


# G I G A *Working Papers*

German  Institute of Global and Area Studies  
Leibniz-Institut für Globale und Regionale Studien

GIGA Research Programme:  
Legitimacy and Efficiency of Political Systems

---

## **Long-Term Monarchical Survival in the Middle East: A Configurational Comparison, 1945–2012**

André Bank, Thomas Richter and Anna Sunik

**No 215**

**February 2013**

GIGA Working Papers serve to disseminate the research results of work in progress prior to publication to encourage the exchange of ideas and academic debate. Inclusion of a paper in the Working Papers series does not constitute publication and should not limit publication in any other venue. Copyright remains with the authors.

Edited by the  
GIGA German Institute of Global and Area Studies  
Leibniz-Institut für Globale und Regionale Studien

The GIGA Working Papers series serves to disseminate the research results of work in progress prior to publication in order to encourage the exchange of ideas and academic debate. An objective of the series is to get the findings out quickly, even if the presentations are less than fully polished. Inclusion of a paper in the GIGA Working Papers series does not constitute publication and should not limit publication in any other venue. Copyright remains with the authors. When working papers are eventually accepted by or published in a journal or book, the correct citation reference and, if possible, the corresponding link will then be included on the GIGA Working Papers website at

<[www.giga-hamburg.de/workingpapers](http://www.giga-hamburg.de/workingpapers)>.

GIGA Research Programme “Legitimacy and Efficiency of Political Systems”

Copyright for this issue: © André Bank, Thomas Richter and Anna Sunik

WP Coordination and English-language Copy Editing: Melissa Nelson

Editorial Assistance and Production: Christine Berg, Kerstin Labusga

All GIGA Working Papers are available online and free of charge on the website  
<[www.giga-hamburg.de/workingpapers](http://www.giga-hamburg.de/workingpapers)>.

For any requests please contact:

E-mail: <[workingpapers@giga-hamburg.de](mailto:workingpapers@giga-hamburg.de)>

The GIGA German Institute of Global and Area Studies cannot be held responsible for errors or any consequences arising from the use of information contained in this Working Paper; the views and opinions expressed are solely those of the author or authors and do not necessarily reflect those of the Institute.

GIGA German Institute of Global and Area Studies

Leibniz-Institut für Globale und Regionale Studien

Neuer Jungfernstieg 21

20354 Hamburg

Germany

E-mail: <[info@giga-hamburg.de](mailto:info@giga-hamburg.de)>

Website: <[www.giga-hamburg.de](http://www.giga-hamburg.de)>

## Long-Term Monarchical Survival in the Middle East: A Configurational Comparison, 1945–2012

### Abstract

The survival of eight monarchies during the “Arab Uprisings” of 2011 has put center stage the fundamental question about the durability of this subtype of authoritarian regime. Seen from a broader historical perspective, however, the idea that monarchies have an inherent advantage in retaining power is less evident: a number of authoritarian monarchies broke down and subsequently became republics (Egypt 1952, Iraq 1958, North Yemen 1962, Libya 1969, Iran 1979), while others survived (Bahrain, Jordan, Kuwait, Morocco, Oman, Qatar, Saudi Arabia, UAE). To account for these divergent long-term pathways we compare the 13 current and former Middle Eastern monarchies, as well as their different trajectories. Using a fuzzy set qualitative comparative analysis (fsQCA), we concentrate on five central explanatory factors derived from previous research on Middle Eastern monarchies – namely, US military support, rent revenues, family participation, the monarch’s claim to legitimate rule and anti-government protest. Our findings support the existence of two broad pathways to monarchical survival – linchpin monarchies, like Jordan and Morocco, versus the dynastic Gulf monarchies – and also reveal a possible third pathway, one which shares linchpin characteristics, but relates to cases on the Arabian Peninsula (Oman, the historical Imamate in North Yemen, and Saudi Arabia).

**Keywords:** Middle East monarchies, regime survival, family participation, rents, legitimacy claims, US military support, anti-government protests, Arab Uprisings

This paper grew out of research done in the project “Middle East Monarchies: A Configurational Comparison of Breakdown and Survival since 1945,” funded by the Fritz-Thyssen Foundation.

Online: <[www.giga-hamburg.de/english/index.php?file=fp\\_middle\\_east\\_monarchies.html&folder=rp1](http://www.giga-hamburg.de/english/index.php?file=fp_middle_east_monarchies.html&folder=rp1)>

### André Bank, M.A.

is a political scientist and research fellow at the GIGA Institute of Middle East Studies.

Contact: <[andre.bank@giga-hamburg.de](mailto:andre.bank@giga-hamburg.de)>

Website: <<http://staff.en.giga-hamburg.de/bank>>

**Dr. Thomas Richter**

is a political scientist and senior research fellow at the GIGA Institute of Middle East Studies. He is the spokesperson for the research team "Persistence and Change in Non-democratic Regimes."

Contact: <thomas.richter@giga-hamburg.de>

Website: <<http://staff.en.giga-hamburg.de/richter>>

**Anna Sunik, M.A.**

is a political scientist and junior research fellow at the GIGA Institute of Middle East Studies. She is also a doctoral student at Ruprecht-Karls University Heidelberg.

Contact: <anna.sunik@giga-hamburg.de>

Website: <<http://staff.en.giga-hamburg.de/sunik>>

# Long-Term Monarchical Survival in the Middle East: A Configurational Comparison, 1945–2012

André Bank, Thomas Richter and Anna Sunik

## Article Outline

- 1 Introduction
  - 2 State of the Art: Monarchies in the Middle East
  - 3 Fuzzy Set QCA as a Method of Systematic Comparison
  - 4 Empirical Analysis: Monarchical Survival and Breakdown in the Middle East, 1945–2012
  - 5 Discussion of Results and Conclusions
- Bibliography
- Appendix

## 1 Introduction

The recent “Arab Uprisings” have cast new light on the discussion<sup>1</sup> about the conditions required for the survival of authoritarian monarchies in the Middle East.<sup>2</sup> In the two years since mass social protests began, in late 2010, a fascinating monarchy–republic divide has become apparent in the region: while the heads of state in the authoritarian republics of Tunisia, Egypt, Yemen and Libya have been ousted, it is striking to note that the eight authoritari-

---

<sup>1</sup> We would like to thank Thomas Demmelhuber, Claudia Derichs, Ferdinand Eibl, Julia Grauvogel, Michael Herb, Marianne Kneuer, Russell Lucas, Miquel Pellicer and Stephan Rosiny for their insightful comments and productive criticism on previous versions of this paper. We are also grateful to David Jordan and Mirjam Edel for their excellent research assistance.

<sup>2</sup> Broadly understood, the Middle East is constituted of the following 21 currently existing and internationally recognized states: Algeria, Bahrain, Egypt, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Libya, Mauritania, Morocco, Oman, Qatar, Saudi Arabia, Sudan, Syria, Tunisia, Turkey, the United Arab Emirates (UAE) and Yemen (until 1991, North and South Yemen). Given that they have not been fully recognized under international law, the Palestinian Territories are not currently defined as a state.

an monarchies have thus far survived – and this despite the mass demonstrations that have taken place, such as in Bahrain in February and March of 2011 as well as in Jordan and Morocco throughout 2011 and 2012.<sup>3</sup> Put differently, the breakdown of the “Arab presidents for life,” as Roger Owen has called them (Owen 2012), and the survival of the eight Middle Eastern monarchies throughout the course of the “Arab Uprisings” leads us to pose the fundamental question of what the specific conditions are for the survival of this subtype of authoritarian regime (Lucas 2011; Yom 2012; Yom and Gause III 2012).

Given that an authoritarian monarchy has not broken down in the Middle East since the Iranian revolution of 1979, when the Pahlavi monarchy ended, this article thus undertakes a historical comparison since 1945, systematically taking into account all 13 cases of monarchical survival and monarchical breakdown. In the earlier period, spanning the 1950s to 1970s, it was these authoritarian monarchies that encountered particularly large-scale social protests, and a significant number of them were eventually replaced by republics. At the same time, however, certain authoritarian monarchies have survived. Against this historical background, the guiding research question of this article becomes: What explains monarchical survival in the Middle East since 1945?

The next part, Section 2, presents the state of the art on authoritarian monarchies in the Middle East. We identify a number of deficits and contradictory propositions in the existing literature, and underline the importance of a historical-comparative perspective that, first, combines arguments from all of the previous explanations, second, applies them to all cases of monarchical survival and breakdown, and third, does so systematically over a longer period of time. Based on close scrutiny of the existing literature, we combine a number of the core perspectives that are considered to be key in understanding long-term monarchical survival: US military support; rent income from the export of oil and natural gas; family participation in political decision-making; and, legitimacy sources.

Section 3 introduces our comparative method, a fuzzy set qualitative comparative analysis (fsQCA). Based on Boolean algebra, this approach allows us to test for the necessary and sufficient conditions for the two “outcomes” – either survival or breakdown. Section 4 – the main empirical part of the paper – then presents our analysis of Middle Eastern monarchies along the lines of the aforementioned conditions and over the course of the period from 1945 to 2012. Our main findings are that three distinct groups of causal conditions can be said to explain the survival of authoritarian monarchies in the Middle East: First, the linchpin monarchies of Morocco and Jordan have survived due to their historical-religious claims to legitimacy, and despite lacking rent revenues and there being no participation of the extended royal family in political decision-making. Second, the dynastic Gulf monarchies are reliant mainly on high rents and family participation in order to ensure their survival. A third group

---

<sup>3</sup> In addition to Bahrain, Jordan and Morocco, the other five contemporary authoritarian monarchies in the Middle East are Kuwait, Oman, Qatar, Saudi Arabia and the UAE.

of monarchies from the “southern” part of the Arabian Peninsula – the Sultanate of Oman, the Imamate in North Yemen (until 1962), as well as to a certain degree the Saudi Kingdom – point to a third potential pathway to survival, one in need of further investigation. While these pathway-specific findings are generally in line with earlier monarchy research on the Middle East, we contend that there is no singly sufficient condition for monarchical survival – be it rent income, family participation or legitimation. When it comes to monarchical breakdown in the Middle East, our findings reveal the complexity underlying the revolutionary events that occurred from the 1950s to the 1970s and highlight important case-specific pathways rather than overarching trends. In the final part, Section 5, we summarize and discuss the findings of our comparative-historical analysis and highlight some lessons for the debate about monarchies in the Middle East.

## 2 State of the Art: Monarchies in the Middle East

This section presents an overview of the Comparative Politics research conducted to date on authoritarian monarchies in the Middle East, the region in which by far the most “ruling and reigning” monarchies were in existence as of the end of 2012.<sup>4</sup> The aim herein is to identify the key findings and arguments, as well as the major shortcomings, of the existing monarchy research. This allows us to address the central gaps in the literature, and will also potentially yield new insights with the help of the systematic-historical fsQCA that will be used in the subsequent sections.

The first systematic accounts addressing the survival and breakdown of postcolonial monarchies date back to the 1950s and 1960s, when modernization-theory approaches studied the newly independent states and their dominant regimes through the guiding dichotomy of tradition versus modernity (Halpern 1963; Huntington 1968; Huntington and Nelson 1976; on the Middle East: Lerner 1958; Lipset 1960). In this understanding, authoritarian monarchies represented almost the classical form of political rule. Monarchies were thus considered to only possess very limited capacities in order to acquiesce to modern demands for political liberties, party pluralism and the incorporation of more and more differentiated social strata – especially of the new, urbanized middle classes (Halpern 1963; Huntington and Nelson 1976). These approaches hence often teleologically expected the rapid breakdown of authoritarian monarchies, as well as their replacement with “modern” democratic republics. It was Samuel P. Huntington’s notion of the “king’s dilemma” that famously emphasized the alleged contradiction between the monarchy as a quintessential traditional institution and the modernizing challenges that monarchical regimes face (1966, 1968: 177).

---

<sup>4</sup> Beyond the Middle East, authoritarian monarchies also currently exist in Bhutan, Brunei Darussalam, Swaziland, Tonga and the Vatican City. Cambodia, Liechtenstein, Malaysia, Monaco and Thailand are controversial cases, as their status as either monarchy or authoritarian regime is currently contested.

While Huntington's understanding of the "king's dilemma" decisively shaped later research on monarchies, it can nevertheless claim only limited explanatory power for political developments in the Middle East. While its focus on the monarchy's institutional limitations can indeed contribute to the explanation of the monarchical breakdowns in, for example, Egypt (1952) and Iraq (1958), it still underestimates other Middle Eastern monarchies' capacities for policy innovation and institutional flexibility – which, in contrast to the socialist republics in the region, has often allowed kings, emirs and sultans to pursue a much less ideological, socially transformative and thus ultimately delegitimizing agenda (Anderson 1991, 2000). Until the early 1990s monarchy research on the Middle East was characterized by the "king's dilemma" perspective and influenced by the "largely unspoken consensus among political scientists that monarchy is passé" (Anderson 1991: 1; see also Kostiner 2000; Lucas 2004). Since then, and beyond the all too narrowly cultural(ist) approaches,<sup>5</sup> four main analytical perspectives and related explanatory factors for the survival of Middle Eastern monarchies have come to the forefront: (1) geostrategic perspectives; (2) political-economic, rentier approaches; (3) an institutionalist, intra-family account; and (4) legitimation-based explanations.

Geostrategic perspectives on Middle Eastern monarchies put center stage the external military support of global powers like the US or, historically, the Soviet Union – as well as that of regional powers such as Egypt, Iran or Saudi Arabia for (other) monarchies in the Middle East. One prominent explanation relates to foreign and military aid: Laurie Brand and Sean Yom independently stress the importance of largely unconditional foreign aid for financing the repression and co-optation of the domestic opposition, citing evidence from the resource-poor monarchy in Jordan (Brand 1995: 81–83; Yom 2009: 163). With regard to military aid, it is argued that it "can help fuel [...] domestic patronage networks" (Snyder 1998: 58) and that arms deals are a further way to cement the support of foreign powers like the US vis-à-vis Middle Eastern monarchies, especially with regard to the oil-rich kingdoms, emir-

---

<sup>5</sup> There are three prominent cultural(ist) approaches to Middle Eastern monarchies: The first stresses the historical and mutually reinforcing ideological connections between monarchies and Islam in the region (Lewis 2000), allegedly allowing the Jordanian, Moroccan and Saudi Arabian kings in particular a peculiar kind of religious legitimacy. Lewis' take, however, tends to underestimate the often-contradictory effects of monarchical attempts at Islamic legitimation. In addition, a number of monarchies currently exist without any religious legitimacy at all – for example in Kuwait, Qatar and the UAE – raising further doubts about the specificity of the monarchy–Islam nexus across the whole spectrum of Middle Eastern cases. The second culturalist perspective stresses the dominance of patriarchal social structures in these contexts (Ben Dor 1983; Sharabi 1988). This perspective can, however, be countered by pointing out that it is not only monarchs who act as "national father figures" in the region; many presidents in the Middle East have behaved in quite similar ways in this regard. Third, Victor Menaldo has recently put forward the idea – which, in his opinion, explains monarchical stability in the Middle East – of a specific monarchical political culture that allows for credible commitment "through the strategic use of constitutions, formal political institutions, Islamic principles and informal norms" (2011: 6). However, it is important to point out that that his dependent variable is political turmoil rather than regime survival or breakdown.



ates and sultanates on the Persian Gulf (Gause III 1994: 127). At the same time, money from military aid and arms deals is not sufficient to replace the needed domestic expenditures for funding the repression or co-optation of the domestic opposition.<sup>6</sup> Sean Yom and Gregory Gause III have recently argued that a combination of “diplomatic assurances, economic grants and military interventions” account for the important foreign patronage that the US in particular grants Middle Eastern monarchies, and, further, that such assistance has decisively contributed to the latter’s survival despite the recent “Arab Uprisings” (2012: 85).<sup>7</sup>

Rentier-state perspectives concentrate on the political economy of the so-called “oil monarchies” (Luciani 1987; Gause III 1994, 2000; Luciani 2009; Beck 2012). According to Giacomo Luciani, the survival of Middle Eastern monarchies can be explained by the continuous and high rent influx, which results first and foremost from the export of oil and natural gas to world markets. It also relates to the important rent payments made to loyal and geostrategically important clients such as Jordan and Morocco (Luciani 2009). The two approaches are, however, not mutually exclusive but actually complementary, as the monarchies’ rent revenues are supplemented by the financial support from external powers (Yom and Al-Momani 2008; Beck 2012; Yom 2012). Together, rentierism can help to explain the consolidation of the Gulf monarchies after the oil price revolution in 1973. The “hard case” in this regard is the Islamic revolution in Iran of 1979, where the regime maintained a continuously high level of rent income during the 1970s. Revenues from the export of oil were also a dominant aspect of state funds in pre-revolutionary Iraq during the 1950s, as well as in Libya one decade later. In all three cases, additional factors would have to be taken into consideration in order to explain monarchical breakdown (Kurzman 2004). Additionally, the focus on “oil monarchies” cannot really account for the survival of the non-oil rentier states of Jordan and Morocco.

The third perspective has been directed specifically against a rentier understanding that is too one-dimensional. In his groundbreaking volume *All in the Family*, Michael Herb argues that the conditions for monarchical survival can be best understood when the peculiarities of royal family politics are taken into account, in particular regarding the inclusion or non-

---

<sup>6</sup> Beyond foreign or military aid, military bases assist with the projection of power and serve the mobilizing capacity of the guest country (cf. Lachowski 2007). In the geostrategically important Middle East, US bases boost the military and defensive capabilities of the host regimes – and particularly of the monarchies situated on the Persian Gulf – against both internal and external enemies (Gerson and Birchard 1999: 296). External military intervention on behalf of the threatened monarchy in times of crisis is another available mechanism in the geostrategic realms, one that can enable domestic repression and deter the opposition (Yom and Gause III 2012: 85).

<sup>7</sup> In his article “Why Monarchies Persist: Balancing between Internal and External Vulnerability,” Hillel Frisch (2011) makes a similar argument – explaining monarchical survival in the Middle East as a combination of the geostrategically important position of the respective state (external dimension) and the maintenance of a broad regime coalition supporting the monarchy (internal dimension). This angle has also been used by him to explain the demise in 1979 of the Pahlavi monarchy in Iran (Ibid.: 169–170). A core deficiency in Frisch’s analysis, however, is his eclectic description of the empirical material – which does not really allow for a comprehensive confirmation of the suggested causal connections.

inclusion of parts of the family in key decision-making institutions (1999). Following Russell Lucas' characterization (2004), Herb differentiates between so-called "dynastic monarchies" and "linchpin monarchies." In the five dynastic monarchies of the Persian Gulf, which all happen to be oil-rich, the ruling family in each determines political decision-making by consensus. The family acts as a "ruling institution" and monopolizes the central positions in both the administration and the security apparatus (Herb 1999: 235). In the linchpin monarchies of Jordan and Morocco, as well as the collapsed monarchies of Egypt (1952), Iraq (1958), Libya (1969) and Iran (1979), the monarch – with the support of their royal court – has balanced between other influential institutions like the army or the parliament.<sup>8</sup> While Herb takes into account those monarchies that had at some point in the past broken down, his concentration on the trajectories of dynastic monarchies does not ultimately provide a satisfactory explanatory approach to the broader set of monarchies in the Middle East. This shortfall is also due to the fact that all dynastic monarchies are also always oil-rich, and thus family participation has historically always been connected with high income from rents. In addition, he neither explains the survival of the "non-dynastic monarchies" in Jordan and Morocco nor does he sufficiently substantiate his core argument that family participation shields monarchies from breaking down.

The fourth and final perspective on authoritarian monarchies in the Middle East addresses the politics of legitimation (Hudson 1977; Bank 2004; Schlumberger 2010). Oliver Schlumberger differentiates between four "core competences" for survival (Ibid.: 239–246). The first component, religion, is of particular importance in the monarchies of Jordan, Morocco and Saudi Arabia,<sup>9</sup> especially compared to other existing monarchies (Bahrain, Kuwait, Oman, Qatar, UAE) as well as other authoritarian republics (with the exception of the Islamic Republic of Iran post-1979). The monarch's religious legitimacy can be instrumentalized against the Islamist opposition in times of crises (Krämer 2000). The second component, tradition, can also be considered a (re)source of legitimization, as the general policy among the Gulf monarchies of reinventing tradition indicates (Demmelhuber 2011). Within the third component, ideology, Schlumberger concentrates on the Middle Eastern republics alone, since they base their historic claim to leadership on revolutionary and often Arab socialist

---

<sup>8</sup> Herb explicitly excludes North Yemen from his analysis, "on the grounds that Egyptian intervention – a virtual occupation of the country with thousands of troops – made this, in large part, a case of revolution by invasion, and thus outside the scope of this work" (1999: 17). In contrast to Herb, Gregory Gause III gives prominence to the monarchical breakdown of the Imamate in North Yemen (2000).

<sup>9</sup> In Jordan, the ruling Hashemite king can trace his descent back to the Muslim prophet Muhammad (Kassay and Charillon 2002; Mednicoff 2002). In Morocco as well, the Alaoui king – as the *amir al-mu'minin* – is a descendant of Muhammad (Combs-Schilling 1999; Hammoudi 1999). In the Kingdom of Saudi Arabia, the country's nomenclature itself denotes the ruling family, which has been closely associated since the eighteenth century with the strict Wahhabi interpretation of Hanbali Islam. As the *khadim al-haramain*, the Saudi royal family attains further religious legitimacy in hosting and organizing the annual Islamic pilgrimages to Mecca and Medina (Piscatori 2005).

ideas (2010: 243–245). This concentration on republics negates the fact that in Middle Eastern monarchies ideological elements can also be utilized and developed, particularly in contexts of decades-long rule. Jordan under King Hussein (who ruled from 1952 to 1999) and the debates about “Hashemitism” (Nanes 2010) or “dynastic modernism” (Shyrock 2000) are cases in point. The fourth component, material legitimation, refers to the political-economic dimension in the allocation or distribution of state resources – key to ensuring the loyalty of influential social groups (e.g. Bank 2004; Richter 2010).<sup>10</sup> While the illustrations of different legitimation strategies abound, the other side of the equation – the acceptance of those strategies by the target audience – is often omitted, since it is hard both to define and to operationalize.

Comparative research on monarchies in the Middle East can be demarcated along geostrategic, political-economic, intra-family and/or legitimatory lines. Since the 1990s these four broad perspectives have allowed for a growing differentiation in the explanatory factors for monarchical survival. With its focus on the joint occurrence of at least two of the following three factors – geostrategic foreign patronage, political-economic rents, and a domestic, cross-cutting coalition – only the recent study by Yom and Gause on monarchical survival during the “Arab Uprisings” has presented more explanatory factors than the one or two typically offered (2012: 85). A systematic comparison of key arguments from all four perspectives on the survival of Middle Eastern monarchies is, however, still lacking. In addition, only Michael Herb’s analysis covers the cases of collapsed monarchies during the era of the early 1950s (Egypt) to the late 1970s (Iran), and thus takes a longer-term historical perspective than do the mainstream “here-and-now” approaches to Middle Eastern monarchies (1999). This article thus follows Herb’s exemplary study, so as to also address the longer-term trajectories of Middle Eastern monarchies – but does it more systematically by including all five cases of breakdown, including the fall of the Zaydi monarchy in North Yemen in 1962. Taken together, this threefold extension – in terms of explanatory conditions, historical depth, and breakdown cases – of the comparative analysis on monarchical survival in the Middle East is undertaken in the empirical sections that follow.

### 3 Fuzzy Set QCA as a Method of Systematic Comparison

In our empirical analysis we use a fuzzy set qualitative comparative analysis (fsQCA)<sup>11</sup> in order to identify the necessary and sufficient conditions that explain the survival as well as the

<sup>10</sup> The aspect of material legitimation directly follows the aforementioned rentier-state approach.

<sup>11</sup> Possible alternative set-theory techniques could be a crisp set QCA (csQCA) or a multivalued QCA (mvQCA). However, an fsQCA is a better fit with the characteristics of our conditions, since all of them are at least ordinally scaled. MvQCA, at first glance a seemingly interesting alternative for dealing with ordinally scaled conditions, has, however, a major flaw: it heightens the problems attached to logical remainders and at a certain

breakdown of authoritarian monarchies in the Middle East since 1945. To the best of our knowledge, an fsQCA has to date not been used by any researchers of contemporary authoritarian regimes in the Middle East.

An fsQCA belongs to a cluster of relatively new formal set-theory data analysis techniques that are “concerned with the systematic matching and contrasting of cases to establish common causal relationships by eliminating all other possibilities” (Berg-Schlusser et al. 2009: 2). Originally introduced by the sociologist Charles Ragin in the late 1980s (Ragin 1987) to be used with binominally scaled datasets (crisp set QCA), the technique has since been further developed over the course of the last two decades (Ragin 2000, 2008a); currently, it is able to deal with ordinally scaled data. Set-theory approaches, including fsQCA, have become an interesting complement to the prevailing statistical and case-study techniques within the tradition of macro-comparative research designs (Mahoney 2010; Schmitter 2009).<sup>12</sup>

As a technique of data analysis, fsQCA combines the method of agreement with the method of difference<sup>13</sup> – the two famous principles of J. S. Mill’s logic of comparison – in order to identify the necessary<sup>14</sup> and sufficient<sup>15</sup> conditions, or combinations of conditions, in relation to a certain outcome.<sup>16</sup> FsQCA allows us to unravel causally complex structures such as equifinality, multifinality and asymmetric causality (Grofman and Schneider 2009: 662). While standard statistical techniques are best for giving prominence to the net effect of single variables, fuzzy sets try to detect the different, and sometimes overlapping, conjunctions of configurations or of conditions that may all lead to the same ultimate outcome (Ragin 2008a: 176–189).

QCA analysis proceeds in four steps (Fiss 2011: 402) – first, with a process of calibration: measures for conditions and the outcome are transformed into set-theory categorizations. In fsQCA, outcomes and conditions need to be ordinally scaled within a binominal value range between zero and one. The value of 0.5 signals a crossover point at which a case is neither in

---

point makes logical minimization much more complex, if not impossible (Vink and Van Vliet 2009). See Section 4.2 for more details on the problems attached to logical remainders.

<sup>12</sup> For a general introduction to QCA, see Schneider and Wagemann (2012).

<sup>13</sup> The method of agreement refers to the logical elimination of conditions (independent variables) that are different from each other, when there is a need to explain a similar outcome (dependent variable) among alternative cases of a given population. The method of difference refers to the logical elimination of similar conditions, when there is a need to explain a different outcome among alternative cases of a given population (Schneider and Wagemann 2007: 73; Berg-Schlusser et al. 2009: 2).

<sup>14</sup> A condition is defined as being necessary if it must be present for a certain outcome to occur (Ragin 1987: 99). Thus, tests for necessity attempt to verify whether a condition is always there if a certain outcome occurs; however, necessary conditions might also be present even if the outcome does not occur.

<sup>15</sup> A condition is defined as being sufficient if by itself it can produce a certain outcome (Ibid.: 99). Thus, tests for sufficiency attempt to verify whether a condition always leads to the same outcome; however, sufficient conditions are not present if the outcome does not occur.

<sup>16</sup> Please note that set-theorists usually refer to independent variables as conditions and to dependent variables as outcomes. We exclusively use this set-theory terminology in this paper.

nor out of a specific value set. Cases above or below 0.5 are coded according to their degrees of membership, using previously defined criteria. We decided to use different fuzzy set scales in the following analysis. More details on the creation of these scales are given in Section 4.

Second, using these set-theory measures a truth table is constructed with  $2^k$  rows – with  $k$  being the number of conditions – in which each row represents one of the possible combinations of conditions. All existing cases are allocated to these rows according to the values of these conditions. Most likely, some rows will contain only a few cases – while some will consist of many. There will also be empty rows, indicating that none of the empirical cases fits with this specific combination of conditions.

In a third step, the number of rows in the truth table is reduced by looking only at those with which empirical cases are associated. Rows with no empirical case – so-called logical remainders – are deleted. For all remaining rows consistency values are calculated. Consistency in fsQCA corresponds to the degree to which cases fit to the set-theory relationship expressed in the solution (Ibid.). The recommended minimum level of consistency lies between 0.75 and 0.80. All rows below this level are not included in the analysis.

Fourth, a Boolean algorithm is used in order to logically reduce the rows into simplified solutions based on the counterfactual analysis of conditions (Ragin 2008a). Based on two Boolean expressions – the logical AND = “\*” and the logical OR = “+” – this Boolean minimization results in solution formulas that point to the sufficient conditions or combinations of sufficient conditions that explain a certain outcome.

## **4 Empirical Analysis: Monarchical Survival and Breakdown in the Middle East, 1945–2012**

### **4.1 Selection of Cases and Calibration of Outcome and Conditions**

Our base sample consists of all independent monarchies existent in the Middle East between 1945 and 2012. As outlined in Footnote 3 above, currently there are eight monarchies in the Middle East, which are supplemented in our sample by five historical cases of breakdown in the region: Egypt (1952), Iraq (1958), North Yemen (1962), Libya (1969) and Iran (1979). Altogether, this adds up to 13 authoritarian monarchies.

A major challenge for a historical-configurative approach that looks at political regimes over an extended period is that values of outcomes and conditions might change over time. Since there is no standard procedure for solving this problem in QCA, we have opted to divide into shorter time periods the study for each of the monarchical regimes, on the basis of meaningful and transparent criteria. Our unit of analysis is a *country period*. In order to create country periods we have used the following two-step procedure: First, we divided each of

the countries into historical periods depending on who the monarch was.<sup>17</sup> We call this the *ruling period*. For instance, Morocco has been divided into three ruling periods: 1956–1961 under King Muhammad V, 1961–1999 under King Hassan II, and 1999–2012 under King Muhammad VI.<sup>18</sup> Oman, however, consists of only one ruling period: 1971–2012 under Sultan Qabus ibn Said. Second, we have further subdivided ruling periods for each country using data on attempted coup d'états by cross-checking the two datasets “Global Instances of Coups” (Powell and Thyne 2011) and “Coup d'État Events” (Marshall and Marshall 2010). If, for instance, an attempted coup was reported within a given ruling period, this period was then split into two country periods – one lasting from the beginning of the ruling period up until the year in which the coup took place, and the second starting in the year in which the coup happened, continuing until the final year of the ruling period. In implementing this procedure, there are altogether 39 identified country periods for the 13 Middle Eastern monarchies in existence between 1945 and 2012. A list of these periods can be seen in the first two rows of Table 5 (attached to the Appendix).

The political event that we are interested in – that is, the outcome (Y) of the configurational analysis for the period from 1945 to 2012 – corresponds to our empirical assessment regarding the survival or breakdown of authoritarian monarchies at the end of each country period (*survival*). While the final codings of Y are presented in Table 5 in the Appendix, in the following we extensively discuss criteria and procedures.

In principle, each country period has been given a value of one (1) if the corresponding authoritarian regime stayed in power during the last year of a country period. Each country period has been given a value of zero (0) if the monarchy lost power. This latter eventuality occurred in only 5 of the 39 country periods: Egypt in 1952, Iraq in 1958, North Yemen in 1962, Libya in 1969 and Iran in 1979. In addition to the decision about whether a country period is a member of the set of surviving cases (coding of 1) or a member of the set of non-surviving cases – which equals breakdown (coding of 0) – we have used the longevity of a regime to estimate the general durability of either surviving or collapsed monarchies. This data has then been used for a finer grading of the initial coding of survival and breakdown. There are three levels of durability among the survival (0.6; 0.8; 1) as well as the breakdown

---

<sup>17</sup> It should be noted that monarchs have used different titles throughout the region to signify their position as the ruler of a country. Only in Jordan, Morocco and Saudi Arabia – as well as Egypt until 1952, Iraq until 1958, Libya until 1969 and Bahrain since 2002 – has the monarch been known as “King”. In Kuwait, Qatar and the UAE the monarch is instead called “Emir” (Arabic for “Duke”). In Oman, the ruler’s title is “Sultan” – while it was the “Shah” who ruled Iran until 1979.

<sup>18</sup> Smaller periods, which we call *transition periods* – like the official rule by Farouk’s son Fuad II in Egypt between 1952 and 1953, which came after the free officers took power – are not considered an appropriate unit of analysis. A complete list of accepted transition periods is attached to Table 5 in the Appendix. Since the UAE consists of seven different sheikhdoms, with each experiencing different cycles of succession, strictly speaking we would have to consider each emirate an independent country unit. We decided, therefore, to take Abu Dhabi – as the leading emirate – as representative of the whole federation in our analysis.

(0; 0.2; 0.4) cases, which respectively correspond to low (1–28 years), medium (29–56 years) and high (57–84 years) durability. The thresholds for the groups were determined by dividing the duration of the regimes into thirds.

The final codings of the outcome (*survival*) for all 39 country periods, which is a measure of survival and breakdown in the context of the regime's durability, is provided in the upper right column of Table 5 in the Appendix.

In Section 2 we argued that the question of monarchical survival in the Middle Eastern monarchies needs to be analyzed along geostrategic, political-economic, intra-family and/or legitimacy lines. Drawing on this earlier systemization, we have thus selected five measures in total, each corresponding to one of these dimensions:

- Military support by the leading global power, the United States (*USmil*), relates to the geostrategic dimension of monarchical survival.
- Rent revenues (*rents*) flowing into state coffers due to the export of natural resources such as oil and natural gas are at the core of political-economic explanations for monarchical survival.
- Family participation (*family*) in political decision-making is a key factor when looking at the successful survival of dynastic monarchies.
- The monarch's claim to legitimate rule (*leg-claim*) – based on historical and/or religious premises – is a central aspect of the political legitimation from above.
- Protests against the government (*protest*) allow us to assess, on the other hand, the important dimension of acceptance of a legitimacy claim from the societal side.

How exactly, then, did we calibrate fuzzy values for these four measures (in order to establish the conditions)? The following paragraphs briefly explain the more general procedures and criteria that we have used. A complete list of all calibrations is presented in Table 5 in the Appendix.

#### ***(A) Military Support by the United States (USmil)***

While the provision of external support to an authoritarian regime is a complex, multidimensional and sometimes even contradictory phenomenon, for the sake of clarity we rely on a simplistic understanding here. Using a dichotomous calibration,<sup>19</sup> we use military aid per capita from the US as a proxy for US support. The data is taken from the USAID database "U.S. Overseas Loans and Grants" (USAID EADS 2010).<sup>20</sup> If US military assistance in a given country period exceeds the minimum threshold of ten USD per year (2010 constant), it will

---

<sup>19</sup> Please note that using a dichotomous calibration for a condition does not contradict the logic of fuzzy sets. Such scales are, however, an extreme case of a fuzzy scale.

<sup>20</sup> Although data availability ends at 2010, we do not have reason to believe that a change from 2010 to 2011 would significantly alter our calibration – since values are averaged over the whole country period, with the same applying to the data on rents as well.

be coded in the set of countries supported by the US militarily – thus, as 1. Below this threshold, the period will be coded as 0.

### **(B) Rents Revenues (rents)**

While in the recent literature on the distributive capacities of the rentier state (e.g. Dunning 2008; Basedau and Lay 2009) an important distinction has been made between *resource dependency* – measured as the ratio of rent revenues to GDP or to total state revenues – and *resource abundance* – measured as the per capita value of rents available in the state budget – the (limited) availability of historical data permits us to use rent dependency only as an indicator. As part of the Global State Revenue and Expenditure (GSRE) dataset, there is historical data available on the value of state revenues accruing to tax and non-tax payments based on the production of natural resources (Lucas and Richter 2012). However, in looking at this data it is apparent that there is a significant difference between the availability of information regarding rents from primary commodities – measured in international dollars per capita (325 observations for all Middle Eastern countries between 1946 and 2010), which comes closest to the concept of resource abundance – and that for rents from primary commodities as a share of total revenues (499 observations for all Middle Eastern countries between 1946 and 2010), which comes closest to the Luciani measure of a rentier state (over 40 percent of rents as a share of total state revenues (Luciani 1987)). For this reason, we decided to use the share of state revenues from primary commodities as a share of total state revenues as our primary estimator in calibrating the average level of rents available to the monarch.

In order to calibrate the fuzzy scale for rents we have used the direct method of calibration, as suggested by Ragin (2008b). Aside from the algebraic calculation of scales, which is based on log-transformations of the means over the duration of country periods, this procedure required decisions to be made on three different thresholds: the level of full membership and the level of non-membership in a set as well as the crossover point signaling a degree that is neither in nor out of the set membership of the case. For full membership (1), we use the Luciani threshold of 0.40 rents as a share of total state revenues. Having less than 0.05 rents as a share of total revenues constitutes full non-membership (0) within the concept of a rentier state; 0.20 rents as a share of total revenues then points toward the crossover point (0.5).

### **(C) Family Participation**

As Michael Herb has prominently noted, the family as a ruling institution – understood as the monopolization by members of the ruling families of “the highest state offices, including the premiership and the portfolios of Interior, Foreign Affairs and Defense, the ministries known in the Gulf as *wizarat al-siyada*, or ministries of sovereignty” (1999: 8) – is an important condition in explaining the survival of Middle Eastern monarchies. On the basis of Herb’s



classic study, and complemented by our own analysis, we coded a fuzzy scale of family participation for all of the 39 country periods using the following criteria:<sup>21</sup>

- 1) If family members are explicitly excluded by constitution, law or decree we coded a value of 0.
- 2) If family members are allowed to rule, and are found in one of the relevant state institutions like the cabinet, ministries, public sector companies, the ruling party and/or the military and security apparatus, we coded a value of 0.33.
- 3) If family members are allowed to rule, and are found in at least two separate relevant state institutions like the cabinet, ministries, public sector companies, the ruling party and/or the military and security apparatus, we coded a value of 0.67.
- 4) If family members are allowed to rule, and are found in the majority of the different relevant state institutions like the cabinet, ministries, public sector companies, the ruling party and/or the military and security apparatus, we coded a value of 1.

**(D) *The Monarch's Claim to Legitimate Rule (leg-claim)***

Measuring legitimation is a notoriously difficult task. Given the current options available in the literature (e.g. Beetham 1991; Bank 2004; Kailitz 2012; Gilley 2012), we decided to restrict our codings to a narrow understanding of legitimation that combines a primary aspect with a number of secondary sub-dimensions. Based on the country literature available, we estimated whether forms of religious heritage – such as rule in accordance with Islamic principles, descent from Prophet Muhammad, and alliance with religious authorities – were used by the ruler as a strategy to justify political decisions. If this was the case during a country period, we coded the fuzzy value of legitimation as being above the crossover point of 0.5. Additionally, we used four characteristics of the respective political regime, derived from the concept of legitimation articulated by Beetham (1991), to specify our codings: (a) personality cult and charismatic leadership; (b) regional engagement (legitimation through engagement in regional forums or in regional mediation initiatives); (c) procedural mechanisms (e.g. *shura* council, *diwaniyya*); and, (d) traditional legitimation or the reference to a foundational myth. We applied the following coding rules to generate the fuzzy scale of *leg-claim*:

- 1) We coded 0 if there is no religious legitimation observable, and 0.6 if there is.
- 2) If, in addition to no religious legitimation, one or two of the secondary aspects can be observed, then we coded 0.2. If one or two secondary aspects and religious legitimation can be observed together, we coded 0.8.
- 3) If, in addition to no religious legitimation, three or four of the secondary aspects can be observed, we coded 0.4. If three or four of the secondary aspects and religious legitimation can be observed, we coded 1.

---

<sup>21</sup> Please note that we have explicitly excluded the participation of tribe members from the definition of family participation.

### ***(E) Protest Against the Government (protest)***

While a monarch's claim to rule legitimately is an important dimension of constructing legitimation from above, protest against a given government is an important aspect of measuring how such a claim may be contested from below.

In order to estimate the degree of anti-government protest we use data from the Cross-National Time Series Data Archive founded by Arthur Banks (Banks 2011a), which is the only source available providing data on the monarchies that we are interested in (over such a long period of time). We use the indicator *domestic8* from this data archive, which is defined as "any peaceful public gathering of at least 100 people for the primary purpose of displaying or voicing their opposition to government policies or authority, excluding demonstrations of a distinctly anti-foreign nature" (Banks 2011b: 11). As Banks himself concedes, this data is mostly based on *New York Times* reports and might thus tend to underestimate the true intensity of protests. We decided, therefore, to apply a minimal coding of anti-government protest that relies on a binominal measurement of having at least one protest within a country period – coded as 1 – or of having no protest reported in the Banks data – coded as 0.

## **4.2 Tests for Necessary and Sufficient Conditions**

Set-theory values for altogether five conditions (A to E), as well as the outcome (Y), are summarized in Table 5 (see Appendix). There are 32 cases of survival (*survival*) and 5 cases of breakdown (*~survival*).<sup>22</sup> The breakdown cases are: Egypt 1945–1952, Iraq 1945–1958, North Yemen 1955–1962, Libya 1951–1969 and Iran 1953–1979 (coded respectively as Egypt 45-52, Iraq 45-58, North-Yemen 55-62, Libya 51-69 and Iran 53-79). Using this data, we construct a truth table (Table 6 in the Appendix) that shows that there are 32 theoretically possible combinations of the five conditions using a binominal ideal-type value space. Seventeen of these configurations are represented by empirical cases with a membership greater than 0.5.<sup>23</sup> Thirteen configurations are filled by cases of surviving monarchies,<sup>24</sup> one of which also includes a

---

<sup>22</sup> The “~” sign in front of the name of a condition or an outcome signifies membership below the threshold of 0.5, while no sign in front of the name of a condition or an outcome represents membership above the value of 0.5.

<sup>23</sup> The 15 rows that are not represented by empirical cases are called logical remainders. While there is no clearly established guideline regarding how many rows can be logical remainders, with five conditions 15 nevertheless seems a plausible number.

<sup>24</sup> These are Rows 1 to 5, 19 to 22, 24 to 26 and 30 in Table 6, covering 32 country periods in total.

case of monarchical breakdown.<sup>25</sup> Three configurations are filled exclusively by cases of breakdown.<sup>26</sup>

First, we present the results of our tests for necessity (Tables 1 and 2). We then proceed to present the results of our tests for sufficiency (Tables 3 and 4). Both procedures have been carried out for survival (*survival*) as well as for breakdown (*~survival*).<sup>27</sup>

**Table 1: Results of a Test for Necessary Conditions of Survival (*survival*)**

Condition Tested	Consistency	Coverage
USmil	0.187500	-
~USmil	0.812500	-
Rents	0.665680	-
~Rents	0.361793	-
Family	0.757031	-
~Family	0.317969	-
Leg-claim	0.742188	-
~Leg-claim	0.468750	-
Protest	0.406250	-
~Protest	0.593750	-

**Table 2: Results of a Test for Necessary Conditions of Breakdown (*~survival*)**

Condition Tested	Consistency	Coverage
USmil	0.164179	-
~USmil	0.835821	-
Rents	0.652194	-
~Rents	0.400291	-
Family	0.586567	-
~Family	0.556717	-
Leg-claim	0.791045	-
~Leg-claim	0.611941	-
Protests	0.567164	-
~Protests	0.432836	-

Schneider and Wagemann (2007) suggest a consistency level of 0.90 as the threshold value for a necessary condition in fsQCA. None of the five conditions or their inverse fulfill this criterion. Our results suggest, therefore, that there is no single necessary condition for either the survival or the breakdown of monarchies in the Middle East.

Our results from the tests for sufficiency point in a similar direction: there is no single condition that is, in itself, sufficient to ensure Middle Eastern monarchical survival or breakdown. Instead there are, as we have found, a number of causal complexities. A condition that can lead under certain circumstances to survival can also lead to breakdown under different

<sup>25</sup> This is Row 23 in Table 6, where two historical periods of monarchical survival in North Yemen cluster together with the time period of 1955 to 1962, which was ended by a republican revolution and the breakdown of the Imamate.

<sup>26</sup> Rows 28, 31 and 32 represent four historical cases of monarchical breakdown.

<sup>27</sup> All tests were run with fsQCA Version 2.5, software that can be downloaded at: <[www.u.arizona.edu/~cragin/fsQCA/software.shtml](http://www.u.arizona.edu/~cragin/fsQCA/software.shtml)> (18 July 2010).

ones, and combinations of conditions are found to be jointly sufficient in forming pathways towards either survival or breakdown. These conditions are called INUS conditions.<sup>28</sup> The results of our tests for sufficiency are presented in Tables 3 and 4 below.

In Boolean language, the solution for the survival of monarchies reads as follows:

$$1) \sim\text{Rents} * \sim\text{Family} * \text{Leg-claim} + \text{USmil} * \sim\text{Rents} * \text{Leg-claim} + \sim\text{USmil} * \text{Leg-claim} * \sim\text{Protests} + \sim\text{USmil} * \text{Rent} * \text{Family} + \text{Rents} * \text{Family} * \sim\text{Leg-claim} * \text{Protests} + \text{Rents} * \text{Family} * \text{Leg-claim} * \sim\text{Protests} \rightarrow \text{survival}^{29}$$

There are in total six pathways to survival; the first two cover the linchpin monarchies of Jordan and Morocco. While the first pathway highlights the importance of the historical-religious claim to legitimate rule despite the absence of high rents and family participation, the second pathway makes clear that a historical variation in which the presence of US military support is combined with widespread anti-government protests – with all else being equal – may also lead to monarchical survival.

The last three pathways explain the survival thus far of all of the Gulf monarchies (with the exception of Oman): Bahrain, Kuwait, Qatar, Saudi Arabia and the UAE. A combination of high rent revenues from the export of oil and natural gas and the participation of family members in political decision-making are of key importance here. Together with either the absence of US military support (encompassing all Gulf cases except for a few specific country periods) or the lack of historical-religious legitimacy claims, and combined with anti-government protest, this is a jointly sufficient combination of conditions for the survival of Middle Eastern monarchies.<sup>30</sup>

There is an additional third pathway – consisting of Oman, the Imamate in North Yemen, Saudi Arabia, and a single historical period in Morocco – where there has been no US military support combined with a historical-religious claim for legitimacy and also no anti-government protests. While this pathway comes closer to some of the characteristics of linchpin monarchies, it is surprising to see that some of the larger Gulf monarchies are located here as well.

After presenting an explanation for the survival of Middle Eastern monarchies, Table 4 summarizes the fsQCA results of tests for the sufficient conditions for monarchical breakdown (*~survival*).

<sup>28</sup> INUS conditions are “insufficient in themselves but necessary parts of a condition that is itself unnecessary to, but sufficient for, the outcome to occur” (Ragin 2008a: 154).

<sup>29</sup> This formula reads as follows: either a combination of low (or no) rent revenues, legitimation and the lack of family participation *or* US military support combined with no rents, legitimation and protests *or* a combination of no US military support, legitimation and no protests *or* the lack of US military support combined with rent revenues and family participation *or* rent revenues, family participation and either the absence of claims to legitimacy and protests *or* claims to legitimacy and no protests are independently of each other a sufficient combination of conditions for explaining the survival of authoritarian regimes in the Middle East.

<sup>30</sup> Pathway 3 in this cluster of surviving dynastic monarchies represents a solution unique to Saudi Arabia.

**Table 3: Solutions Explaining the Survival of Monarchies in the Middle East**

		Country Cases	(A) USmil	(B) Rents	(C) Family	(D) Leg-claim	(E) Protests	(Y) Survival	Number of Cases	Raw Coverage	Unique Coverage	Consistency
LINCHPIN	1	Jordan46-50 M-S, Jordan51-57 M-S, Jordan70-99 M-S, Jordan99-11 M-S, Morocco56-61 M-S, Morocco61-71 M-S, Morocco71-72 M-S, Morocco72-99 M-S, Morocco99-11 M-S		0	0	1		1	9	0.2655	0.1920	0.8566
	2	Jordan57-70 M-S, Jordan70-99 M-S	1	0		1	1	1	2	0.0552	0.0156	0.8342
	1	Morocco56-61 M-S, Oman 71-11 M-S, Saudi45-53 M-S, Saudi53-64 M-S, Saudi69-75 M-S, Saudi75-82 M-S, Saudi05-11 M-S, Yemen_N45-48 M-S, Yemen_N48-55 M-S, (Yemen_N55-62 M-B)	0			1	0	1	10	0.3750	0.0795	0.8421
DYNASTIC	1	Abu Dhabi71-04 M-S, Abu Dhabi04-11 M-S, Bahrain71-81 M-S, Kuwait61-65 M-S, Kuwait65-77 M-S, Kuwait90-06 M-S, Kuwait06-11 M-S, Qatar71-72 M-S, Qatar72-95 M-S, Qatar95-11 M-S, Saudi45-53 M-S, Saudi53-64 M-S, Saudi69-75 M-S, Saudi75-82 M-S, Saudi82-05 M-S, Saudi05-11 M-S, Kuwait77-90 M-S	0	1	1			1	17	0.5171	0.1875	0.7665
	2	Abu Dhabi71-04 M-S, Bahrain81-99 M-S, Bahrain99-11 M-S, Kuwait90-06 M-S		1	1	0	1	1	4	0.1193	0.0545	0.9385
	3	Saudi45-53 M-S, Saudi53-64 M-S, Saudi64-69 M-S, Saudi69-75 M-S, Saudi75-82 M-S, Saudi05-11 M-S		1	1	1	0	1	6	0.2985	0.0313	0.9013

**Table 4: Solutions Explaining the Breakdown of Monarchies in the Middle East**

Country Cases	(A) USmil	(B) Rents	(C) Family	(D) Leg-claim	(E) Protests	(Y) Survival	Number of Cases	Raw Coverage	Unique Coverage	Consistency
Egypt45-52 M-B	0	0	0	0	1	0	1	0.1330	0.1099	1.0000
Iran53-79 M-B	1	1	0	0	1	0	1	0.0610	0.0610	1.0000
Iraq45-58 M-B, Libya51-69 M-B	0	1	0	1	1	0	2	0.1488	0.1256	1.0000

Technically speaking, the solution formula for breakdown (2) reads as follows:

$$2) \sim\text{USmil} * \sim\text{Rents} * \sim\text{Family} * \sim\text{Leg-claim} * \text{Protests} + \text{USmil} * \text{Rents} * \sim\text{Family} * \sim\text{Leg-claim} * \text{Protests} + \sim\text{USmil} * \text{Rents} * \sim\text{Family} * \text{Leg-claim} \rightarrow \sim\text{survival}^{31}$$

This formula consists of three terms that cover four of the historical cases of monarchical breakdown. It reveals three central findings: First, pathways to monarchical breakdown seem to be very complex and are not merely the opposite of pathways explaining survival. Second, two factors are common to all pathways to monarchical breakdown – namely, anti-government protests and the lack of family participation – while the remaining conditions differ depending on the case in question.<sup>32</sup> Only one pathway is shared by more than one case. Furthermore, since there are a limited number of cases of breakdown to begin with, the pathways are of the maximum possible length – since no meaningful Boolean minimization could be undertaken.

Empirically speaking, Egypt in 1952 seems to be almost a showcase for breakdown – in this case, all of the supposedly stabilizing conditions were absent, while heavy anti-government protests added to the destabilization. The Shah's regime in Iran, however, was still unable to maintain its rule despite having both US military support and high rent revenues at its disposal – two key contributors to survival, according to the literature. Iraq in the 1950s and Libya in the 1960s each had high rent revenues and a claim to historical-religious legitimacy, yet also broke down. Rent revenue thus does not seem to be a particularly strong

<sup>31</sup> Anti-government protests together with the lack of family participation and together with either a combination of no US military support, no rent revenues and no claims to legitimacy *or* US military support together with rents but no legitimation *or* a combination of no US military support with rent revenue and legitimation are sufficient explanations of the breakdown of Middle Eastern regimes. An overview of the cases in the different pathways can be found in Table 4.

<sup>32</sup> The country period of North Yemen between 1955 and 1962 falls within a pathway of monarchical survival, even though it is a case of a collapsed monarchy. It has, therefore, not been analyzed as part of the monarchical breakdown QCA that is presented in Table 4.

stabilizing factor in itself, since it is found in three of four (or five, if one includes North Yemen) cases of breakdown.

## 5 Discussion of Results and Conclusions

Drawing on the insights from – but also moving beyond the deficiencies of – the recent debate on Middle Eastern monarchies (e.g. Frisch 2011; Menaldo 2011; Beck 2012; Yom and Gause III 2012; Yom 2012), we suggest a historical-configurative explanation for the survival of this subtype of authoritarian regime. Based on a configurational analysis of all 13 monarchies that have existed in the region between 1945 and 2011, and by looking at five core conditions – US military support, rent revenues, family participation in political decision-making, the claim to legitimacy as well as its contention from below, in the form of anti-government protests – a number of interesting conclusions can be drawn with regard to the ongoing debates about the specific features and survival trajectories of contemporary authoritarian monarchies.

The most striking finding is that there is an intra-monarchy gap between the dynastic Gulf monarchies and “the rest,” which comprises the two classical linchpin monarchies of Jordan and Morocco along with some cases from the southern part of the Arabian Peninsula, most notably Oman and the historical Imamate of North Yemen – with especially the latter being more similar to the resource-poor classical linchpins than to the “dynastic monarchies.” The five Gulf monarchies of Bahrain, Kuwait, Qatar, Saudi Arabia and the UAE share quite similar characteristics for most of their country periods when we examined the conditions that we considered to be relevant for an explanation of monarchical survival. The two conditions of high rent revenues and family participation in political decision-making remain of the utmost importance for monarchical survival in the Gulf; these two conditions are also relevant when the degree of anti-government protest increases, as the cases of Bahrain, Kuwait and the UAE over a number of different time periods illustrate. Under such specific circumstances the extent of US military aid becomes largely irrelevant in explaining monarchical survival, as the monarchies rely more strongly on the other two central factors for the stabilization of power.

In contrast, the linchpin monarchies of Jordan and Morocco rely instead on strong historical-religious claims to legitimate their rule. This seems to also stabilize their monarchical rule when confronted with growing anti-government protests and despite a significant lack of rent revenues and the non-participation of the royal family in political decision-making. The stabilizing role of US military aid is context-sensitive; it seems to be relevant only if there is a high degree of anti-government protest occurring at the same time.

A third pathway points to a number of interesting counterfactually generated insights and challenges: It indicates that the Sultanate of Oman may rely on a different survival mechanism than the other participatory members of the Gulf Cooperation Council. While be-

ing different from the classical linchpin monarchies of Jordan and Morocco in that it is an exporter of oil and gas, the Sultanate does share an important legitimacy similarity with them. Coupled with low levels of US military aid and of anti-government protests – structural characteristics that were similar to the ones in the Imamate of North Yemen and in many historical periods in Saudi Arabia – Oman represents an alternative and thus much-overlooked pathway to monarchical survival. However, one important caveat remains: while the survival of the Imamate in North Yemen is also explained by this third pathway for many of the years of its existence prior to 1962, the fsQCA analysis incorrectly assumes that the breakdown period is part of this alternative survival pathway. This is where further historical research is needed, so as to distinguish between some of the differences between the Sultanate of Oman and the Imamate of North Yemen.

Our findings for the explanation of monarchical breakdown are much more complex than those we drew in our analysis of survival, and therefore lack the degree of generalization we achieved in the case of the latter. To start with, the counterfactually generated Boolean solutions are not just the opposite of our explanations for survival. This is an important aspect to bear in mind when interpreting our results. While all four historical cases of breakdown<sup>33</sup> share two potentially destabilizing factors – namely anti-government protests and the lack of family participation – the complexity of the interaction with other conditions makes clear that breakdown seems to be a very rare event and one that occurs only under very specific historical circumstances. A number of additional observations are worth discussing. The breakdown results evince that a number of prominent factors, as outlined in the literature, have an ambiguous, context-sensitive impact. High rent revenues, for instance, were present in three out of four of the collapsed monarchies – contradicting the strong claim that they might be singly sufficient for authoritarian survival, an argument often made in the early rentier-state literature.

The same is true for strong historical-religious legitimacy claims: two out of four explained breakdowns were monarchies dependent on such assertions. Family participation, on the other hand, is absent in all four cases of monarchical breakdown. At first glance, this strongly supports Michael Herb's explanation that non-dynastic, linchpin monarchies such as Libya (where relatives of the Sanussi king were explicitly banned by law from holding political posts and where family participation could thus not develop (Herb 1999: 191)) and Egypt (where neither family participation nor – despite the quite "traditional" nature of the Egyptian monarchy – significant legitimation strategies were present) were and are especially vulnerable to breakdown.

On closer inspection, however, the absence of family participation is neither a necessary nor a sufficient condition for monarchical breakdown. It is not necessary because there were significant numbers of family members participating in processes of political decision-

---

<sup>33</sup> Please note that the fifth case – breakdown of the Imamate in North Yemen in 1962 – is not explained since it is characterized by the third pathway of survival, as shown above.



making before the Imamate in North Yemen broke down. The absence of family participation is also not sufficient – linchpin monarchies are able to survive without relying on the participation of family members within the highest offices of the state. A more general reason for the lower degree of generalization relates to the “survival-centric” literature of authoritarian regimes in the Middle East. Apart from anti-government protests – a factor common to all of the breakdown cases – there is no condition that has a clearly theorized causal impact on monarchical breakdown. On the contrary, apart from family participation, each condition supposedly conducive to survival may potentially also contribute to breakdown if and when it is combined with various other conditions.<sup>34</sup> Furthermore, anti-government protests are not necessarily destabilizing per se, since both of the two main groups of survival pathways contain at least one variation that includes such protests. There is, hence, a clear need for greater emphasis on a distinct breakdown-centered research if more insights on the specificities contributing to this type of event are to be gained.

To sum up, in looking at three alternative pathways to monarchical survival in the Middle East, which have all – albeit each one for different reasons – prevented Huntington’s “king’s dilemma” from emerging among the current eight Middle East monarchies, we simultaneously complement Michael Herb’s understanding of “dynastic monarchies” and Russell Lucas’ argument on “linchpins.” First, neither family participation nor rent revenues has been a single stabilizing condition for authoritarian monarchies. Both are important for survival, but only in combination with other conditions and under specific contextual circumstances. Second, among linchpin monarchies the historical-religious legitimacy claim to rule over a society fulfills a similar function. Within the linchpin pathway, this claim is close to being a necessary condition for monarchical survival. Its causal impact, however, depends again on a specific constellation of contextual conditions. Finally, we are able to add a third pathway to the hitherto dominant dualism in the research on authoritarian monarchies in the Middle East.

What are some of the lessons that can be drawn from this historical-comparative perspective regarding some of the recent developments among monarchies in the Middle East? While our analysis does not prove that US support alone will guarantee survival in the face of massive anti-government protests, it is quite clear that if US military support were absent and the historical-religious legitimacy claim simultaneously eroded, such a situation could lead to a threatening of rule in linchpin monarchies – in a way similar to what actually happened to King Farouk of Egypt in 1952. Ongoing developments in Jordan and Morocco, however, do not signify a historical similarity with this (yet). Concerning the “oil monarchies” that currently enjoy a high level of US military support combined with rent revenues – contemporary Bahrain is a case in point – the danger comes from the possibility of getting into a situation that is too similar to what Pahlavi Iran experienced up until 1979. The continu-

---

<sup>34</sup> Even the case of family participation becomes blurred if we take into account the breakdown of North Yemen.

ing positioning of royal family members in the highest state offices – arguably coupled with a better allocation of oil-rent spoils – remains, therefore, maybe the single most important strategy the Bahraini monarchy could employ to survive in the long term.

Safeguarding family participation also plays an overarching role for most of the other oil-exporting Gulf monarchies. If they were to abandon this practice and to rely instead on historical-religious claims to legitimize their rule, they might find themselves progressing toward the structural situations that monarchical Iraq and Libya experienced more than four decades ago. It is thus the erosion of domestic factors, of legitimacy and of family participation that fosters those critical moments wherein breakdown becomes a real possibility. External factors like US support and rents are, in themselves, not sufficient to ensure survival – but they can be very powerful instruments if combined with domestic conditions. This is, ultimately, perhaps the most crucial lesson to be learned in the still ongoing events of the “Arab Uprisings.”

## Bibliography

- Anderson, Lisa (2000), *Dynasts and Nationalists: Why Monarchies Survive*, in: Joseph Kostiner (ed.), *Middle East Monarchies. The Challenge of Modernity*, Boulder: Lynne Rienner, 53–70.
- Anderson, Lisa (1991), *Absolutism and Resilience of Monarchy in the Middle East*, in: *Political Science Quarterly*, 106, 1, 1–15.
- Bank, André (2004), *Rents, Cooptation, and Economized Discourse: three Dimensions of Political Rule in Jordan, Morocco and Syria*, in: *Journal of Mediterranean Studies*, 14, 1 & 2, 155–179.
- Banks, Arthur (2011a), *Cross-National Time Series Data Archive*, online: <[www.databanksinternational.com/](http://www.databanksinternational.com/)> (28 March 2012).
- Banks, Arthur (2011b), *Cross-National Time Series Data Archive: Users' Manual*.
- Basedau, Matthias, and Jann Lay (2009), *Resource Curse or Rentier Peace? The Ambiguous Effects of Oil Wealth and Oil Dependence on Violent Conflict*, in: *Journal of Peace Research*, 46, 6, 757–776.
- Beck, Martin (2012), *Dynasties: Encyclopedia of Global Studies*, in: *Sage Encyclopedia of Global Studies*, online: <<http://knowledge.sagepub.com/view/globalstudies/n140.xml>> (28 March 2012).
- Beetham, David (1991), *Legitimation of Power*, Palgrave MD.
- Ben Dor, Gabriel (1983), *State and Conflict in the Middle East*, Milton Park: Praeger.
- Berg-Schlosser, Dirk, Gisèle De Meur, Benoît Rihoux, and Charles Ragin (2009), *Qualitative Comparative Analysis (QCA) as an Approach*, in: Benoît Rihoux and Charles Ragin (eds), *Configurational Comparative Methods*, Los Angeles, London: Sage, 1–18.
- Brand, Laurie (1995), *Jordan's Inter-Arab Relations*, New York: Columbia University Press.
- Combs-Schilling, M. Elaine (1999), *Performing Monarchy, Staging Nation*, in: Rahma Bourquia, and Susan Gilson Miller (eds), *In the Shadow of the Sultan – Culture, Power, and Politics in Morocco*, Cambridge: Harvard University Press, 176–214.
- Demmelhuber, Thomas (2011), *Political Reform in the Gulf Monarchies. Making Family Dynasties Ready for the 21st Century*, in: *Orient*, 52, I.
- Dunning, Thad (2008), *Crude Democracy: Natural Resource Wealth and Political Regimes*, Cambridge: Cambridge University Press.
- Fiss, Peer C. (2011), *Building Better Causal Theories: A Fuzzy Set Approach to Typologies in Organization Research*, in: *Academy of Management Journal*, 54, 2, 393–420.
- Frisch, Hillel (2011), *Why Monarchies Persist: Balancing between Internal and External Vulnerability*, in: *Review of International Studies*, 37, 1, 167–184.

- Gause III, F. Gregory (2000), The Persistence of Monarchy in the Arabian Peninsula: a Comparative Analysis, in: Joseph Kostiner (ed.), *Middle East Monarchies: The Challenge of Modernity*, Boulder: Lynne Rienner, 167–186.
- Gause III, F. Gregory (1994), *Oil Monarchies: Domestic and Security Challenges in the Arab Gulf States*, New York: Council on Foreign Relations Press.
- Gilley, Bruce (2012), State Legitimacy: An Updated Dataset for 52 Countries, in: *European Journal of Political Research*.
- Grofman, Bernard, and Carsten Q. Schneider (2009), An Introduction to Crisp Set QCA, with a Comparison to Binary Logistic Regression, in: *Political Research Quarterly*, 62, 4, 662–672.
- Halpern, M. (1963), *The Politics of Social Change in the Middle East and North Africa*, Princeton: Princeton University Press.
- Hammoudi, Abdallah (1999), The Reinvention of Dar al-Mulk: The Moroccan Political System and Its Legitimation, in: Rahma Bourquia and Susan Gilson Miller (eds), *In the Shadow of the Sultan – Culture, Power, and Politics in Morocco*, Cambridge: Harvard University Press, 129–175.
- Herb, Michael (1999), *All in the Family: Absolutism, Revolution, and Democracy in the Middle Eastern Monarchies*, Albany: State University of New York Press.
- Hudson, Michael C. (1977), *Arab Politics: The Search for Legitimacy*, New Haven: Yale University Press.
- Huntington, Samuel P. (1968), *Political Order in Changing Societies*, New Haven: Yale University Press.
- Huntington, Samuel P. (1966), The Political Modernization of Traditional Monarchies, in: *Daedalus*, 95, 3, 763–788.
- Huntington, Samuel P., and Joan Nelson (eds) (1976), *No Easy Choice: Political Participation in Developing Countries*, Cambridge: Harvard University Press.
- Kailitz, Steffen (2012), *Why and How We Should Classify Political Regimes by their Legitimation*, Hannah-Arendt-Institute for the Research on Totalitarianism at the University of Dresden.
- Kassay, Ali, and Frédéric Charillon (2002), Jordanie: le Charisma Monarchique à Réinventer?, in: Rémy Leveau and Abdallah Hammoudi (eds), *Monarchies arabes – Transitions et dérives dynastiques*, Paris: La Documentation Française, 159–175.
- Kostiner, Joseph (2000), Introduction, in: *Middle East Monarchies: The Challenge of Modernity*, Boulder: Lynne Rienner, 1–14.
- Krämer, Gudrun (2000), Good Counsel to the King: The Islamist Opposition in Saudi Arabia, Jordan, and Morocco, in: Joseph Kostiner (ed.), *Middle East Monarchies: The Challenge of Modernity*, Boulder: Lynne Rienner, 257–288.

- Kurzman, Charles (2004), *The Unthinkable Revolution in Iran*, Cambridge: Harvard University Press.
- Lerner, Daniel (1958), *The Passing of Traditional Society: Modernizing the Middle East*, Glencoe: Free Press.
- Lewis, Bernard (2000), Monarchy in the Middle East, in: Joseph Kostiner (ed.), *Middle East Monarchies. The Challenge of Modernity*, Boulder: Lynne Rienner, 15–22.
- Lipset, Seymour Martin (1960), *Political Man: The Social Basis of Politics*, Garden City: Anchor Books.
- Lucas, Russell E. (2011), Is the King's Dilemma only for Presidents?, in: *Sada CEIP*, online: <[www.carnegieendowment.org/2011/04/06/is%2Dking%2Ds%2Ddilemma%2Donly%2Dfor%2Dpresidents/6bpf](http://www.carnegieendowment.org/2011/04/06/is%2Dking%2Ds%2Ddilemma%2Donly%2Dfor%2Dpresidents/6bpf)> (12. September 2012).
- Lucas, Russell E. (2004), Monarchical Authoritarianism: Survival and Political Liberalization in a Middle Eastern Regime Type, in: *International Journal of Middle East Studies*, 36, 1, 103–119.
- Lucas, Viola, and Thomas Richter (2012), *Taxation, Distribution and Authoritarian Regime Longevity: Evidence from the Global State Revenues and Expenditures Data Set*, New Orleans: American Political Science Association (APSA).
- Luciani, Giacomo (2009), Oil and Political Economy in International Relations of the Middle East, in: Louise L'Estrange Fawcett (ed.), *International Relations of the Middle East*, Oxford: Oxford University Press, 81–203.
- Luciani, Giacomo (1987), Allocation vs. Production State, in: Hazem Beblawi and Giacomo Luciani (eds), *The Rentier State*, London: Croom Helm, 63–84.
- Mahoney, James (2010), After KKV: The New Methodology of Qualitative Research, in: *World Politics*, 62, 1, 120–147.
- Marshall, Monty, and Donna Ramsey Marshall (2010), *Dataset Coups d'Etat 1946-2010*, Vienna: Center for Systemic Peace.
- Mednicoff, David (2002), Arab Monarchical Stability and Political Liberalization: Connections between Morocco and Jordan, in: George Joffé (ed.), *Jordan in Transition, 1990-2000*, London: Hurst, 91–110.
- Menaldo, Victor (2011), *The Middle East and North Africa's Resilient Monarchs*, Social Science Research Network Working Paper Series.
- Nanes, Stefanie E. (2010), Hashemitism, Jordanian National Identity, and the Abu Odeh Affair, in: *Arab Studies Journal*, 18, 1, 162–196.
- Owen, Roger (2012), *The rise and fall of Arab presidents for life*, Cambridge, Mass.: Harvard University Press.

- Piscatori, James (2005), *Managing God's Guests: The Pilgrimage, Saudi Arabia and the Politics of Legitimacy*, in: Paul Dresch and James Piscatori (eds), *Monarchies and Nations. Globalisation and Identity in the Arab States of the Gulf*, London: I. B. Tauris, 222–245.
- Powell, Jonathan M., and Clayton L. Thyne (2011), *Global Instances of Coups from 1950 to 2009: A New Dataset*, in: *Journal of Peace Research*, 48, 2, 249–259.
- Ragin, Charles (2008a), *Redesigning Social Inquiry: Fuzzy Sets and Beyond*, Chicago: University of Chicago Press.
- Ragin, Charles (2008b), *Fuzzy sets: Calibration Versus Measurement*, in: *The Oxford Handbook of Political Methodology*, Oxford: Oxford University Press, 174–198.
- Ragin, Charles (2000), *Fuzzy-Set Social Science*, Chicago: The University of Chicago Press.
- Ragin, Charles (1987), *The Comparative Method. Moving Beyond Qualitative and Quantitative Strategies*, Berkeley: University of California Press.
- Richter, Thomas (2010), *Rente, Rentierstaat und die Distribution materieller Ressourcen in Autokratien*, in: Holger Albrecht and Rolf Frankengerger (eds), *Autoritarismus Reloaded: Neuere Ansätze und Erkenntnisse der Autokratieforschung*, Baden-Baden: Nomos, 157–176.
- Schlumberger, Oliver (2010), *Opening Old Bottles in Search of New Wine: On Nondemocratic Legitimacy in the Middle East*, in: *Middle East Critique*, 19, 3, 233–250.
- Schmitter, Philippe C. (2009), *The Nature and Future of Comparative Politics*, in: *European Political Science Review*, 1, 01, 33–61.
- Schneider, Carsten Q., and Claudius Wagemann (2012), *Set-Theoretic Methods for the Social Sciences: A Guide to Qualitative Comparative Analysis*, Cambridge: Cambridge University Press.
- Schneider, Carsten Q., and Claudius Wagemann (2007), *Qualitative Comparative Analysis (QCA) und Fuzzy Sets. Ein Lehrbuch für Anwender und jene, die es werden wollen*, Opladen: Barbara Budrich.
- Sharabi, Hisham (1988), *Neopatriarchy. A History of Distorted Change in Arab Society*, Oxford: Oxford University Press.
- Shyrock, Andrew (2000), *Dynastic Modernism and its Contradictions: Testing the Limits of Pluralism, Tribalism, and King Hussein's Example in Hashemite Jordan*, in: *Arab Studies Quarterly*, 22, 3, 57–80.
- Snyder, Richard (1998), *Paths out of Sultanistic Regimes: Combining Structural and Voluntarist Perspectives*, in: H. E. Chehabi and Juan José Linz (eds), *Sultanistic Regimes*, JHU Press, 49–82.
- USAID EADS (2010), *U.S. Overseas Loans and Grants: Obligations and Loan Authorizations, July 1, 1945-September 30, 2010*.

- Vink, Maarten P., and Olaf Van Vliet (2009), Not Quite Crisp, Not Yet Fuzzy? Assessing the Potentials and Pitfalls of Multi-value QCA, in: *Field Methods*, 21, 3, 265–289.
- Yom, Sean L. (2012), Understanding the Resilience of Monarchy During the Arab Spring, in: *Foreign Policy Research Institute website*, online: <[www.fpri.org/enotes/2012/201204.yom.monarchy-arab-spring.html](http://www.fpri.org/enotes/2012/201204.yom.monarchy-arab-spring.html)> (12 April 2012).
- Yom, Sean L. (2009), Jordan: Ten More Years of Autocracy, in: *Journal of Democracy*, 20, 4, 151–166.
- Yom, Sean L., and F. Gregory Gause III (2012), Resilient Royals: How Arab Monarchies Hang On, in: *Journal of Democracy*, 23, 4, 74–88.
- Yom, Sean L., and Mohammed H. Al-Momani (2008), The International Dimensions of Authoritarian Regime Stability: Jordan in the Post-Cold War Era, in: *Arab Studies Quarterly*, 30, 1, 39–60.

## Appendix

Table 5: Country Periods and Codings of Conditions and Outcome

No. of country period	Country	A (USmil)	(B) Rents	(C) Family	(D) Leg-claim	(E) Protests	(Y) Survival
1	Abu Dhabi71-04 M-S	0.0	1.0	1.0	0.2	1.0	0.8
2	Abu Dhabi04-11 M-S	0.0	1.0	1.0	0.2	0.0	0.8
3	Bahrain71-81 M-S	0.0	1.0	1.0	0.2	0.0	0.6
4	Bahrain81-99 M-S	1.0	1.0	1.0	0.2	1.0	0.6
5	Bahrain99-11 M-S	1.0	1.0	1.0	0.2	1.0	0.8
6	Egypt45-52 M-B	0.0	0.0	0.0	0.2	1.0	0.2
7	Iran45-53 M-S	0.0	0.9	0.0	0.2	1.0	0.6
8	Iran53-79 M-B	1.0	1.0	0.0	0.2	1.0	0.2
9	Iraq45-58 M-B	0.0	0.9	0.0	0.8	1.0	0.0
10	Jordan46-50 M-S	0.0	0.0	0.3	0.8	1.0	0.6
11	Jordan51-57 M-S	0.0	0.0	0.3	0.8	1.0	0.6
12	Jordan57-70 M-S	1.0	0.0	0.7	0.8	1.0	0.6
13	Jordan70-99 M-S	1.0	0.1	0.3	1.0	1.0	0.8
14	Jordan99-11 M-S	1.0	0.0	0.3	0.8	0.0	1.0
15	Kuwait61-65 M-S	0.0	1.0	1.0	0.4	0.0	0.6
16	Kuwait65-77 M-S	0.0	1.0	1.0	0.4	0.0	0.6
17	Kuwait77-90 M-S	0.0	1.0	1.0	0.2	0.0	0.8
18	Kuwait90-06 M-S	0.0	1.0	1.0	0.2	1.0	0.8
19	Kuwait06-11 M-S	0.0	1.0	1.0	0.2	0.0	0.8
20	Libya51-69 M-B	0.0	1.0	0.0	0.8	1.0	0.0
21	Morocco56-61 M-S	0.0	0.0	0.3	1.0	0.0	0.6
22	Morocco61-71 M-S	0.0	0.0	0.0	0.8	1.0	0.6
23	Morocco71-72 M-S	0.0	0.0	0.0	0.8	1.0	0.6
24	Morocco72-99 M-S	0.0	0.0	0.0	1.0	1.0	0.8
25	Morocco99-11 M-S	0.0	0.0	0.0	1.0	1.0	0.8
26	Oman 71-11 M-S	0.0	1.0	0.3	1.0	0.0	0.8
27	Qatar71-72 M-S	0.0	1.0	1.0	0.2	0.0	0.6
28	Qatar72-95 M-S	0.0	1.0	1.0	0.2	0.0	0.6
29	Qatar95-11 M-S	0.0	1.0	1.0	0.4	0.0	0.8
30	Saudi45-53 M-S	0.0	1.0	1.0	1.0	0.0	0.6
31	Saudi53-64 M-S	0.0	0.9	1.0	1.0	0.0	0.8
32	Saudi64-69 M-S	1.0	1.0	1.0	1.0	0.0	0.8
33	Saudi69-75 M-S	0.0	0.9	1.0	1.0	0.0	0.8
34	Saudi75-82 M-S	0.0	1.0	1.0	0.8	0.0	0.8
35	Saudi82-05 M-S	0.0	1.0	1.0	1.0	1.0	1.0
36	Saudi05-11 M-S	0.0	1.0	1.0	1.0	0.0	1.0
37	Yemen_N45-48 M-S	0.0	0.0	1.0	0.8	0.0	0.8
38	Yemen_N48-55 M-S	0.0	0.0	1.0	0.8	0.0	0.8
39	Yemen_N55-62 M-B	0.0	0.0	0.7	0.6	0.0	0.2



Please note that the following short interregnums, which we call transition periods, have been considered to be inappropriate as a unit of analysis: Egypt 52-53 M-T; Jordan 50-51 M-T; Kuwait 06-06 M-T.

**Table 6: Truth Table (Cases of Breakdown in Bold and Italics)**

No. of Configs	Country Periods	(A) USmil	(B) Rents	(C) Family	(D) Leg-claim	(E) Protest	No of cases	(Y) survival	raw cons.	(Y) ~survival	raw cons.
1	Abu Dhabi 71-04 M-S, Kuwait 90-06 M-S	0	1	1	0	1	2	1	1.0000	0	0.2665
2	Oman 71-11 M-S	0	1	1	0	0	1	1	1.0000	0	0.3343
3	Saudi 82-05 M-S	0	1	1	1	1	1	1	1.0000	0	0.3036
4	Jordan 99-11 M-S	1	0	1	0	0	1	1	1.0000	0	0.0000
5	Jordan 70-99 M-S	1	0	1	0	1	1	1	1.0000	0	0.5338
6	?	1	0	1	1	0	0	?		?	
7	?	1	0	0	1	1	0	?		?	
8	?	0	0	0	1	1	0	?		?	
9	?	0	0	1	1	1	0	?		?	
10	?	1	1	1	0	1	0	?		?	
11	?	0	1	0	0	0	0	?		?	
12	?	1	0	0	0	0	0	?		?	
13	?	1	0	0	0	1	0	?		?	
14	?	1	0	0	1	0	0	?		?	
15	?	1	1	1	1	1	0	?		?	
16	?	1	1	0	0	0	0	?		?	
17	?	1	1	0	1	0	0	?		?	
18	?	1	1	1	0	0	0	?		?	
19	Jordan57-70 M-S	1	0	1	1	1	1	1	0.9303	0	0.6018
20	Saudi 45-53 M-S, Saudi 53-64 M-S, Saudi 69-75 M-S, Saudi75-82 M-S, Saudi 05-11 M-S	0	1	1	1	0	5	1	0.9144	0	0.4668
21	Abu Dhabi04-11 M-S, Bahrain71-81 M-S, Kuwait61-65 M-S, Ku- wait65-77 M-S, Ku- wait77-90 M-S, Ku- wait06-11 M-S, Qa- tar71-72 M-S, Qatar72- 95 M-S, Qatar95-11 M- S	0	1	0	1	0	9	1	0.9125	0	0.4456
22	Bahrain81-99 M-S, Bahrain99-11 M-S	1	1	0	1	1	2	1	0.8764	0	0.3820
23	Yemen_N45-48 M-S, Yemen_N48-55 M-S, (Yemen_N55-62 M-B)	0	0	1	1	0	3	1	0.8517	0	0.5549

No. of Configs	Country Periods	(A) USmil	(B) Rents	(C) Family	(D) Leg-claim	(E) Protest	No of cases	(Y) survival	raw cons.	(Y) ~survival	raw cons.
24	Jordan46-50 M-S, Jordan51-57 M-S, Morocco61-71 M-S, Morocco71-72 M-S, Morocco72-99 M-S, Morocco99-11 M-S	0	0	1	0	1	6	1	0.8216	0	0.4532
25	Saudi 64-69 M-S	1	1	1	1	0	1	1	0.8076	0	0.1925
26	Morocco 56-61 M-S	0	0	1	0	0	1	1	0.8001	0	0.7301
27	?	0	0	0	1	0	0	?		?	
28	Egypt 45-52 M-B	0	0	0	0	1	1	0	0.6279	1	1.0000
29	?	0	0	0	0	0	0	?		?	
30	Iran 45-53 M-S	0	1	0	0	1	1	0	0.5482	0	0.6988
31	Iran 53-79 M-B	1	1	0	0	1	1	0	0.2665	1	1.0000
32	Iraq 45-58 M-B, Libya 51-69 M-B	0	1	1	0	1	2	0	0.1974	1	1.0000

## Recent Issues

- No 214 Nele Noesselt: Microblogs in China: Bringing the State Back In, February 2013
- No 213 Pascal Abb: China's Foreign Policy Think Tanks: Changing Roles and Structural Conditions, January 2013
- No 212 Christian von Soest and Michael Wahman: Sanctions and Democratization in the Post-Cold War Era, January 2013
- No 211 Alexander De Juan: Mapping Political Violence – The Approaches and Conceptual Challenges of Subnational Geospatial Analyses of Intrastate Conflict, December 2012
- No 210 Lena Giesbert: Subjective Risk and Participation in Micro Life Insurance in Ghana, December 2012
- No 209 Georg Strüver: What Friends Are Made Of: Bilateral Linkages and Domestic Drivers of Foreign Policy Alignment with China, November 2012
- No 208 Jörg Balsiger, Miriam Prys and Niko Steinhoff: The Nature and Role of Regional Agreements in International Environmental Politics: Mapping Agreements, Outlining Future Research, October 2012
- No 207 Daniel Flemes and Leslie Wehner: Drivers of Strategic Contestation in South America, October 2012
- No 206 Hannes Ebert, Daniel Flemes and Georg Strüver: The Politics of Contestation in Asia: How Japan and Pakistan Deal with their Rising Neighbors, September 2012
- No 205 Carlo Koos and Matthias Basedau: Does Uranium Mining Increase Civil Conflict Risk? Evidence from a Spatiotemporal Analysis of Africa from 1945 to 2010, September 2012
- No 204 André Bank and Roy Karadag: The Political Economy of Regional Power: Turkey under the AKP, September 2012
- No 203 Martin Beck and Simone Hüser: Political Change in the Middle East: An Attempt to Analyze the "Arab Spring", August 2012
- No 202 Sandra Destradi and Johannes Vüllers: The Consequences of Failed Mediation in Civil Wars: Assessing the Sri Lankan Case, August 2012
- No 201 David Shim: Seeing from Above: The Geopolitics of Satellite Vision and North Korea, August 2012
- No 200 David Shim and Patrick Flamm: Rising South Korea – A Minor Player or a Regional Power?, July 2012

All GIGA Working Papers are available free of charge at <[www.giga-hamburg.de/workingpapers](http://www.giga-hamburg.de/workingpapers)>. For any requests please contact: <[workingpapers@giga-hamburg.de](mailto:workingpapers@giga-hamburg.de)>.

WP Coordinator: Melissa Nelson