Economic Crisis and Regime Breakdown: A Conditional Relationship

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Economic Crisis and Regime Breakdown: A Conditional Relationship

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Acknowledgements

A grey afternoon in November 2011, I was waiting in one of the office hallways at the department. I was fiddling with my hair, nervously trying to look presentable. After a few minutes, the door in front of me opened, and Jørgen and Svend-Erik welcomed me in. I immediately realized that looking presentable was not a salient issue here. What I did not realize, however, was how much this interview would change my life. Fortunately, it went well; they offered me the job as Teaching Assistant in Comparative Politics; and I have owed them my deepest gratitude ever since.

During the following months, I became acquainted with the rest of the TA team, which included Lasse Rørbæk (the tough guy), David Andersen (the good slave master), Allan Toft (the evil slave master), and Rasmus Suikkanen. Being a young bachelor student at this point, I was greatly inspired by all four master students, and they were pivotal in stimulating my curiosity of academia and political science.

I later applied, and enrolled, as a PhD fellow at the department, and Lasse and David have been immensely helpful colleagues professionally and socially – and still are to this day. Jørgen, my main supervisor, needs special thanks again. He has been paramount in shaping me as a researcher and – although reading my many paper drafts undoubtedly has been an illuminating pleasure for him – has always been very helpful and forthcoming. My co-supervisor, Lars Johannsen, has also been a great support with critical insights and passionate conversations about everything from political economy to beer brewing.

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Preface

This report summarizes the dissertation: "Economic Crisis and Regime Breakdown: A Conditional Relationship." It consists of this summary and the following five self-contained articles:

Paper 1: Crisis? What Crisis? Measuring Economic Crisis in Political Science
Quality & Quantity (conditional accept)

Paper 2: The Democratic Paradox: Are National Elections Always Good for Satisfaction with Democracy in Western Europe?
British Journal of Political Science (invited for revise and resubmit)

Paper 3: The Two-Sided Effect of Elections on Coup Attempts
Co-authored with Lasse Rørbæk
Under review

Paper 4: Economic Crisis, Bureaucratic Quality and Democratic Breakdown
Co-authored with David Andersen
Government and Opposition (online first)

Paper 5: Economic Crisis, Natural Resources, and Irregular Leader Removal in Autocracies
International Studies Quarterly (forthcoming)

This summary positions the main research question in the literature and provides a theoretical, methodological, and empirical framework that cuts across the individual papers. In order to help the reader keep track of the papers in the dissertation, I assign a three-letter subscript to each paper based on its main focus every time a paper is mentioned in the summary:

Paper	Main focus
Paper $1_{(CRI)}$	Economic <u>cri</u>sis
Paper $2_{(DIS)}$	Regime <u>dis</u>satisfaction
Paper $3_{(CHA)}$	Regime <u>cha</u>llenge
Paper $4_{(DEB)}$	<u>De</u>mocratic <u>b</u>reakdown
Paper $5_{(AUB)}$	<u>Au</u>tocratic <u>b</u>reakdown

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Chapter 1: Introduction

In the aftermath of the Great Recession in 2008, the Obama administration instructed the CIA to provide an extra daily intelligence briefing: The Economic Intelligence Brief. This extra briefing was to provide information on how the crisis increased the risk of instability, conflict, and regime breakdown around the world. The request came a few weeks after Director of National Intelligence Admiral Dennis Blair explained in a Senate hearing that the global economic crisis had replaced terrorism as the "primary near-term security concern" for the United States (Ghosh 2009; Gjelten 2009; Hosenball 2009).

Such worries have been common among politicians, commentators, and scholars in recent years (see e.g. Jones 2008; Steinberg 2009; Krugman 2011; Diamond 2011; Kaplan 2018; Levitsky and Ziblatt 2018). The concerns build on prominent examples of regime breakdown during economic crises – such as the 1933 collapse of Weimar Germany, the Chilean coup in 1973, and the revolutionary removal of Ceaușescu in 1989 – and on the academic literature, where the relationship between economic crisis and regime breakdown is assumed to be strong. Studies forcefully argue that economic crises induce ordinary citizens and elite groups not only to "get mad" but even to "go mad" (cf. Bermeo 2003, 21), increasing the risk of coups (Fossum 1967; Nordlinger 1977), civil wars (Gurr 1970), revolutions (Davies 1962), as well as regime breakdowns in democracies (Gasiorowski 1995) and autocracies (Haggard and Kaufman 1995). In fact, the relationship is considered so strong that prominent scholars have even proclaimed it a well-established "stylized fact" (Geddes 1999, 119; see also Diamond, Linz, and Lipset 1989, 36; Bazzi and Blattman 2014, 1).

But is the relationship between economic crisis and regime breakdown really so clear? Despite the scholarly confidence in the destabilizing impact of economic crisis, most recent attempts to examine this relationship on a global scale have yielded inconsistent findings. The literature is almost evenly divided between studies finding support for the destabilizing effects of economic crisis and those that do not find robust evidence for the relationship (see Chapter 3 below). Similarly, if we browse through the empirical world of economic crises and regime breakdowns, we again encounter a mixed picture.

History provides numerous examples of democratic[1] and autocratic regimes[2] that have weathered severe economic crises without breaking down. There would therefore appear to be a clear mismatch between the general perception in the literature and empirical findings. Against this backdrop, the aim of this PhD dissertation is to provide an answer to the following research question:

> What is the relationship between economic crisis and regime breakdown?

More particularly, in order to disentangle this complex relationship, I do two things. Rather than examining the direct effects of economic crisis – as has been the predominant strategy in the literature thus far – I scrutinize important conditional factors that interact in different ways with economic crises to induce or prevent regime breakdowns. This enables the examination of when and why economic crises sometimes induce regimes to break down while at other times they do not. Moreover, rather than simply focusing on the correlation between the initial economic crisis and ultimate outcome of regime breakdown, I account for the fact that when regimes do break down due to economic crisis, it is often a step-by-step process with at least four stages: First, the *economic crisis* causes economic discontent among the population. This leads, secondly, to public *regime dissatisfaction*, as citizens often attribute blame to institutions that are fundamental to the regime during economic crises. Then follows, thirdly, mass and elite mobilization leading to *regime challenges*, typically in the form of anti-regime protests, civil wars, revolutionary uprisings, or coup attempts. Fourth and finally, if the regime is unable to resist such challenges, it *breaks down*.

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[1] Interwar examples of surviving democracies include Australia, Belgium, Canada, Costa Rica, Czechoslovakia, Denmark, Finland, France, Ireland, Netherlands, New Zealand, Norway, South Africa, Sweden, Switzerland, the United Kingdom, and the United States. Other prominent examples include India (severe recession in 1979), Mongolia (recession in 1990–1993), Poland (recession in 1989–1991), Argentina (1999–2002), almost all of the Western democracies after the recent global financial crisis in 2008, and many others.

[2] Cold War examples include autocratic regimes headed by Mobutu Sese Seko in Congo (recession in 1975–1983), Omar Bongo in Gabon (recession in 1977–1988), Hastings Banda in Malawi (recessions in 1980–1982 and 1986–1990), the Al-Sabah princes of Kuwait (recessions in 1972–1977 and 1980–1982), and Augusto Pinochet in Chile (recession in 1982–1983). Post-Cold War examples of crisis-enduring dictators include Paul Biya in Cameroon (recession 1987–1994), Omar al-Bashir in Sudan (recessions in 1992–1993 and 2011–2012), Sheikh Khalifa in UAE (recession in 2005–2010), Hamad bin Isa Al Khalifa in Bahrain (recession in 2005–2011), and Qabus Bin Said in Oman (recession in 2010–14).

The dissertation combines these two overall strategies – the focus on conditions and the focus on the entire process – and studies the interaction between conditional factors and economic crises in each of these four stages.

Table 1: The structure of the dissertation

I Economic crisis	II Regime dissatisfaction	III Regime challenge	IV Regime breakdown
Paper 1(CRI)	**Paper 2(DIS)**	**Paper 3(CHA)**	**Paper 4(DEB)** **&** **Paper 5(AUB)**

In the first part, **Paper 1(CRI)** starts by discussing measurement issues of the main concept: economic crisis. It criticizes the traditional way of measuring economic crises in the literature, arguing that it leads to misguided impressions of crisis severity; makes no distinction between rapid expansion years and rapid recovery years; and disregards the financial dimension of economic crisis. From this vantage point, the paper discusses alternative measurement approaches and shows that different types of economic crises have different effects. In short, the destabilizing impact of economic crises seems to be conditional on the type of crisis: persistent economic slumps and inflation crises yield the strongest effects, while annual fluctuations in growth, sudden economic shocks, sovereign debt crises, currency crises, and banking crises are less destabilizing.

On this basis, the following two parts examine important conditions that shape oppositional, anti-regime reactions during economic crises. In the second part, **Paper 2(DIS)** demonstrates how national elections during economic crises – in Western Europe since 1976 – exert strong, lasting impacts on public dissatisfaction with the regime. The combination of national election and economic crisis induces citizens not only to turn their dissatisfaction against national politicians, but even more importantly to turn against the regime.

In the third part, **Paper 3(CHA)** in turn shows how national competitive elections during economic crises – globally since the end of World War II – exert persistent effects on the risk of the most destabilizing form of regime challenge: coup attempts. The election–crisis combination increases anti-regime mass mobilization in democracies and the level of repression in autocracies, both of which render coup attempts in the aftermath of elections more likely.

In the fourth part, the final two papers focus on the regime side and examine different "shields" providing regime protection against opposition challenges. **Paper 4(DEB)** examines democracies globally from 1903, demonstrating how the quality of a country's bureaucracy is a pivotal shield for democracies during economic crises. Democracies with well-functioning bureaucracies are better able to mitigate the ailments induced by a crisis on its citizens, who therefore engage less in anti-regime mobilization, leaving such democracies less likely to collapse. In a similar vein, **Paper 5(AUB)** shows how natural resources act as an important shield to help autocrats survive crises. A global analysis of autocracies dating back to 1875 reveals that the availability of this alternative revenue stream provides autocratic leaders with a constant income, increases their ability to repress, and improves their access to international credit. This leaves them less vulnerable to economic crisis than their resource-poor counterparts.

In total, this dissertation sheds light on important conditions that interact in each stage with economic crisis in determining the likelihood of regime breakdown in democracies and autocracies. I ultimately draw two main conclusions. First, I qualify the general perception in the literature of a strong, direct relationship between economic crisis and regime breakdown. Instead, I demonstrate that the relationship generally follows a step-by-step process where important conditions at each stage interact with economic crises in determining the outcome. Second, I examine some of these conditions. I demonstrate how the type of economic crisis matters to regime instability; how national elections interact with the economy in shaping opposition reactions; and how bureaucratic quality and natural resources determine the capacity of regimes to resist crisis-induced challenges. These few conditions – while merely constituting a small proportion of a much larger set of relevant factors – strongly and robustly explain the varying impact of economic crisis at different stages of the crisis–breakdown process. The results therefore provide concrete guidance for real-world policymakers when managing – allied or advisory – regimes undergoing severe economic crises. If the economic crisis takes form as a persistent economic slump and inflation is high, a national election is taking place, and the regime has a poor-quality bureaucracy or little revenue from natural resources, then regime instability will be intense and breakdown more likely. Conversely, if the economic crisis takes form as a short, sudden shock without inflationary turmoil, elections are on the distant horizon, and the regime possesses a well-functioning bureaucracy or ample revenue from natural resources, the regime will likely survive.

In reaching these conclusions, the papers making up this dissertation employ methodological designs that overcome many of the traditional shortcomings in the literature. In particular, all of the papers go beyond the standard way of using annual growth rates as a measure of economic crisis and employ alternative measurements that prove more valid. Moreover, in addressing typical issues of endogeneity in observational studies, the papers in this dissertation rely only on within-country variation; explicitly model temporal durations, common shocks, and trends; consistently scrutinize the proposed causal mechanisms; and utilize exogenous variation in economic crisis through instrumental variable (IV) estimation, where the global economic performance is used as an exogenous instrument. Together, these approaches improve the ability to draw causal conclusions and constitute an important first step toward a more flourishing literature, better able to account for the complexities inherent in the economic origins of regime breakdowns.

In what follows, this dissertation summary discusses all of these issues in greater detail. Chapter 2 presents the main historical trends in the global relationship between economic crisis and regime breakdown and discusses the main concepts. Chapter 3 gives an overview of the literature. Chapter 4 introduces the overarching theoretical framework of this dissertation. Chapter 5 discusses the overall research design of the dissertation. Finally, Chapter 6 presents and discusses the main findings.

Chapter 2: Economic Crisis and Regime Breakdown

Economic and Political Developments since 1875

In their seminal work on financial crises, renowned economists Carmen Reinhart and Kenneth Rogoff (2009, 15) coined the "this time is different" syndrome in the following way:

> It is rooted in the firmly held belief that financial crises are things that happen to other people in other countries at other times; crises do not happen to us, here and now. We are doing things better, we are smarter, we have learned from past mistakes. The old rules of valuation no longer apply. The current boom, unlike the many booms that preceded the catastrophic collapses in the past (even in our country), is built on sound fundamentals, structural reforms, technological innovation, and good policy. Or so the story goes.

The authors are referring to a seemingly persistent, repeated belief in mainstream society that economic crises – and their destabilizing consequences – are a relic of the past. Whether on the eve of the Stock Market Crash of 1929, before the Latin American debt crisis in the 1980s, or the years leading up to the global financial crisis in 2008, we see such perceptions repeated over and over again around the world and throughout history. People simply think that their contemporary period and their country is less likely – perhaps even immune – to economic crisis and regime breakdown. Yet history proves otherwise. Economic crises strike all countries around the world, do so repeatedly, and at times with regime instability and breakdown as the outcome.

Figure 1 depicts global developments in economic crises and regime breakdowns since 1875. Starting in the 1870s, most of industrializing Europe experienced a severe depression, partly induced by the lack of gold, which lasted for one or two decades in most countries (see Eichengreen 2008; Hobsbawm 1994; Kindleberger 1978). After this, most economies experienced steady economic growth until the beginning of World War I. The destructive war in itself and its aftermath triggered a wave of inflationary crises on the European continent, particularly among the losing countries (see Granville 2013). This contributed to regime instability on the European continent, including democratic breakdowns in Italy, Poland, and Lithuania, as well as in Latin America, where military coups were frequent in many fragile autocracies. This post-war crisis lasted 5–6 years, after which most countries experienced "the roaring 20s" with exuberant optimism and rapid economic expansion.

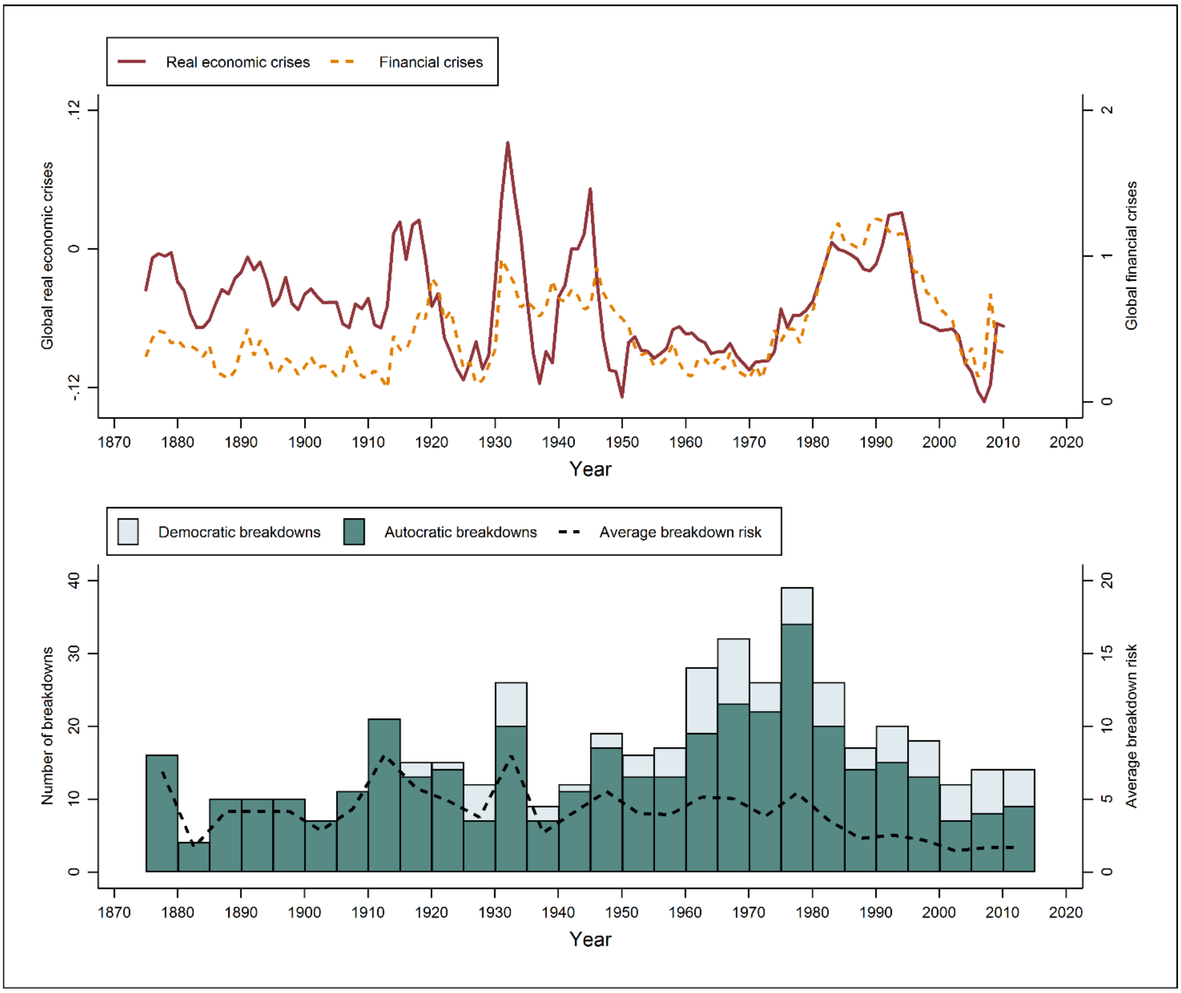
The great stock market crash of 1929 brought the good times to a sudden halt one cloudy October morning. The subsequent Great Depression throughout the 1930s revealed how quickly the scenery could change from shouting traders on Wall Street to murky coup-plotting generals in Latin American and Baltic capitals, violent Nazis in German streets, and a destructive Spanish civil war (see Overy 2010; Hobsbawm 1995). This economic crisis, probably the most destabilizing in modern history, lasted in most countries until World War II broke out. The war in itself constituted a great economic slump due to its worldwide destruction, but its aftermath initiated a highly expansionary period with rapid growth and technological developments in most parts the world. While this brought stability to most of the Western World, it paradoxically contributed to several regime breakdowns in developing countries in Latin America, Africa, and Asia (see Huntington 1968).

The post-war boom lasted until the 1970s, when spiking oil prices created stubborn inflation and unemployment in most of the Western world. This in turn catalyzed capital flight and sovereign debt problems in most of Latin America, where the "Lost Decade" during the 1980s proved highly destabilizing for almost all autocratic regimes on the continent (see Stallings and Kaufman 1989). Moreover, the dissolution of the Soviet Union in 1991 threw most of Eastern Europe into a decade-long economic abyss (see Åslund 2013), and the Asian financial crisis in 1997–1998 destabilized an otherwise stable region, leading to the downfall of prominent autocracies such as Suharto in Indonesia (see Pepinsky 2009).

Most recently, the 2008 Great Recession has once again reminded us of the destabilizing nature of economic crises. While few regimes have broken down as a direct consequence of the crisis, many Western Democracies have seen sharp drops in public satisfaction with their democracies, leaving some to wonder whether we have entered a period resembling the Interwar years in Europe (see Krugman 2011; Lindvall 2014; Levitsky and Ziblatt 2018).

What this cursory look at history tells us is that not only have we seen economic crises repeating themselves across time and space; we have even seen the co-occurrence of economic crisis and regime breakdown repeating itself across all regions of the world throughout history.

Figure 1: Economic crises and regime breakdowns in the world since 1875



Note: Top panel illustrates economic crises in the world over time. "Real economic crises" is measured by the world average score on the Current-Trend measurement used in Paper 5(AUB) (inverted and scaled around zero, higher values indicating more economic crises in the world). "Financial crises" is measured by the average number of financial crises in the world with data from Reinhart and Rogoff (2009). Bottom panel documents the number of regime breakdowns (within 5-year intervals) over time in the world. "Autocratic breakdowns" is measured via irregular leader removals in autocracies (see discussion below) with data from the Archigos Dataset (Goemans, Gleditsch, and Chiozza 2009). "Democratic breakdowns" is measured with data from Boix, Miller, and Rosato (2012). "Average breakdown risk" is measured as the total number of regime breakdowns divided by the total number of independent countries in the world within every 5-year interval. Only country-years of independence are included in all calculations.

What Is an Economic Crisis?

Despite its well-studied nature, economic crises are almost never defined in recent large-N research. Fortunately, classic studies on the subject have been more conscientious. Haggard and Kaufman (1995, 8) come closest to a succinct definition when defining economic crisis as consisting of two components: 1) "a sharp deterioration in aggregate economic performance, indicated by slow growth and accelerating inflation," and 2) that "the economic deterioration is not self-correcting." This definition provides a valuable starting point but requires modification. Particularly, the authors' primary focus is obviously Latin America, where crisis episodes often included rampant inflation levels. However, including high inflation in the definition risks excluding important crisis episodes in which inflation plays no role, such as the Great Depression during the 1930s.[3] Moreover, requiring the crisis not to be "self-correcting" implies that some state intervention is needed. While this might appear sensible when studying modern crisis periods, where state intervention in national economies is common, it seems to rule out many 19th and early 20th century crisis episodes that occurred before Keynesian policies were commonplace.

In this dissertation, I therefore take a less context-specific starting point. Broadly speaking, a national economy equals the production and consumption of goods and services and the supply of money in a given country. That is, it consists of two major components: A real economy component, which is about real economic performance in the form of the production and consumption of goods and services, and a financial component, which is about the money supply.[4] In addition, the term crisis is often defined as "a time of intense difficulty or danger."[5] An economic crisis, then, is a period during which the national economy – in the form of the production and consumption of goods and services and the supply of money in a given country – is experiencing great difficulties. The more difficulties the economy is experiencing, the more severe the crisis; the fewer the difficulties and more growth it experiences, the more it is expanding. The concept of economic crisis is, then – although often discussed in a discrete manner in this summary for the sake of simplicity – an inherently continuous phenomenon ranging on a scale from severe crisis to booming expansion.

This obviously induces a set of challenges for how to measure the concept. Given that we often want to distinguish both between crisis/non-crisis periods and between different degrees of crisis severity, the measures we use to operationalize economic crisis should be able to satisfy both requirements. The dissertation therefore devotes a whole paper, **Paper 1$_{\text{(CRI)}}$**, to this issue, where I critically discuss the common way most studies measure economic crisis and

3 In fact, most countries experienced deflationary tendencies during the Depression.

4 In the economics literature, the empirical relationship between these two aspects of the national economy has been widely studied (see e.g. Bernanke 1983; Brunnermeier and Sannikov 2014).

5 For comprehensive discussions on the crisis concept, see: Starn (1971), Keane (1979), Zimmerman (1979), Svensson (1986), and Hay (1999).

suggest a range of alternative measurement approaches that better capture economic crises. It discusses how to measure economic difficulties on both the real economic and financial dimensions of the economy, and it provides empirical tests of different measurement approaches. I discuss insights from **Paper 1(CRI)**, and its implications for the crisis measurements in the remaining four papers in greater detail in Chapter 6.

What Is a Regime Breakdown?

In this dissertation, I take Geddes, Wright, and Frantz's (2014, 314) definition of a regime – "the rules that identify the group from which leaders can come and determine who influences leadership choice and policy" – as a point of reference. In democracies, leaders are chosen in competitive, free, and fair elections (Geddes, Wright, and Frantz 2014, 317; see also Boix, Miller, and Rosato 2012). In autocracies, leaders access power and stay in power by any means besides competitive, free, and fair elections (ibid.). Instead, the leadership selection in such regimes is in the hands of a: ruling party in dominant-party dictatorships, royal family in monarchies, the military in military dictatorships, and a narrow group around the individual dictator in personalist dictatorships.

This fundamental difference between democratic and autocratic regimes implies a difference in when a given regime breaks down. Regime breakdowns occur in democracies when competitive, free, and fair elections are no longer the primary way through which leaders are elected. Such changes usually occur via a successful coup or by democratically elected incumbents severely violating basic democratic rules once in power (see Linz 1978; Levitsky and Ziblatt 2018). In autocracies, regime breakdowns occur when the leadership group – "the small group that actually makes the most important decisions" (Geddes, Wright, and Frantz 2014, 315) – is changed. This usually occurs through coups, where one leadership group takes power from the incumbent leadership group, but it also frequently occurs due to popular uprisings, such as mass demonstrations or civil wars (Svolik 2012).

Regime breakdowns in democracies and autocracies are, thus, conceptually asymmetrical. In democracies, a regime breaks down when the *institutional structures*, most importantly national elections, are fundamentally violated. In autocracies, regimes break down when the *composition of the leadership group* is fundamentally altered. This difference makes the concept applicable across regimes, as the breakdown in both cases relates to the institutions that determine the access to power: elections in democracies and the ruling group in autocracies. Yet this difference entails a set of theoretical issues pertaining to how and when different regime types break down; I discuss this further in Chapter 4.

Measuring regime breakdown also involves a set of challenges. When measuring democratic breakdowns – in **Paper 4(DEB)** – I employ data from Boix, Miller, and Rosato (2012). Their definition of democracy and democratic breakdown is very much in line with the definition employed in this dissertation. However, **Paper 5(AUB)** does not directly examine autocratic regime breakdowns, focusing instead on autocratic irregular leader removals – with data from the Archigos dataset (Goemans, Gleditsch, and Chiozza 2009). This is a highly related yet conceptually distinct phenomenon, as autocratic leaders can be irregularly removed without the entire regime breaking down. The assassination of South Korean President Park Chung-hee in 1979, for example, constituted an irregular leader removal without replacing the rest of the regime. Given that the dissertation focuses on regime breakdowns in general, this is obviously an imperfect solution.

Yet three reasons make **Paper 5(AUB)** highly relevant as an examination of how economic crises affect autocratic regime breakdowns. First, in some autocratic regimes – particularly in monarchies and personalist dictatorships – the ruling dictator is usually the pivotal actor. Removing him/her from office is a very fundamental event that changes the power dynamics within the regime. For example, if Alexander Lukashenko were to be deposed from power in Belarus, I would consider the current regime to have broken down – even though the remaining leadership group would stay in power. While the logic is less valid in single-party and military dictatorships, even here irregular leader removals constitute a necessary (although not sufficient) condition for regime breakdown.[6] Second, this modified strategy secures higher comparability between regime breakdowns in democracies and autocracies. An irregular leader removal in democracies means that leaders are no longer chosen through free and fair elections, which therefore almost always constitutes a democratic breakdown.[7] By considering irregular leader removals as a type of autocratic breakdown, the concept of regime breakdown therefore becomes more symmetrical across regime types. Third, even though studies have

[6] An example where this would not be the case would be a situation in which a given autocratic leader dies of natural causes (which is not an irregular leader removal) or retires, and the regime breaks down in the subsequent power vacuum. In such instances, a regime breakdown would occur without an irregular leader removal. However, such combinations of events remain rare.

[7] That is, in democracies, irregular leader removals usually constitute a sufficient (although not necessary) condition for regime breakdown. Exceptions to this would be a situation where the president is assassinated (constituting an irregular leader removal) but the regime still survives (e.g. the United States in 1963).

shown that regime breakdowns and irregular leader removals generally have different causes (see Aksoy, Carter, and Wright 2015; Wright and Bak 2016), I would argue that the impact of economic crises on these two outcomes is similar; that is, mechanisms from economic crisis, over regime dissatisfaction and to regime challenges should be similar with respect to both irregular leader removals and regime breakdowns. Examining the conditional impact of economic crises on autocratic irregular leader removals should therefore inform us a great deal about the effects on autocratic regime breakdowns as well.

The Process of Regime Instability

Regime instability is a highly contested concept.[8] It is relevant for this dissertation, as economic crises can destabilize regimes – that is, lead to regime instability – without leading to regime breakdown. At the time of writing, current regimes (e.g. Venezuela, Jordan, Turkey) might be plagued by regime instability, but have not (yet) experienced a regime breakdown. So how do I then examine and define regime instability?

As argued above, I examine the whole process from economic crisis, over public regime dissatisfaction and regime challenges, to regime breakdown. I consider two middle stages, regime dissatisfaction and regime challenges, as constitutive elements of regime instability; that is, when ordinary citizens and elites are not satisfied with the regime and actively challenge it through extra-institutional acts, such as coups or civil wars, it becomes inherently unstable.

Based on the definition of regime discussed above, I define regime dissatisfaction as public dissatisfaction with the rules identifying the group from which leaders can come and determine who influences leadership choice and policy. In democracies, this means that citizens are dissatisfied with how their democracy works; in autocracies, it means that they are dissatisfied with the autocratic leadership group. Regime challenges, in turn, are extra-institutional attempts at changing the rules that identify the group from which leaders can come and determine who influences leadership choice and policy. I include the criterion of the challenge being extra-institutional in order to distinguish between regime instability events, such as civil wars, coup attempts, or revolutions, on the one hand, and regular institutional attempts to change a regime through referendums, elections, and constitutional amendments on the other. Table 2 summarizes the main concepts.

[8] For a comprehensive discussion on the concept of political instability, see Svensson (1986).

Table 2: Main concepts

I Economic crisis	II Regime dissatisfaction	III Regime challenge	IV Regime breakdown
A period during which the national economy – in the form of the production and consumption of goods and services and the supply of money in a given country – is experiencing great difficulties.	Public dissatisfaction with the rules that identify the group from which leaders can come and determine who influences leadership choice and policy.	Extra-institutional attempts at challenging and changing the rules that identify the group from which leaders can come and determine who influences leadership choice and policy.	Fundamental changes in the rules that identify the group from which leaders can come and determine who influences leadership choice and policy.

Chapter 3: The Crisis-Breakdown Relationship: A Stylized Fact?

Existing Findings in the Literature

In his renowned book on the French Revolution, Alexis De Tocqueville (1858) discusses how the economy affected the upheavals in 1789. He observes a paradox:

> It is a singular fact that this steadily increasing prosperity, far from tranquilizing the population, everywhere promoted a spirit of unrest [...] those parts of France in which the improvement in the standard of living was most pronounced were the chief centers of the revolutionary movement. (Tocqueville 1858, 175)

Tocqueville's (1858) argument follows the insights of Marx and Engels (1849), who, in a series of essays, argued that gradual wealth increases – combined with even higher wealth increases for the capitalists – would lead to revolution. In a similar vein, Huntington (1968) argues that modernization and growth where the main drivers behind regime breakdowns in developing countries during the decades after World War II. What these studies have in common is a belief that economic progress, rather than economic crisis, makes citizens more politically attentive, increases their demands, and enables them to become mobilized – all of which makes fragile political institutions vulnerable to instability and breakdown.

Yet with the prevalence of the political science discipline after World War II, an opposing argument started to gain prominence. Lipset (1959) famously initiated "modernization theory" by arguing that modernization and increasing levels of economic wealth bolster democracies and make them less likely to break down (see also Przeworski and Limongi 1997). Building on this, the following decades saw several important contributions on how short-term fluctuations in the economy are important for regime instability.

Davies (1962) forcefully demonstrated how a prolonged period of economic growth followed by a short period of sharp reversal, a so-called "reversed J-curve," was pivotal in bringing about the Dorr Rebellion in nineteenth-century America, the Russian Revolution, and the Egyptian Revolution in 1952. Following this, in *Why Men Rebel*, Gurr (1970) argued that relative deprivation – that is, when the goods and living conditions people expect are lower than what they have and think they are capable of getting – increases the potential for collective violence.[9] Likewise, Fossum (1967) and Nordlinger (1977) demonstrated how economic crises also increase the likelihood of coups – especially on the Latin American continent.

Armed with intellectual insights from these classics, scholars directed focus on actual regime breakdown events in the following years. Most prominently, Gasiorowski (1995) showed how economic crises significantly increase the risk of democratic breakdown, while Haggard and Kaufman (1995) demonstrated how economic crises played a central role in destabilizing and ending autocratic regimes.

Subsequent studies produced mixed findings. Focusing on interwar Europe, some studies questioned the direct impact of the two major economic crises of the time – the post-WWI inflation crisis and the Great Depression – highlighting instead the conditional impact of economic turmoil (see e.g. Bermeo 1997; Bermeo 2003; Ertman 1998; Ekkart Zimmermann and Saalfeld 1988). In the words of Bermeo (2003, 230), "[h]ard times are not necessarily times of dictatorship." Similar conclusions were reached in studies on more recent democracies (Diamond 2011; Kapstein and Converse 2008), once again questioning the relevance of economic crises. As regards autocracies, other studies have demonstrated the clear, destabilizing impact of economic crises (see e.g. Brancati 2014; Brancati 2016), while other works have highlighted the conditional nature of this relationship (see e.g. Pepinsky 2009).

Findings have become even more mixed in recent years. A new generation of large-N studies has examined the destabilizing effects of economic crisis on a global scale, some of which have found significant effects while others have not. Table 1 summarizes these studies, illustrating how many studies find robust effects of economic crisis on regime instability and breakdown, while the majority of the most recent examinations do not find robust effects.

In particular, studies of coups are divided between those who find significant effects (Johnson, Slater, and McGowan 1984; Galetovic and Sanhueza 2000; Alesina et al. 1996; Arriola 2009), those not finding significant effects (Londregan and Poole 1990; Powell 2012; N. Singh 2014; Bazzi and Blattman 2014; Thyne 2010), and others yet only finding conditional crisis effects (Kim 2016). These disagreements are mirrored in the civil war literature, with around half finding significant effects (Collier and Hoeffler 2004; Miguel, Satyanath, and Sergenti 2004; Hegre and Sambanis 2006; Collier, Hoeffler, and Soderbom 2008; Bohlken and Sergenti 2010; Berman and Couttenier 2015; Brückner and Ciccone 2010; Collier, Hoeffler, and Rohner 2009) and

[9] More specifically, Gurr (1970) examines different types of relative deprivation of which one, "progressive deprivation," resembles Davies' (1962) "reversed J-curve."

the other half not finding significant effects (Koubi et al. 2012; Bergholt and Lujala 2012; Dahl and Hoyland 2012; Bazzi and Blattman 2014).

Likewise, in the literature on economic crisis and democratic breakdown, some studies argue that only 1- or 2-year contractions matter (Gasiorowski 1995; Przeworski and Limongi 1997; Przeworski et al. 2000; Bernhard, Nordstrom, and Reenock 2001; Bernhard, Reenock, and Nordstrom 2003; Svolik 2008; Svolik 2015), some dismiss such short-term findings and find that only 3- or 5-year recessions matter (Kapstein and Converse 2008; Møller, Schmotz, and Skaaning 2015), while others find that the relationship completely disappears when a few influential observations are excluded (Teorell 2010). Moreover, the literature on regime breakdown in autocracies is likewise divided between those finding robust effects (Tanneberg, Stefes, and Merkel 2013; Geddes 2003), those finding only mixed effects (Przeworski et al. 2000), and others not finding any significant effects (Gasiorowski 1995).

A final example is the general literature on irregular leader removal, where some find the relationship to pertain mainly in large-coalition systems (i.e. more democratic regimes) (Bueno de Mesquita et al. 2005), some find the relationship only holds for small-coalition systems (i.e. more autocratic regimes) (Bueno de Mesquita and Smith 2010), while others find no consistent support for the relationship (Burke 2012).

Table 3: The Large-N literature

Authors	Focus on Conditions	Design	Measurement	Findings
Gasiorowski (1995)	No	TSCS analysis	Annual growth rates (MA) & annual inflation rates (MA)	Signif.
Przeworski & Limongi (1997)	No	TSCS analysis	Dummy variable: below/above 0% in annual growth rates	Signif.
Przeworski et al. (2000)	No	TSCS analysis	Annual growth rates (MA)	Signif.
Bernhard, Nordstrom, & Reenock (2001)	Yes	TSCS analysis	Annual growth rates	Signif.
Bernhard, Reenock, & Nordstrom (2003)	Yes	TSCS analysis	Annual growth rates + positive/negative growth dummy variable interaction	Signif.
Svolik (2008)	No	TSCS split population survival model	Annual growth rates	Signif.
Kapstein & Nathan Converse (2008)	No	TSCS analysis	Annual growth rates (MA) & annual inflation rates	Mixed
Teorell (2010)	No	TSCS analysis	Annual growth rates & annual inflation rates	Not Sig.
Møller, Schmotz, & Skaaning (2015)	No	TSCS analysis	Annual growth rates (MA)	Mixed
Gasiorowski (1995)	No	TSCS analysis	Annual growth rates (MA)	Not Sig.
Przeworski et al. (2000)	No	TSCS analysis	Annual growth rates (MA)	Mixed
Geddes (2003)	No	TSCS analysis	Annual growth rates	Signif.
Tanneberg, Stefes, & Merkel (2013)	No	TSCS analysis	Annual growth rates (weighted MA)	Signif.
Bueno de Mesquita et al. (2005)	No	TSCS analysis	Annual growth rates	Mixed
Bueno de Mesquita & Smith (2010)	No	Country fixed effects TSCS analysis	Annual growth rates	Mixed
Burke (2012)	No	Country fixed effects Instrumental variable TSCS analysis	Annual growth rates (IV: exogenous variation in commodity prices, export partner incomes, precipitation, and temperature)	Mixed
Johnson, Slater, & McGowan (1984)	No	Cross-sectional analysis	Percent increase in GNP from 1965–1970	Significant
Londregan & Poole (1990)	No	TSCS analysis	Annual growth rates	Not Sig.
Alesina et al. (1996)	No	TSCS simultaneous equations models	Annual growth rates	Signif.
Galetovic & Sanhueza (2000)	No	TSCS analysis	Dummy variable: below/above 0% in annual growth rates	Signif.
Arriola (2009)	No	Country fixed effects TSCS analysis	Annual growth rates	Signif.
Thyne (2010)	No	TSCS analysis	Annual growth rates	Not Sig.

Powell (2012)	No	TSCS Heckman model	Annual growth rates	Not Sig.
Singh (2014)	No	Country fixed effects TSCS analysis	Annual growth rates	Not Sig.
Bazzi & Blattman (2014)	No	Country fixed effects Instrumental variable TSCS analysis	Commodity price shocks	Not Sig.
Kim (2016)	Yes	Country fixed effects Instrumental variable TSCS analysis	Annual growth rates (IV: exogenous variation in temperature and rainfall)	Signif.
Collier & Hoeffler (2004)	No	TSCS analysis	Annual growth rates (MA)	Signif.
Miguel, Satyanath, & Sergenti (2004)	No	Country fixed effects Instrumental variable TSCS analysis	Annual growth rates (IV: exogenous variation in rainfall)	Signif.
Hegre & Sambanis (2006)	No	Global sensitivity analysis	Annual growth rates	Signif.
Collier, Hoeffler, & Soderbom (2008)	No	TSCS analysis	Annual growth rates	Signif.
Collier, Hoeffler, & Rohner (2009)	No	(Country fixed effects) TSCS analysis	Annual growth rates (MA)	Signif.
Bohlken & Sergenti (2010)	No	State fixed effects Instrumental variable TSCS analysis	Annual growth rates (IV: exogenous variation in rainfall)	Signif.
Brückner & Ciccone (2010)	No	Country fixed effects Instrumental variable TSCS analysis	Annual growth rates (IV: exogenous variation in commodity prices and rainfall)	Signif.
Devitt & Tol (2012)	No	Double Monte Carlo analysis	Annual growth rates	Signif.
Koubi et al. (2012)	No	Country fixed effects Instrumental variable TSCS analysis	Annual growth rates (IV: exogenous variation in temperature and rainfall)	Not Sig.
Bergholt & Lujala (2012)	No	Country fixed effects Instrumental variable TSCS analysis	Annual growth rates (IV: exogenous variation in climate-related disasters)	Not Sig.
Dahl & Hoyland (2012)	No	Pooled time-series cross-sectional analysis	Annual growth rates	Not Sig.
Bazzi & Blattman (2014)	No	Country fixed effects Instrumental variable TSCS analysis	Commodity price shocks	Not Sig.
Berman & Couttenier (2015)	Yes	Grid cell fixed effects TSCS analysis	External commodity price shocks and external banking crises	Signif.

Note: Included studies: Those either focusing on the effects of economic crisis/economic performance as their main research question (e.g. Kim 2016) or that include a measure of economic crisis/economic performance as a control variable but substantially discuss its effect in the empirical analysis (e.g. Powell 2012). Studies explicitly using terms such as “economic crises,” “economic shocks,” or “economic downturns” as well as those using broader terms, such as “economic performance,” are included. “Signif.” denotes that the study primarily finds significant crisis effects, “Not Sig.” denotes primarily insignificant effects, and “Mixed” denotes mixed findings. The table provides a comprehensive sample of relevant studies but may not be exhaustive.

General Shortcomings

Such inconsistencies – both in classical qualitative work but especially in recent Large-N work – beg the question why we see such mixed results. Three issues stand out as potential explanations.

First, studies investigating important conditional effects have been sparse (see the "Conditions" column in Table 2). Instead, most literature generally focuses on the average direct effects of economic crises. This is obviously not a shortcoming in itself. Examining "first-generation" questions (Kam and Franzese 2007) to establish whether a relationship exists at all is a natural first step. However, given the mixed findings of these studies, one may wonder why "second-generation" questions looking into how conditional factors interact with economic crisis in creating instability and breakdown are not examined more often. If the relationship is highly conditional, not having accounted for such conditions can contribute to mixed findings.

A second issue in the existing literature on economic crisis and regime breakdown is endogeneity. Unlike randomized experiments, in observational studies scholars cannot assign study-subjects into treatment or control groups in a randomized fashion. This makes it very difficult to draw a causal relationship between the treatment and observed outcomes. This challenge is particularly acute in studies on economic crisis and regime breakdown, where two types of endogeneity are likely to bias the estimates: One is biases stemming from confounding variables. Most of the recent large-N literature on economic crisis and regime instability relies on variation across countries; that is, these studies pool time-series, cross-sectional observations into one model, and then run their estimates (see Table 2). In cases where the included control variables are expected to account for most or all relevant confounders, this is less of a problem. This is very rarely the case in these pooled data structures. Economic crises and regime breakdowns are pivotal events resulting from a large number of factors, many of which vary across countries and for which we have no or only sparse measures. Examples include national history, political culture, or leadership competences – factors affecting both economic performance and regime stability. Two, there is a good possibility that the causal arrow points in both directions: Economic crises lead to regime instability, but regime instability might in turn also trigger economic crises (see Alesina et al. 1996; Collier 1999). Depending on the strength and direction of such issues of endogeneity, the regression coefficients can both be inflated upwards or attenuated downwards. Different analyses, using different model specifications and samples, are therefore likely to experience different sources of bias. This is likely to contribute further to the mixed results.[10]

Third, the vast majority of recent large-N research employs annual fluctuations in GDP per capita growth rates as the main measure (henceforth, the AGR approach). This is unfortunate for three reasons. Firstly, the AGR measurement approach leads to misguided impressions of crisis severity. Consider a stylized example: If a country's economy grows at 10% in a given year, 8% the next year, and 6% in the third year, the first year will probably be the most satisfactory because it had the highest growth rate. This fits very well with the AGR assumption. Consider now the opposite situation: The economy contracts by 10% the first year (a –10% growth rate), by 8% the next year (–8%), and by 6% the third year (–6%). Would people's economic satisfaction increase for every year in this scenario? According to the AGR logic it should, as the growth rate is improving year after year. This would be an invalid assumption for most people, however, as the country is sinking deeper and deeper into the economic slump. Secondly, the AGR approach makes no distinction between rapid expansion years and rapid recovery years. The issue here is that the myopic year-to-year focus of the AGR approach does not adequately factor prior developments into economic performance. The years immediately after a recession often see rapid growth rates, as the economy is "catching up," but the side effects of recessions (e.g. higher unemployment, lower consumer confidence) often last well into the recovery years (Cerra and Saxena 2008). By only focusing on year-to-year fluctuations, most studies fail to account for the fact that, say, a 4% growth rate can both represent an expansion year with a booming economy or a situation where the economy is recovering from a severe recession. And third and finally, the AGR approach disregards the financial dimension. As argued in Chapter 2, the national economy consists of two constitutive elements: the production and consumption of goods and services (the real economic component) and the supply of money (the financial component) in a given country. The one-sided focus on the real economic component thus prevents scholars from distinguishing between different types of economic crisis. For example, the severe inflationary crises of the Weimar Republic, Italy,

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[10] There have been several attempts in the coup and civil war literature to account for such reverse causality issues through IV-analyses, usually by employing rainfall and/or temperature deviations as exogenous instruments (see e.g. Kim 2016; Miguel, Satyanath, and Sergenti 2004; Koubi et al. 2012). Such designs go a long way to alleviating the endogeneity issues discussed above. Such studies remain a minority, however, and even these have been criticized, as rainfall and temperature instruments are likely to violate the key assumption of exclusion restriction (see Hendrix and Salehyan 2012; Ritter and Conrad 2016).

and Portugal during the inter-war period were very different from the sovereign debt crises in Argentina, Brazil, and Chile starting in the 1980s. Failing to account for such differences is unfortunate, as different financial troubles have been shown to affect different societal groups differently, which in turn might have important implications for regime instability (see e.g. Granville 2013; Easterly and Fischer 2001).

In this dissertation, I attempt to address all three shortcomings. First, the dissertation explicitly examines important conditions in each stage of the relationship (see Chapter 4). Second, I take several precautions to mitigate biases stemming from selection issues of economic crisis and regime breakdown (see Chapter 5). Finally, all of the papers refrain from using the standard AGR approach, employing instead several alternative measures of economic crisis (see Chapter 6).

Chapter 4: From Economic Crisis to Regime Breakdown

The Direct Relationship

Eighty years ago, in one of his national "fireside chat" radio addresses, Franklin D. Roosevelt made the following observation:

> Democracy has disappeared in several other great nations – not because the people of those nations disliked democracy, but because they had grown tired of unemployment and insecurity, of seeing their children hungry while they sat helpless in the face of government confusion and government weakness through lack of leadership in government. Finally, in desperation, they chose to sacrifice liberty in the hope of getting something to eat (April 14, 1938).

Revealing his foresight, Roosevelt articulated a general relationship between economic crisis and regime breakdown that political scientists would study extensively in the following decades. The inspiration for Roosevelt's argument probably came from his own experience. Looking to Europe, he would see that only half of the continent's democracies had survived the economic and political turmoil of the previous two decades. Turning his attention to his own "backyard" in Latin America, he would see a similar history of economic depression and successive regime breakdowns in democracies and autocracies alike. Regardless of where Roosevelt would look, chances were that countries were struggling with regime instability under the yoke of economic crisis.

The quote from Roosevelt, although focusing solely on democracies, represents a general point: When an economic crisis occurs, discontent among the country's citizens may motivate them to retract their support for the current regime. As Roosevelt noted, rather than having anything to do with the regime itself, this might simply be a consequence of its poor economic performance. In general, both democratic and autocratic regimes rely on explicit or implicit support from an essential group of citizens in society. During economic crises, elite groups may see their bank balances dwindle, lucrative businesses suffer, and corporate interests like military budgets or salaries cut. Broader segments of society also grow discontent due to rising unemployment, falling incomes, and cuts to state-sponsored programs.

Such crisis-induced discontent is usually directed against a country's regime. Extensive research demonstrates how citizens often become less satisfied with their regimes during times of economic crisis (Clarke, Dutt, and Kornberg 1993; Anderson and Guillory 1997; Hofferbert and Klingemann 1999; Quaranta and Martini 2016; Armingeon and Guthmann 2014; Dalton 1994; Christmann 2018). That is, economic crises "affect not only the preferences of different societal actors among a given set of policies, but also their preferences among different institutional arrangements and their capacity to maintain or change those institution" (Haggard and Kaufman 1995, 7). In democracies – which typically rely on support from a broad segment of society – this means that citizens are more likely to turn against democracy and accept autocratic transitions than otherwise would be the case. Likewise, autocratic regimes may see their essential supporters – typically a small group of elites – turn against the top leadership if they conclude that another autocratic regime (or maybe even a democratic transition) might prove better able to provide them with spoils and secure their privileges (Bueno de Mesquita et al. 2005).

This, in turn, increases the likelihood of regime challenges. As argued by Acemoglu and Robinson (2006, 31–32), citizens and elites can overcome collective action problems during economic crises, as conspicuous economic discontent in society makes it more likely that other citizens will participate in ongoing mobilization. This increases the likelihood of mass-driven regime challenges in the form of anti-regime protest campaigns, revolutionary uprisings, and civil wars. Economic crisis – and the associated mass mobilization – might also indirectly increase opportunities for undertaking regime challenges, as such instability "on the ground" generally lowers resistance and makes justifications easier, thereby increasing the likelihood of elite-driven coup attempts (Galetovic and Sanhueza 2000; Huntington 1968, 219–37).

Should such challenges become successful, the regime breaks down. In democracies, leaders are no longer primarily found through free and fair elections, and in autocracies, the ruling group has been replaced either by another autocratic group or a democratic transition.

Table 4: From economic crisis to regime breakdown

I Economic crisis	II Regime dissatisfaction	III Regime challenge	IV Regime breakdown
Economic crisis creates economic discontent	Economic discontent turns into regime discontent	Masses and elites challenge the regime via anti-regime protests, civil wars, and coup attempts	The regime breaks down

To summarize, when regimes break down due to an economic crisis, the process is often step-by-step: First, citizens grow discontented with the economic situation in their country during a crisis, which leads them to attribute blame for the economic turmoil to the current regime. Then follows mass and elite mobilization that challenges the regime, typically through anti-regime protests, civil war, or coup attempts. Finally, if unable to resist such challenges, the regime breaks down. While this is obviously a stylized description of the process from economic crisis to regime breakdown, most breakdown processes generally follow along these lines.

Consider interwar Germany: Here, rampant inflation, unsustainable debt, and persistent unemployment in the early 1920s was followed by economic downturn, deflation, and even higher unemployment rates during the Great Depression. In other words, a lengthy period characterized by severe *economic crises* led to economic discontent among all strata of German society. The economic chaos contributed to public *regime dissatisfaction* among much of German society toward the Weimar Republic, which became the symbol for economic – as well as political and cultural – failure. This facilitated numerous acts of *regime challenge* in the form of anti-regime protests, street violence, assassinations, and a coup attempt. Ultimately, the democratic *regime broke down* to the irresistible rise and *machtergreifung* of Adolf Hitler (see Lepsius 1978; Evans 2004; Hett 2018).

The Philippines offers another example. Charismatic dictator Ferdinand Marcos had presided over a rapidly expanding economy throughout most of his rule. But a series of *economic crises* during 1983–1986 led to falling business revenues, foreclosures, and illiquidity among the country's businesses. The general population was also severely hurt by extreme poverty and spiking unemployment. Extensive corruption combined with the decadent lifestyle conspicuously led by Marcos and his wife quickly materialized the economic discontent into marked *regime dissatisfaction* among the public. This facilitated several *regime challenges* in the form of successive anti-regime protests, culminating in the "People Power Revolution" and the *regime breakdown* of the Marcos dictatorship (see Overholt 1986).

Again, these descriptions are clearly simplified, but they suggest that some common processes occur across countries and regimes. In both democracies and autocracies, economic crises lead to regime breakdowns via a step-by-step process whereby citizens attribute blame for economic turmoil to the current regime, then mobilize and challenge the regime, and finally increase the risk of regime breakdown.

Although economic crises catalyze the same instability process in both regimes, the ways that democracies and autocracies manage such instability might still be different. Democracies typically need the support of a large segment of society, generally rely on distributing public goods, and provide better opportunities for citizens to mobilize. Autocracies require the support of a much smaller fraction of the population, generally distribute private goods, and employ more repressive strategies. Such differences mean that the conditions determining whether the crisis-induced process ends in regime breakdown might be different for different regime types. This is why the papers forming this dissertation explicitly discuss – and separately test – different mechanisms and conditions across democracies and autocracies; that is, the papers focus either on democracies (e.g. **Paper 2(DIS)** and **Paper 4(DEB)**) or autocracies (e.g. **Paper 5(AUB)**). In cases where both regimes are included, they provide separate theoretical arguments and empirical analyses for each regime type (e.g. **Paper 3(CHA)**).

In the following, I present the conditions examined in each stage in this dissertation, discussing their relevance, their interaction with economic crisis, and their separate dynamics across regimes when relevant.

Conditions I: Economic Crisis

Economic crises are not all the same; they can be short and sudden or long and persistent. They can come in the form of real economic downturns or be financial in nature. These differences matter – not only for how we define and measure economic crises, but also for our theoretical expectations. Citizens react differently to different types of crisis, and this difference might have implications for public economic dissatisfaction, and thereby also for the further crisis–breakdown process.

Economic crises can assume the form of sudden economic shocks that alter a country's growth path, for example when the economy has been growing rapidly for a while and then suddenly slows down markedly, or if a steadily growing economy experiences a sudden recession. This type of economic crisis fits with the expectations of Davies (1962, 6), who argues that "[r]evolutions are most likely to occur when a prolonged period of objective economic and social development is followed by a short period of sharp reversal."

Economic crises also come in the form of deep, persistent economic slumps. Here, the crisis constitutes a period during which the economic output has contracted and remains below the pre-contraction level for a while. As people often refer back to prior economic conditions when assessing their current economic situation, they often express clear dissatisfaction during such slumps until their wealth is regained (Smith et al. 2012). This type of economic crisis fits the arguments of Ted Gurr (1970, 46), who claims that revolutions and civil wars are likely when people "are angered over the loss of what they once had." In this context, what matters is not just the initial shock to the economy, but rather the period between the crisis onset and the regaining of pre-crisis wealth.

Finally, economic crises also come in the form of financial troubles. Countries can suffer from rampant inflation, sovereign debt defaults, multiple banking crises, or a severe currency crisis. Different financial difficulties affect different societal groups differently. Inflation crises have been argued to affect broad spectrums of society (Easterly and Fischer 2001; see also Nordlinger 1977; Haggard and Kaufman 1995; Granville 2013), whereas the "twin crises" of banking- and currency crises primarily affect societal elites (see Pepinsky 2009).

Paper 1(CRI) discusses these different types of crises, focusing predominantly on the measurement of economic crisis, but also presents preliminary theoretical discussions of the varying effects of different types of crises. On this basis, as dissatisfaction and mobilization take time to build up steam, we should see persistent economic slumps (rather than short, transitory shocks) to exert the strongest effects. In addition, inflation crises have the broadest societal impact, affecting especially the poor and middle class (Easterly and Fischer 2001), and should therefore have greater destabilizing impacts than other types of financial crises.

Conditions II: Regime Dissatisfaction

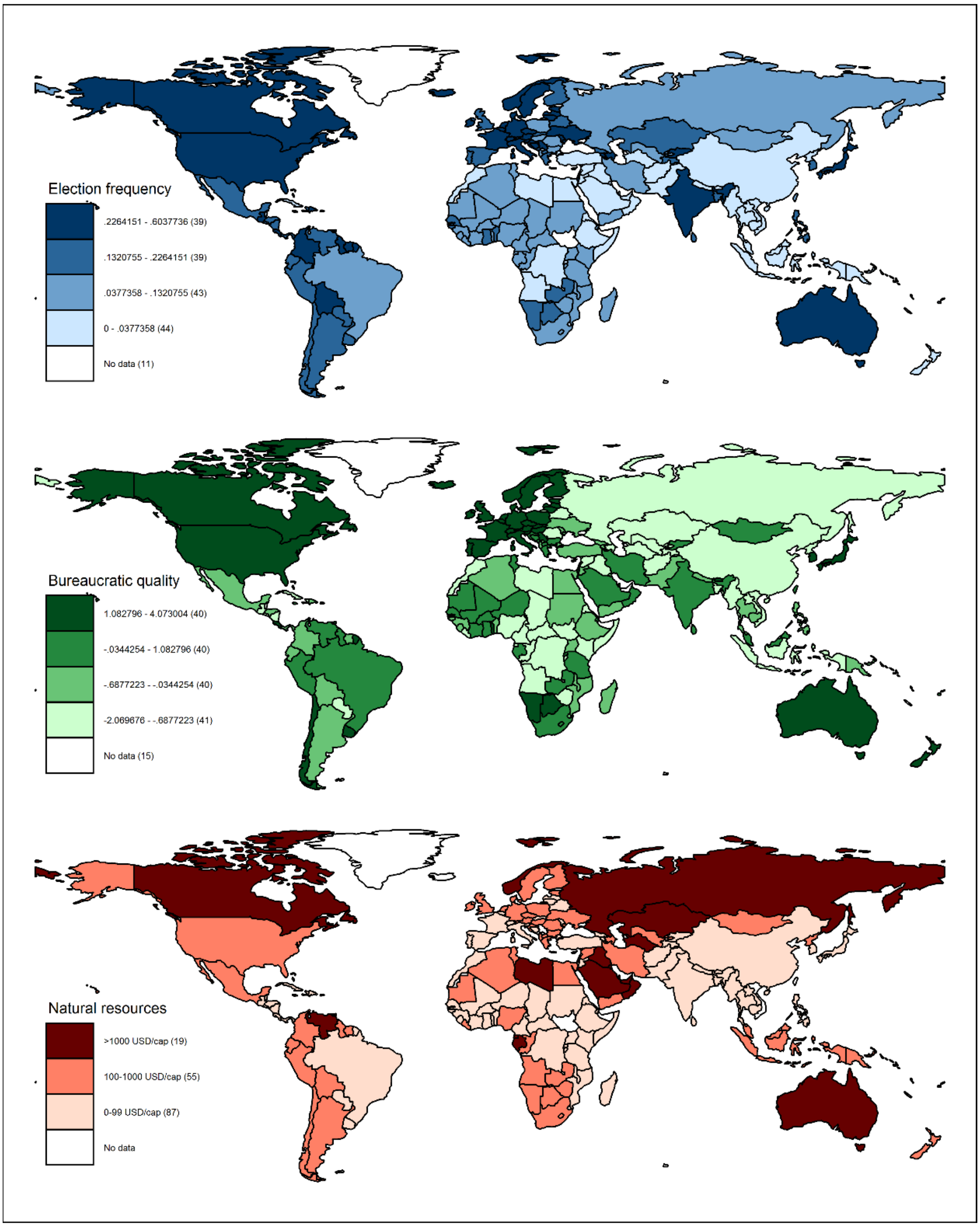
Economic dissatisfaction does not automatically lead to regime dissatisfaction. In times of economic crisis, ordinary citizens and elites might – and often do – attribute blame to alternative actors such as financial speculators, foreign creditors, the wealthy "top 1%," or neighboring countries. In fact, an extensive literature on voting behavior has shown how citizens' economic perceptions and their attribution of responsibility for the economy is conditional on an array of conditional factors (Lewis-Beck, Stubager, and Nadeau 2013; Parker-Stephen and York 2013; Stanig 2013; Chzhen, Evans, and Pickup 2014; Bisgaard 2015; Wlezien 2015; Soroka, Stecula, and Wlezien 2015). From these studies, we can infer that blame attribution in critical times is not as straightforward as often assumed in the crisis–breakdown literature.

I argue that national elections induce citizens to make the connection between economy and regime. I focus on elections for the following three reasons. First, they occur frequently in most countries around the world. Although not free and fair, even most autocratic regimes now hold competitive elections (see Figure 2). National elections are, thus, relevant in both democracies and autocracies. Second, national elections make citizens more politically attentive. Elections generally attract the attention of international actors, national media outlets, and domestic civil society organizations. While they often focus on individual politicians and parties, the performance of key regime institutions often also receives increased attention.[11] Such attention likely contributes to the connection between economic dissatisfaction and regime dissatisfaction among the citizenry. Third, the voting act in itself might induce citizens to become more politically attentive. In democracies and autocracies alike, citizens typically focus primarily on their own lives and know relatively little about politics and the economy (Oliver 2001; Lupia 1992). Yet participating in elections increases awareness of both political developments and the economic situation (Paldam and Nannestad 2000). Put simply, citizens receive more input about the performance of their regime during elections than at other points in the electoral cycle. This further produces a facilitating effect between economy and regime.

Paper 2(DIS) therefore focuses on national elections as a pivotal factor that, in combination with economic crisis, leads to persistent regime dissatisfaction. It takes the perspective of national elections and examines how their occurrence has different and lasting impacts on regime satisfaction depending on the economic situation in which they take place. Specifically, I argue that national elections taking place during times of economic crisis lead to persistently lower regime satisfaction in the years following the election. Although I expect national elections to play similar moderating roles in both democracies and autocracies, **Paper 2(DIS)** focuses only on democracies due to data limitations (see Chapter 6 for a more detailed discussion).

[11] For example, we typically see election periods increase attention on regime corruption, as was the case in recent elections in Malaysia, Armenia, and Madagascar.

Figure 2: Elections, bureaucratic quality, and natural resources revenue around the world



Note: Top panel illustrates average frequency of competitive national elections from 1960 with data from the NELDA dataset (Hyde and Marinov 2012), higher values indicating higher election frequency (see Paper 2(DIS) and Paper 3(CHA)). Middle panel depicts average bureaucratic quality since 1960 with data from the V-dem dataset (Coppedge et al. 2017), higher values indicating higher quality of bureaucracies (see Paper 4(DEB)). Bottom panel documents average per capita income from natural resources since 1960 with data from Haber and Menaldo (2011), with revenues given in constant 2007 USD (see Paper 5(AUB)). Only country-years of independence are included in the calculations of all three panels.

Conditions III: Regime Challenge

Even where economic crisis has led to economic and regime discontent, it may not necessarily lead to regime challenges. Collective action problems and prohibitions by the regime often impede discontented citizens and elites from mobilizing insurrections against the regime (Klein and Regan 2018). Citizens and elites might simply free-ride and hope for others to mobilize or they stay home for fear of repressive responses from the regime (Ritter and Conrad 2016).

National elections are also pivotal in this regard. In democracies and autocracies alike, elections give citizens and elites opportunity to communicate with each other, assess the strengths and weaknesses of the incumbents, and create new coalitions across interests groups in society (Pop-Eleches and Robertson 2011). Elections thus increase mobilization, as they provide a focal point around which opposition challenges can mobilize.

In democracies, such mobilization in itself can be destabilizing, as it facilitates polarization and the growth of extremist parties (Capoccia 2001; Moffitt 2015). More likely, however, it facilitates regime challenges from elites – particularly in the form of coup attempts. Mass mobilization and large-scale protests signal to the military that the current situation is untenable and that it may become necessary to take over power to save the integrity of the nation (Huntington 1968, 219–37). Mass mobilization also increases the opportunities to attempt a coup. Because coup plotters want to avoid mass demonstrations and civilian uprisings against them, they are unwilling to proceed with their plans if they do not expect broad popular support or acquiescence (Galetovic and Sanhueza 2000). Via their conduciveness to information gathering, communication, and popular mobilization, elections thus provide an opening for coup plotters to determine whether they have the expected support necessary to unseat the chief executive. When held during economic crises, the ensuing mass mobilization reinforces coup plotters' confidence in the prospects for a successful plot.

Crisis elections also increase mass mobilization in autocracies. While such mobilization itself might turn into serious regime challenges (Brancati 2014; Weyland 2014), crisis elections might also increase the likelihood of elite splits, as "disgruntled party members defect in times of economic crisis in order to capitalize upon popular and elite discontent with the regime in the hope of successfully challenging the incumbent in elections" (Reuter and Gandhi 2011, 84). In addition, crisis elections may spur increased levels of repression. During economic crises, incumbent popularity declines and elections are therefore likely to impose electoral costs on incumbent governments. This often incites autocrats to increase the level of repression in society as a means to reduce electoral competition in their favor. In turn, repression increases the risk of coup attempts, either because it leaves incumbents highly dependent on the military or because the military chooses not to jeopardize its institutional interests by engaging in large-scale repression, deciding instead to oust the incumbent (see Wig and Rød 2016; Knutsen, Nygård, and Wig 2017).

For these reasons, **Paper 3(CHA)** focuses on competitive elections as a pivotal condition that, in combination with economic crisis, increases the likelihood of the type of regime challenge through which most regimes break down, namely coup attempts (Svolik 2012; Svolik 2015; Linz 1978). The paper argues that national elections taking place during times of economic crisis primarily increase anti-regime mobilization in democracies and repression in autocracies. In this way, there is a persistent increase in the likelihood of coup attempts in the years following elections in both regimes.

Conditions IV: Regime Breakdown

So far, the argument has mostly focused on oppositional dynamics during times of economic crisis. Yet few regimes are helpless entities simply waiting to collapse in case of strong anti-regime opposition. Instead, regimes are often able to protect themselves by mitigating both regime dissatisfaction and regime challenges; that is, regimes often have different shields available to them that provide protection during times of economic crisis.

Democracies typically need the support of a large segment of society (Bueno de Mesquita et al. 2005). This entails that citizens generally enjoy public goods, such as schools, hospitals, and social insurance. Such goods are distributed through the state bureaucracy, where public officials collect, manage, and distribute state revenues to the population. It follows from this that the quality of such bureaucracies is pivotal in mitigating the ailments of economic crisis.

The quality of such bureaucracies varies across countries, as illustrated in Figure 2. Some democracies muster competent, well-functioning bureaucracies, whereas others are inefficient, less competent and more corrupt. Democracies that posit well-functioning bureaucracies are more likely to handle the crisis-situation by implementing prudent policies in a disciplined, swift, and impartial way. This helps shield the citizens from some of the economic hardships, thereby decreasing regime dissatisfaction, incentives for anti-regime mobilization, and ultimately the likelihood of regime breakdown. On the other hand, democracies without competent, efficient, and autonomous bureaucrats are less able to handle crises and are therefore more likely to experience regime discontent, challenges, and ultimately breakdown. I examine this proposition in **Paper 4(DEB)**.

As autocracies generally need the support of only a small fraction of the population, they typically distribute goods directly from the state treasuries through private goods in the form of direct cash transfers, preferential business opportunities, or lucrative political positions (Bueno de Mesquita et al. 2005). Having a strong bureaucracy therefore matters less in autocracies during times of crisis. Instead, it becomes pivotal for autocrats to have access to an alternative revenue stream that is unaffected by fluctuations in the real economy and from which they can distribute rents to their winning coalitions. Such alternative sources could be rents from remittances, foreign aid, international lending, or natural resources. **Paper 5(AUB)** focuses on the conditioning impact of the latter, as revenue from natural resources generally constitutes the largest of such alternative revenues streams flowing into numerous autocratic regimes.

Table 5: Conditional factors during the crisis–breakdown process

	I Economic crisis	II Regime dissatisfaction	III Regime challenge	IV Regime breakdown
Democracies	Economic discontent after economic slumps and inflation crises **Paper 1(CRI)**	Regime dissatisfaction after crisis elections **Paper 2(DIS)**	Anti-regime protests and coup attempts after crisis elections **Paper 3(CHA)**	Strong bureaucracies shield democracies **Paper 4(DEB)**
Autocracies	Economic discontent after economic slumps and inflation crises **Paper 1(CRI)**	Regime dissatisfaction after crisis elections	Repression and coup attempts after crisis elections **Paper 3(CHA)**	Natural resources shield autocracies **Paper 5(AUB)**

Table 5 summarizes the role of these conditional factors within the overall theoretical framework. First, the type of economic crisis determines the strength of the subsequent destabilizing effects. Second, national elections act as facilitating events that, in combination with economic crisis, induce regime dissatisfaction. Third, elections also mobilize citizens, which in combination with economic crisis facilitates anti-regime challenges. Fourth and finally, strong bureaucracies act as a shield in democracies, while the revenue from natural resources plays the same role in autocracies.

Chapter 5: Empirical design

The research question that this dissertation examines is a causal one; that is, I investigate under which conditions economic crisis *causes* regime breakdown. In doing this, one always encounters "the fundamental challenge of causal inference," also known as "the selection problem" (Holland 1986). It states that we, as researchers, can only observe one realized outcome for each unit. In the case of this dissertation, it means that we, say, can observe Argentina in 1983 with an economic crisis and a regime breakdown as well as observe Sweden the same year without an economic crisis and without a regime breakdown. However, we are never able to observe what would happen in Argentina in 1983 had it not had an economic crisis. Likewise, we would never truly know what would have happened in Sweden if it had experienced a severe economic crisis that year. This is the crux of the matter: we can never observe the counterfactual.

One of the most convincing ways of addressing this challenge in political science is through experiments, where units are randomly assigned to either a treatment or control group, after which the average outcome is observed between the two groups – yielding a causal estimate. This is not a possibility in this dissertation. When studying variations on the country level, we are rarely able to randomly assign treatment and controls to different countries. In the present case, that would amount to randomly forcing an economic crisis on some countries while randomly assigning economic growth to others, and then comparing the differences in the likelihood of regime breakdown across each group. This is obviously impossible for practical and ethical reasons.[12]

Instead, I am left to *observe* differences on my main variables and, on this basis, to attempt to draw causal estimates. This poses a set of challenges. Specifically, the problem is that observing a difference in breakdown-risk between a country with an economic crisis and one without cannot simply be due to the economic crisis. Even with extensive, well founded, and thorough discussions on which control variables to include in the model specifications, countries

[12] Quasi-experimental designs utilizing some form of natural randomness in economic crisis (e.g. the Great Depression in Europe, the Latin American debt crises in the 1980s, or the economic depression in Eastern Europe after the dissolution of the Soviet Union) are viable alternatives. Even here, however, an array of potential confounders did not vary randomly, such as historical legacy, economic structure, or political system.

will always differ on numerous factors that cannot be measured with reasonable precision. This could be confounding background factors that leave them more crisis-prone and more likely to experience regime breakdown, including geography, colonial history, political culture, the composition of the economy, and government policies. Another source of bias might stem from reverse causality: economic crisis increases the risk of regime breakdown, but regime instability might in turn also trigger economic crises. Depending on the strength of these systematic biases, cross-country regression coefficients might be biased either upwards or downwards – in any case leaving them less reliable as causal estimates.

This dissertation relies on different strategies to mitigate such systematic biases. These are in no way sufficient to overcome all of the problems stated above. Yet I believe they constitute marked improvements compared to prior studies in the literature and generally enhance the ability to interpret the correlation coefficients in a causal manner.

Within-Country Variation

One strategy that I employ in all of the papers forming this dissertation is to consistently use country fixed effects. Although this might seem a minor specification detail, it nonetheless has pivotal implications for the ability to draw causal interpretations. Including country fixed effects simply means that all variables are "de-meaned" so that all unit-specific, time-invariant factors are controlled for. Put simply, this means that the estimates no longer pool all countries together and compare variations in economic crisis and regime breakdown across, say, Argentina and Sweden. Instead, these models solely rely on within-country variation and compare countries with themselves over time. The logic here is that countries are much more similar to themselves across time than with other countries across space. In this manner, the analysis effectively controls for all factors that are constant for each country over time, such as geography or colonial history.

The upshot of this strategy is that it potentially disregards useful variation across countries, which reduces estimation efficiency. However, the length of time of most studies in this dissertation greatly reduces this lost efficiency, ensuring that countries have had time to experience significant variation on the key variables. They have, in other words, had time to experience multiple economic crises, under different conditions, with different regime outcomes.

Taking Time Seriously

The long time period and the examination of events – in the form of elections, coup attempts, or regime breakdowns – pose a set of challenges regarding time. The first challenge relates to common shocks. Throughout history, important world events (e.g. World War I, World War II, the dissolution of the Soviet Union) might alter the survival dynamics in most or all countries. In order to account for such global shocks, all papers include year fixed effects.[13] In addition, I undertake several split-sample analyses in order to investigate whether the relationship is similar across different time periods. In **Paper 5(AUB)**, for example, I explicitly discuss and test whether economic crises are equally destabilizing across different time periods, the relationship proving to be much weaker after the 1960s.

A second challenge is country-specific trends over time; that is, regardless of general worldwide trends, some countries might simply become more stable economically and politically over time (e.g. most Western countries), while others might become more unstable over time (e.g. some Sub-Saharan African countries). In order to account for such temporal trends over time, I provide additional robustness checks with unit root tests and error correction models (e.g. in **Paper 2(DIS)** and **Paper 5(AUB)**).

A final set of challenges stems from the fact that I focus on *events*. Both the dependent variable (e.g. coup attempts in **Paper 3(CHA)** and regime breakdowns in **Paper 4(DEB)** and **Paper 5(AUB)**) and the independent variable (e.g. national elections in **Paper 2(DIS)** and **Paper 3(CHA)**) take form as events. This requires well-founded modelling of time. Without going into detail here, all individual papers account for underlying survival dynamics and model the effects of events over time in a thorough and novel manner.

Instrumental Variable Estimation

Despite the use of country fixed effects, several other sources of endogeneity stemming from time-variant factors might bias the results. One example could be poor incumbent policies that lead to both weak economic performance and at the same time leave the winning coalition dissatisfied with the regime. Another source of bias could stem from reverse causality. Economic crises increase the risk of regime breakdown, but increased risk of regime breakdown may also lead to lower investments and poor economic performance.

[13] Through the inclusion of a full set (N-1) of year dummies.

In order to address issues of endogeneity, in some papers I supplement the main analysis with a 2SLS instrumental variable (IV) approach, where the average level of global economic crisis is used as a source of exogenous variation in domestic economic crisis for a given country. The idea of employing average global economic crisis as an instrument is to isolate the part of the variation in domestic economic crisis that is determined outside the realm of domestic politics in a given country; that is, the IV regressions – if key assumptions are not violated – only use variation in domestic economic crises that are not hampered by the endogeneity issues described above. Instead, these estimates only provide local average treatment effects of exogenously induced (in both the econometric and geographic sense) changes in domestic economic activity on the likelihood of regime breakdown.

Consider the 1983 regime breakdown of the military regime in Argentina: The Argentinian economy was in severe turmoil, partly due to the poor economic policies of the military government, partly due to the general political instability in the country, and partly due to the international economic situation where international investors suddenly withdrew investment and credit. Put simply – and in a very stylized manner – the IV estimations only examine the effects of the part of the Argentinean economic crisis that were due to international economic developments. These models therefore greatly mitigate endogeneity biases and provide an important addition to the main analyses.

This strategy and its advantages only work if the instrument is strong and valid; that is, the average level of global economic crisis should be strongly correlated with the domestic economic crisis and should not be correlated with the outcome in any other ways than through its impact on the domestic economic crisis. **Paper 5(AUB)**, which uses the instrumental variable (IV) strategy most extensively in this dissertation, provides a range of tests on both the strength and validity of the instrument.

Examining Mechanisms

All of the papers in this study employ quantitative methods. When doing analyses of this kind, the main weakness is often the lack of granular examinations of the causal mechanisms. This is not a cause of endogeneity itself, but it hampers the ability to vindicate the specific arguments made in each paper. I have therefore gone to great lengths to address this issue as well as possible within the bounds of the quantitative framework employed in this dissertation. Specifically, each paper provides a detailed empirical illustration of important observable implications of the different conditional arguments.

Paper 2(DIS) argues that elections during economic crises reduce citizens' efficacy and thereby their democratic satisfaction, while **Paper 3(CHA)** argues that the combination of elections and economic crisis increases the risk of coup attempts primarily via increased anti-regime protests in democracies and increased repression in autocracies. **Paper 4(DEB)**, argues in turn that well-functioning bureaucracies mitigate anti-regime mobilization in crisis-ridden democracies, while **Paper 5(AUB)** argues that natural resources provide autocrats with a constant revenue stream, increasing their capacity to repress and their ability to receive international credit. These are all testable arguments, and these additional mechanism-analyses go part way to illustrating the theoretical mechanisms in a rigorous, quantitative manner. Although they do not provide a fully implemented causal process analysis that empirically traces the causal mechanisms in play, they still provide important quantitative evidence of the mechanisms and a more rigorous examination of the overall relationship.

Chapter 6: Main Contributions and Discussion

Why do economic crises only sometimes and only in some places lead to regime instability? Why did Argentinian generals have to cede power during the 1980s debt crisis, whereas the Mugabe regime in Zimbabwe and Pinochet regime in Chile were able to cling to power despite multiple economic crises during their rule? And what factors ultimately made even these regimes vulnerable to economic crisis?

This chapter provides some answers by presenting the main contributions of the five papers in the dissertation. The presentation follows the contingent pathway discussed above, each paper focusing on a separate stage.

Findings I: Economic Crisis

As argued above, earlier inquiries in comparative politics that have dealt with the effects of economic crisis have generally employed the AGR measurement approach. This often leads to misguided perceptions of the economy – especially during times of economic crisis. In an attempt at overcoming this issue, the dissertation includes a whole paper dedicated to discussing how we should (not) measure economic crisis in the literature. Specifically, **Paper 1$_{(CRI)}$** demonstrates how the standard AGR approach leads to misguided impressions of crisis severity; makes no distinction between rapid expansion years and rapid recovery years; and disregards the financial dimension of economic crises. The paper provides a brief summary of three dominant approaches of measuring economic crisis from the economics literature: economic shocks, economic slumps, and financial crises. To demonstrate the usefulness of these alternatives, it replicates Kim's (2016) influential study of the relationship between economic crisis and coup attempts. This shows how the alternative measures yield findings that are more robust and facilitate theoretical advances by revealing how various types of crises have different effects. In particular, **Paper 1$_{(CRI)}$** reveals that inflation crises and especially economic slumps (i.e. prolonged periods where economic output remains below pre-crisis levels) are the most destabilizing. Overall, these findings provide two main contributions.

First, following these insights, the four remaining papers in the dissertation refrain from using the traditional AGR approach, instead employing crisis measures that capture prolonged periods of real economic crisis. **Paper 2$_{(DIS)}$** and **Paper 3$_{(CHA)}$** modify the AGR approach and use 2-year moving averages of economic growth. This simple modification overcomes some of the shortcomings discussed in **Paper 1(CRI)**, as a moving average specification by definition accounts for prior economic performance, provides a more precise impression of crisis severity, and, given that prior performance is explicitly accounted for, diminishes the risk of conflating recovery and expansion periods. **Paper 4(DEB)** employs the same economic slump measure introduced in **Paper 1(CRI)**. Specifically, it dichotomizes country-years into crisis and non-crisis periods based on prior economic output and scores countries as being in crisis until pre-crisis output levels have been restored. **Paper 5(AUB)** employs a novel measurement approach of economic crisis. Specifically, I create a Current-Trend measure, which calculates the ratio between the current level of GDP/cap and the average GDP/cap level for the previous 5 years; that is, it calculates the wealth of a given country today (current) compared to the average wealth it once had (the trend). In so doing, it measures the depth of the economic crisis and overcomes many of the typical AGR shortcomings discussed in **Paper 1(CRI)**.

Second, **Paper 1(CRI)** demonstrates how the impact of economic crises is conditional on the type of crisis itself. It shows that persistent economic slumps and financial crises are the most destabilizing forms of economic crisis, whereas annual fluctuations in growth, short transitory shocks, sovereign debt crises, currency crises, and banking crises induce less regime instability. This suggests that crisis-induced dissatisfaction, mobilization, and challenges take time to build up steam. Only when broad spectrums of society are hit by the crises – as is often the case with economic slumps and financial crises – do we see economic crises increase the risk of regime breakdown.

Findings II: Regime Dissatisfaction

Paper 2(DIS) examines the conditional relationship between economic crisis and regime dissatisfaction. It focuses on regime satisfaction in the region where regimes have been most stable, namely Western Europe in the period 1976–2012. It demonstrates that national elections held during an economic upturn significantly increase satisfaction with democracy in the post-election period, whereas elections held in the context of poor economic performance significantly reduce such satisfaction levels. These effects are strongest during the election year but persist for around 3 years into the electoral term. By demonstrating how the combination of national elections and economic crisis interact to produce regime dissatisfaction, **Paper 2(DIS)** corroborates the arguments forwarded in Chapter 4 regarding the second stage in the crisis–breakdown process.

These results require a note of qualification: The focus of this dissertation is the conditional impact of economic crisis. But the empirical analyses in **Paper 2(DIS)** mainly examines the conditional impact of national elections. So do these empirical examinations really test the theoretical propositions made in this dissertation summary? Given that the product term in multiplicative interaction effects is symmetrical, the answer is yes; that is, the interaction coefficients simultaneously reveal how the effect of national elections differs for different values in the economic crisis variable and how the effect of economic crisis varies across different values in the election variable (see Brambor, Clark, and Golder 2006). Hence, although the theoretical and empirical focus of **Paper 2(DIS)** is on the impact of national elections, the examinations in the paper have clear implications for the proposition in this summary: they suggest that the combination of national elections and economic crisis has a strong negative impact on citizens' satisfaction with their regime. For the sake of completeness, I have examined the opposite interaction effects as well in Appendix A. These reveal that the effect of economic crisis on citizens' satisfaction with democracy is indeed strongest during elections.

Findings III: Regime Challenge

Paper 3(CHA) examines the conditional relationship between economic crisis and regime challenges. It focuses on the most destabilizing type of regime challenge, coup attempts, for a sample of 128 countries that conducted at least minimally contested elections in the period 1952–2013. The results suggest that elections held during economic crises significantly increase the risk of coups in the post-election period, whereas elections held in the context of a well-performing economy bolster regimes against coup attempts. These effects are strongest immediately after an election and persist for 2–3 years before gradually tapering off. The results also suggest that the established relationship is linked via anti-regime protests in democracies and state repression in autocracies. Overall, these results indicate that national elections in combination with economic crises increase the likelihood of regime challenges in the form of coup attempts. By demonstrating how the combination of national elections and economic crisis interacts to produce regime challenges, **Paper 3(CHA)** corroborates the arguments put forward in Chapter 4 during the third stage in the crisis–breakdown process.

As with the previous section, I also explicitly examine the opposite interaction effects in Appendix B. These results, again, corroborate the argument: economic crises increase the risk of coup attempts but do so to a higher extent during elections.

Findings IV: Regime Breakdown

Finally, as already argued, political regimes are often able to dampen and resist crisis-induced mobilization. Regimes often have different shields available to them that both defuse and ward off otherwise destabilizing regime challenges during times of economic crisis. Only in instances where regimes do not have such shields available should we expect them to be vulnerable to economic crises.

Paper 4(DEB) tests the shielding effect of bureaucratic quality in statistical analyses of democracies globally from 1903 to 2010. The results show that during economic crises, democracies with high-quality bureaucracies generally see lower levels of anti-regime mobilization and are therefore less likely to break down. In contrast, democracies with low-quality bureaucracies experience sharp increases in anti-regime mobilization and are much more likely to break down during economic crises.

Paper 5(AUB) tests the shielding effect of revenue from natural resources in statistical analyses of autocracies globally from 1875 to 2014. The results show that the availability of natural resources shields autocratic leaders from the destabilizing effects of economic crises, as they have access to a constant inflow of money, which increases their ability to repress and improves their access to international credit. In contrast, autocrats who do not have access to such income streams are more vulnerable during economic crises and experience markedly higher risks of being irregularly removed. Overall, these results indicate that if regimes have such shields available to them, they are much likelier to survive periods of economic crisis, while regimes without these conditions are left with more instability and higher likelihood of breakdown. These findings provide support to the conditional arguments discussed in Chapter 4 regarding the final stage in the crisis–breakdown process.

Key implications

So what is the relationship between economic crisis and regime breakdown? In this dissertation, I argue and show that the relationship takes the form of a step-by-step process wherein important conditions at each stage determine the overall strength and development of the process. First, the type of economic crisis determines the impact of an economic crisis. In particular, economic slumps prove to be the most destabilizing form of crisis, while inflation crises also exert significant effects. Second, national elections act as facilitating events that in combination with an economic crisis induce regime dissatisfaction. Third, elections during economic crises also lead to increased mass mobilization in democracies and increased levels of repression in autocracies, thereby increasing the risk of coup attempts. Fourth and finally, strong bureaucracies act as a significant shield in democracies, while natural resource revenues have the same moderating effects in autocracies.

These findings show that the relationship between economic crisis and regime breakdown is indeed highly complex, with many conditional factors. By not accounting for such conditions, studies in existing literature might search for an average effect of an inherently conditional relationship, thereby producing highly sensitive results: in some model specifications, the coefficient of economic crisis comes out significant, whereas in other specifications it does not – ultimately leaving the literature with mixed and inconsistent findings. Future studies would therefore do well to account for such conditions and preferably examine alternative factors that yield similar conditional effects. This would further improve our understanding of both the vulnerability and resilience of crisis-plagued regimes that we see around the world today.

Relevance for Contemporary Regimes

In 1919, after the end of World War I, John Maynard Keynes wrote his forceful (but often overlooked) book, *The Economic Consequences of the Peace*. In his opening statement, Keynes warned Europe:

> The power to become habituated to his surroundings is a marked characteristic of mankind. Very few of us realize with conviction the intensely unusual, unstable, complicated, unreliable, temporary nature of the economic organization by which Western Europe has lived for the last half century. We assume some of the most peculiar and temporary of our late advantages as natural, permanent, and to be depended on, and we lay our plans accordingly. On this sandy and false foundation we scheme for social improvement and dress our political platforms, pursue our animosities and particular ambitions, and feel ourselves with enough margin in hand to foster, not assuage, civil conflict in the European family.

Within 20 years, around half of Europe's democracies had broken down and the world was heading towards World War II.

Does Keynes' prophetic warning have any relevance today? Most would probably say no – pointing to an array of factors that make "this time different." The findings in this dissertation provide some support for this argument. As illustrated in Figure 3, both the general quality of the world bureaucracies as well as revenues from natural resources have increased markedly in recent decades. Although these two factors are by no means the only relevant ones, this development suggests that many regimes are much more resilient to economic crisis today than in the past.

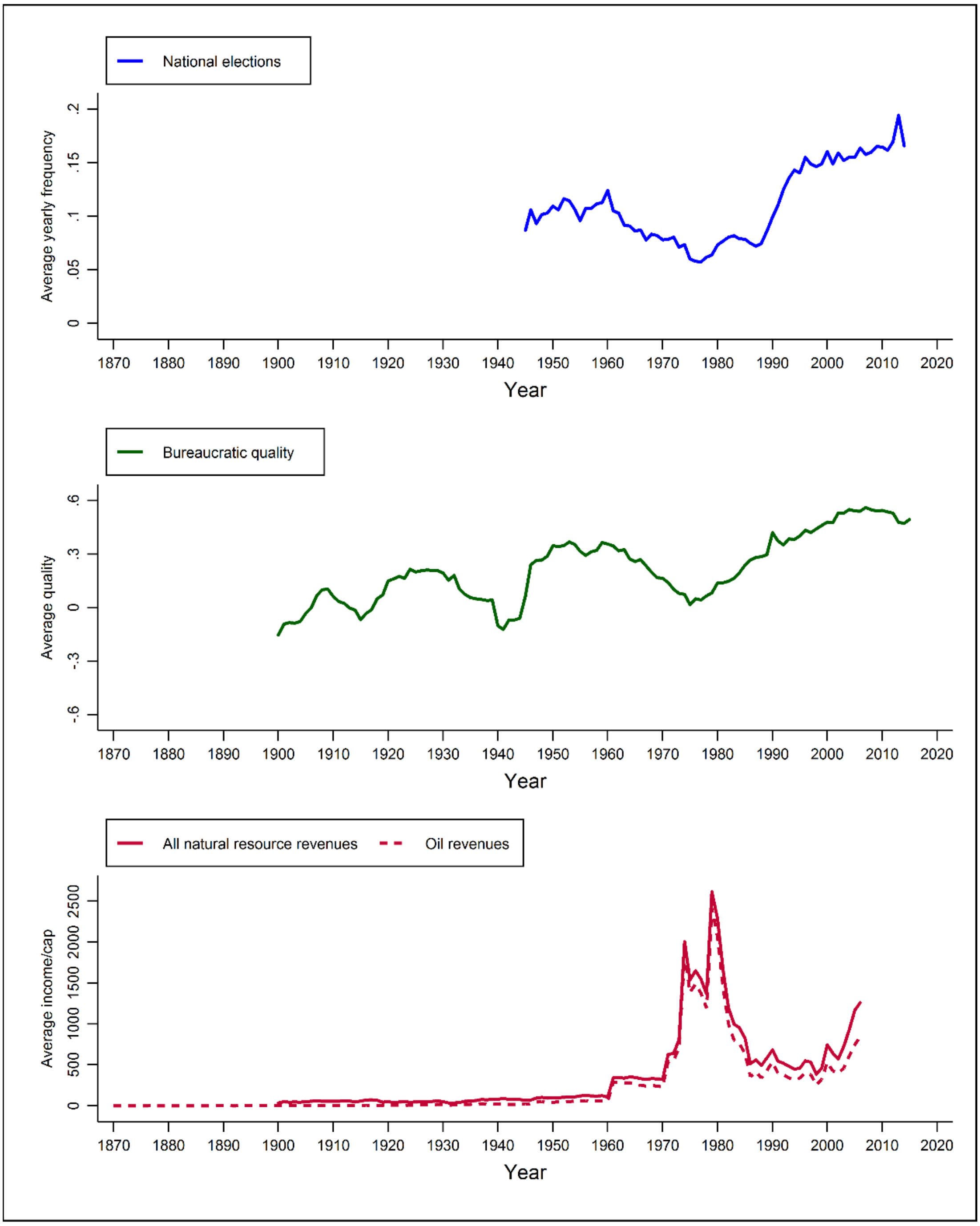
On top of this, an array of related factors may induce the same shielding effects in contemporary regimes during economic crises. In democracies, the development of the welfare state probably induces similar crisis-alleviating effects by safeguarding the population economically through social insurance schemes and job-market regulations (see Schmidt 1983; Taydas and Peksen 2012). Similarly, autocratic regimes might be more resilient to economic crises today due to increases in alternative revenue streams stemming from aid (see Feyzioglu, Swaroop, and Zhu 1998; Dunning 2004; Collier 2006; Bueno de Mesquita and Smith 2009; S. Bermeo 2017), remittances (see Ahmed 2012; Escribà-Folch, Meseguer, and Wright 2015), international lending (see Berthélemy 2006; Dreher and Jensen 2007; Casper 2017), and support from autocratic superpowers like China (see Taylor 2006; Bader 2015). While the separate papers in this dissertation account for these factors in different ways – ensuring that the results are not simply an artifact of their confounding effects – they do call for future studies on the regime-insulating effects of these alternative shields.

On the other hand, I also show that a range of conditional factors may increase the destabilizing effects of economic crisis today. Most clearly, I demonstrate how national elections in combination with economic crisis facilitate both regime dissatisfaction and regime challenges. As national competitive elections have become prevalent around the world, this suggests that economic dissatisfactions are more likely to materialize into regime dissatisfaction in today's regimes. In addition, the fact that economic slumps and inflation crises prove to be the most destabilizing type of economic crisis provides a further note of caution to the many regimes that have constantly struggled with these types of crises for several years – including Greece, Brazil, Zimbabwe, Jordan, and Egypt.

These insights can be used to assess the breakdown-risk in modern-day, crisis-ridden regimes. In Venezuela, for example, the country is experiencing what might be the most severe economic crisis in its modern history, with a deep economic slump combined with uncontrollably high inflation. Naturally, this has led to extensive public dissatisfaction with the regime, and anti-regime protests occur almost daily. At the time of writing, however, the regime seems able to survive. It owes part of this ability to its natural resources, which have provided an alternative revenue stream from which it has distributed rents to essential regime backers in the military. Tellingly, the regime was much more fragile when oil prices were low, but its crisis-resilience seems to have improved as revenues have increased. Conversely, should the regime break down, it is likely to do so in connection with elections. As argued, elections provide a focal point around which opposition sentiments and anti-regime challenges can develop. In Venezuela, the occurrence of elections – although boycotted by most of the opposition – has already shown its mobilizing potential in the form of massive opposition protest activities. If combined with other destabilizing events (e.g. waning oil revenues), a future national election during an economic crisis could prove fatal for the regime.

While this dissertation has shed light on some important conditional factors that interact with economic crisis in determining the risk of regime breakdown, future scholars could profit from examining other conditions with similar impacts. This would bring a welcome addition to our current knowledge of the conditional impacts of economic crisis and potentially provide a sound basis from which analysts, pundits, and policymakers can make assessments and political decisions about how best to manage the ailments of economic crisis in today's world.

Figure 3: World developments in elections, bureaucratic quality, and natural resource revenues



Note: Top panel illustrates average frequency of competitive national elections in the world over time (5-year moving averages) with data from the NELDA dataset (Hyde and Marinov 2012), higher values indicating higher election frequency. Middle panel depicts average bureaucratic quality in the world over time with data from the V-dem dataset (Coppedge et al. 2017), higher values indicating higher quality of bureaucracies. Bottom panel documents average per capita income from natural resources (and oil revenues) in the world over time with data from Haber and Menaldo (2011), with revenues given in constant 2007 USD. Only country-years of independence are included in the calculations of all three panels.

Short Summary

An extensive body of literature has studied the relationship between economic crisis and regime breakdown. Yet there is little agreement on the robustness of this relationship – both in the literature and in real-world instances. In some studies and in some instances around the world, economic crises increase the likelihood of regime breakdown. In other studies and in other situations, economic crises do not destabilize regimes. In this dissertation, I address this ambiguity by asking: What is the relationship between economic crisis and regime breakdown? In five separate papers, I scrutinize the entire process of economic crisis, regime dissatisfaction, regime challenge, and regime breakdown. Different conditional factors are examined that interact in each stage with economic crises in inducing or preventing regime breakdown. I do so by paying particular attention to typical issues of endogeneity in observational studies. The papers in the dissertation employ stronger and more valid measures of economic crisis; rely only on within-country variation; explicitly model temporal durations, shocks, and trends; consistently scrutinize the proposed causal mechanisms; and provide additional tests that utilize exogenous variation in economic crises through instrumental variable (IV) estimation.

The findings demonstrate how different types of *economic crises* have varying impacts – with economic slumps and inflation crises being particular destabilizing. Furthermore, the results show how national elections and economic crises reinforce each other in exerting strong, lasting impacts on public *regime dissatisfaction* and the risk *regime challenges*, respectively. Finally, I find that bureaucratic quality is pivotal in protecting democracies against *regime breakdown* during economic crises, while revenue from natural resources provides the same protection in crisis-ridden autocratic regimes. The dissertation thereby provides an argument for when and where economic crises are likely to cause regimes to break down. Given that these moderating factors have become prevalent around the world, scholars and policymakers should be aware of such conditions when assessing and managing regime instability in countries plagued by severe economic crisis.

Dansk Resumé

Under den Store Depression i 1932 udtrykte daværende socialdemokratiske statsminister, Thorvald Stauning, følgende ønske ved Rigsdagens åbning:

> Der er megen Uro og Forvirring i Verden, fremkaldt af den sørgelige økonomiske Udvikling. Jeg udtaler Haabet om, at Land og Folk vil komme igennem Krisen uden voldsomme Rystelser, og jeg foreslaar, at vi indleder Rigsdagens nye Samling med et Leve vort Fædreland Danmark.

Staunings ønske blev som bekendt til virkelighed, og Danmark klarede sig igennem krisen med skindet på næsen. Dette var dog ikke tilfældet for mange andre lande verden over. Her blev konflikt og regimesammenbrud resultatet af den verdensomspændende krise. Eksempler såsom Tyskland, Østrig og Spanien viste hvor skrøbelige politiske regimer kan være når krisen kradser og økonomien er i frit fald.

Faktisk er sammenhængen mellem økonomisk krise og regimesammenbrud et gentagende fænomen som har udspillet sig overalt i verden de sidste århundreder. Vi ser ofte at politiske regimer – demokratiske såvel som autokratiske – destabiliseres under økonomiske kriser og bryder sammen. Dette skyldes at de økonomiske konsekvenser bliver så ulidelige at både den brede befolkning såvel som den snævre elite vender sig mod det politiske regime, og dermed gøder jorden for protester, konflikt og kup.

Omvendt ser vi lige så tit at regimerne overlever sådanne krise-perioder – eksempelvis som i Danmark i 1930'erne. Her synes de økonomiske konsekvenser ikke at lede til en utilfredshed med regimet, og destabiliserende begivenheder såsom protester, konflikt og kup er sporadiske eller helt fraværende. Dette modsætningsforhold kendetegner også den akademiske litteratur, hvor cirka halvdelen af alle studier finder en sammenhæng mellem økonomiske kriser og regimesammenbrud, alt imens den anden halvdel ikke finder støtte til en sådan sammenhæng. Så hvad er det egentlig der afgør hvorvidt et politisk regime overlever eller bryder sammen under en økonomisk krise?

I denne afhandling belyser jeg dette spørgsmål. Afhandlingen består af fem separate artikler der – i fire dele – analyserer hele den gradvise proces bestående af økonomisk krise, regime-utilfredshed, regime-udfordringer og slutteligt regimesammenbrud. I første del spørger jeg hvad en økonomisk krise er og diskuterer forskellige måder hvorpå man bør (og ikke bør) måle økonomisk krise i den akademiske litteratur. Denne del viser desuden at vedvarende økonomiske bølgedale samt inflationskriser er de mest destabiliserende, hvorimod kortvarige økonomiske stød, gældskriser, bankkriser samt valutakriser er mindre destabiliserende.

Dette danner grundlag for de to næste dele, som undersøger under hvilke omstændigheder økonomisk kriser fremmer oppositionelle kræfter imod et regime. Anden del viser hvorledes nationale valg under økonomiske kriser – i Vesteuropa siden 1970'erne – udøver en stærk og vedvarende påvirkning på befolkningens utilfredshed med deres regime. Kombinationen af valg og økonomisk krise medfører, at befolkningen ikke kun bliver utilfreds med landets politikere, men også vender utilfredsheden mod de grundlæggende politiske institutioner i et samfund.

I forlængelse heraf viser tredje del af afhandlingen, hvorledes nationale valg under økonomiske kriser – på globalt plan siden afslutningen af Anden Verdenskrig – udøver en vedholdende påvirkning på risikoen for regime-udfordringer i form af kupforsøg. Krisevalg øger destabiliserende massemobilisering i demokratier og øger repressionsniveauet i autokratier, hvilket i begge regimer øger sandsynligheden for at militære eliter vil foretage et kupforsøg.

Sluttelig analyserer sidste del regimets rolle under økonomiske kriser. Her viser en analyse af verdens demokratier i perioden 1903–2010 at kvaliteten af statens bureaukratiske apparat er altafgørende for demokratiets modstandsdygtighed under økonomiske kriser. Dette skyldes at lande med velfungerende bureaukratier oplever mindre massemobilisering, da befolkningen i disse tilfælde er mere tilfreds med det demokratiske systems evne til at håndtere krisen. I autokratier er det mængden af naturressourcer – såsom olie – som er afgørende. En analyse af verdens autokratier helt tilbage fra 1875 viser, at diktatorer med store indtægter fra naturressourcer er mere stabile i krisetider, da de nyder godt af en konstant indtægtskilde, har bedre mulighed for at undertrykke befolkningen og nemmere kan modtage kredit på de finansielle markeder.

Alt i alt belyser denne afhandling dermed vigtige betingelser der i hver deres fase afgør hvorvidt en økonomisk krise leder til et regime sammenbrud. I lyset af at afholdelsen af valg, velfungerende bureaukratier samt indtægter fra naturressourcer er blevet mere og mere udbredte i dagens verden, giver denne afhandling sit bud på hvorfor nogle regimer i dag formår at klare sig igennem økonomiske krisers tunge åg uden at bryde sammen, mens andre ikke gør.

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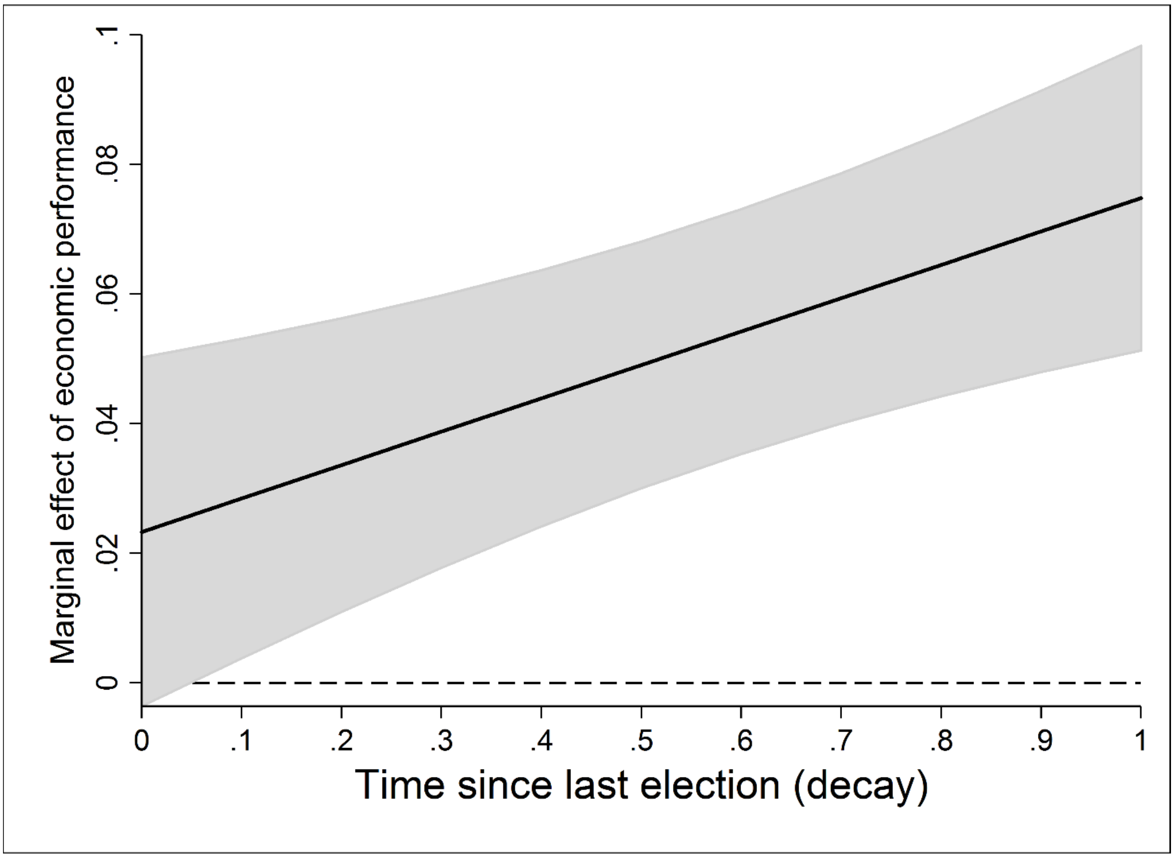
Appendix A

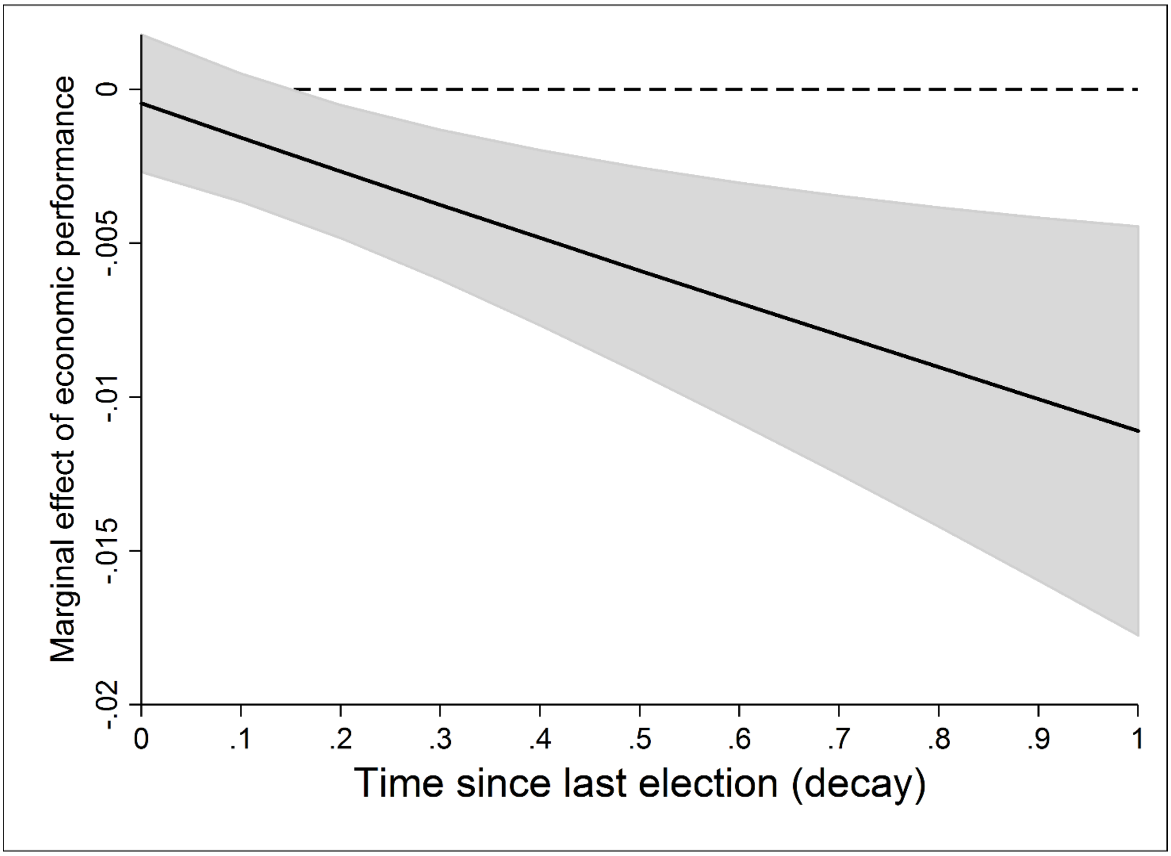
Figure A1: Marginal effects of economic crisis on satisfaction with democracy for different values on election decay



Notes: The graph shows average marginal effects of economic growth (2-year moving average) on satisfaction with democracy for different values of the election decay variable (see **Paper 2(DIS)** for detailed description). It shows that the positive effect of economic performance (meaning that economic expansion increases democratic satisfaction while economic crisis decreases satisfaction) is stronger the closer we are to recently having held an election; that is, the effect is strongest during the election year (decay function = 1), gradually weakening over time (the value of the decay function gets smaller).

Appendix B

Figure B1: Marginal effects of economic crisis on coup attempts for different values on election decay



Notes: The graph shows average marginal effects of economic growth (2-year moving average) on the likelihood of coup attempts for different values of the election decay variable (see **Paper 3(CHA)** for detailed description). It shows that the negative effect of economic performance (meaning that economic expansion reduces the likelihood of coup attempts while economic crisis increases the likelihood) is stronger the closer we are to recently having held an election; that is, the effect is strongest during the election year (decay function = 1), gradually weakening over time (the value of the decay function gets smaller).