	1	N
83	Russia	Democratic Union	1988	1991	1	0	C
84	Zimbabwe	Student Anti-Corruption	1988	1990	0	0	C
85	Benin	Benin anti-communist	1989	1990	1	1	N
86	Bulgaria	Bulgarian anti-communist	1989	1990	0	1	N

Tab. A1. NVCs used in the analysis, NAVCO 1.3, NEVER and authors' campaigns, 1950–2022
(continued)

n	Country	Campaign	Start year	End year	Succ.	Dem.	Source
87	China	Tiananmen Square	1989	1989	0	0	N
88	Hungary	pro-dem movement	1989	1989	1	1	N
89	Côte d'Ivoire	Ivorian pro-democracy movement	1989	1990	1	0	N
90	Jordan	Anti-Rifai	1989	1989	1	0	C
91	Kuwait	Monday Diwaniyya Movement	1989	1990	0	0	C
92	Latvia	pro-dem movement	1989	1991	1	1	N
93	Mongolia	Mongolian anti-communist	1989	1990	1	1	N
94	Slovakia	Public Against Violence	1989	1992	1	1	N
95	Slovenia	Slovenia anti-communist	1989	1990	1	1	N
96	Ukraine	Donetsk Miner's Strike	1989	1991	0	1	N
97	Albania	Albanian anti-communist	1990	1991	1	0	N
98	Central African Republic	CCCN and Union pro-democracy movement	1990	1993	1	0	N
99	Congo - Brazzaville	Anti-Sasso Nguesso	1990	1991	1	0	C
100	Gabon	Gabon pro-democracy protests I	1990	1990	0	0	C
101	Guyana	anti-Burnham/Hoyte campaign	1990	1992	1	0	N
102	Haiti	Anti-Avril	1990	1990	1	0	C
103	Kenya	anti-Arap Moi	1990	1991	1	0	N
104	Kyrgyzstan	Kyrgyzstan Democratic Movement	1990	1991	1	0	N
105	Mali	Mali anti-military	1990	1991	1	1	N
106	Nepal	The Stir	1990	1990	1	0	N
107	Niger	Niger anti-military	1990	1992	1	1	N
108	Romania	1990 Anti-Government Protests	1990	1992	0	1	N
109	Romania	The Golaniad	1990	1993	0	1	N
110	Serbia	Democratic Movement of Serbia (DEPOS)	1990	1992	0	0	C
111	Taiwan	Wild Lily Student Movement	1990	1990	0	0	C
112	Ukraine	Students Union Protests	1990	1990	1	1	N
113	Zambia	Zambia anti-single party rule	1990	1991	1	0	N
114	Algeria	FIS Electoral Protests	1991	1992	0	0	C
115	Cameroon	NCCOP pro-democracy movement	1991	1991	1	0	N
116	Haiti	Anti-Cedras Coup	1991	1991	0	0	C
117	Iraq	Iraqis Protest Saddam Hussein Following Iraqi Withdrawal from Kuwait	1991	1991	0	0	N
118	Madagascar	Active Voices	1991	1993	1	1	N
119	Tajikistan	1991 Opposition Protests	1991	1991	0	0	N
120	Togo	Anti-Eyadema	1991	1991	0	0	N
121	Azerbaijan	Popular Front	1992	1992	1	0	C
122	Brazil	Anti-Collor Protests	1992	1992	1	0	N
123	Malawi	anti-Banda campaign	1992	1994	1	1	N
124	Tanzania	Tanzania pro-democracy	1992	1995	0	0	N
125	Thailand	pro-dem movement	1992	1992	1	0	N
126	Venezuela	Anti-Perez	1992	1992	0	0	N

Tab. A1. NVCs used in the analysis, NAVCO 1.3, NEVER and authors' campaigns, 1950–2022
(continued)

n	Country	Campaign	Start year	End year	Succ.	Dem.	Source
127	Gabon	Gabon pro-democracy protests II	1993	1994	0	0	C
128	Guatemala	Anti-Serrano	1993	1993	1	0	N
129	Nigeria	Nigeria anti-military	1993	1999	1	0	N
130	Bangladesh	1994-1996 Awami League Campaign	1994	1996	1	0	N
131	Egypt	Muslim Brotherhood Electoral Protest	1995	1995	0	0	C
132	South Korea	Student's Anti-Kim Protest	1995	1995	0	0	N
133	Armenia	Manukian supporters	1996	1996	0	0	C
134	Belarus	Belarusian Popular Front	1996	1997	0	0	C
135	Serbia	Zajedno (Together) Protests	1996	1997	0	0	C
136	Ecuador	1997 Anti-Bucaram Campaign	1997	1997	1	0	N
137	Indonesia	anti-Suharto campaign	1997	1998	1	1	N
138	Kenya	NCEC / Anti-Arap Moi II	1997	1997	0	0	C
139	Lesotho	Fair Election Campaign	1997	2002	0	1	N
140	Sierra Leone	Anti-AFRC	1997	1998	0	0	C
141	Cambodia	Anti-Hun Sen	1998	1998	0	0	N
142	Malaysia	Reformasi	1998	1999	0	0	N
143	Zimbabwe	Student Anti-Mugabe	1998	1998	0	0	C
144	Belarus	Belarus 2001 electoral protests	1999	2001	0	0	C
145	Croatia	Croatian pro-democracy	1999	2000	1	1	N
146	Indonesia	Student Protests (Anti-Habibie)	1999	1999	1	1	N
147	Iran	Tir 18 Riot for democracy	1999	1999	0	0	N
148	Paraguay	Anti-Cubas Protests	1999	1999	1	0	N
149	Suriname	Anti-Wijdenbosch	1999	2000	1	0	N
150	Ecuador	Anti-Mahuad uprising	2000	2000	1	0	N
151	Egypt	Kefaya	2000	2005	0	0	N
152	Peru	Anti-Fujimori uprising	2000	2000	1	1	N
153	Serbia	Bulldozer Revolution (anti-Milosevic uprising)	2000	2000	1	1	N
154	Côte d'Ivoire	Anti-Guei Uprising	2000	2000	1	0	N
155	Ghana	anti-Rawlings campaign	2000	2000	1	0	N
156	Senegal	anti-Diouf campaign	2000	2000	1	0	N
157	Azerbaijan	Azeri 2000 electoral protests	2000	2000	0	0	C
158	Kyrgyzstan	Kyrgyz 2000 electoral protests	2000	2000	0	0	C
159	Philippines	Second People Power Revolution	2001	2001	1	0	N
160	Turkey	Economic crisis uprising	2001	2001	0	0	N
161	Argentina	Argentinaso	2001	2001	1	0	A
162	Sri Lanka	Anti-Kumaratunga	2001	2001	0	1	N
163	Zambia	anti-Chiluba campaign	2001	2001	1	0	N
164	Tanzania	Civic United Front	2001	2001	0	0	C
165	Madagascar	Malagasy political crisis	2002	2002	1	0	N
166	Venezuela	Anti-Chavez Campaign	2002	2002	0	0	N
167	Azerbaijan	Azeri 2003 electoral protests	2002	2003	0	0	C
168	Bolivia	The Gas Revolution	2003	2003	1	0	N
169	Georgia	Rose Revolution	2003	2003	1	1	N
170	Maldives	Anti-Gayoom Campaign	2003	2008	1	1	N

Tab. A1. NVCs used in the analysis, NAVCO 1.3, NEVER and authors' campaigns, 1950–2022
(continued)

n	Country	Campaign	Start year	End year	Succ.	Dem.	Source
171	Armenia	Demirchian supporters	2003	2003	0	0	C
172	Zimbabwe	MDC / Anti-Mugabe	2003	2003	0	0	C
173	Haiti	Anti-Aristide Uprising	2004	2004	1	0	N
174	Ecuador	Rebelión de los Forajidos	2004	2005	1	0	N
175	Bolivia	Anti-Mesa uprising	2004	2005	1	0	N
176	Bangladesh	Anti-BNP uprising	2004	2004	0	0	N
177	Ukraine	Orange Revolution	2004	2005	1	1	N
178	Belarus	Belarus 2004 electoral protests	2004	2004	0	0	C
179	Togo	Anti-Gnassingbe uprising	2005	2005	1	0	N
180	Kyrgyzstan	Tulip Revolution	2005	2005	1	0	N
181	Thailand	Uprisings against Thaksin Shinawatra	2005	2006	1	0	N
182	Azerbaijan	Azeri electoral protests	2005	2005	0	0	C
183	Tonga	Pro-Democracy Protests	2005	2006	0	0	N
184	Haiti	Pro-Aristide Campaign	2005	2010	0	0	N
185	Ethiopia	CUD opposition supporters	2005	2005	0	0	C
186	Belarus	Jeans (Cornflower) Revolution	2006	2006	0	0	N
187	Nepal	April Revolution	2006	2006	1	0	N
188	Hungary	Anti-Gyurcsány uprising	2006	2006	0	0	A
189	Bangladesh	Bangladesh Awami League protests	2006	2007	1	0	N
190	Lebanon	Anti-Siniora uprising	2006	2008	1	0	N
191	Timor-Leste	Anti-Alkatiri	2006	2006	1	0	N
192	Mexico	anti-Calderon campaign	2006	2006	0	0	N
193	Kuwait	Orange Movement / Nabiha 5	2006	2006	1	0	C
194	Guinea	Guinean General Strike	2007	2007	0	0	N
195	Myanmar	Saffron Revolution	2007	2007	0	0	N
196	Georgia	Anti-Saakashvili uprising	2007	2009	0	0	N
197	Pakistan	Anti-Musharraf Campaign (Lawyer's Movement)	2007	2008	1	0	N
198	Malaysia	Bersih Movement	2007	2008	0	0	C
199	Venezuela	Anti-Bolivarian Student Movement	2007	2025	0	0	C
200	Armenia	Marti mek	2008	2008	0	0	N
201	Thailand	Yellowshirt Unrest (People's Union for Democracy)	2008	2008	1	0	N
202	Cameroon	Anti-Biya	2008	2008	0	0	C
203	Eswatini	Swazi Pro-Democracy Protests	2008	2009	0	0	C
204	Latvia	Riga riot	2009	2009	0	0	A
205	Iceland	Kitchenware, Kitchen Implement or Pots and Pans Revolution	2009	2009	1	0	N
206	Madagascar	Anti-Ravalomanana uprising	2009	2009	1	0	N
207	Moldova	Twitter Revolution / Grape Revolution	2009	2009	0	1	N
208	Niger	Anti-Tandja	2009	2010	1	0	C
209	Iran	Green Movement	2009	2011	0	0	N
210	Honduras	Uprising of the National Front of popular resistance (Frente Nacional de resistencia Popular)	2009	2010	0	0	N

Tab. A1. NVCs used in the analysis, NAVCO 1.3, NEVER and authors' campaigns, 1950–2022
(continued)

n	Country	Campaign	Start year	End year	Succ.	Dem.	Source
211	Bulgaria	Anti-Socialist Demonstrations	2009	2009	0	0	N
212	Pakistan	Anti-Zardari Campaign	2009	2009	0	0	N
213	Guinea	Guinea Pro-Democracy Movement	2009	2010	1	0	C
214	Togo	Togolese election uprising	2010	2011	0	0	A
215	Kyrgyzstan	The Melon Revolution	2010	2010	1	0	N
216	Greece	Anti-Austerity Movement	2010	2015	1	0	A
217	Côte d'Ivoire	Pro-Ouattara uprising	2010	2011	1	0	N
218	Tunisia	Jasmine Revolution	2010	2011	1	1	N
219	Algeria	Anti-Abdelaziz Bouteflika Campaign	2010	2012	0	0	N
220	Nepal	Maoist Anti-Govt Protests	2010	2010	1	0	N
221	Russia	Snow Revolution	2010	2025	0	0	N
222	Belarus	Belarus 2010 electoral protests	2010	2011	0	0	C
223	Jordan	The Arab Spring in Jordan	2011	2012	0	0	N
224	Egypt	January 25 Revolution	2011	2011	1	0	N
225	Djibouti	Arab Spring in Djibouti	2011	2011	0	0	N
226	Sudan	Arab Spring in Sudan	2011	2013	0	0	N
227	Bahrain	Pearl Revolution	2011	2011	0	0	N
228	Kuwait	Dignity of a Nation / Irhal	2011	2012	0	0	A
229	Morocco	The Arab Spring in Morocco	2011	2012	0	0	A
230	Burkina Faso	Anti-Campaore I	2011	2011	0	0	C
231	Mauritania	Arab Spring in Mauritania	2011	2012	0	0	N
232	Maldives	Nasheed uprising	2011	2012	1	0	N
233	Spain	Indignados (15M) Movement	2011	2011	0	0	A
234	Malawi	Anti-Mutharika uprising	2011	2011	1	0	N
235	US	Occupy movement	2011	2012	0	0	A
236	Iraq	Day of Rage Protests	2011	2011	0	0	N
237	Eswatini	Swaziland Anti-Monarchy Protests	2011	2011	0	0	N
238	Uganda	Anti-Museveni	2011	2013	0	0	N
239	Oman	Omani Spring	2011	2011	0	0	C
240	Saudi Arabia	Saudi Spring	2011	2012	0	0	C
241	Senegal	June 23 uprising	2012	2012	1	0	N
242	Togo	Let's Save Togo Uprising	2012	2013	0	0	N
243	Iraq	Anti-Shiite Government Protests	2012	2014	0	0	N
244	Nepal	Anti-Maoist Campaign	2012	2012	1	0	N
245	Romania	2012 Anti-Government Protests	2012	2012	1	0	N
246	Kuwait	Karamet Watan	2012	2014	0	0	C
247	Bangladesh	Anti-Awami League uprising	2013	2013	0	0	A
248	Brazil	Vinegar Revolution	2013	2016	1	0	N
249	Turkey	Gezi Park Anti-Erdoğan uprising	2013	2013	0	0	N
250	Bulgaria	Anti-Oresharski uprising	2013	2014	1	0	N
251	Egypt	June 30 Revolution	2013	2013	1	0	N
252	Tunisia	Anti-Islamist uprising	2013	2013	1	0	N
253	Cambodia	Uprising in Cambodia 2013–2014	2013	2014	0	0	N
254	Thailand	Uprising of the Civic Movement for Democracy	2013	2014	1	0	N

Tab. A1. NVCs used in the analysis, NAVCO 1.3, NEVER and authors' campaigns, 1950–2022
(continued)

n	Country	Campaign	Start year	End year	Succ.	Dem.	Source
255	Ukraine	Euromaidan	2013	2014	1	0	N
256	Bosnia	Bosnian Spring	2014	2014	0	0	N
257	Venezuela	Anti-Maduro uprising	2014	2025	0	0	N
258	Burkina Faso	Second Burkini Revolution, Deuxième révolution burkinabé	2014	2014	1	0	N
259	Haiti	Revolutionary actions against Michel Martelly	2014	2016	1	0	N
260	Mexico	2014 Mexican anti-Corruption Campaign	2014	2015	0	0	N
261	Pakistan	2014 Anti-Sharif Campaign	2014	2014	0	0	N
262	Moldova	Protests in Moldova 2015–2016	2015	2016	0	0	N
263	Guatemala	Guatemala Uprising	2015	2016	1	0	N
264	Burundi	Anti-Nkurunziza uprising	2015	2015	0	0	N
265	North Macedonia	Colorful Revolution	2015	2016	1	1	N
266	Honduras	Honduran Indignados	2015	2015	0	0	N
267	Ecuador	Anti-Correa uprising	2015	2015	0	0	N
268	Malaysia	Berish uprising	2015	2015	0	0	A
269	Montenegro	Anti-Dukanovic uprising	2015	2016	0	0	N
270	Romania	Anti-Ponta Uprising (Colectiv Revolution)	2015	2015	1	0	N
271	Maldives	Anti-Yameen	2015	2019	1	1	N
272	Iceland	Anti-Davíð Uprising	2016	2016	0	0	N
273	Zimbabwe	Anti-Mugabe Uprising	2016	2017	1	0	N
274	South Korea	Candlelight Revolution	2016	2017	1	0	N
275	Congo - Kinshasa	Anti-Kabila uprising	2016	2018	1	0	N
276	Papua New Guinea	Anti-prime minister protest	2016	2016	0	0	N
277	Poland	Anti-right wing government	2016	2025	0	0	N
278	Romania	Ordinance Bills Uprising	2017	2019	0	0	N
279	Togo	Anti-Gnassingbe uprising	2017	2018	0	0	N
280	Honduras	Anti-Hernández uprising	2017	2019	0	0	N
281	Guatemala	Anti-Morales Protests	2017	2025	0	0	N
282	Hungary	Anti-Orban	2017	2025	0	0	N
283	South Africa	Anti-Zuma	2017	2018	1	0	N
284	Turkey	Anti-Erdogan II	2017	2025	0	0	N
285	Armenia	Velvet Revolution	2018	2018	1	1	N
286	Nicaragua	Anti-Ortega uprising	2018	2019	0	0	N
287	Haiti	Anti-Jovenel uprising	2018	2021	0	0	N
288	France	Yellow Vests Revolution	2018	2020	0	0	N
289	Serbia	Stop Bloody Shirts uprising	2018	2020	0	0	N
290	Sudan	Sudanese Revolution	2018	2019	1	0	N
291	Montenegro	Anti-Dukanovic uprising 2	2019	2019	0	1	N
292	Albania	Anti-Rama Uprising	2019	2019	0	0	N
293	Algeria	The Smile Revolution	2019	2019	1	0	N

Tab. A1. NVCs used in the analysis, NAVCO 1.3, NEVER and authors' campaigns, 1950–2022
(continued)

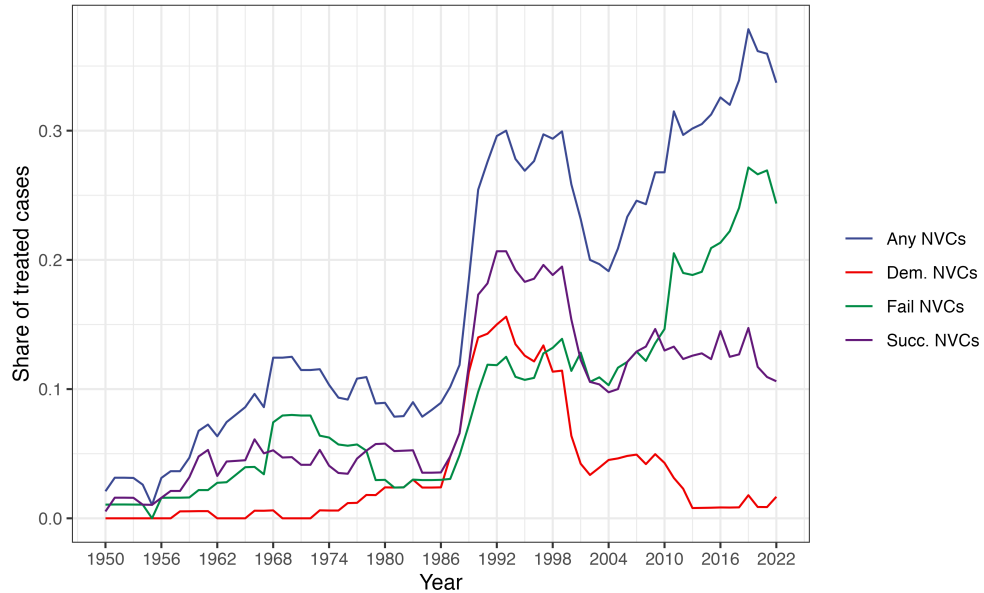
n	Country	Campaign	Start year	End year	Succ.	Dem.	Source
294	Hong Kong	Protests in Hong Kong against extradition bill	2019	2020	0	0	A
295	Puerto Rico	Telegramgate protests	2019	2019	1	0	A
296	Iraq	Iraqi October Revolution (Tishreen Movement)	2019	2021	1	0	N
297	Ecuador	Anti-Moreno Uprising	2019	2019	0	0	A
298	Chile	Estallido Social	2019	2022	0	0	N
299	Lebanon	October 17 Revolution	2019	2021	0	0	N
300	Bolivia	Pitita revolution	2019	2019	1	0	N
301	Iran	Bloody November	2019	2019	0	0	N
302	Gambia	Anti-Barrow Uprising (Three Years Jotna)	2019	2020	0	0	A
303	Egypt	anti-Sisi protests	2019	2019	0	0	N
304	Georgia	2019 Georgian Protests	2019	2019	0	0	N
305	Belarus	"The Slipper Revolution"	2020	2021	0	0	A
306	US	George Floyd (BLM) protests	2020	2021	0	0	A
307	Mali	Mali Coupvolution	2020	2020	1	0	A
308	Bolivia	Anti-Áñez Uprising	2020	2020	0	1	A
309	Kyrgyzstan	Third Kyrgyz Revolution	2020	2020	1	0	A
310	Armenia	March of Dignity	2020	2021	0	0	A
311	Nepal	Pro-monarchy movement	2020	2021	0	0	A
312	US	Storming of the United States Capitol	2021	2021	0	0	A
313	Tunisia	Saied self-coupvolution	2021	2021	1	0	A
314	Chad	Anti-Déby Uprising	2021	2021	0	0	A
315	Sudan	Sudanese Counter-revolution	2021	2021	1	0	A
316	Colombia	2021 Colombian uprising	2021	2021	0	0	A
317	Eswatini	Anti-Mswati Uprising	2021	2023	0	0	A
318	Cuba	Anti-Díaz-Canel Uprising	2021	2021	0	0	A
319	Sri Lanka	Aragalaya	2022	2022	1	0	A
320	Armenia	Resistance Movement	2022	2022	0	0	A
321	Pakistan	Pro-Khan Uprising	2022	2025	0	0	A
322	Ecuador	Anti-Lasso Uprising	2022	2022	0	0	A
323	Panama	Anti-Cortizo uprising	2022	2022	0	0	A
324	Iran	Mahsa Amini Uprising	2022	2023	0	0	A
325	Moldova	Anti-Sandu Uprising	2022	2023	0	0	A
326	Colombia	Anti-Petro Uprising	2022	2022	0	0	A
327	Brazil	Bolsonaristas Uprising	2022	2023	0	0	A
328	China	A4 (White Paper) Revolution	2022	2022	0	0	A
329	Mongolia	Corruption Uprising	2022	2023	0	0	A
330	Peru	Anti-Boluarte Uprising	2022	2023	0	0	A

Note:

In 'Source' column 'N' is NAVCO 1.3, 'C' is NEVER and 'A' for authors' campaigns.

Tab. A2. Campaigns characteristics by source.

Source	N	Success	Democratization
NAVCO	226	0.55	0.23
NAVCO+NEVER	289	0.48	0.18
NAVCO+NEVER+Authors	330	0.45	0.16

**Fig. A1.** The share of treated observations in the data.**Tab. A3.** Regime before and after NVCs, 1950–2022

	Regime after				Unknown	Total
	Closed Autocracy	Electoral Autocracy	Electoral Democracy	Liberal Democracy		
Regime before						
Closed Autocracy	42 (46%)	18 (20%)	21 (23%)	6 (6.5%)	5 (5.4%)	92 (100%)
Electoral Autocracy	18 (12%)	100 (65%)	26 (17%)	1 (0.6%)	10 (6.5%)	155 (100%)
Electoral Democracy	1 (1.5%)	7 (10%)	43 (63%)	1 (1.5%)	16 (24%)	68 (100%)
Liberal Democracy	0 (0%)	0 (0%)	0 (0%)	10 (77%)	3 (23%)	13 (100%)
Unknown	0 (0%)	0 (0%)	0 (0%)	0 (0%)	11 (100%)	11 (100%)
Total	61 (18%)	125 (37%)	90 (27%)	18 (5.3%)	45 (13%)	339 (100%)

B Appendix: Additional Results

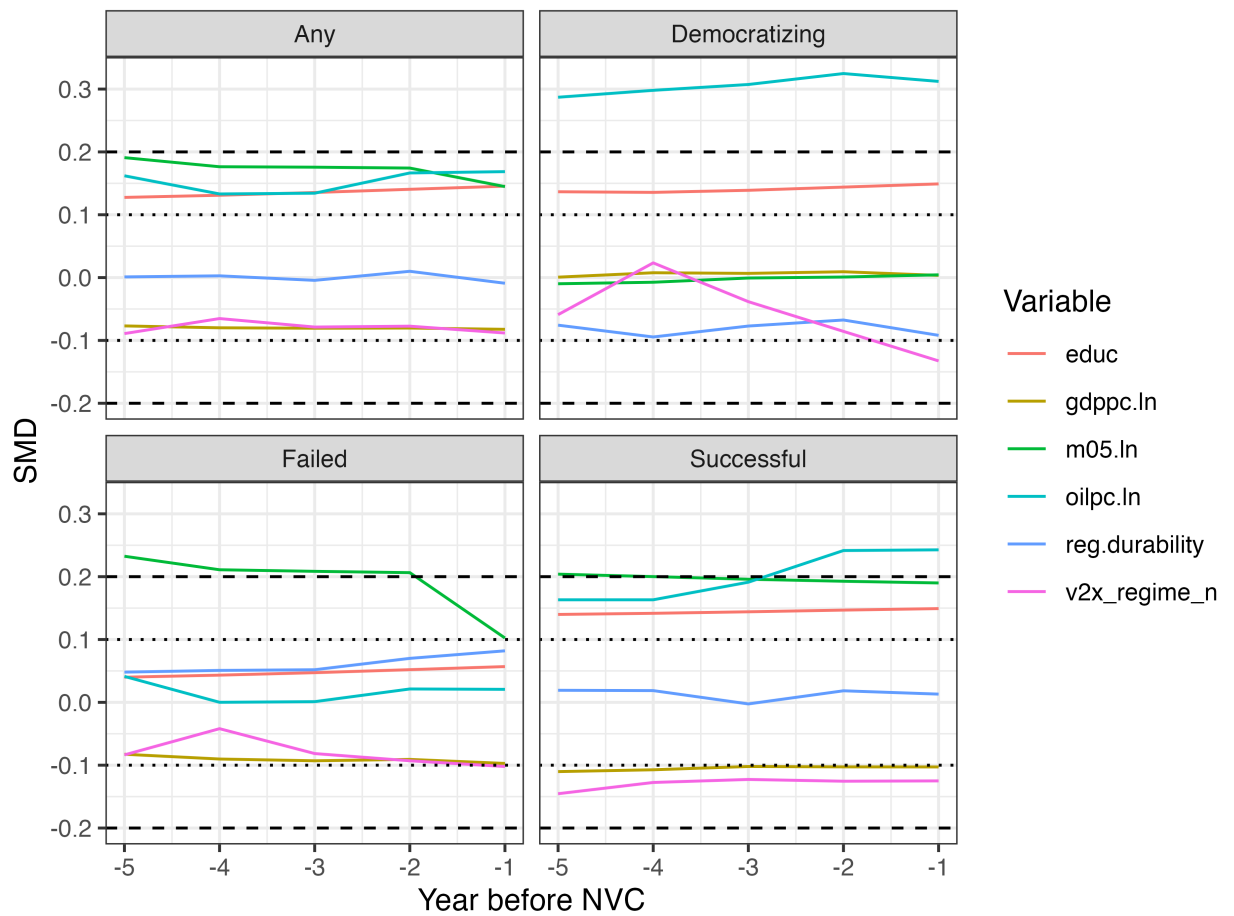


Fig. B1. Balance plots showing standardized mean difference between treated and control groups by time before the treatment, CBPS weighting.

C Appendix: Alternative Specifications

C.1 Allowing treatment reversal

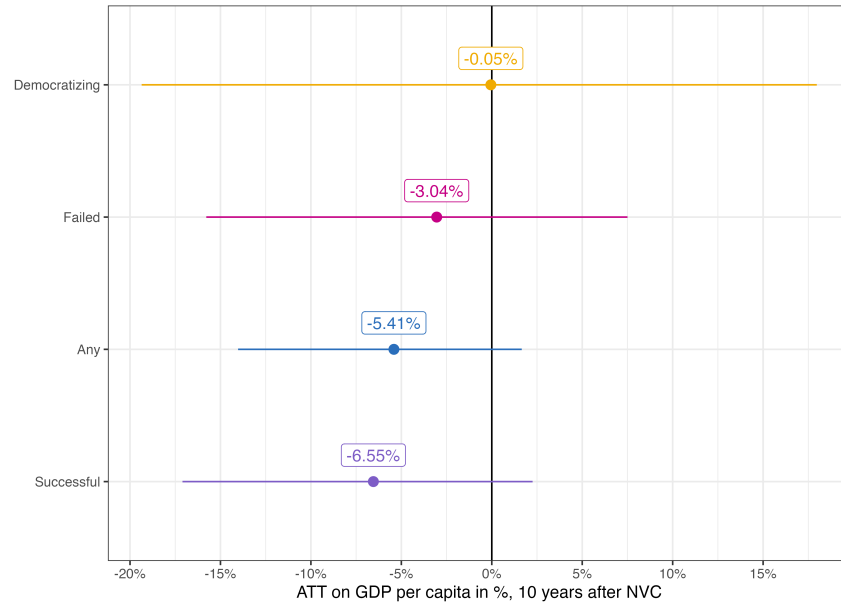


Fig. C1. Average effect of NVC (ATT) on economic development after 10 years in %, treatment reversal is allowed.

Note: The transition from ATT in log points to percentage points is calculated as $\tau^{prc} = \exp(\tau^{log}) - 1$. To obtain balance between treatment and control group, the CBPS weighting is used. Treatment reversal is allowed.

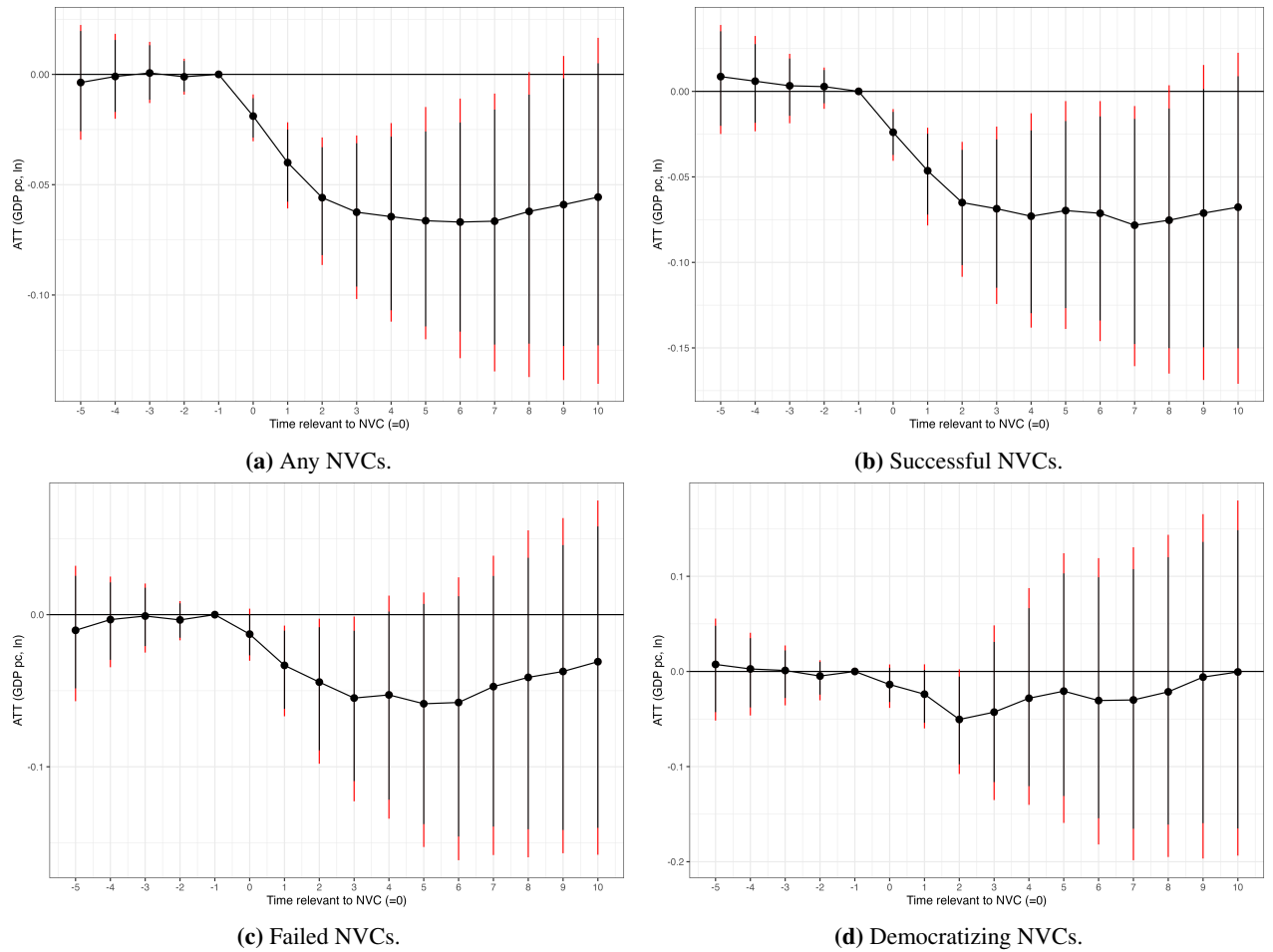


Fig. C2. Average effect of different types of nonviolent campaigns (ATT) on economic development in 10 years window, treatment reversal is allowed.

Note: Estimates obtained via panel matching estimator for 5 years before and 10 years after the onset of campaign; to obtain balance between treatment and control group, the CBPS weighting is exploited by past 5-year $\{-5, \dots, -1\}$ tendencies in control variables; treatment reversal is allowed; black and red lines correspond to 90% and 95% confidence intervals respectively, which estimated via block bootstrapping with 1000 iterations; shaded area shows the sample average of duration of campaign.

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