



Economic Development, Violent Leader Removal, and Democratization

Author(s): Michael K. Miller

Source: *American Journal of Political Science*, Vol. 56, No. 4 (October 2012), pp. 1002-1020

Published by: [Midwest Political Science Association](#)

Stable URL: <http://www.jstor.org/stable/23317170>

Accessed: 26/12/2014 01:32

Your use of the JSTOR archive indicates your acceptance of the Terms & Conditions of Use, available at
<http://www.jstor.org/page/info/about/policies/terms.jsp>

JSTOR is a not-for-profit service that helps scholars, researchers, and students discover, use, and build upon a wide range of content in a trusted digital archive. We use information technology and tools to increase productivity and facilitate new forms of scholarship. For more information about JSTOR, please contact support@jstor.org.



Midwest Political Science Association is collaborating with JSTOR to digitize, preserve and extend access to *American Journal of Political Science*.

<http://www.jstor.org>

Economic Development, Violent Leader Removal, and Democratization

Michael K. Miller Australian National University

This article argues that autocratic regime strength plays a critical mediating role in the link between economic development and democracy. Looking at 167 countries from 1875 to 2004, I find that development strengthens autocratic regimes, as indicated by a reduced likelihood of violent leader removal. Simultaneously, greater development predicts democratization, but only if a violent turnover has occurred in the recent past. Hence, development can cause democratization, but only in distinctive periods of regime vulnerability. Although development's stabilizing and democratizing forces roughly balance out within autocracies, they reinforce each other within democracies, resolving the puzzle of why economic development has a stronger effect on democratic stability than on democratization. Further, the theory extends to any variable that predicts violent leader removal and democracy following such violence, pointing to broad unexplored patterns of democratic development.

How does democratic development relate to a country's economic prosperity and recent history of political violence? Although by definition a political system in which leaders are selected by peaceful and consensual means, democracy often stems from significant conflict (Berman 2007; Bermeo 1997; Rustow 1970; Wantchekon 2004; Wood 2001). This article shows that the violent turnover between autocrats (typified by coups, revolutions, and assassinations) represents one of the most common precursors of democratization and further serves as a catalyst for economic development's effect on democracy.

In the current study, violent leader removal mainly serves as a proxy for regime weakness. Authoritarian regime strength plays a major role in democratization—with fewer than one in four democratic transitions since 1875 occurring in the context of stable autocratic leadership—but has been neglected in studies of democracy and development. I argue that democratization is best promoted by a combination of regime vulnerability and prodemocratic citizens. The central tension is that economic development promotes the latter but

inhibits the former. Economic development thus predicts democratization in regimes that are fragile and unstable, but makes this fragility less likely to begin with.

By focusing on the mediating role of regime weakness, this article uncovers a far-reaching pattern behind the origins and survival of democracy. In particular, the findings help to resolve the much-discussed puzzle of why economic development has a stronger effect on democratic stability than on democratization. Since the revelation of this relationship in Przeworski and Limongi (1997) and Przeworski et al. (2000), scholars have struggled to find a convincing rationale for the asymmetry. As a result, a generation's worth of theory on democracy and development has been called into question, making this pattern one of the central puzzles in comparative politics. This article accounts for development's asymmetric effect on democracy through its simultaneous influence on violent leader removal.

Economic development is both a regime-strengthening force and a democratizing force. Greater development provides regimes with greater resources to perpetuate themselves in power and thus makes violent executive

Michael K. Miller is Lecturer, School of Politics and International Relations, Australian National University, Haydon-Allen 1206A, Canberra, ACT 0200, Australia (Michael.Miller@anu.edu.au).

Thanks for helpful comments to Carles Boix, Grigore Pop-Eleches, Christine Percheski, Jeff Colgan, Joseph Carnes, Will Bullock, Sarah Bush, Daniel Treisman, Editor Wilson, three anonymous reviewers, and the participants at Midwest 2011 and seminars at Princeton University, New York University, Claremont Graduate University, and Australian National University. Replication data and supporting information can be found at <http://sites.google.com/site/mkmtwo/>.

American Journal of Political Science, Vol. 56, No. 4, October 2012, Pp. 1002–1020

©2012, Midwest Political Science Association

DOI: 10.1111/j.1540-5907.2012.00595.x

turnovers less likely. Simultaneously, development makes democracy more likely in the unstable periods following such violence. Within autocracies, these two forces roughly balance out, leading to a weak relationship between development and democratization. Within democracies, however, development's two effects reinforce each other, making countries less prone to violence *and* less likely to suffer democratic breakdown conditional on violence. The result is a strong positive relationship between development and democratic stability. Although Kennedy (2010) similarly argues that development plays both a stabilizing and democratizing role, no study has emphasized the pivotal role of violent leader removal or demonstrated how this pattern accounts for development's asymmetric effect on democracy. Further, by combining data on socioeconomic factors and political leaders, this article can help to reconcile structural and agency-focused approaches to democratization.

Looking at 167 countries from 1875 to 2004, I find that economic development reduces the likelihood of violent turnover in both democracies and dictatorships. In turn, development significantly predicts democratization if and only if an irregular turnover has occurred in the recent past. These findings are robust to controlling for country effects using a conditional logit model, lagging development by up to 30 years, and dividing by the type of irregular turnover. The implication is that development can cause democratization, but only in distinctive periods of regime vulnerability. As a result, about 85% of development's asymmetric effect on democracy can be explained by its simultaneous influence on violent leader removal. Although development has a small net effect on democratization, this obscures a strong underlying pattern explaining the economic origins of democracy and political violence.

The next section overviews existing work on the democracy-development link and the recent challenges presented to this literature. I then outline the theoretical mechanisms behind development's two effects, provide a formal treatment of their interaction, and discuss the illustrative example of Portugal's democratization. After overviewing the data and empirical strategy, I present the main empirical results. The succeeding section extends this article's theory beyond economic development—any variable that simultaneously influences violent leader removal and democratic change conditional on such violence should display an asymmetric relationship with democracy. This general theory is successfully applied to several other variables, including the history of multiparty elections. I conclude by discussing the implications for the Arab Spring, democracy promotion, and future research.

Perspectives on Development and Democracy

The positive correlation between economic development and democracy is one of the longest-standing and well-analyzed facts in comparative politics (Burkhart and Lewis-Beck 1994; Dahl 1971; Lipset 1959; Londregan and Poole 1996; Przeworski et al. 2000; Treisman 2011). Beginning with the early modernization theorists (Deutsch 1961; Lerner 1958; Lipset 1959), scholars have posited a variety of economic and sociological changes that make developed countries more amenable to democratic government. These include the spread of education (Lipset 1959), transformations in individual values that put greater stress on political freedom (Inglehart and Welzel 2005), the pluralizing of interests and social ties (Dahl 1971; Rustow 1970; Tilly 2000), the rising power of the middle class (Moore 1966) and the working class (Collier 1999; Rueschemeyer, Stephens, and Stephens 1992), the reduced intensity of redistributive conflict (Boix 2003; Boix and Stokes 2003; Przeworski 2005), and the need for public goods and credible restraints on the executive (Lizzeri and Persico 2004; Llavador and Oxoby 2005; Moore 1966; North and Weingast 1989). Overwhelmingly, the logical flavor of these theories is that development increases the relative preferences of citizens or elites (or both) for democracy over dictatorship, thereby improving the likelihood of democratic government.

In recent years, two major challenges to this varied literature have arisen. Neither disputes that a correlation exists between economic development and democracy. What they do claim is that this relationship follows without a causal effect of development on *democratization*. This presents a central challenge to existing theories, particularly in the modernization school, as they overwhelmingly fail to theoretically distinguish between democratization, democratic stability, and democratic deepening (Lupu and Murali 2008; Svobik 2008). If we accept that development has no causal relationship with democratization, few of these theories appear to be salvageable without serious revision.

The first challenge came from Przeworski and his colleagues (Przeworski and Limongi 1997; Przeworski et al. 2000), who argue that “wealthy countries tend to be democratic not because democracies emerge as a consequence of economic development under dictatorships but because, however they emerge, democracies are much more likely to survive in affluent societies” (Przeworski et al. 2000, 137). Although they observe that higher per capita income does predict democratization, the effect is “orders of magnitude larger” for democratic stability

(123). However, as Boix and Stokes (2003) emphasize, Przeworski et al. (2000) lack a convincing rationale for this asymmetry. A primary goal of the current article is to fill this gap.

In the second challenge, Acemoglu et al. (2008, 2009) claim that development and democracy bear no causal relationship to each other, but are instead mutually caused by institutional history. Every country is characterized by a heritage of institutions, some from colonial experience and others from centuries of internal development. Countries that developed a strong rule of law, social trust, and checks on the executive subsequently enjoyed economic prosperity and democratic self-government. Acemoglu and colleagues' (2008, 2009) main empirical innovation is to show that accounting for country fixed effects eliminates the relationship between economic and democratic development in recent history.

These challenges have prompted renewed interest in demonstrating that economic development has a causal effect on democratization. Boix and Stokes (2003) criticize Przeworski et al. (2000) for focusing on 1950–90, which ignores the canonical modernization cases of Western Europe. Expanding the temporal scope back to 1850, Boix and Stokes (2003) and Boix (2003) find a positive effect of development on democratization, arguing that this is driven by greater economic equality and capital mobility. Similarly, Boix (2011) adapts Acemoglu and colleagues' (2008, 2009) empirical method to an expanded time period. Looking at 1820–2000, Boix (2011) finds a positive democratizing effect of development even accounting for country fixed effects. Lastly, Epstein et al. (2006) categorize political regimes by dictatorship, democracy, and partial democracy. Using a three-way Markov model of regime transitions, they find that economic development predicts movement up the democracy scale.

Although this recent work affirms the finding of a positive effect of development on democratization, there remains the puzzle of why its effect on democratic stability is so much stronger. To date, only Houle (2009), whose focus is on economic inequality, has offered a theory explaining an asymmetry of this type, but his explanation cannot easily extend to economic development.¹ It

¹ Houle's (2009) explanation of inequality's similar asymmetric effect focuses on the different actors involved in democratization and democratic breakdown. Whereas democratization usually requires a concordance (and sometimes an explicit pact) between elites and the masses, democratic breakdown is almost always initiated by elites alone. Since the relative preferences over democracy and dictatorship stemming from greater economic inequality move in different directions for elites and the masses, inequality has a null effect on democratization but a strong positive effect on democratic

breakdown. Although theoretically appealing, Houle's theory does not easily extend to economic development since development is thought to make both elites and average citizens more accepting of democracy.

is likely that most theoretical work on the development-democracy link from the modernization school onward will remain in serious doubt unless an adequate and theoretically consistent explanation can be found. The current article proffers a theory that successfully accounts for development's asymmetric effect and is largely consistent with existing work on development's prodemocratic influence.

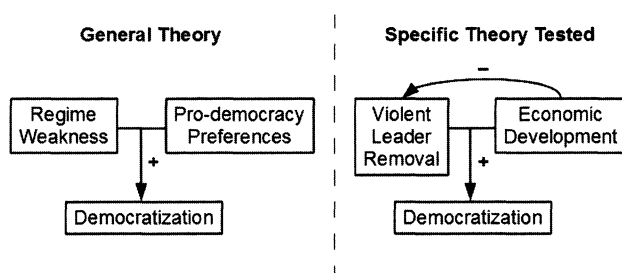
Theory: Two Effects of Economic Development

As numerous scholars have argued, economic development shifts the balance of preferences in favor of democracy. However, this literature generally ignores the simultaneous effect development has on regime strength. The existence of prodemocratic actors is not sufficient for democratization to actually occur, as they typically confront collective action problems and autocratic regimes with the means and will for repressing majorities.

Recognition of the central role played by the institutional strength and cohesion of the autocratic regime comprises a major turn in the modern democratization literature (Bratton and van de Walle 1997; Levitsky and Way 2010; O'Donnell and Schmitter 1986; Smith 2005; Way 2005). Regimes differ in their capacity to withstand challenges, from above and below, for a variety of reasons, including variation in coercive capacity (Bellin 2004; Ross 2001; Way 2005), party institutions (Brownlee 2007; Geddes 2006; Levitsky and Way 2010; Magaloni 2008; Smith 2005; Way 2005, 2008), state penetration (Levitsky and Way 2010; Slater 2006), and internal cohesion (Brownlee 2007; O'Donnell and Schmitter 1986). In particular, strong regimes are better able to forestall the development of widespread democratic movements (as in Singapore and Vietnam) or, failing that, to prevent these movements from taking power (as in Armenia, Russia, and Malaysia).² In Armenia, for instance, a massive security apparatus—staffed by victors of a recent war with

breakdown. Although theoretically appealing, Houle's theory does not easily extend to economic development since development is thought to make both elites and average citizens more accepting of democracy.

² For various case studies on how authoritarian regimes frustrate opposition movements, see Levitsky and Way (2010). On Singapore, see also Mutalib (2000) and Mauzy (2006). On Vietnam, see Slater (2006) and Rodan and Jayasuriya (2007). On Armenia, see Way and Levitsky (2006) and Way (2008). On Russia, see Way (2005) and Reuter and Remington (2009). On Malaysia, see Case (2001) and Pepinsky (2007).

Figure 1 Theoretical Framework

Note: The figure depicts the general theory behind democratization (on the left) and the specific relationships tested in the article (on the right). Democratization should follow when citizens are prodemocratic and the autocracy is vulnerable to concerted opposition. This article proxies regime vulnerability by looking at the years following violent leader removal. Economic development reduces political violence, but also shifts preferences in favor of democracy, leading to a significant democratizing effect following violence.

Azerbaijan—violently shut down opposition protests estimated at up to 200,000-strong following a disputed election in 1996. While continuing to harass opposition leaders and rig elections, the regime again beat back large opposition rallies in 2003, 2004, and 2008 (Levitsky and Way 2010, 207–13; Way 2008, 63).

Democratization is most likely to follow from a confluence of two factors: prodemocratic citizens and a vulnerable autocratic regime (Bratton and van de Walle 1997; Kennedy 2010; Levitsky and Way 2010; O'Donnell and Schmitter 1986). This general theory is depicted on the left side of Figure 1. Citizen preferences come to bear most strongly when an opening arises, the current regime is weak, and political power is in flux. As Kennedy argues, “For an actor to push for democratization, they must have the opportunity and means to overturn the current institutions and must also have the motive to support a democratic outcome” (2010, 787). It follows that economic development should spur democratization mainly during distinctive periods of regime vulnerability. However, by strengthening regimes, development makes such unstable periods less common.

To identify periods of regime weakness, this article looks at the years immediately following violent executive turnovers (such as coups, rebellions, and assassinations). In comparison to countries that do not experience violence, irregular turnovers clearly indicate weakness in both the outgoing and successor regimes. In nearly all cases of violent leader removal, the perpetrators of violence seek to found a new authoritarian regime. Although often successful, there is always significant uncertainty about the outcome. Typically, the power base of the prior

regime becomes alienated from, if not openly hostile to, the new leadership. Besides disrupting power networks, dividing loyalties, and eliminating key leaders, violent incumbents at best inherit the same weak state institutions they were able to overthrow. As a result of this weakness, the periods following such violence are vulnerable to democratic change, especially in conjunction with greater development and prodemocratic citizens.³

Economic development is thus predicted to have two effects, depicted on the right side of Figure 1. First, development should reduce the likelihood of violent leader removal. Second, development should predict democratization, but only after such violence. These two opposing effects lead to no net relationship between development and democratization. Within democracies, however, development produces less violence and more prodemocratic citizens, accounting for its significant contribution to democratic stability. I now expand on the theoretical mechanisms behind development's two effects.

Economic Development and Political Violence

Economic development reduces violent political instability in both democracies and dictatorships, particularly the use of violence against regime leaders (Feng 1997; Goldstone et al. 2010; Jones and Olken 2009; Londregan and Poole 1990; Sanders 1981).⁴ Looking at 1950–82, Londregan and Poole (1990) show that higher GDP/capita reduces the likelihood of both attempted and successful executive coups. As they point out, “Coups are almost non-existent in developed countries” (1990, 151). Goldstone et al. (2010) find that development (as proxied by infant mortality) predicts fewer cases of major political instability, including civil wars, genocides, and collapses of state authority.

In line with this research, the current article shows that higher average income strongly limits instances of violent leader removal in both democracies and dictatorships. Greater development bolsters state strength by building the state's repressive capacity (Fearon and Laitin

³ Although the same claim should hold for autocracies in years preceding violent turnover, this cannot be tested since we can only observe this violence in cases that do not democratize. This suggests the article may be underestimating the portion of democratic transitions that fit the theory.

⁴ In contrast, Huntington (1968) argues that economic modernization may initially lead to greater instability, as it activates political groups in countries lacking the institutional capacity to deal with them. However, as discussed below, I find no evidence of a nonmonotonic relationship between development and violent leader removal.

2003) and increasing the funds available for conflict-reducing redistribution (Morrison 2009). In addition, higher income stabilizes regimes through many of the causal mechanisms associated with development and democracy: it raises the opportunity cost of political instability (Przeworski 2005), makes citizens less accepting of violence (Inglehart and Welzel 2005), and reduces the economic deprivation of average citizens (Goldstone et al. 2010).

Economic Development, Violent Leader Removal, and Democracy

Despite its consensual foundations, democracy often springs from prolonged conflict (Berman 2007; Bermeo 1997; Fortna and Huang 2009; Huntington 1991; Rustow 1970; Wantchekon 2004; Wood 2001). Even the most serious political violence (including civil wars and insurgencies) can increase the likelihood of democratization by disrupting the autocratic order and revealing regime weakness (Pevehouse 2002; Robinson 2006; Weingast 1997). However, it remains an open question what predicts democratization following major political violence and how this process relates to peaceful democratic change (Fortna and Huang 2009; Gurses and Mason 2008).

This article focuses on irregular turnovers that precede democratization and hence feature the installation of a new autocratic government. Violent leader removal rarely leads to immediate democratization. According to this article's coding (explained below), there exist only 13 cases since 1875 of democratization concurrent with the violent ousting of an autocratic leader. Further, only five of these cases occurred without an irregular turnover in the previous five years.⁵ It is far more common for democratization to follow an irregular turnover after a short period of instability and flux.

Although other events—such as civil wars, attempted coups, mass protests, and natural leader deaths—may similarly reflect regime fragility, irregular turnover is used for four reasons. First, violent turnovers are relatively common events (occurring in 6.7% of autocratic regime-years) compared to civil wars or assassinations. Second, they are highly salient disruptions, widely known to citizens and implying significant shifts in power. Third, irregular turnovers are concretely measurable, especially compared to a looser concept like regime crisis. Fourth, incidences of violent turnover are comparable across time

and country, as opposed to measures of bureaucratic efficiency or repressive capacity.⁶

Assuming democracy has widespread support, the period following violent leader removal is at high risk for democratization given the authoritarian regime's associated weakness. Moreover, a violent turnover from one autocrat to another can facilitate democratization for two further reasons. First, like any public split within an autocracy, an irregular turnover weakens popular perceptions of the regime's strength (Londregan and Poole 1996; O'Donnell and Schmitter 1986). Violent turnover removes the regime's aura of invincibility, providing a clear signal to citizens that the regime can be changed by concerted action. The ensuing instability can provide an opening for actors to determine their country's political institutions, making radical change, including democratization, more likely. As an interesting causal test of this argument, Jones and Olken (2009) compare the democratizing effects of failed and successful assassination attempts. Despite their inherent randomness, successful assassinations predict movement toward democracy compared to failed attempts.

Second, violent turnover can serve as a coordination signal, or triggering event, for regime opponents. Democratic activists face a pronounced collective action problem in opposing autocracy (Kuran 1991; Weingast 1997). Several democratization studies discuss how major events can help to rally regime opponents. For instance, Bunce and Wolchik (2006) and Tucker (2007) argue that the Color Revolutions were triggered by disputed elections, as similarly occurred in The Philippines in 1986. In Kuran (1991) and Bratton and van de Walle (1997), signs of liberalization from the Soviet Union prompted democratic mass movements across Eastern Europe and sub-Saharan Africa, respectively. Lastly, democratic movements often mobilize around the deaths of opposition figures, as occurred in the Philippines after Benigno Aquino's assassination in 1983 and in China after Hu Yaobang's death in 1989.

In the closest work theoretically to this article, Kennedy (2010) posits that economic development simultaneously affects the likelihood of institutional change

⁵ These are Ireland (1922), Costa Rica (1948), South Korea (1960), The Philippines (1986), and Pakistan (1988).

⁶ Using military or security spending as a measure of regime strength suffers from three further problems. First, having a large military does not guarantee the military will be loyal. About 60% of irregular turnovers are initiated by military actors, with a further 9% by other government actors (Goemans et al. 2009). Second, security spending is endogenous to perceived opposition strength and the threat of democratic turnover. Third, repression partly serves as a substitute for other sources of regime loyalty, like ideological appeal and performance, hence imperfectly tracks regime strength.

(measured by movement on the Polity democracy scale) and the direction of Polity movement conditional on such a change. The current article differs by analyzing the mediating role of regime weakness rather than institutional change. Moreover, it focuses on an event that is distinct from and temporally prior to democratization, which is a superior approach for testing conditional effects. Two further differences can be pointed out. First, violent turnovers and Polity changes are highly distinct events. In autocracies, 58% of irregular turnovers do not result in a 3-point Polity change in the surrounding two years; conversely, 76% of such Polity changes do not coincide with an irregular turnover. Many types of regime instability, such as coups from one military government to another, are not tracked by Polity. In turn, Polity shifts can sometimes indicate greater regime strength, as from the cessation of political violence or the end of a transitional regime. Second, Kennedy (2010) does not find evidence that income influences the initial likelihood of Polity change, although he does find that higher income makes it more likely that such a change will be toward democracy.⁷ In contrast, I show that violent leader removal is strongly related to development, which is essential to my explanation of development's asymmetric effect on democracy.

Formalizing the Theory

This section's logic can be formalized. The probability that a country is democratic in the next period, $P(D_{t+1})$, can be broken down based on whether or not an incident of violent leader removal (V_t) has occurred, as follows:

$$P(D_{t+1}) = P(V_t)P(D_{t+1}|V_t) + (1 - P(V_t))P(D_{t+1}|\neg V_t) \quad (1)$$

Now we can calculate how this probability varies with GDP/capita (G):

$$\begin{aligned} \frac{\partial P(D_{t+1})}{\partial G} &= \frac{\partial P(V_t)}{\partial G} \{P(D_{t+1}|V_t) \\ &\quad - P(D_{t+1}|\neg V_t)\} \\ &\quad + P(V_t) \frac{\partial P(D_{t+1}|V_t)}{\partial G} \\ &\quad + (1 - P(V_t)) \frac{\partial P(D_{t+1}|\neg V_t)}{\partial G} \quad (2) \end{aligned}$$

To see why there exists an asymmetry between democratic transition and breakdown, consider the above

equation conditional on the current regime type (D_t or $\neg D_t$). Assume for the moment that $P(V_t)$, $\frac{\partial P(D_{t+1}|V_t)}{\partial G}$, and $\frac{\partial P(D_{t+1}|\neg V_t)}{\partial G}$ are all identical across regime types. (Of course, if they differ, that would be a further cause of asymmetry.) Consider two intuitive hypotheses:

Hypothesis 1

- (a) $P(D_{t+1}|D_t, V_t) < P(D_{t+1}|D_t, \neg V_t)$
- (b) $P(D_{t+1}|\neg D_t, V_t) > P(D_{t+1}|\neg D_t, \neg V_t)$

Recent violent leader removal makes democratization and democratic breakdown more likely.

Hypothesis 2

$\frac{\partial P(V_t)}{\partial G} < 0$. *In either regime type, the likelihood of violent leader removal declines with higher GDP/capita.*

Both hypotheses are empirically supported later in the article. The asymmetric relationship between economic development and democracy follows immediately:

Implication of Hypotheses 1–2

$$\frac{\partial P(D_{t+1}|D_t)}{\partial G} > \frac{\partial P(D_{t+1}|\neg D_t)}{\partial G}$$

GDP/capita is more positively related to democratic stability than democratization.

This result follows because the first term in equation (2) is positive conditional on democracy and negative conditional on dictatorship. Further, the empirical results verify that the remainder of equation (2) is positive in either regime type, as implied by the following hypothesis.

Hypothesis 3

$\frac{\partial P(D_{t+1}|V_t)}{\partial G} > 0$. *Conditional on recent violent leader removal, higher GDP/capita makes democratization and democratic stability more likely.*

Since development also makes violent leader removal less likely, the net effect of development on democratization is null.⁸ Within democracies, however, development simultaneously inhibits violent turnover and makes democratic breakdown less likely after violence, producing a strongly negative net relationship.

⁷ Kennedy's (2010) finding that development is unrelated to the total volume of Polity changes but negatively related to declines in Polity is, in essence, a recapitulation of the asymmetric relationship between development and democracy rather than an explanation.

⁸ The very low likelihood of violent turnover in wealthy countries can also explain why the propensity to democratize may actually begin to decline with GDP/capita at high development (Przeworski et al. 2000, 92–94).

Illustrative Example: Portugal, 1974–76

Portugal's tumultuous path to democracy in 1976 perfectly illustrates the pattern of violent leader removal initiating a period of instability and then democratization. After nearly 50 years of stable fascist rule, a left-wing military coup—led by junior officers angry about the interminable guerilla wars in the Portuguese colonies and recent changes to military promotion policy—easily deposed Prime Minister Marcelo Caetano in April of 1974.

From 1974 to 1976, the country witnessed considerable instability, featuring seven interim governments, three presidents, four prime ministers, and two unsuccessful coups (Pimlott 1977, 35). Portugal's democratic outcome was anything but automatic, and indeed the country veered very close to becoming a Marxist dictatorship (Graham 1992, 291; Linz and Stepan 1996, 126). Almost immediately, an alliance of radical military officers and Portugal's Communist Party (PCP) began to nationalize banks, industries, and landed estates, with the fixed capital formation of the public sector shifting from 10% to 47% of the economy between 1973 and 1976 (Solsten 1993). A call by the ascendant PCP to establish a single government-controlled union was narrowly prevented by the Catholic Church and moderates in the military junta (Maxwell 1986). By early 1975, however, the radical Left's power began to fade as moderate parties organized, public opposition grew, and the military's leftist power base fractured between Communists and moderate socialists. This political instability in turn led to an opening for the democratic opposition.

Two occurrences hint at the role that development played in steering the country toward democracy. First, the Communists faced organized and frequently violent resistance from property-owning and pro-capitalist groups. Small landowners, opposed to land expropriation by the state and armed peasants, began mass riots in August of 1975, burning and looting 49 PCP offices (Maxwell 1986, 126). Although initially cowed by the revolution, right-wing industrialists and allies belatedly expressed active opposition, which had considerable weight given Portugal's dependence on foreign trade and investment. Second, elections in April of 1975 (for a constitutional assembly) and April of 1976 (for the first parliament) were won convincingly by the moderate, prodemocratic Left, "demonstrating graphically that although the Portuguese desired change they wished that change to be brought about by democratic means" (Maxwell 1986, 122).⁹ In both cases, the areas of greatest support for both

⁹ Prodemocratic parties won about 72% of the vote in 1975 and 75% of the vote in 1976 (Linz and Stepan 1996, 121).

the radical Left and Right were the least developed, featuring the highest illiteracy, infant mortality, and economic reliance on agriculture: "All were backward and in many respects isolated rural communities, each in its own way a traditional society" (Maxwell 1986, 123). Democracy may have been far less likely an outcome had all of Portugal been similarly underdeveloped.

Data and Empirical Setup

Defining Democracy and Violent Leader Removal

Democracy is measured using Boix, Miller, and Rosato's (forthcoming) dichotomous coding, which is available for 1800 to 2007. Similar to Przeworski and colleagues' (2000) approach, the coding requires democracies to have competitive multiparty elections for the legislature and executive. It differs in also requiring a threshold of electoral suffrage equal to one-half of the male population.

Violent leader removal is measured using the Archigos dataset's coding of irregular turnover of the executive, covering 1875 to 2004 (Goemans et al. 2009). Archigos codes whether each executive leader's exit and entry was through regular or irregular means, depending on whether the transfer of power followed "explicit rules and established conventions" (2009, 3).¹⁰ As Goemans et al. note, "Irregular removal from office is overwhelmingly the result of the threat or use of force as exemplified in coups, (popular) revolts and assassinations" (2009, 3), hence this appropriately measures incidences of violent leader removal.¹¹

Irregular Turnover is a dummy variable equal to 1 if a regime-year features an irregular transfer of executive power; 6.7% of autocratic regime-years include at least one irregular turnover, compared to 1.5% of

¹⁰ Generally, cases involving peaceful mass protests—such as the post-1989 transitions in Poland, Hungary, and Czechoslovakia—are counted as regular turnovers. Cases of natural death or exit due to poor health are coded as regular exits. Assassinations (regardless of the source) are coded as irregular exits.

¹¹ Irregular turnovers feature varying amounts of actual violence, as even a military coup may involve little or no bloodshed. However, about 95% of the irregular turnovers under autocracy are explicitly coded as violent or coercive by Goemans et al. (2009). These are comprised of coups, rebel insurgencies, foreign threats or uses of force, and assassinations. Most of the remaining cases, coded as "domestic protest," also featured significant violence, such as the Iranian Revolution in 1979 and Romania in 1989. Omitting these cases from the measure of irregular turnover does not affect the results.

TABLE 1 Irregular Turnover and Democratic Change

	Irregular Turnover (past five years)		
	N	Y	Total
Dictatorships			
Democratization	66	55	121
No Democratization	5,634	1,666	7,300
% Transition	1.16%	3.20%	1.63%
Logit Coefficient		1.036	p < .001
Democracies			
Democratic	54	23	77
Breakdown			
No Democratic	3,468	298	3,766
Breakdown			
% Transition	1.53%	7.17%	2.00%
Logit Coefficient		1.601	p < .001

Note: The table displays the number of regime-years featuring democratization, democratic breakdown, or no transition, divided by initial regime type and whether the country experienced an irregular executive turnover within the previous five years. Irregular turnover is positively related to democratic change in both dictatorships and democracies (as shown by the coefficients on *Irregular Turnover* (past five years) from bivariate logit models). The sample is all regimes from 1875 to 2004.

democratic regime-years.¹² *Irregular Turnover* is the dependent variable in the models predicting *GDP/capita*'s regime-strengthening effect. A longer time horizon is needed for the models predicting democratization and democratic breakdown, as violent leader removal rarely leads to immediate democratic change. The main variable of interest is a dummy variable for whether an irregular turnover has occurred in the previous five years, called *Irregular Turnover* (past five years).¹³

Table 1 relates *Irregular Turnover* (past five years) to democratization and democratic breakdown from 1875 to 2004. Validating Hypothesis 1, recent irregular turnover increases the likelihood of democratic change in both regime types, although great care is needed in the causal interpretation of this link. A total of 55 countries democratized after experiencing an irregular turnover in the previous five years, representing nearly half the demo-

cratic transitions between 1875 and 2004. Of the remaining 66 cases, 36 faced a regular turnover within the last five years, with three of these 36 departures from natural death or illness. Hence, fewer than one in four democratic transitions featured stable executive leadership over the prior five years. This strongly corroborates considering the institutional strength of authoritarian rule in conjunction with socioeconomic structure.

The other independent variable of interest is economic development. This is proxied here as *GDP/capita* (ln), the natural log of real GDP/capita (in 2000 \$), taken from Gleditsch's (2002) interpolation of Penn World Tables data for 1950–2004 and Maddison's (2008) historical data for earlier years.¹⁴ *GDP/capita* is lagged by one year in the main results. All of the models are also tested using 10-year, 20-year, and 30-year lags of *GDP/capita* to account for the potential endogeneity of development to political instability (Feng 1997; Londregan and Poole 1990).

Approach to Empirical Testing

The following section tests for development's two effects on 143 dictatorships and 107 democracies from 1875 to 2004. To account for country heterogeneity, all models use robust standard errors clustered by country. Conditional logits are added as a robustness check.

The first models use logit regression to predict irregular leader turnover in each regime-year. It is shown that lagged *GDP/capita* significantly reduces the likelihood of irregular turnover in both democracies and dictatorships, validating Hypothesis 2.

The next models use logit regression to separately predict the likelihood of democratization and democratic breakdown. For purposes of contrast, the effect of *GDP/capita* is first shown without accounting for recent irregular turnover. The asymmetric effect of development is reconfirmed. The main models then add a dummy variable for *Irregular Turnover* (past five years), as well as this variable's interaction with lagged *GDP/capita*. Note again that the measure of irregular turnover is temporally prior to democratic transition, hence it does not pick up cases of turnover comprising the transition itself. The results thus demonstrate the effect of *GDP/capita* with and without a recent irregular turnover. Development has a strong positive relationship with democratization only after an irregular turnover, as well as with democratic stability under all conditions, validating Hypothesis 3.

¹² An additional 8.1% of autocratic regime-years feature a regular turnover, compared to 26.9% of democratic regime-years.

¹³ The choice of a window equal to five years is similar to Londregan and Poole's (1990) definition of "Recent coups" as those occurring within the past six years. The main results remain significant (at the 0.05 level) for alternative windows between three and seven years.

¹⁴ Maddison's (2008) data are linearly adjusted to match Gleditsch's (2002) through a separate multiplicative term for each country, calculated from three overlapping years.

Finally, the results are used to calculate how much of development's asymmetric relationship with democracy can be explained by its simultaneous connection to irregular turnover. Specifically, the hypothetical effect of *GDP/capita* on democratic change is calculated under the assumption that the probability of irregular turnover is unrelated to *GDP/capita*. This eliminates 85% of the asymmetry.

Control Variables

Similar sets of control variables are employed for both types of models. A few additional variables specific to each model type are also included. All variables are lagged by one year with respect to the dependent variable.

Controls in Both Models. Economic growth is generally thought to stabilize both democracies and dictatorships (Haggard and Kaufman 1995; Londregan and Poole 1996; Przeworski et al. 2000) and to reduce the likelihood of violent leader removal (Feng 1997; Londregan and Poole 1990). *GDP Growth* is the annual percentage change in *GDP/capita*.¹⁵

Several democratization studies discuss colonial history (Bollen and Jackman 1995; Przeworski et al. 2000), often theorizing that past British rule is conducive to democracy and the rule of law (Weiner 1987). The models thus control for whether a state was formerly a *British Colony* or *Never Colonized* (own coding). As in Przeworski et al. (2000), the models include a dummy for *Post-WWII Independence*. To account for past democratic spells, I control for a country's number of *Previous Democratic Breakdowns* (Boix, Miller, and Rosato forthcoming).

Following research showing that the presence of democracies in a country's region encourages democratization (Brinks and Coppedge 2006; Gleditsch and Ward 2006; Starr 1991), the models account for regional diffusion using the *Regional Polity Average* (Marshall and Jaggers 2010). Regional variation is further controlled for using eight region dummies.¹⁶

Since the pace of democracy's spread has changed greatly over time, all models include decade dummies combined with a single linear *Year* term. This sets a

separate baseline for each decade, which is allowed to rise at a constant rate within each decade.

As pointed out by Beck, Katz, and Tucker (1998), panel models can produce misleading estimates if the duration of the dependent variable is not accounted for. The duration of the existing regime type is measured from Boix, Miller, and Rosato (forthcoming). As recommended in Beck, Katz, and Tucker (1998), I add cubic splines of duration with three knots (at the 25th, 50th, and 75th percentiles of duration).

Controls in Irregular Turnover Models. Londregan and Poole (1990) show that the likelihood of an executive coup is strongly related to past incidences of executive coups. The irregular turnover models thus control for *Instability*, the country's average number of irregular turnovers in the previous five years, which serves as a lagged dependent variable. In addition, the models control for *Regional Instability*, the surrounding region's average number of irregular turnovers over the previous five years. This tests for a diffusion effect of political instability (Goldstone et al. 2010; Li and Thompson 1975).

Besides regime-type duration, other duration variables are relevant to the leader's likelihood of survival, particularly the leader's age (in years) and tenure (in days; Goemans et al. 2009). Both significantly predict leader change in Londregan and Poole (1996). I add cubic splines of both variables with three knots (at the 25th, 50th, and 75th percentiles of each variable).

Controls in Democratic Change Models. Although the democratic change models look separately at dictatorships and democracies, some dictatorships are closer to becoming democracies than others. For instance, Teorell and Hadenius (2009) and Miller (2011) show that dictatorships with controlled multiparty elections are more likely to democratize than countries without electoral competition. As a result, the models control for the lagged Polity level (Marshall and Jaggers 2010). Including a single continuous term is problematic, as it fails to account for ceiling effects and the lower stability of countries at middle values of Polity (Epstein et al. 2006; Gates et al. 2006). At the expense of degrees of freedom, the models include dummies for each of the 21 possible lagged Polity values.

Empirical Results

This section first predicts irregular turnovers, followed by models of democratic transition and breakdown.

¹⁵ Because of extreme outliers (often from war, territorial change, or oil discovery), this is capped to range between -20% and +20%. Results are unaffected by using the full range.

¹⁶ These are Eastern Europe and the Soviet Union, Latin America, North Africa and the Middle East, sub-Saharan Africa, Western Europe and the British settler colonies, East Asia, Southeast Asia and the Pacific, and South Asia.

Finally, I calculate how much of *GDP/capita*'s asymmetric effect on democracy is explained by its simultaneous effect on irregular turnover. All results that are discussed, but not shown, will be made available in an online appendix. Although the empirical tests include regimes at all levels of development, democracies and dictatorships have dissimilar distributions of *GDP/capita*. To avoid unwarranted extrapolation, the displays of effect sizes and the asymmetry calculation consider a middle range of *GDP/capita* (ln) with adequate representation by both regime types. The chosen range is from 7 (about \$1,000, around the 5th percentile of democratic regime-years) to 11 (about \$60,000, the approximate value for modern Singapore).

Regime-Strengthening Effect of Economic Development

Table 2 displays results from two logit models predicting irregular turnovers in each regime-year. Models 1 and 2 look at dictatorships and democracies, respectively. The main variable of interest is *GDP/capita*, which displays a strongly significant and negative relationship with *Irregular Turnover* in both regime types. Results are substantively identical and remain significant using a rare-events logit model (King and Zeng 2001) or a conditional logit model (conditioning on country and with the lagged dependent variable removed). Results are also unchanged using 10-year, 20-year, or 30-year lags of *GDP/capita*.

Figure 2 shows the estimated annual likelihood of an irregular turnover in each regime type by *GDP/capita* (ln). Moving from 7 to 11 on this scale is associated with a reduction in this likelihood from 6% to 1% in dictatorships and from 7% to almost 0% in democracies. Hence, greater economic development sharply reduces instances of violent leader removal.¹⁷

Few of the remaining variables are consistently related to irregular turnover. *GDP Growth* bears a small negative relationship to irregular turnover, but this is only significant for dictatorships. *Instability* is positively predictive, but only significantly so for dictatorships. Surprisingly, instability in the region is not predictive. The coefficient on *Regional Polity Average* indicates that democracies face fewer irregular turnovers when surrounded by other democracies. Finally, democracies with a large

TABLE 2 Logit Models Predicting Irregular Turnover, 1875–2004

	Dictatorships (1) <i>Irregular Turnover</i>	Democracies (2) <i>Irregular Turnover</i>
<i>GDP/capita</i> (ln)	−0.462*** (−4.80)	−1.434** (−3.12)
<i>GDP Growth</i>	−0.022* (−2.41)	−0.019 (−1.16)
<i>Instability</i> (past 5 years)	1.302*** (5.45)	0.556 (0.69)
<i>Regional Instability</i> (past 5 years)	−0.310 (−0.21)	0.676 (0.23)
<i>Regional Polity Average</i>	0.040 (1.25)	−0.355** (−2.68)
<i>Post-WWII Independence</i>	0.330 (1.14)	0.272 (0.51)
<i>Never Colonized</i>	0.068 (0.20)	0.561 (0.68)
<i>British Colony</i>	−0.178 (−0.80)	0.095 (0.16)
<i>Previous Democratic Breakdowns</i>	0.086 (0.50)	0.607** (2.63)
<i>Year</i>	0.007 (0.30)	−0.018 (−0.36)
Region Dummies?	Y	Y
Decade Dummies?	Y	Y
Duration Cubic Splines?	Y	Y
Leader Age Cubic Splines?	Y	Y
Leader Tenure Cubic Splines?	Y	Y
N	6,914	3,567
Countries	140	105
Pseudo R ²	0.075	0.212
BIC	3216.6	884.4
Area under ROC Curve	0.718	0.866

Note: The models predict *Irregular Turnover* in both regime types for 1875–2004. Greater economic development is strongly negative for violent leader removal. *t* statistics (based on robust standard errors clustered by country) are shown in parentheses. **p* < 0.05, ***p* < 0.01, ****p* < 0.001.

number of previous democratic breakdowns are at higher risk for irregular turnover.

Pro-Democracy Effect of Economic Development

Table 3 displays results from four logit models predicting democratic transition and breakdown. Models 1 and 3

¹⁷ No evidence was found for a nonmonotonic relationship between development and irregular turnover, as predicted by Huntington (1968). A squared *GDP/capita* (ln) term is insignificant when added to either model in Table 2. Further, if *GDP/capita* is omitted from the Table 2 models, lowess curves of the residuals steadily decrease with *GDP/capita*.

TABLE 3 Logits Predicting Democratic Transition and Breakdown, 1875–2004

	(1) <i>Democratic Transition</i>	(2) <i>Democratic Transition</i>	(3) <i>Democratic Breakdown</i>	(4) <i>Democratic Breakdown</i>
<i>GDP/capita</i> (ln)	0.062 (0.28)	−0.043 (−0.20)	−1.771*** (−3.75)	−2.072*** (−4.35)
<i>GDP/capita</i> (ln) × <i>Irregular Turnover</i> (past 5 years)		0.856** (2.61)		1.198*** (3.31)
<i>Irregular Turnover</i> (past 5 years)		−5.796* (−2.21)		−8.412** (−2.92)
<i>GDP Growth</i>	−0.017 (−0.79)	−0.002 (−0.08)	−0.057* (−2.23)	−0.061* (−2.24)
<i>Regional Polity Average</i>	−0.044 (−0.67)	−0.064 (−0.89)	−0.095 (−0.76)	−0.072 (−0.56)
<i>Post-WWII Independence</i>	0.279 (0.60)	0.299 (0.68)	1.500* (2.50)	1.597* (2.44)
<i>Never Colonized</i>	1.224 (1.90)	1.290 (1.89)	1.525* (2.04)	1.380 (1.78)
<i>British Colony</i>	−0.438 (−0.91)	−0.321 (−0.64)	−0.228 (−0.42)	−0.163 (−0.28)
<i>Previous Democratic Breakdowns</i>	0.463 (1.47)	0.414 (1.48)	0.358 (1.21)	0.246 (1.04)
<i>Year</i>	0.024 (0.56)	0.036 (0.81)	0.026 (0.54)	0.020 (0.41)
Region Dummies?	Y	Y	Y	Y
Decade Dummies?	Y	Y	Y	Y
Lagged Polity Dummies?	Y	Y	Y	Y
Duration Cubic Splines?	Y	Y	Y	Y
N	7,036	6,881	3,714	3,644
Countries	143	140	107	106
Pseudo R ²	0.276	0.300	0.299	0.316
BIC	1307.9	1276.0	812.0	816.0
Area under ROC Curve	0.906	0.916	0.908	0.915

Note: The models predict democratization and democratic breakdown for 1875–2004. Greater economic development raises the likelihood of democratization, but only after a recent irregular turnover. *t* statistics (based on robust standard errors clustered by country) are shown in parentheses. **p* < 0.05, ***p* < 0.01, ****p* < 0.001.

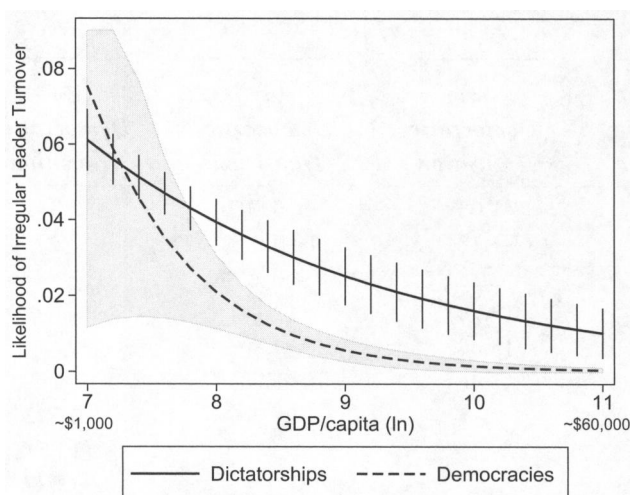
omit the mediating influence of recent irregular turnover and replicate the conclusion of Przeworski and his coauthors that *GDP/capita* is more strongly related to democratic breakdown. In fact, *GDP/capita* is insignificantly related to democratic transition in Model 1.¹⁸

Model 2, however, reveals an underlying pattern to this null result by adding *Irregular Turnover* (past five years) and its interaction with *GDP/capita*. The interaction term, which measures the effect of *GDP/capita* given a recent irregular turnover, is strongly significant

¹⁸ This is consistent with Boix and Stokes (2003, 530), who find a significant net effect of income on democratization only in a pre-1950 sample.

and positive. In contrast, the coefficient on *GDP/capita*, which measures its effect without a recent irregular turnover, remains insignificant. Hence, development does in fact contribute to democratization, but only during periods of regime vulnerability following violent leader removal. Model 4 applies the same variables to democratic breakdown. In this case, development has a negative influence on breakdown with or without a recent irregular turnover, although the effect is stronger without.

Figure 3 displays the estimated likelihoods of democratic transition and breakdown against *GDP/capita*, with and without an *Irregular Turnover* in the previous five years (derived from Models 2 and 4). As clearly seen,

Figure 2 Irregular Leader Turnover by GDP/capita

Note: The figure shows estimated likelihoods (with 95% confidence intervals) of *Irregular Turnover* against *GDP/capita* (ln) in each regime type, derived from Models 1 and 2 in Table 2 (holding other variables at their means). Economic development is associated with a lower likelihood of violent leader removal in both democracies and dictatorships.

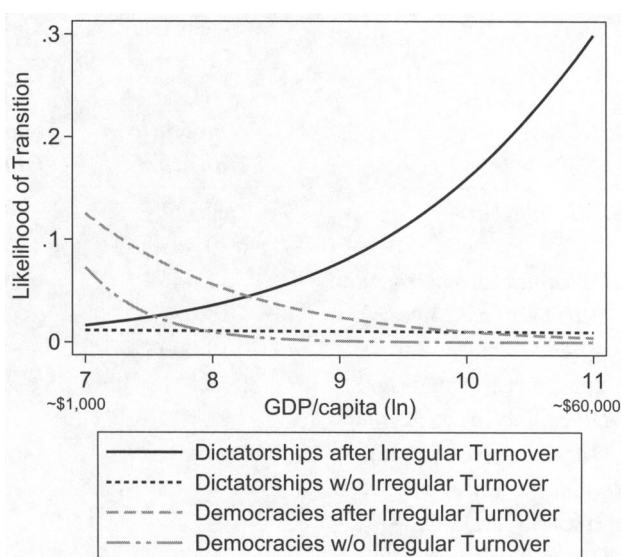
development has a strong substantive effect on democratization following violent leader removal. In fact, moving across the *GDP/capita* scale drives up the per-year chance of democratization following irregular turnover from approximately 0% to about 30% (translating into an 83% chance of democratization within five years).

Surprisingly few of the remaining variables exercise a substantive and consistent effect on democratic development. Democracies that became independent after World War II are slightly less stable, whereas countries that were never colonized are more prone to democratic change in both directions. *GDP Growth* is negative for democratic breakdown. No effect is found for the regional diffusion of democracy or British colonial history.

Robustness Checks. To better compare with Przeworski et al. (2000), I reran this article's models for the post-1950 period and found no substantive difference. *GDP/capita* remains negative for *Irregular Turnover* in both regime types and strongly positive for democratization following irregular turnover.¹⁹

Table 4 covers several further robustness checks. Each model adapts Model 2 in Table 3 and hence predicts the likelihood of democratization for 1875–2004. To account for the possible endogeneity of economic development to

¹⁹ These results are also robust to controlling for resource dependence from oil, diamonds, and agriculture.

Figure 3 Democratic Transition and Breakdown by GDP/capita

Note: The figure shows estimated likelihoods of democratization and democratic breakdown against *GDP/capita*, with and without an irregular turnover in the previous five years. The estimates are derived from Models 2 and 4 in Table 3 (assuming the likelihood of change is at its mean when *GDP/capita* (ln) is at the mean of corresponding transitional cases). As seen, economic development is positively associated with democratization only after an irregular turnover.

violent turnover, I reran the model using 10-year, 20-year, and 30-year lags of *GDP/capita* (ln). In each case, development remains significantly positive for democratic transition if and only if an irregular turnover occurred in the previous five years. Results for 30-year-lagged *GDP/capita* are shown in Model 1 of Table 4.

As there is controversy over how to best proxy for modernization, Model 2 controls for three additional variables: the urban population percentage (Vanhanen 2003; World Bank 2008),²⁰ natural resource dependence (revenues from oil, gas, coal, and metals as a percentage of GDP, from Haber and Menaldo 2011), and land equality (using Vanhanen's 2003 measure of the percentage of land cultivated by family farms, following Boix 2003).²¹ As seen, the conditional effect of *GDP/capita* remains significantly positive and of a similar magnitude.

Model 3 accounts for unmeasured country heterogeneity using a conditional logit model, which controls

²⁰ The years 1875–1945 are taken from a linear interpolation of Vanhanen's (2003) data. The years 1946–2004 are an average of Vanhanen (2003) and World Bank (2008).

²¹ Since Vanhanen (2003) provides this every 10 years, the measure is linearly interpolated.

TABLE 4 Logits Predicting Democratic Transition, 1875–2004

	GDP/capita 30-Year Lag	Added Controls	Conditional Logit	Domestic Turnover	Regular Turnover
	(1)	(2)	(3)	(4)	(5)
	<i>Democratic Transition</i>	<i>Democratic Transition</i>	<i>Democratic Transition</i>	<i>Democratic Transition</i>	<i>Democratic Transition</i>
<i>GDP/capita</i> (ln)	−0.117 (−0.38)	−0.095 (−0.34)	−1.057 (−1.18)	−0.007 (−0.03)	−0.099 (−0.39)
<i>GDP/capita</i> (ln) × <i>Irregular Turnover</i> (past 5 years)	1.436** (3.07)	0.796* (2.46)	2.161*** (3.74)	0.728* (2.14)	
<i>Irregular Turnover</i> (past 5 years)	−10.060** (−2.83)	−5.371* (−2.08)	−15.407*** (−3.46)	−4.803 (−1.78)	
<i>GDP/capita</i> (ln) × <i>Regular Turnover</i> (past 5 years)					0.592 (1.75)
<i>Regular Turnover</i> (past 5 years)					−4.887 (−1.81)
<i>GDP Growth</i>	0.001 (0.04)	−0.001 (−0.02)	0.009 (0.41)	−0.009 (−0.44)	−0.006 (−0.31)
<i>Regional Polity Average</i>	−0.010 (−0.11)	−0.044 (−0.58)	0.165 (1.32)	−0.058 (−0.80)	−0.063 (−0.90)
<i>Post-WWII Independence</i>	0.758 (1.38)	0.250 (0.50)		0.285 (0.63)	0.290 (0.63)
<i>Never Colonized</i>	2.401* (2.18)	1.323* (1.99)		1.241 (1.79)	1.541* (2.22)
<i>British Colony</i>	−0.457 (−0.66)	−0.318 (−0.60)		−0.335 (−0.69)	−0.329 (−0.69)
<i>Previous Democratic Breakdowns</i>	−0.207 (−0.48)	0.371 (1.17)	−4.290*** (−6.26)	0.372 (1.33)	0.493 (1.53)
<i>Year</i>	0.020 (0.43)	0.035 (0.78)	0.233*** (3.99)	0.039 (0.90)	0.025 (0.55)
<i>Urbanization</i>		0.002 (0.21)			
<i>Resource Dependence</i>		−0.025 (−1.11)			
<i>Land Equality</i>		0.003 (0.32)			
Region Dummies?	Y	Y		Y	Y
Decade Dummies?	Y	Y	Y	Y	Y
Lagged Polity Dummies?	Y	Y	Y	Y	Y
Duration Cubic Splines?	Y	Y	Y	Y	Y
N	4,720	5,181	3,825	6,881	6,881
Countries	117	129	69	140	140
Pseudo R ²	0.327	0.282	0.554	0.297	0.285
BIC	896.3	1208.1	591.0	1285.4	1292.5
Area under ROC Curve	0.925	0.902		0.916	0.912

Note: The models apply robustness checks to Model 2 in Table 3. *t* statistics (based on robust standard errors clustered by country) are shown in parentheses. **p* < 0.05, ***p* < 0.01, ****p* < 0.001.

for individual country effects. The results for development are not only robust, but grow in magnitude.²²

Model 4 adjusts the measure of *Irregular Turnover* to omit cases of foreign influence or imposition.²³ The results are substantively unchanged. In other results, I find that development has a similar effect following irregular turnovers initiated from above (by domestic government or military actors) and from below (through popular revolt).²⁴ Further, the effect does not differ based on the fate of the outgoing dictator.²⁵

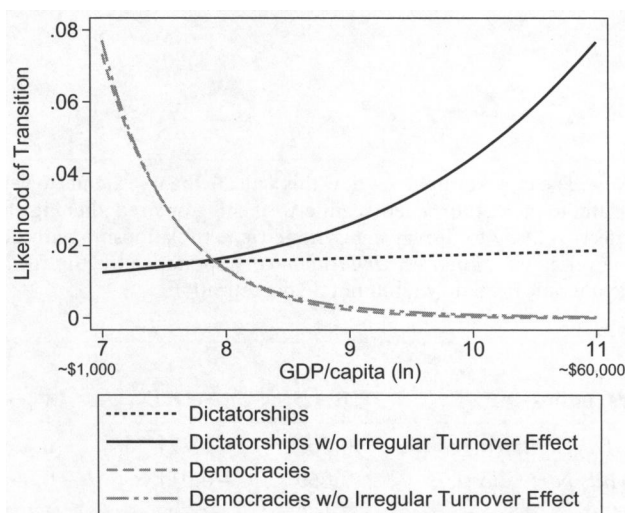
Finally, Model 5 tests the effect of *Regular Turnover* (all remaining cases of executive turnover, including natural death) in the past five years. Even rule-guided replacements of leaders may contribute to regime instability. The results show a similar pattern as for *Irregular Turnover*—*GDP/capita* is positive for democratization following nonviolent leader replacement and unrelated otherwise, although the positive effect just misses significance. However, *GDP/capita* is not negatively related to the likelihood of *Regular Turnover* within dictatorships.²⁶ Hence, *Regular Turnover* may contribute to democratization, but cannot explain development's asymmetric influence on democracy.

Explaining the Asymmetry

Can the mediating role of violent leader removal account for the asymmetry? The results shown in Table 3 allow for a straightforward calculation of what development's effect would look like without its simultaneous reduction in the prevalence of violent leader removal. Specifically, I calculate $P(V_t) \frac{\partial P(D_{t+1}|V_t)}{\partial G} + (1 - P(V_t)) \frac{\partial P(D_{t+1}|-V_t)}{\partial G}$ in both democracies and dictatorships, using a constant value for $P(V_t)$. Recalling equation (2), this is what the total effect of development on democracy would be if $\frac{\partial P(V_t)}{\partial G} = 0$.

Figure 4 shows the effect of *GDP/capita* in both democracies and dictatorships under this alternative assumption, as well as its actual net estimated effect (from

Figure 4 Actual and Hypothetical Likelihoods of Democratic Transition and Breakdown by GDP/capita



Note: The figure shows simulated likelihoods of democratization and democratic breakdown against *GDP/capita* for 1875–2004. One set of estimates shows the actual net effect of *GDP/capita* on transition and breakdown, derived from Models 1 and 3 in Table 3 (assuming the likelihood of change is at its mean when *GDP/capita* (ln) is at the mean of corresponding transitional cases). The second set of estimates is the hypothetical effect of *GDP/capita* on transition assuming that the likelihood of irregular turnover does not vary with *GDP/capita*, derived from Models 2 and 4 in Table 3. The implication is that economic development's asymmetric effect on democratization and breakdown can be explained by its simultaneous effect on irregular turnover.

Models 1 and 3 in Table 3). What is immediately obvious is that *GDP/capita* would exercise a strong positive influence on the chances for democratization. In the true net estimation, moving *GDP/capita* (ln) from 7 to 11 shifts the likelihood of democratic breakdown down by 7.0% but shifts the likelihood of democratization up by only 0.4%. Under the assumption of a constant chance of irregular turnover, the corresponding figures are down 7.2% and up 6.3%. Hence, 85% of the asymmetry is explained by the role of violent leader removal.²⁷

Extending the Theory Beyond Economic Development

Because of the considerable interest in the subject, the current study has focused on economic development's

²² Again, results hold using 10-year, 20-year, or 30-year lags of *GDP/capita*.

²³ Goemans et al. (2009) code 8.5% of irregular turnovers as resulting from the use or threat of foreign force. An additional 4.5% involve domestic actors with foreign support.

²⁴ Of autocratic regime-years featuring an irregular turnover, 71.5% include a turnover from above, 14.7% from below, 2.8% by assassination, and 1.8% more than one type. The remainder are by foreign imposition (Goemans et al. 2009).

²⁵ Among dictators ousted through irregular means, 43.5% are exiled, 19.4% are imprisoned, and 16.7% are killed (Goemans et al. 2009).

²⁶ Logit regressions identical to the models in Table 2 were run with *Regular Turnover* in place of *Irregular Turnover*.

²⁷ The exact amount of asymmetry explained depends on the range of *GDP/capita* (ln). Shifting *GDP/capita* (ln) from one standard deviation below the mean to one standard deviation above the mean of all countries in 2004 leads to 54% of the asymmetry being accounted for.

TABLE 5 Extending the Theory Beyond Economic Development

Strengthening Effect	Democracy Effect	Prediction for Democratization	Prediction for Breakdown
+	+	Null	–
+	–	–	Null
–	+	+	Null
–	–	Null	+

Note: The table summarizes how this article's theory extends to variables besides economic development. Any variable that simultaneously relates to violent turnover (regime-weakening or strengthening effect) and democracy following violent turnover (pro- or antidemocracy effect) is likely to display an asymmetric net relationship with democracy. Further, the pattern will vary depending on the direction of the variable's influences. *GDP/capita* corresponds to the top row, as it is both strengthening and prodemocratic—it is thus predictive of democratic breakdown, but not democratization.

Variables	$D \neg D$	$\neg D D$	$V \neg D$	$V D$	$D \neg D, V$	$\neg D D, V$	Asymmetry Explained
<i>GDP/capita</i> (ln)	0.062	–1.771***	–0.452***	–1.255**	0.813*	–0.874*	85%
<i>Multiparty Elections</i>	0.069*	–0.011	0.058**	0.024	0.066	0.050	71%
<i>HDI</i>	–7.100*	–2.595	–6.630***	–1.488	–4.917	–1.150	25%
<i>Land Equality</i>	0.008	–0.046***	0.009	–0.005	0.005	–0.023	–12%
<i>Urbanization</i>	0.001	0.030	–0.018**	–0.010	0.030**	0.068**	
<i>Agriculture</i>	–0.015	–0.012	0.010*	0.017	–0.033*	–0.062***	

Note: The table reports results from replications of this article's main empirical results, except with different variables in place of *GDP/capita*. Each regression additionally controls for *GDP/capita*. From left to right, the columns show the variable tested, its net effect on democratization and then democratic breakdown, its effect on *Irregular Turnover* in dictatorships and then democracies, its effect on democratization and then democratic breakdown conditional on *Irregular Turnover* (past five years), and how much of the asymmetry in its net effects is explained by this article's theory. The variables in the top panel display such an asymmetry, whereas the remaining two variables do not. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

relationship to democracy. However, the theory defended here is much more general—any variable that simultaneously predicts violent leader removal and democracy conditional on such violence is a candidate to display an asymmetric net effect on democracy. The top panel of Table 5 summarizes this fuller theory. Suppose a given variable has either a regime-strengthening or weakening effect (i.e., negative or positive for violent leader removal), as well as a pro- or antidemocratic effect (i.e., positive or negative for democracy following violent leader removal). The table shows the net effect each type of variable is predicted to have on democratization and democratic breakdown. *GDP/capita* corresponds to the top row—it is both strengthening and prodemocratic. As a result, it is strongly negative for democratic breakdown and null for democratization.

Can other variables be found that display such an asymmetry? If so, are they accounted for by this article's theory? The bottom panel of Table 5 summarizes results indicating an affirmative answer to both questions. The numbers in the table are coefficients from regressions replicating the main empirical results, except with the

variable in the corresponding row in place of *GDP/capita*, both as a main variable and in the interaction term with *Irregular Turnover* (past five years). Each regression additionally controls for *GDP/capita*. For instance, the second value in the $D|\neg D$ column is the coefficient on *Multiparty Elections* in a regression predicting democratization (matching Model 1 of Table 3). Using the same technique from the last section, the final column indicates how much of the asymmetry is explained by the variable's simultaneous effect on *Irregular Turnover*.

The table first lists four variables that display an asymmetric relationship with democracy, three of which are well described by this article's theory. The first is *GDP/capita* for purposes of comparison. Second, the country's historical stock of *Multiparty Elections*²⁸ is positive for democratization and null for democratic breakdown; as predicted, the variable is weakening and slightly

²⁸ The measure uses the country's number of legislative and presidential elections since 1815 (Banks 1976; Beck et al. 2001; Goemans et al. 2009; Keefer 2005) that Polity's Competitiveness of Participation variable rates as competitive (Marshall and Jaggers 2010).

prodemocratic. The theory explains 71% of the asymmetry. Third, *HDI* (Human Development Index, available for 1972–2004, from UNDP 2004) is, surprisingly, negative for democratization and null for democratic stability; as predicted, it is strengthening and antidemocratic within dictatorships (with the theory explaining 25% of the asymmetry). Fourth, as noted by Houle (2009), *Land Equality* is more strongly related to democratic breakdown than democratization. However, this article's theory cannot account for this asymmetry, as the variable is unrelated to either violent leader removal or democratic change following such violence.

Finally, the table also lists two variables that have null net effects on democratic change in both directions. However, this obscures a great deal of movement beneath a still surface. *Urbanization* is strengthening and predictive of democratic change in both directions conditional on violent leader removal. Instead of a uniform pro- or antidemocratic effect, higher *Urbanization* makes dictatorships more likely to become democracies and vice versa.²⁹ As a result, *Urbanization*'s net effects are null. In direct contrast, *Agriculture* (percent employed in the agricultural industry, from Banks 1976; Norris 2008; World Bank 2008) is weakening and negatively predictive of democratic change conditional on violence, which also leads to null net effects. In sum, this article's theory can elucidate a wide range of patterns of democratic development.

Conclusion

This article defended a new theory linking economic development, violent turnover, and democratic change. Development reduces the prevalence of violent leader removal, but makes democratization significantly more likely in the aftermath. This intuitive theory successfully accounts for nearly all of development's asymmetric effect on democracy.

As of this writing, four Arab countries have recently witnessed executive turnovers (with varied amounts of violence): Tunisia, Egypt, Libya, and Yemen. Although their democratic fates remain highly uncertain, this article yields several insights. First, the opposition's emphasis on removing the executive (a subject of considerable contention in Egypt and Yemen) was astute. Three of four democratic transitions follow within five years of an autocratic leader leaving office. Second, although the transi-

²⁹ An intuitive reason is that more urbanized countries have more concentrated centers of power. Thus, conditional on violently removing the executive, plots are more likely to achieve further political change.

tions may take several years, their chances for democracy are at a peak, with no evidence of a penalty for significant violence or the killing of the dictator (as in Libya). Third, more than ever their democratic trajectories are dependent on socioeconomic structure and popular demands for democracy. This presents a mixed picture—although Libya and Tunisia are relatively wealthy (even accounting for oil income), all four countries feature weak representative institutions and lack historical experience with democracy.³⁰

This article's results have important implications for policy makers interested in promoting democracy abroad. As with economic development, factors thought to be conducive to democracy may also stabilize and pacify autocracies. Democracy promoters must become attuned to which effect dominates. A critical point, however, is that this trade-off disappears if democracy promoters adopt a sufficiently long-term perspective, as long as stabilizing factors also aid democratic survival after transition.

Similarly, this article should prompt renewed scholarly attention to the role of authoritarian regime strength in democratic development. In theorizing about how specific variables contribute to democratization, researchers must also take into account how these same variables could bolster the repressive capacity or institutional strength of existing autocracies. Democracy's contributing factors are complex and often contradictory. After all, not many features of a country increase a population's propensity for violence and its taste for consensual power sharing. It is an intriguing paradox that democracy is inherently peaceful, but violence is not only compatible with democratization—it is an essential component of democratic development over the last 135 years.

References

- Acemoglu, Daron, Simon Johnson, James A. Robinson, and Pierre Yared. 2008. "Income and Democracy." *American Economic Review* 98(3): 808–42.
- Acemoglu, Daron, Simon Johnson, James A. Robinson, and Pierre Yared. 2009. "Reevaluating the Modernization Hypothesis." *Journal of Monetary Economics* 56: 1043–58.
- Banks, Arthur S. 1976. *Cross-National Time Series, 1815–1973*. Ann Arbor, MI: Inter-university Consortium for Political and Social Research.
- Beck, Nathaniel, Jonathan N. Katz, and Richard Tucker. 1998. "Taking Time Seriously: Time-Series Cross-Section Analysis with a Binary Dependent Variable." *American Journal of Political Science* 42(4): 1260–88.

³⁰ As a rough guide, the model estimates the following likelihoods of democratization within the next five years: Libya (2.1%), Egypt (11.7%), Tunisia (12.3%), and Yemen (30.7%).

- Beck, Thorsten, George Clarke, Alberto Groff, Philip Keefer, and Patrick Walsh. 2001. "New Tools in Comparative Political Economy: The Database of Political Institutions." *World Bank Economic Review* 15(1): 165–76.
- Bellin, Eva. 2004. "The Robustness of Authoritarianism in the Middle East: Exceptionalism in Comparative Perspective." *Comparative Politics* 36(2): 139–57.
- Berman, Sheri. 2007. "How Democracies Emerge: Lessons from Europe." *Journal of Democracy* 18(1): 28–41.
- Bermeo, Nancy. 1997. "Myths of Moderation: Confrontation and Conflict during Democratic Transitions." *Comparative Politics* 29(3): 305–22.
- Boix, Carles. 2003. *Democracy and Redistribution*. Cambridge: Cambridge University Press.
- Boix, Carles. 2011. "Democracy, Development, and the International System." *American Political Science Review* 105(4): 809–28.
- Boix, Carles, Michael K. Miller, and Sebastian Rosato. Forthcoming. "A Complete Dataset of Political Regimes, 1800–2007." *Comparative Political Studies*.
- Boix, Carles, and Susan C. Stokes. 2003. "Endogenous Democratization." *World Politics* 55: 517–49.
- Bollen, Kenneth A., and Robert W. Jackman. 1995. "Income Inequality and Democratization Revisited: Comment on Muller." *American Sociological Review* 60: 983–89.
- Bratton, Michael, and Nicolas van de Walle. 1997. *Democratic Experiments in Africa: Regime Transitions in Comparative Perspective*. Cambridge: Cambridge University Press.
- Brinks, Daniel, and Michael Coppedge. 2006. "Diffusion Is No Illusion." *Comparative Political Studies* 39(4): 463–89.
- Brownlee, Jason. 2007. *Authoritarianism in an Age of Democratization*. Cambridge: Cambridge University Press.
- Bunce, Valerie J., and Sharon L. Wolchik. 2006. "Favorable Conditions and Electoral Revolutions." *Journal of Democracy* 17(4): 5–18.
- Burkhart, Ross E., and Michael S. Lewis-Beck. 1994. "The Economic Development Thesis." *American Political Science Review* 88: 903–10.
- Case, William. 2001. "Malaysia's Resilient Pseudodemocracy." *Journal of Democracy* 12(1): 43–57.
- Collier, Ruth Berins. 1999. *Paths toward Democracy: The Working Class and Elites in Western Europe and South America*. Cambridge: Cambridge University Press.
- Dahl, Robert A. 1971. *Polyarchy: Participation and Opposition*. New Haven, CT: Yale University Press.
- Deutsch, Karl W. 1961. "Social Mobilization and Political Development." *American Political Science Review* 55(3): 493–510.
- Epstein, David L., Robert Bates, Jack Goldstone, Ida Kristensen, and Sharyn O'Halloran. 2006. "Democratic Transitions." *American Journal of Political Science* 50(3): 551–69.
- Fearon, James D., and David Laitin. 2003. "Ethnicity, Insurgency, and Civil War." *American Political Science Review* 97(1): 75–90.
- Feng, Yi. 1997. "Democracy, Political Stability and Economic Growth." *British Journal of Political Science* 27: 391–418.
- Fortna, Page, and Reyko Huang. 2009. "Democratization after Civil War." Working paper, Columbia University.
- Gates, Scott, Håvard Hegre, Mark P. Jones, and Håvard Strand. 2006. "Institutional Inconsistency and Political Instability: Polity Duration, 1800–2000." *American Journal of Political Science* 50(4): 893–908.
- Geddes, Barbara. 2006. "Why Parties and Elections in Authoritarian Regimes?" Working paper, UCLA.
- Gleditsch, Kristian S. 2002. "Expanded Trade and GDP Data." *Journal of Conflict Resolution* 46: 712–24.
- Gleditsch, Kristian S., and Michael D. Ward. 2006. "Diffusion and the International Context of Democratization." *International Organization* 60: 911–33.
- Goemans, H. E., Kristian Skrede Gleditsch, and Giacomo Chiozza. 2009. *Archigos: A Data Set on Leaders, 1875–2004, Version 2.9*.
- Goldstone, Jack A., Robert H. Bates, David L. Epstein, Ted Robert Gurr, Michael B. Lustik, Monty G. Marshall, Jay Ulfelder, and Mark Woodward. 2010. "A Global Model of Forecasting Political Instability." *American Journal of Political Science* 54(1): 190–208.
- Graham, Lawrence S. 1992. "Redefining the Portuguese Transition to Democracy." In *Elites and Democratic Consolidation in Latin America and Southern Europe*, ed. John Higley and Richard Gunther. Cambridge: Cambridge University Press, 282–99.
- Gurses, Mehmet, and T. David Mason. 2008. "Democracy out of Anarchy: The Prospects for Post-Civil-War Democracy." *Social Science Quarterly* 89(2): 315–36.
- Haber, Stephen, and Victor Menaldo. 2011. "Do Natural Resources Fuel Authoritarianism? A Reappraisal of the Resource Curse." *American Political Science Review* 105(1): 1–26.
- Haggard, Stephan, and Robert R. Kaufman. 1995. *The Political Economy of Democratic Transitions*. Princeton, NJ: Princeton University Press.
- Houle, Christian. 2009. "Inequality and Democracy: Why Inequality Harms Consolidation but Does Not Affect Democratization." *World Politics* 61(4): 589–622.
- Huntington, Samuel P. 1968. *Political Order in Changing Societies*. New Haven, CT: Yale University Press.
- Huntington, Samuel P. 1991. *The Third Wave: Democratization in the Late Twentieth Century*. Norman: University of Oklahoma Press.
- Inglehart, Ronald, and Christian Welzel. 2005. *Modernization, Cultural Change, and Democracy: The Human Development Sequence*. Cambridge: Cambridge University Press.
- Jones, Benjamin F., and Benjamin A. Olken. 2009. "Hit or Miss? The Effect of Assassinations on Institutions and War." *American Economic Journal: Macroeconomics* 1(2): 55–87.
- Keefer, Philip. 2005. *Database of Political Institutions: Changes and Variable Definitions*. Washington, DC: Development Research Group, World Bank.
- Kennedy, Ryan. 2010. "The Contradiction of Modernization: A Conditional Model of Endogenous Democratization." *Journal of Politics* 72(3): 785–98.
- King, Gary, and Langche Zeng. 2001. "Logistic Regression in Rare Events Data." *Political Analysis* 9(2): 137–63.
- Kuran, Timur. 1991. "Now out of Never: The Element of Surprise in the East European Revolution of 1989." *World Politics* 44(1): 7–48.

- Lerner, Daniel. 1958. *The Passing of Traditional Society*. New York: Free Press of Glencoe.
- Levitsky, Steven, and Lucan A. Way. 2010. *Competitive Authoritarianism: Hybrid Regimes after the Cold War*. Cambridge: Cambridge University Press.
- Li, Richard P. Y., and William R. Thompson. 1975. "The 'Coups Contagion' Hypothesis." *Journal of Conflict Resolution* 19(1): 63–88.
- Linz, Juan J., and Alfred Stepan. 1996. *Problems of Democratic Transition and Consolidation: Southern Europe, South America, and Post-Communist Europe*. Baltimore: Johns Hopkins University Press.
- Lipset, Seymour Martin. 1959. "Some Social Requisites of Democracy." *American Political Science Review* 53: 69–105.
- Lizzeri, Alessandro, and Nicola Persico. 2004. "Why Did the West Extend the Franchise? Democracy and the Scope of Government with an Application to Britain's Age of Reform." *Quarterly Journal of Economics* 119(2): 705–63.
- Llavador, Humberto, and Robert J. Oxoby. 2005. "Partisan Competition, Growth, and the Franchise." *Quarterly Journal of Economics* 120(3): 1155–89.
- Londregan, John B., and Keith T. Poole. 1990. "Poverty, the Coup Trap, and the Seizure of Executive Power." *World Politics* 42(2): 151–83.
- Londregan, John B., and Keith T. Poole. 1996. "Does High Income Promote Democracy?" *World Politics* 49: 1–30.
- Lupu, Noam, and Kanta Murali. 2008. "Modernization under Democracy: Does Economic Development Explain Democratic Development?" Working paper, Princeton University.
- Maddison, Angus. 2008. *Statistics on World Population, GDP and Per Capita GDP, 1–2006 AD*. Available at: www.ggdc.net/maddison.
- Magaloni, Beatriz. 2008. "Credible Power-Sharing and the Longevity of Authoritarian Rule." *Comparative Political Studies* 41(4/5): 715–41.
- Marshall, Monty G., and Keith Jagers. 2010. *POLITY IV PROJECT: Political Regime Characteristics and Transitions, 1800–2009*. Center for Systemic Peace, George Mason University.
- Mauzy, Diane K. 2006. "The Challenge to Democracy: Singapore's and Malaysia's Resilient Hybrid Regimes." *Taiwan Journal of Democracy* 2(2): 47–68.
- Maxwell, Kenneth. 1986. "Regime Overthrow and the Prospects for Democratic Transition in Portugal." In *Transitions from Authoritarian Rule: Southern Europe*, ed. Guillermo O'Donnell, Philippe C. Schmitter, and Laurence Whitehead. Baltimore: Johns Hopkins University Press, 109–37.
- Miller, Michael K. 2011. "Democratic Pieces: Autocratic Elections and Hybrid Regimes since 1815." Working paper, Australian National University.
- Moore, Barrington. 1966. *Social Origins of Dictatorship and Democracy*. Boston: Beacon Press.
- Morrison, Kevin. 2009. "Oil, Non-Tax Revenue, and the Redistributive foundations of Regime Stability." *International Organization* 63: 107–38.
- Mutalib, Hussin. 2000. "Illiberal Democracy and the Future of Opposition in Singapore." *Third World Quarterly* 21(2): 313–42.
- Norris, Pippa. 2008. *Democracy Time-Series Dataset*. Available at www.hks.harvard.edu/fs/pnorris/Data/Data.htm.
- North, Douglass C., and Barry R. Weingast. 1989. "Constitutions and Commitment: The Evolution of Institutions Governing Public Choice in Seventeenth-Century England." *Journal of Economic History* 49(4): 803–32.
- O'Donnell, Guillermo, and Philippe C. Schmitter. 1986. *Transitions from Authoritarian Rule: Tentative Conclusions about Uncertain Democracies*. Baltimore: Johns Hopkins University Press.
- Pepinsky, Thomas B. 2007. "Malaysia: Turnover without Change." *Journal of Democracy* 18: 113–27.
- Pevehouse, Jon. 2002. "Democracy from the Outside-In? International Organizations and Democratization." *International Organization* 56(3): 515–49.
- Pimlott, Ben. 1977. "Parties and Voters in the Portuguese Revolution: The Elections of 1975 and 1976." *Parliamentary Affairs* 30(1): 35–58.
- Przeworski, Adam. 2005. "Democracy as an Equilibrium." *Public Choice* 123: 253–73.
- Przeworski, Adam, Michael E. Alvarez, José A. Cheibub, and Fernando Limongi. 2000. *Democracy and Development: Political Institutions and Well-Being in the World, 1950–1990*. Cambridge: Cambridge University Press.
- Przeworski, Adam, and Fernando Limongi. 1997. "Modernization: Theories and Facts." *World Politics* 49(2): 155–83.
- Reuter, Ora John, and Thomas F. Remington. 2009. "Dominant Party Regimes and the Commitment Problem: The Case of United Russia." *Comparative Political Studies* 42: 501–26.
- Robinson, James A. 2006. "Economic Development and Democracy." *Annual Review of Political Science* 9: 503–27.
- Rodan, Garry, and Kanishka Jayasuriya. 2007. "The Technocratic Politics of Administrative Participation: Case Studies of Singapore and Vietnam." *Democratization* 14(5): 795–815.
- Ross, Michael L. 2001. "Does Oil Hinder Democracy?" *World Politics* 53: 325–61.
- Rueschemeyer, Dietrich, Evelyn Huber Stephens, and John D. Stephens. 1992. *Capitalist Development and Democracy*. Chicago: University of Chicago Press.
- Rustow, Dankwart A. 1970. "Transitions to Democracy: Toward a Dynamic model." *Comparative Politics* 2(3): 337–63.
- Sanders, David. 1981. *Patterns of Political Instability*. New York: St. Martin's Press.
- Slater, Dan. 2006. "The Architecture of Authoritarianism: Southeast Asia and the Regeneration of Democratization Theory." *Taiwan Journal of Democracy* 2(2): 1–22.
- Smith, Benjamin. 2005. "Life of the Party: The Origins of Regime Breakdown and Persistence under Single-Party Rule." *World Politics* 57: 421–51.
- Solsten, Eric, ed. 1993. *Portugal: A Country Study*. Washington, DC: GPO for the Library of Congress.
- Starr, Harvey. 1991. "Democratic Dominoes: Diffusion Approaches to the Spread of Democracy in the International System." *Journal of Conflict Resolution* 35: 356–81.
- Svolik, Milan. 2008. "Authoritarian Reversals and Democratic Consolidation." *American Political Science Review* 102(2): 153–68.

- Teorell, Jan, and Axel Hadenius. 2009. "Elections as Levers of Democratization: A Global Inquiry." In *Democratization by Elections: A New Mode of Transition*, ed. Staffan I. Lindberg. Baltimore: Johns Hopkins University Press, 77–100.
- Tilly, Charles. 2000. "Processes and Mechanisms of Democratization." *Sociological Theory* 18: 1–16.
- Treisman, Daniel. 2011. "Income, Democracy, and the Cunning of Reason." National Bureau of Economic Research Working Article 17132, Cambridge, MA.
- Tucker, Joshua A. 2007. "Enough! Electoral Fraud, Collective Action Problems, and Post-Communist Colored Revolutions." *Perspectives on Politics* 5(3): 535–51.
- UNDP. 2004. *Human Development Report 2004: Cultural Liberty in Today's Diverse World*. New York: Hoechstetter.
- Vanhanen, Tatu. 2003. *Democratization and Power Resources 1850–2000*. FSD1216, version 1.0 (2003-03-10). Tampere, Finnish Social Science Data Archive.
- Wantchekon, Leonard. 2004. "The Paradox of 'Warlord' Democracy: A Theoretical Investigation." *American Political Science Review* 98(1): 17–33.
- Way, Lucan A. 2005. "Authoritarian State Building and the Sources of Regime Competitiveness in the Fourth Wave: The Cases of Belarus, Moldova, Russia, and Ukraine." *World Politics* 57: 231–61.
- Way, Lucan A. 2008. "The Real Causes of the Color Revolutions." *Journal of Democracy* 19(3): 55–69.
- Way, Lucan A., and Steven Levitsky. 2006. "The Dynamics of Autocratic Coercion after the Cold War." *Communist and Post-Communist Studies* 39(3): 387–410.
- Weiner, Myron. 1987. "Empirical Democratic Theory and the Transition from Authoritarianism to Democracy." *PS* 20(4): 861–66.
- Weingast, Barry R. 1997. "The Political Foundations of Democracy and the Rule of Law." *American Political Science Review* 91(2): 245–63.
- Wood, Elizabeth Jean. 2001. "An Insurgent Path to Democracy." *Comparative Political Studies* 34(8): 862–88.
- World Bank. 2008. "Statistics Retrieved 2008, from World Development Indicators Online (WDI)." Available at: www.worldbank.org/data.

Supporting Information

Additional Supporting Information may be found in the online version of this article:

Table 6: A list of democratic transitions that occurred within five years of an irregular turnover.

Table 7: Democratization models using alternative windows of time for past irregular turnovers.

Table 8: Robustness checks for irregular turnover in dictatorships.

Table 9: Robustness checks for irregular turnover in democracies.

Table 10: Irregular turnover models with quadratic *GDP/capita* (ln) term.

Figure 5: Residuals from irregular turnover models.

Table 11: Transition models restricted to 1950–2004.

Table 12: Transition models restricted to 1950–2004, with additional controls for resource dependence.

Table 13: Democratization models with longer lags of *GDP/capita* (ln).

Table 14: Conditional logits of democratization with longer lags of *GDP/capita* (ln).

Table 15: Democratization models disaggregating different types of irregular turnover in *GDP/capita* (ln) interaction term.

Table 16: Democratization models disaggregating different types of irregular turnover in direct effect.

Table 17: Predictions of regular turnover.

Please note: Wiley-Blackwell is not responsible for the content or functionality of any supporting materials supplied by the authors. Any queries (other than missing material) should be directed to the corresponding author for the article.