The Arab Uprisings and The Path to National Peace and Sustainable Development

Samir Makdisi, Raimundo Soto and Razan Amine

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Samir Makdisi, Raimundo Soto,[2] and Razan Amine[3]

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Send correspondence to:
Samir Makdisi
American University of Beirut
makdisi@aub.edu.lb

Abstract

There is now consensus that the 2010-2011 uprisings in Arab countries reflect the breakdown of the social contract that had prevailed for over half a century. Governments could no longer sustain an economic system that traded political submissiveness for continuous employment in the public sector and food and energy subsidies. The initial hopes for political and economic reforms quickly faded, and the aftermath of the uprisings led to open conflict and, eventually, civil war. We first identify the key factors that influence the outbreak of a conflict (Syria and Libya) or the renewal of political violence (Yemen and Iraq). Our analysis extends the authoritarian-bargain theory of civil conflicts to include uncertainty about the value of the political bargain offered by an authoritarian government to citizens who have limited information about the available government resources and their distribution among different groups, the probability of success of a revolt, and the eventual political and economic costs of a failed uprising. We test our theory using data for around 125 economies in the period 1980-2020 and undertake several counterfactual exercises that allow us to derive policy implications vis-à-vis the desirable polices authorities should implement to increase the probability of maintaining peace after a conflict.

JEL classification: P48, D74, C25, N45, O11.

Keywords: social contract, authoritarian bargain, Arab uprising, post-conflict reforms

ملخص

هناك الآن توافق في الآراء على أن انتفاضات 2010-2011 في البلدان العربية تعكس انهيار العقد الاجتماعي الذي ساد لأكثر من نصف قرن. ولم تعد الحكومات قادرة على الحفاظ على نظام اقتصادي يتاجر بالاستسلام السياسي من أجل استمرار العمالة في القطاع العام وإعانات الغذاء والطاقة. سرعان ما تلاشت الآمال الأولية في الإصلاحات السياسية والاقتصادية، وأدت آثار الانتفاضات إلى صراع مفتوح، وفي النهاية حرب أهلية. نحدد أولاً العوامل الرئيسية التي تؤثر على اندلاع الصراع (سوريا وليبيا) أو تجدد العنف السياسي (اليمن والعراق). يوسع تحليلنا نظرية الصفقة الاستبدادية للصراعات الأهلية لتشمل عدم اليقين بشأن قيمة الصفقة السياسية التي تقدمها الحكومة الاستبدادية للمواطنين الذين لديهم معلومات محدودة حول الموارد الحكومية المتاحة وتوزيعها بين المجموعات المختلفة، واحتمال نجاح ثورة، والتكاليف السياسية والاقتصادية النهائية لانتفاضة فاشلة. نختبر نظريتنا باستخدام بيانات لحوالي 125 اقتصادًا في الفترة 1980-2020 ونقوم بالعديد من التدريبات المضادة للوقائع التي تسمح لنا باستنباط آثار سياسية تجاه السياسات المرغوبة التي يجب على السلطات تنفيذها لزيادة احتمالية الحفاظ على السلام بعد الصراع.

1. Introduction

The Arab uprisings that stormed the Middle East in late 2010 and 2011 led to the toppling of several regimes in the region. There is now ample consensus that the uprisings represent the most visible stage in the breakdown of the social contract that had prevailed since the end of the Second World War. For a variety of reasons, by the turn of the twentieth century, it became apparent that governments could no longer keep up with an economic system that sustained expectations of the population for increasing transfers (mainly food and energy subsidies) and continuous employment in the public sector. Despite achieving economic progress, scholars have identified several phenomena that support the notion that the prevailing social contract had broken down, including emerging perceptions of inequality, some objective improvement in social conditions notwithstanding (Devarajan and Ianchovichina, 2018); the youth bulge, unemployment, and political and economic exclusion (Paasonen and Udal, 2016; Makdisi and Soto forthcoming), or the progressive inability of governments to finance ever increasing energy and food subsidies (Auktor and Loewe, 2021).

The initial hopes for political and economic reforms that would increase political participation and democracy as well as provide for sustainable economic development quickly faded, and in a few countries the aftermath of the uprising led to open civil conflict and civil war (e.g., Syria, Libya, and Yemen). Indeed, the responses of the governments to popular demonstrations and riots were markedly heterogenous in the region: one country only, Tunisia, introduced a democratic form of governance; the other countries, however, responded by introducing limited political reforms (Morocco, Jordan) or turned to varying degrees of repression (Egypt), while the richer ones merely increased transfers to appease the population (GCC countries and, to some extent, Algeria).

The outbreak of these uprisings, the turmoil that followed, as well as the varying political responses to them, are at the core of this paper. First, we aim at to identify the factors that influence the outbreak of a conflict –as in the case of Syria or Libya—or the continuation of political turmoil and renewal of the conflict –as in Yemen or Iraq. In particular, we would like to determine which variables might affect the transitioning from conflict to peace and to the persistence of the non-conflict scenario. Second, we aim to identify to what extent the initial conditions determine the success of a cease fire or peace agreement in restraining violence after a civil conflict. In this regard, we evaluate the relative importance of short-term policies for stabilization and growth resumption vis-à-vis longer-term reforms aimed at changing the political-economic conditions that led to conflict. Third, we would like to empirically test the notion of an Arab "exceptionalism", that is, a proneness of MENA economies towards non-democratic governance and political instability that cannot be accounted for by fundamental variables such as development levels, polarization levels, inequality, among others.

Our research is instrumental in anticipating the outcome of an eventual peace agreement in the conflict afflicted MENA countries. Independent of the nature of such peace agreements, the viability and sustainability of their post-conflict transition would depend on the quality of the political and economic reforms they implement in the post conflict phase. In the context of massive discontent of the MENA region, there is a sense of urgency which suggest that these reforms cannot be postponed. But nowhere is this need more pressing than in those countries where the Arab uprising gave way to full blown civil conflicts. While these conflicts are yet to be resolved, we may posit that these countries would need to carve out a new social contract and implement significant reforms to ensure the viability and long-run standing of any eventual peace agreement.

Looking to the future, two elements clearly emerge. First, the post-independence social contract of securing the political survival of the regimes based on heavy government interventions in key markets is no longer workable. There is a pressing need for a new, viable, inclusive agreement that, by way of bringing legitimacy to political regimes, would allow for sustained development. Second, the attainment of such legitimacy calls for fundamental reforms of the existing fabric of economic, political, and social institutions in the direction of more inclusion and more democratic governance, if relapses into pre-reforms forms of governance are to be avoided.

With the above in mind, section 2 identifies the economic, political, and social roots of the Arab uprisings. Section 3, the main part of the paper, follows with details of a theory of civil conflicts that extends previous analyses by Desai et al. (2009) and Soto (2019). The model considers a game between an incumbent government and the population, whereby the former offers a political bargain to the latter to limit popular discontent and contain the threat of an uprising. The bargain consists of a transfer of economic rents in State hands to citizens, as well as implementing policies aimed at fulfilling ideological demands by the population. If the bargain is accepted, peace ensues. Rejecting the offer takes the form of an attempt at overthrowing the government, which may fail. Support for an overthrow depends on the distance between the expected and actual bargain: in particular, the population cares about keeping their "share of the pie" and would withdraw the support to the incumbent if their perceived relative benefits decline.

The theory provides testable implications that we explore in Section 4 using data for around 125 emerging economies and covering the period 1980-2020 (the longest available for which data are consistent). We test our theory for the outbreaks of civil wars as coded in the Uppsala Conflict Data Program. The results obtained using advanced dynamic panel Probit techniques, lend strong support to the model and provides for several counterfactual exercises that allow us to derive policy implications vis-à-vis the desirable polices authorities should implement to increase the probability of maintaining peace after a conflict. Section 5 concludes.

2. Identifying the Factors of the Uprisings

Since the end of World War II (WWII), there have been more than 120 civil conflicts primarily in the developing world. In turn, the Arab region has had its full share of armed conflicts, beginning with the creation of Israel in 1948 and the emergence of the Palestinian question. Aside from this, the region has witnessed many civil and other conflicts: the overthrow of the Iraqi monarchy on July 15,1958[4], the Iran/Iraq war between 1980 and 1988, the Baath party Syrian coup d'état of March 8, 1963, the Yemen civil war of the 1960's, Lebanon's long-lasting civil war 1975-1990, the Algerian civil war of 1991-2002, the Iraqi invasion of Kuwait on August 2, 1990 and the subsequent overthrow of the Iraqi leadership in 2003 by a US-led invasion.[5]

And then we have the more recent civil uprisings of 2010 in five Arab countries, namely Egypt, Tunisia, Syria, Yemen, and Libya. Of these, only Tunisia succeeded in establishing a new democratic order in an orderly fashion. Egypt turned back to autocratic governance; Syria's ruling class has been able to maintain itself in power by sheer force, albeit at the cost of inviting direct foreign power interventions, while the other two countries have been suffering from civil strife that is yet to be resolved. Ripple effects, though much ameliorated, were observed in several other Arab nations (from Morocco to the GCC economies), that forced governments to react to popular demands but without resorting to massive violence.

In contrast with previous conflicts, the occurrence of these simultaneous uprisings has shaken the foundations of the prevailing autocracy in these counties but, with the sole exception of Tunisia, have not so far led to a breakthrough in promoting an inclusive and democratic social order in any of them and, consequently, the wider Arab region. By comparison, other regions of the world have managed to make greater progress in moving forward towards a more democratic order.

While the economic development of the Arab world in the post-WWII period has kept pace with, if not gone ahead of, other regions, it has remained, as noted above, one of the most conflictual areas.[6] This is one of the major reasons that has kept it in the non-democratic zone, with uncertain peaceful prospects for development. Clearly, as pointed out elsewhere by the authors (Makdisi and Soto, 2022a) if national peace and equitable development are to be achieved in the Arab world, the old (pre-conflict) social contract, based on autocratic rule, along with weak institutions, would

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[4] Fearing its regional repercussions, the US landed troops in Beirut at the "request" of the then Lebanese President; they remained for a few months only.

[5] According to some researchers this invasion paved the way for the later emergence of the Islamic state in 2014 in the northern parts of Syria and Iraq until defeated by 2017 by a coalition of regional and international forces (see Selján, 2021).

[6] The *Global Peace Index* (GPI) measures the state of peace across three domains: the level of Societal Safety and Security, the extent of Ongoing Domestic and International Conflict, and the degree of Militarisation. According to the GPI for 2022 the Middle East and North Africa remained the world's least peaceful region; it is home to three of the five least peaceful countries in the world, namely Yemen, Syria, and Iraq; and its conflicts have been the key driver of the global deterioration in peacefulness since 2008.

no longer be a viable option. Instead, a new social contract would have to be put in place; one that would reflect socio-economic inclusivity, institutional reform, and democratic political governance which would ensure equitable power-sharing and accountability; otherwise, the seeds of conflict would remain.

It is important first to recall the roots of the uprisings.[7] These may be classified into three major categories comprising economic, political, and social factors respectively.:

Concerning the first category, while welfare in the countries that experienced the uprisings had increased in the two decades before 2010 (measured by real GDP per working-age individual), other economic factors tended to fuel latent social discontent that eventually led to the uprisings. They included stagnating total factor productivity growth, rising unemployment, in particular youth unemployment to high levels and growing perceptions of inequality (irrespective of the actual situation).[8]

Tables 1 and 2 provide evidence of the notable differences in the long-term economic development of the Middle East economies vis-à-vis around 120 countries in other regions of the world. In Panel A of Table 1, it can be seen that the vigorous growth of MENA collapsed in the 1980s –not unlike in Latin America and Sub- Saharan Africa—, that it did not regain its initial momentum after 1990, and that it further declined during the decade that preceded to the uprisings. Panel B of Table 1 unveils another trait of economic development in MENA, namely the chronic instability of the growth process. Our measure of economic downturns derives from decomposing annual GDP growth into trend and cycle (using the filter by Hamilton, 2018) and computing the average of negative shocks. The evidence suggests that economic downturns have been far more pronounced in MENA than in all other emerging economies of the world. To the extent that negative downturns are accompanied by rising unemployment, declining wages, and lower fiscal space for supporting those in need, it comes as no surprise that MENA countries would be fertile ground for popular discontent.

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[7] For a detailed discussion see Makdisi and Soto (2022a).

[8] Recent research points out that stagnating economic conditions in the few democratic leaning countries (Iraq, Lebanon, and Tunisia) in contrast to the more positive economic outlook in non-democratic Arab countries appear to have lessened the appeal of democracy to ordinary Arab citizens whose main concern is ameliorating their economic condition. In consequence, they have become more open to the authoritarian models offered by China and Russia (see Jamal and Robbins, 2022).

Table 1. Long Run GDP Growth per capita and Short-term fluctuations by Regions of the World

Panel A
Average Annual Growth of GDP per capita (percent)

	MENA	Central Asia	East Asia	South Asia	Latin America	Sub Saharan Africa
1971-1980	4.52	3.68	4.13	0.97	2.36	1.46
1981-1990	-0.34	1.50	2.46	3.30	-0.94	0.09
1991-2000	2.22	-0.12	3.16	2.94	1.84	1.02
2001-2010	1.48	5.42	4.63	4.52	2.37	2.38
2011-2020	-0.80	2.60	3.38	2.93	0.93	0.82
Number of countries	*19*	*27*	*14*	*7*	*23*	*44*

Source: World Economic Indicators database.

Panel B
Average Size of Economic Downturns (negative GDP shocks, percent)

	MENA	Central Asia	East Asia	South Asia	Latin America	Sub Saharan Africa
1971-1980	-0.99	-0.12	-0.07	-0.04	-0.12	-0.10
1981-1990	-1.34	-0.33	-0.10	-0.03	-0.37	-0.11
1991-2000	-0.44	-0.68	-0.13	-0.05	-0.16	-0.07
2001-2010	-0.22	-0.28	-0.08	-0.03	-0.15	-0.06
2011-2020	-0.99	-0.15	-0.09	-0.04	-0.17	-0.12
Number of countries	*19*	*27*	*14*	*7*	*23*	*44*

Source: World Economic Indicators database

Table 2 provides evidence of the dismal performance of labor markets in MENA and the danger it creates in a situation where there is a "youth bulge".[9] Data on unemployment rates are depicted in panels A and B. While general unemployment in MENA is not much higher than in other emerging economies, youth unemployment is chronically and significantly higher than in all other regions of the world (with the notable exception of Central Asia). The fact that one in five young workers are unemployed attests at a labor market where job creation has systematically faltered and points at youth discontent as a potential force behind the uprisings.

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[9] The youth bulge is often due to a stage of development where a country achieves success in reducing infant mortality, but mothers still have a high fertility rate. The result is that a large share of the population is comprised of children and young adults.

Table 2. Labor Market Performance by Regions of the World

		Panel A				
		Average unemployment rate (age 15 and above, percent)				
	MENA	Central Asia	East Asia	South Asia	Latin America	Sub Saharan Africa
1971-1980	.	.	.	.	.	.
1981-1990	.	.	.	.	.	.
1991-2000	9.55	11.23	2.93	5.05	7.59	8.32
2001-2010	8.99	11.83	3.10	4.74	7.55	8.21
2011-2020	8.70	9.97	2.56	4.91	6.96	7.81
Number of countries	*19*	*27*	*14*	*7*	*23*	*44*

Source: International Labor Organization Database.

		Panel B				
		Average unemployment rate (age 15-24, percent)				
	MENA	Central Asia	East Asia	South Asia	Latin America	Sub Saharan Africa
1971-1980	.	.	.	.	.	.
1981-1990	.	.	.	.	.	.
1991-2000	19.86	22.03	6.53	11.90	15.31	14.59
2001-2010	20.24	23.64	7.57	11.50	15.85	14.72
2011-2020	21.45	22.01	7.30	12.66	15.25	14.61
Number of countries	*19*	*27*	*14*	*7*	*23*	*44*

Source: International Labor Organization Database.

The second category groups political factors, associated with varying forms of political control by the ruling elite, stretching from absolute monarchial rule to engineered parliamentary elections. To cement their political hold the ruling elite attempted to gain the loyalty of the middle class by providing them with various economic privileges; equally with their control of the national economy they managed at first to provide jobs to the population in exchange for their loyalty. Eventually with declining economic prospects, associated with dissatisfaction with the quality of public services, the shortage of formal-sector jobs, and corruption, rendered the prevailing social contract untenable with growing aspirations for a politically freer society.

Table 3. Democracy and Corruption by Regions of the World

	MENA	Central Asia	East Asia	South Asia	Latin America	Sub Saharan Africa
Panel A Democracy Index (0= no democracy, 10=full democracy)						
1971-1980	0.60	1.00	1.43	2.95	2.67	0.97
1981-1990	0.39	1.53	2.11	2.67	4.78	1.04
1991-2000	0.71	4.89	4.11	4.56	7.10	2.40
2001-2010	1.17	5.91	4.36	3.89	7.69	3.74
2011-2020	1.71	6.15	4.61	5.30	7.70	4.59
Number of countries	*19*	*27*	*14*	*7*	*23*	*44*

Source: Polity V Database.

	MENA	Central Asia	East Asia	South Asia	Latin America	Sub Saharan Africa
Panel B ICRG Corruption Index (a higher value indicates less corruption)						
1971-1980	.	.	.	.	.	.
1981-1990	2.88	3.46	2.61	1.92	2.60	2.77
1991-2000	2.89	3.40	3.02	2.58	2.94	2.60
2001-2010	2.14	2.18	1.94	2.15	2.29	2.00
2011-2020	2.32	2.43	2.33	2.40	2.21	1.90
Number of countries	*19*	*27*	*14*	*7*	*23*	*44*

Source: ICRG Database.

The extent of the lack of political participation of MENA countries is indicated in Panel A of Table 3, where we have computed the average democracy index as estimated by Polity V of the Center for Systemic Peace[10]. Regarding political participation, MENA's record is dismal and shows no signs of improving over time: in the past five decades it has remained significantly below Latin America and Asia, and, by the time of the uprisings, it even lagged vis-à-vis African economies. Panel B of Table 3 shows the evolution of ICRG's corruption Index, which is an assessment of corruption within the political system. While MENA does not rank below other emerging regions, it is noticeable the deterioration in the control of corruption in the decade that preceded the Arab uprisings. It is fair to say that the trend is a generalized phenomenon.

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[10] The "Polity Score" captures the regime authority spectrum on a 21-pont scale ranging from -10 (hereditary monarchy) to +10 (consolidated democracy). It has been suggested to categorize regimes as "autocracies" (-10 to -6), "anocracies" (-5 to +5), and "democracies" (+6 to +10).

The third category deals with social inequality in the form of fractionalization and polarization, often caused ethnicity and/or religious fragmentation. While they are not dominant issues in the Arab world, still they suffered from high levels of political exclusion and economic inequality that eventually played an important part in fueling the uprisings. Table 4 presents evidence on the evolution of income distribution, where it shows that prior to the uprisings, MENA was one of the most unequal regions of the world: both the top 1% and top 10% of the population appropriated a larger share of income than in any other region and the poor were poorer than in regions with a similar level of development (e.g., Latin America).

In the post uprising period, 2011-2020, MENA's respective shares tended to decline but they remained above those of the other regions except for Latin America's share of the richest 1 percent. Similarly, while the share of MENA's 50% poorest in national income rose a little over the whole 1981-90 period standing in the post uprisings period at an average of 9.2 %, it remained lower than those for other regions except Latin America.

These motives for the uprisings reflect the underlying grief of a population that increasingly felt deeply disenfranchised at the economic, political, and social levels and was seeking to redress its situation via a fairer share of, or greed for more, economic benefits.[11]

We cannot go into the reasons that explain why the uprisings in Tunisia and Egypt quickly succeeded in toppling the ruling elite and establishing a new regime but failed to bring about regime change in Syria and are yet to be settled one way or another in Yemen and Libya. One explanatory factor, we submit, are the continuous overt external interventions, in support of one side to the conflict or another in these latter three countries. Indeed, since WWII foreign interventions in the region, in particular by the US, have been intense, either directly or via proxy wars. Support for Israel with all its politico/economic implications apart, underlying motives include the desire to control the region's oil and other resources and, more recently, to confront fundamentalist groups as well as the growing influence of Russia and China in the region. And whatever their relationships with outside powers, rivalries among regional powers for regional dominance (Turkey, Iran, and Saudi Arabia) further intensified the conflictual nature of the region (see Carnegie, 2018; Péter, 2021).

Whatever the explanatory factors, in the end the uprisings have not succeeded in moving the Arab region towards a democratic order. It continues to be classified at the bottom of the democracy table. Among the major factors that help explain the resistance of the Arab region, as a whole, to democratization are the above noted perpetuation of regional conflicts that intertwine with the dominance of oil resources as well as foreign interventions (see Elbadawi and Makdisi, 2011).

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[11] The motives of greed and grief are well established opposite strands in the literature on civil conflicts. The determinants of the former are largely economic and of the latter previous misdeeds and abuse (cultural, political, ethnic, religious, polarization, inequality, etc.).

Section 3 below presents a summary version a theoretical model of civil conflicts which we detail in a companion paper (Makdisi and Soto, 2022b). It encompasses economic, political, and sociological dimensions that, according to the received knowledge, are most likely to play a role in inciting violence and political turmoil. Novel features of the model show that, under certain circumstances, it can sustain conflict in equilibrium and that citizens give or withdraw their support to the government based not on the absolute size of pecuniary and non-pecuniary public goods but on changes in their relative position vis-à-vis other groups in society.

Table 4. Income Distribution by Regions of the World

	Panel A					
	Share of the 1% richest in total pre-tax national income (percent)					
	MENA	Central Asia	East Asia	South Asia	Latin America	Sub Saharan Africa
1981-1990	**29.5**	13.7	18.9	19.3	21.2	21.0
1991-2000	**27.2**	15.5	17.8	18.4	21.5	20.3
2001-2010	**24.5**	18.5	18.0	20.5	23.3	22.3
2011-2020	**23.0**	17.9	15.2	21.3	24.7	21.7

	Panel B					
	Share of the 10% richest in total pre-tax national income (percent)					
	MENA	Central Asia	East Asia	South Asia	Latin America	Sub Saharan Africa
1981-1990	**64.7**	44.1	53.9	45.0	57.5	57.7
1991-2000	**62.3**	47.3	52.1	45.7	57.7	57.6
2001-2010	**59.6**	50.5	49.2	51.0	58.4	58.5
2011-2020	**58.1**	49.6	45.1	55.1	57.8	57.1

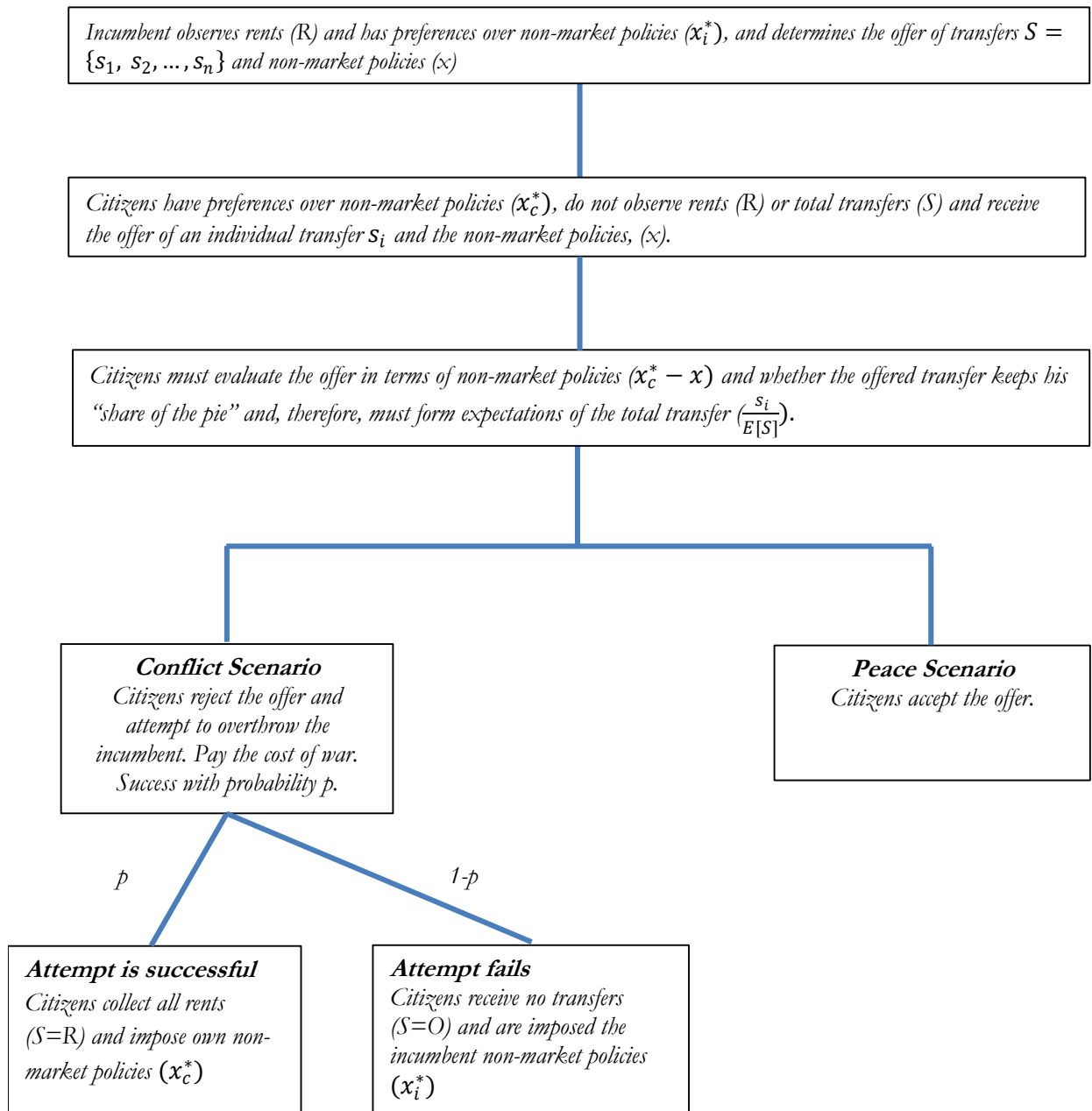| | Panel C | | | | | |
	Share of the 50% poorest in total pre-tax national income (percent)					
	MENA	Central Asia	East Asia	South Asia	Latin America	Sub Saharan Africa
1981-1990	**7.8**	11.7	12.1	16.0	9.4	7.4
1991-2000	**8.5**	11.2	11.2	16.1	9.2	7.6
2001-2010	**9.1**	10.5	11.4	14.3	9.4	8.0
2011-2020	**9.2**	10.7	13.1	13.3	9.7	8.7

Source: World Inequality Database.

3. Modelling the Uprisings

Our model extends the work of Desai et al. (2009) and Soto (2019) and posits a game between an incumbent and the citizens, where political power entails command over the allocation of government resources and economic rents, as well as the authority to implement non-market policies. Diagram 1 provides a stylized description of our theory. The control of the economic rents in the hands of the State[12], on one hand, allows the incumbent to increase his welfare; by sharing a fraction of such rents with his constituency rallies political support and lowers the probability of success of an overthrow attempt. This is the classical greed motive. On the other hand, the incumbent would like to enact non-market policies reflecting his "ideological" preferences (e.g., religious, political, social, tribal, or ethnical). These may not match those of the citizens, thus leading to grievances as a motive for political struggle.[13] Grievances may take several forms: a sense of alienation, corruption, the youth bulge, affronts to dignity and the repression of family members at the hands of the state, among other factors (Cammett and Salti, 2018).

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[12] Economic rents in the hands of the government include not only those arising from natural resources (e.g., oil, minerals, or precious stones) but also the ability to extract resources from businesses via taxation (Collier and Hoeffler, 2000).

[13] Dyrstad and Hillesund (2020) organize the vast empirical literature on grievances in two groups: those arising from socioeconomic inequalities and those resulting from ethnic political exclusion. The assumed mechanism is that that intergroup inequalities motivate people to challenge the status quo and increase the opportunity to do so because grievances that are linked to strong identity groups facilitate leadership, successful collective action frames, group solidarity and anger, and the activation of preexisting social networks and organizations.

Diagram 1

Incumbent observes rents (R) and has preferences over non-market policies (x_i^*), and determines the offer of transfers $S = \{s_1, s_2, \ldots, s_n\}$ and non-market policies (x)

Citizens have preferences over non-market policies (x_c^*), do not observe rents (R) or total transfers (S) and receive the offer of an individual transfer s_i and the non-market policies, (x).

Citizens must evaluate the offer in terms of non-market policies $(x_c^* - x)$ and whether the offered transfer keeps his "share of the pie" and, therefore, must form expectations of the total transfer $\left(\frac{s_i}{E[S]}\right)$.

Conflict Scenario
Citizens reject the offer and attempt to overthrow the incumbent. Pay the cost of war. Success with probability p.

Peace Scenario
Citizens accept the offer.

p

1-p

Attempt is successful
Citizens collect all rents (S=R) and impose own non-market policies (x_c^*)

Attempt fails
Citizens receive no transfers (S=O) and are imposed the incumbent non-market policies (x_i^*)

The incumbent offers a bundle of transfers and ideological policies to the citizens, which we call the political bargain. Citizens can accept the offer (peace scenario) or reject the offer and attempt at overthrowing the incumbent (conflict scenario). The diagram envisages two scenarios:

Peace Scenario*:* If the political bargain is accepted, then the representative citizen's utility will be $W_c(C) + U_c(S) + v_c(x_t | x_c^*)$, where $W_c(C)$ is welfare from private consumption (C), and $U_c(S)$ is

welfare from the accepted transfer, and $v_c(x|x_c^*)$ is the utility derived from non-market policies, given the citizen's ideal concerning ideological issues, x_c^*. Note that, unless $x \leq x_c^*$, the political bargain always increases welfare, from satisfying all or part of the citizens ideology.

Conflict Scenario: The alternative to accepting the political bargain is to attempt at overthrowing the incumbent. Recurring to violence entails paying a fixed cost of *m* in terms of consumption. There are, naturally, two possible outcomes. If the *attempt is successful* and the incumbent is overthrown, then citizens capture all rents and implement their preferred policy. The total utility of citizens is $W_c(C - m) + U_c(R) + v_c(x_c^*|x_c^*)$. If the *attempt is unsuccessful*, then the incumbent does not give any transfer to the citizens and imposes his ideal ideological policies. The citizens obtain $W_c(C - m) + v_c(x_i^*|x_c^*)$.

The uprising is successful with probability *p*, which depends inversely on the political support given to the incumbents by the citizens (which, in turn, depends directly on the size of the transfer) and on the general state of the economy. Briefly, the citizens will not attempt at overthrowing the government if the welfare from accepting the political bargain (peace scenario) is higher than the expected benefit from rebelling (conflict scenario). Hence, a successful political bargain equilibrium –and thereby a peace scenario—is the solution to the following optimization problem for the incumbent:

$$max_{S,x} \, U_i(R - S) + v_i(x|x_i^*) \text{ subject to}$$
$$W_c(C) + U_c(S) + v_c(x|x_c^*) \geq$$
$$p(S, \mu, \theta)[W_c(C - m) + U_c(R) + v_c(x_c^*|x_c^*)]$$
$$+ \left(1 - p(S, \mu, \theta)\right)(W_c(C - m) + v_c(x_i^*|x_c^*))$$

An analytical solution of this model is not possible without identifying utility functions ($U_i(.)$ and $U_c(.)$) as well as the ideological policy-valuation functions ($v_i(.)$ and $v_c(.)$). Nevertheless, scrutiny of this optimization problem using the first-order conditions (see Makdisi and Soto, 2022b) indicates that the following set of hypotheses can be tested.

For the incumbent:
- *For any given level of resource rents and ideal ideological policies:*
  - An increase in transfers to the citizens lowers the consumption and utility of the incumbent but it raises the payoff of the peace scenario and his political support, thereby reducing the probability of a successful overthrow of the regime. This is the capital policy trade-off for the incumbent and its **first maneuvering margin**. This would explain, for example, the generous transfers given by GCC incumbents to citizens during the Arab Spring.

- An economic downturn that lowers consumption and the average welfare of the citizens must be counterbalanced by increased transfers if the incumbent wants to keep political allegiance.
- The alternative cost of rebelling increases as GDP and consumption are higher and, therefore, civil conflict should be less prevailing in more affluent economies.

- *For any given level of resource rents and transfers*, ideological concessions to the citizens raises the payoff of the peace scenario, making it less likely to observe an attempt at overthrowing the regime. This is a second maneuvering margin of the incumbent.

- *For any given level of resource rents, ideal ideological policies, and transfers*,
  - The incumbent would like to secure the trust and loyalty of citizens. When forming expectations regarding the rents, the incumbent would like citizens to trust the information value of the individual transfer and disregard the publicly available information. Consequently, the incumbent would highly favor links with ethnic, regional, social, and religious interest groups and would be reluctant to change prior commitments on the "share of the pie". This is a third maneuvering margin of the incumbent. This is the third maneuvering margin of the incumbent.
  - The incumbent finds it less expensive to raise political support when citizens find it difficult to estimate the actual size of resource rents and, thereby, available transfers. Information opaqueness works in favor of the incumbent.14 This would explain why incumbents tend to be reluctant to release information vis-à-vis the size of resource rents and, in particular, the proceeds of commodity exports.

For the citizens

Regarding the incentives of citizens to rebel, the following stylized facts also emerge from our theory:

- Because the cost of rebelling is paid regardless of the outcome of the overthrow attempt, a higher cost of the conflict lowers the incentives to rebel.[15]
- Regarding the expected benefit of a successful overthrow:
  - An increase in transfers has two effects: (a) it increases welfare directly and (b) it lowers the probability of having a successful revolt.

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[14] Vadlamannati, K.C. and I. De Soysa (2016) find evidence among 128 economies that, after accounting for democracy and quality of institutions, countries deriving rents from natural resource are, indeed, less likely to adopt freedom of information laws. Wehner and de Renzo (2013) show the adverse effect on fiscal transparency of dependence on natural resource revenues and lack of democracy.

[15] MENA countries are among those with a highest share of military expenditures in government expenditure: during the three decades before the 2011 uprisings, MENA spent on the military around 16% of total government expenditures, significantly higher than in Latin America (5,5%), Sub-Saharan Africa (8,4%) or East Asia (7.9%). While some of the resources were used to secure the loyalty of the military to the regime, a part of it was devoted to building the military capacity to confront an overthrowing attempt.

- o Higher rents increase the payoff of a successful overthrow, thereby calling for additional transfers to lower the probability of success.
- o Economic distress and higher unemployment rates increase the incentives at overthrowing the incumbent because it lowers the alternative cost of devoting time to violence.

- Regarding non-market policies:
  - o A higher willingness by the incumbent to shorten the ideological gap in the eyes of the citizens lowers the probability of a revolt, even if transfers are kept constant. For example, conflict mediation by third parties (e.g., the UN) can be accepted by the citizens as a commitment to peace by the incumbent.
  - o The incentives to rebel increase with ideological polarization because it increases the expected ideological gains (should citizens win) vis-à-vis the certain ideological losses (should the overthrow attempt fail). When there is political, religious, or ethnic polarization, policy gaps between the incumbent and the other groups in society would be large thus incentivizing the non-market payoffs of uprisings. Likewise, in times of political instability the incumbent would tone down his demands for enacting own polices and allow for some convergence towards to policy preferences of the rest of society.
  - o Higher transfers reduce the incentives to rebel because it lowers the probability of success of a rebellion and, thereby, the expected ideological gain.

Civil conflict vs. peace failures

As described, the model does not differentiate between the triggering of a rebellion and the resumption of a conflict after a tacit or formal peace agreement. From a universalist perspective, one can argue that there are no fundamental differences between the two events: in both, the population must ponder the benefits and costs of keeping the peace scenario versus resorting to violence in an attempt at collecting the expected benefits of a successful overthrowing of the government. These costs and benefits entail both welfare and ideological dimensions.

Certainly, the conditions and disposition of the different actors may be radically different in these two types of events: grievances may run much deeper after countries have suffered from one or more episodes of violent civil conflicts, whilst the potential economic benefits of overthrowing the government may be much reduced by recurring conflicts. We, nevertheless, pose that, while greed and grievances may have quite different weights in the decision making of the incumbent and the population, the mechanics of the decision-making process remain fundamentally equal. In the following section we take our model to the data, estimating econometric models for civil wars.

4. Econometric Estimation and Results

The data used in the tables and econometric section, as well as the rationale for their selection, are discussed in detail in the Appendix. Briefly the key series include data on (1) civil wars; (2) a set

of economic variables: economic development, available resource rents, unemployment rates, terms of trade shocks; economic downturns, inflationary surprises, and military expenditures; (3) a set of political variables: political polarization, unequal access to public services, political accountability, and a dummy variable for mediation efforts by international third parties; (4)economic institutions as measured by total foreign trade and capital account openness; and (5) two additional variables, the origins of the legal system, and foreign aid in real per capita terms[16].

Estimation of Discrete Variable Models in Panel-data

The variables of interest in this paper are binary –either the country is or is not in conflict— requiring the use of discrete dependent-variable models. Consider an observed binary outcome variable defined as:

$$y_{it} = \begin{cases} 1 & if\ y_{it}^* = g(\beta, x_{it}, c_i) \geq 0 \\ 0 & else \end{cases}$$

where subscript *i* denotes individuals and subscript *t* time periods. y_{it}^* is the unobserved or latent dependent variable, x_{it} is a vector of exogenous explanatory variables, c_i are (unobserved) individual-specific effects, and β is the vector of slope coefficients. Function $g(.)$ is usually the logistic or normal distribution (giving rise to logit and Probit models, respectively).

Given the persistent nature of civil conflicts –which tend to span over several years—and the observation that the likelihood of observing a conflict in a country in any given year ought to depend on the pre-existence of a conflict in previous years, the model is specified as a dynamic model by including the lagged dependent variable as an explanatory variable. We rely on a recent estimator by Grotti and Cutuli (2018) which provides consistent estimates of the parameters of interest.[17]

Estimation Results

Tables 5 presents the results of the econometric estimation of models for the probability of observing a civil war. Model 1 is the base model used for simulations and counterfactual analyses, while the remaining columns show the results for variations of said basic model to explore the value of alternative specifications.[18]

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[16] We also exclude the years of the Covid 19 pandemic as they should most likely be considered as abnormal.

[17] Estimation of this type of model tends to be cumbersome because of the presence of the unobserved individual effects (leading to the incidental parameter problem). Various issues dealing with the estimation of the slope parameters by Probit or logit methods in dynamic models are fully discussed in our companion paper.

[18] The number of countries and observations varies slightly among the different specifications because of missing data, but the results do not depend on the sample being somewhat unbalanced.

In general, the results lend strong support to our theory. First and foremost, the lagged dependent variable is highly significant in all specifications indicating that a dynamic specification is needed and the results from static models may be biased. Similarly, there is evidence in all models that initial conditions do matter, and that heterogeneity is related primarily to the precedence of a previous conflict, the level of development of the countries, and the presence of past mediating efforts. Models that omit these initial conditions are likely to be severely biased. Furthermore, the evidence rejects the hypothesis that countries are homogenous and, thereby, the implication that a pooled-data model is adequate, thus calling for the use of panel data techniques.

Turning to the results, the basic model accounts for most of the testable implications of our theoretical model. Consider first, economic determinants of conflicts. As predicted, the probability of having a civil war decreases with the development level and a more open economy both in the capital account (model 1) and in trade (model 4). These results had already been found in the literature (see Blattman and Miguel, 2010 for a survey and references therein). Furthermore, the likelihood of observing a civil war increases with higher resource rents and during economic downturns. Given the high collinearity between GDP per capita and other variables (such as resource rents or financial and commercial openness), we do not focus on t-statistics but rely on likelihood tests when evaluating our specifications. There is also systematic evidence that inflationary surprises –unexpected shocks—as well as shocks to the terms of trade lower the probability of an overthrow attempt, in line with the suggestions by our theory that this type of shocks destroy the informational value of the nominal variables used in forming the expectations on the available resource transfer.

Consider, now, the political determinants of conflicts. The data suggests that incumbents can lower the probability of violent conflicts by securing loyalty via an unequal access to public services which, when given to their political constituency, becomes an important cleavage. In line with previous research by Esteban and Schneider (2008) and Milacic (2021), we found that greater political polarization incentivizes the recourse to violence as a political strategy. Notably, our results also suggest that in countries where the legal system is of socialist origin have significantly higher probabilities of engaging in a civil war, a feature that does not characterize other legal systems (such as the British, as shown in model 5). Among the potential reasons for this result are that, according to the data, countries relying on socialist legal systems tend to have significantly higher corruption levels, lower respect for law and order and property rights, as well as very low quality of the State bureaucracy. These elements allow for grievances to appear. Empirical evidence indicates that the presence of a mediation process is positively correlated with the probability of having a civil conflict, which attests to the persistence of civil strife. A similar conclusion is obtained by de Roeun and Bercovitch (2012) from scrutinizing mediation tends in the second half of the 20th century, yet they do not undertake a statistical analysis.

We include a dummy variable to control for the Arab exceptionalism (taking value 1 when it is a country from MENA and 0 otherwise) but it proves to be statistically insignificant. To the extent that the dummy variable reflects unobserved underlying factors that differently affect the likelihood of the outbreak of a civil war among countries, our result suggests there are no other (omitted) variables that could help explain the relatively high incidence of civil conflicts in the MENA region.

Finally, we tested several specifications for unemployment and found statistically insignificant results. As shown in models 2 and 3, the open unemployment rate and that of the young with ages between 15 and 24 years is statistically zero. This may be the result of the relatively poor quality of labor surveys that ignore both informal and temporary employment. Likewise, expenditures on the military display the expected negative sign in model 6 but the estimator is statistically insignificant. Other variables, such as other trade openness, British or French legal systems, and various forms of military expenditure (to capture the cost of war), were found to be statistically insignificant.

Table 5. Estimated Models for the Probability of a Civil War

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
Civil War								
1L.Civil War	2.888***	2.830***	2.826***	2.904***	2.888***	2.888***	2.876***	2.893***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Development Level	0.0309	-0.0518	-0.0839	0.00716	0.0299	-0.153	-0.00980	0.0308
	(0.852)	(0.890)	(0.825)	(0.961)	(0.857)	(0.694)	(0.953)	(0.861)
Economic downturn	-2.803***	-4.204**	-4.174**	-2.657***	-2.805***	-3.412*	-2.927***	-2.810***
	(0.002)	(0.029)	(0.029)	(0.003)	(0.002)	(0.085)	(0.001)	(0.002)
Resource Rents	0.0802*	0.0947	0.0951	0.0805**	0.0813*	0.165**	0.0868**	0.0869**
	(0.061)	(0.265)	(0.264)	(0.042)	(0.062)	(0.027)	(0.044)	(0.047)
Political polarization	0.118**	0.176*	0.179*	0.142***	0.120**	0.158	0.121**	0.119**
	(0.021)	(0.061)	(0.058)	(0.001)	(0.018)	(0.136)	(0.018)	(0.026)
Mediation Effort	0.832***	0.986**	0.987**	0.836***	0.832***	1.196***	0.841***	0.829***
	(0.009)	(0.019)	(0.018)	(0.005)	(0.009)	(0.001)	(0.008)	(0.009)
Access to public services distribut~a	-0.137*	-0.199*	-0.202*	-0.0678	-0.133*	-0.262**	-0.172**	-0.122
	(0.061)	(0.053)	(0.051)	(0.319)	(0.074)	(0.017)	(0.026)	(0.137)
Financial Openness	-0.330*	-0.679*	-0.687*		-0.335*	-0.435	-0.330*	-0.302
	(0.065)	(0.060)	(0.057)		(0.062)	(0.134)	(0.061)	(0.101)
Inflation Shock	-1.954***	-1.628**	-1.634**	-1.599**	-1.956***	-1.720**	-1.997***	-1.980***
	(0.004)	(0.044)	(0.044)	(0.021)	(0.004)	(0.049)	(0.003)	(0.004)
Inflation trend	1.324**	0.753	0.739	0.910	1.322**	0.162	1.361**	1.357**
	(0.043)	(0.255)	(0.264)	(0.189)	(0.045)	(0.837)	(0.036)	(0.041)
Terms of Trade Shock	-0.542*	-0.627	-0.635	-0.486	-0.540*	-0.615	-0.537*	-0.545*
	(0.090)	(0.234)	(0.235)	(0.118)	(0.090)	(0.244)	(0.093)	(0.092)
Socialist Legal Origin	4.758***	5.991***	6.048***	4.726***	5.598***	5.575***	5.751***	5.243***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Arab Exceptionalism	0.344	0.267	0.258	0.305	0.353	0.164	0.451*	0.299
	(0.146)	(0.536)	(0.549)	(0.153)	(0.143)	(0.701)	(0.060)	(0.241)
Unemployment 15+ years old		0.0252						
		(0.240)						
Unemployment 15 to 24 years old			0.0120					
			(0.319)					
Trade Openness				0.0126				
				(0.918)				
British Legal Origin					0.0515			
					(0.744)			
Military Expenditure						-0.0246		
						(0.200)		
L.Democratic Government							0.0329**	
							(0.035)	
Foreign Aid per capita								0.000508
								(0.404)
Constant	-2.447***	-2.728***	-2.703***	-2.429***	-2.466***	-2.745***	-2.553***	-2.519***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
var(_cons[id])								
Constant	0.340**	0.699**	0.723**	0.287**	0.340**	0.550**	0.337**	0.341**
	(0.019)	(0.016)	(0.017)	(0.010)	(0.019)	(0.040)	(0.023)	(0.025)
_								
L.Democratic Government								
Observations	4025	2874	2874	4161	4025	2450	4021	3751
N_clust	127	127	127	128	127	121	127	126
aic	947.4	558.6	559.1	1015.7	949.3	457.9	946.4	933.0

p-values in parentheses
* p<0.10, ** p<0.05, *** p<0.01

While informative, the results in table 5 do not provide a sense of how the probability of a civil war would change when the fundamentals change. To provide a better understanding of our results, we use the estimated models to compute the changes in two key transition probabilities: first, the probability of switching from a peace scenario to conflict (entry into a civil war) and, second, the probability of switching from a conflict to peace (exit from a civil war). Computing the changes in these probabilities demands setting the changes in the fundamentals of the model according to some criteria that we discuss below.

Table 6 shows the counterfactual scenarios. First, consider the role of cyclical downturns. Our results indicate that it is crucial that post-conflict countries can avoid significant downturns in economic activity, employment, and welfare to reduce the likelihood of reigniting political turmoil and violent conflicts. Downturns lower the alternative cost of engaging in violent activities and raise the outside value of toppling the government and capturing all rents. The issue is more pressing for conflict-afflicted MENA economies because the region is, as mentioned, prone to rather large economic downturns. On average, reducing these negative shocks in post-conflict countries from their current level of around 1% of GDP to the emerging country average of -0,15% of GDP would reduce the probability of falling into a civil war by a significant margin (30 percentage points) and increase the probability of switching from conflict to peace (by around 20 percentage points). In our view, this is a key result that highlights the need for maintain a delicate balance between stabilization and structural reforms: post-conflict reconstruction requires avoiding adjustments that while attaining much-needed macroeconomic balance would put an excessive burden on the population.

Next, consider the combined role of terms of trade shocks and resource rents. Shocks to the terms tend to have significant effect on the profitability of resource exports and thereby on government proceeds, at least in the short run when production is relatively fixed. Since abundant rents fuel greed and thereby make rebelling attractive, it would be advisable to setup institutional mechanisms that would lower the possibility of capturing those rents and/or allocating funds in a discretionary manner to satisfy political constituencies to the detriment of vast segments of the population. Likewise, negative shocks can be easily passed-on to the population, greatly affecting the standards of living.

Reducing these shocks to manageable levels –similarly to those observed in non-conflict emerging countries—would lower the probability of a resumption of violent conflict by around 30% and would increase the likelihood of achieving peace by at least 25%. In many countries, fiscal responsibility has been enhanced by proper and transparent budgeting of fiscal accounts, decentralized decision making, and improved monitoring and sanctioning. Fiscal rules have been implemented in around 100 countries in the world to instill fiscal discipline and avoid discretionary management of government resources (Schmidt-Hebbel and Soto, 2019).

Sovereign wealth funds have also been instrumental in reducing this problem and have been set up by less developed countries with a history of conflicts (e.g., Palestine, Timor-Leste, Rwanda). There is, nevertheless, an alternative cost to SWF, because governments would have to divert funds that would otherwise be used in financing reconstruction efforts. The issue would then be to determine an adequate size of funds to be allocated to the SWF.

Table 6. Changes in Probability of Civil War (percentage points)

	Changes in the probability of:	
	Switching from conflict to peace (exit from conflict)	Switching from peace to conflict (entry into conflict)
Avoiding severe economic downturns	32.0	-19.4
Avoiding the effects of terms of trade shocks	23.5	-29.8
Lowering the allure of capturing resource rents	0.8	-3.8
Price instability I: lowering inflation trend	0.7	-3.6
Price instability II: Avoiding inflationary surprises	-0.2	8.4
Opening the capital account	1.9	-10.1
Arbitrary allocation of public goods to raise political allegiance	-9.6	38.9
Lowering political polarization	3.8	-15.0
Adopting democracy	-2.1	9.5
Mediation process	-8.2	20.3
Having a socialist legal system	-95.5	32.1
Being a MENA country	-3.3	12.5

Compared to fiscal policies, monetary policy has a relatively minor role to play in supporting a peaceful post-conflict transition. Inflation levels as well as inflationary shocks (defined as deviations of actual inflation from its long-run trend) do not have a significant impact on the probabilities of entering or exiting conflicts, perhaps because it is largely dominated by the fiscal stance. In the period 1970-2020, annual inflation reached around 12% in conflict-afflicted countries while it was 9% in non-conflict emergent economies.

Other economic policies, such as financial integration with global markets, also play a role. Countries with a more open capital account have a lower probability of switching from a civil conflict to peace (around 10 percentage points) and only two percentage points higher probability

of falling into a civil conflict. It follows, therefore, that having an open capital account would be a desirable feature for a sustaining peace in the post-conflict scenario, most likely as it provides for much-needed reconstruction financing as well as instilling market discipline for both the private and public sector.

We now turn to political variables. Despite the crudeness of the available measures of political variables, the results are noteworthy. First, there is a significant role for incumbents when using the allocation of public goods in an arbitrary manner to raise political allegiance, both in lowering the probabilities of achieving peace and of raising the likelihood of a conflict. The population in conflict-afflicted societies expect authorities to be able to generate public goods and services that have an impact on their welfare. Failing to provide, at least, a fraction of said goods to constituencies might significantly increase the probability of reigniting conflict (up to 38% according to our estimates). This implies that, while the drive to implement non-discriminatory post-conflict government policies is laudable, it ought to be done in such a way that groups supporting peace do not bear the whole burden of a relocation of public resources.

The second key political issue for successful transition to peace is, not surprisingly, that of political polarization or, more generally, polarization of any form. Our counterfactual scenario, which consists of lowering the observed political polarization indices in conflict-afflicted economies to zero (the observed value in non-conflict emerging economies) indicates a mild but not minor effect on the probability of reigniting conflicts (around 15%). Esteban and Schneider (2008), however, warn us that institutions and other contingent factors mediate the conflict potential in polarized societies and, furthermore, that economic inequality (itself a form of polarization) is often linked to political polarization. Naturally, authorities in post-conflict economies have little space to lower polarization but ensuring that political arrangements are not based on, or dependent upon, polarized groups might provide disincentives to reignite the conflicts.

The third issue, and perhaps somewhat surprisingly, is that adopting a democratic government might raise the perils of an outbreak of violence or reignite a past conflict. This can result from the combination of two factors: (a) strong dictatorships having a firm grasp on power can impede a successful overthrow of the government, as was the case with autocracies in MENA, and (b) weak democracies have difficulties at dealing with political turmoil and might easily fall into civil wars, as was the case of many emerging economies during the Cold War. Cook and Savun (2016) argue that new democracies following military rule are prone to civil wars because the former autocratic leadership often remains an active political force in the new regime, complicating efforts to consolidate democratic rule and signaling potential political opportunity to would-be rebels. Donno et al. (2022) argue that electoral integrity matters by influencing perceptions about the legitimacy of political outcomes and about actors' willingness to play by the rules. While high-quality elections should not exacerbate the risk of civil conflict, low-integrity contests foster

grievances and decrease the ability of the government and opposition to make credible commitments to avert violence. Flores and Nooruddin (2012) observe that the inability of post conflict politicians to commit credibly to respect peace and democracy implies that elections will inflame tensions unless countries have previous democratic experience or elections are delayed allowing for institution building. They find that early elections, particularly in new democracies, hasten recurrence; delaying elections two years in new democracies or one year in more established democracies can help forestall renewed violence.

Regarding the Arab exceptionalism, even though the estimated parameters in our regressions were of low statistical significance, we computed the effect on the likelihood of observing a transition from peace to conflict. As shown in Table 6, these effects are very small, indicating that Arab countries are not doomed to have a higher relapse rate into conflict and that, consequently, previous failures to achieve peace ought to be blamed on the nature of past peace agreements and the conditions under which those processes developed.

5. Concluding Remarks

The uprisings of 2010 in several Arab countries were motivated by a widespread popular desire to change sitting autocratic rule. As of late 2022, the popular cries for freedom and justice which they carried are yet to be translated into a genuine democratic transformation and, indeed, in three of them into national peace. Had the uprisings succeeded in bringing about some form of democratic order (as in the case of Tunisia), such a transformation, we submit, would have helped push the rest of the non-oil Arab countries towards democratic forms of governance. Their impact on the oil rich countries is less certain though they might have led them to lessen their shackles of autocracy, even when considering that the authorities transferred substantial resources to the population to placate the discontent.

This paper explores these issues of the economic and political determinants of political turmoil and civil unrest. Our contribution is twofold. We first set up a theoretical model which systematizes the conditions that govern, for any autocracy, whether the population forces change through political bargaining or rebellion. The model is based on the notion that autocratic authorities have two instruments to rally political support and increase survival. On one hand, they control the use of economic rents in the hands of the State which allows the incumbent –and his constituency—to increase his welfare; however, sharing a fraction of such rents with the population rallies political support and lowers the probability of success of an overthrow attempt. At the same time, while the incumbent would like to impose non-market policies reflecting his "ideological" preferences (e.g., religious, political, social, tribal, or ethnical), these may not match those of the population. Ideological flexibility is the second tool for improving the survival of the regime; by yielding towards the preferences of the citizens the authorities may lower grievances as a motive for political struggle.

Both the authorities and the citizens must decide their course of action with uncertainty. The authorities offer a bundle of economic transfers and political reforms in the expectation that the citizens accept the offer and do not attempt an overthrow of the government. The citizens decide whether to accept or reject such offer with limited information regarding the resources available in the hands of the government and the probability of successfully overthrow the regime.

Our second contribution is measuring the importance of these economic and political fundamental variables in changing the probability of observing a civil war in a country. Contrary to most of the literature, we employ dynamic econometric models for panel data given that civil conflicts are highly persistent and, therefore, history matters. Our models reproduce several results previously found in the literature but also add new ones. Among the former, we find that the probability of having a civil war decreases with the development level and a more open economy both in the capital and trade accounts, and increases with higher resource rents. Among the latter, we find that the probability of a civil conflict increases during economic downturns and with greater political polarization, but it decreases when incumbents can secure loyalty via an unequal access to public services given to their political constituency.

The above analysis help explain why of the five Arab uprisings, four erupted in non-oil rich economies whose authorities were not in a position to downplay the growing popular fervor for change via resource transfers to citizens in the context of prevailing sharp income and social inequalities, outstanding national political divisions notwithstanding. Of course, additional factors also underlay the uprisings notably the conflictual nature of the region, fed by continuous overt external interventions, directly or via proxy wars.

In contrast, most oil-rich countries were in a better position to counter the clamor for political change via resource transfers to the citizens. In the case of Libya, recent studies point out that what underlay the overthrow of its central authority despite the country's oil wealth, was the absence of strong state institutions and the militarization of its tribes (Hamada, Sökmen, and Zaki, 2022).

Whatever the underlying factors for the general persistence of autocratic orders in the region, if national peace and equitable development are to be achieved in the Arab world, the old (pre-conflict) social contract, based on autocratic rule, along with weak institutions, would no longer be a viable option. Instead, as the papers in this volume amply demonstrate, a new social contract would have to be put in place; one that would reflect socio-economic inclusivity, institutional reform, and democratic political governance which would ensure equitable power-sharing and accountability; otherwise, the seeds of conflict would remain.

At the same time, as demonstrated by the post uprisings experiences, the road from autocracy to democracy and greater socio-economic equality is not necessarily readily traversed calling, as it is, for fundamental reforms of the existing fabric of economic, political, and social institutions that can deal with existing political polarization or the entrenchment of political and economic interests that could threaten intended reforms. This is especially the case in the Arab region where the influences of oil wealth and multifaceted conflicts with all their external links continue to undermine moves to establish a democratic environment.

Hence once established, the new social contract would need to be buttressed economically and politically. At the economic level, this would call for policies that would (a) steer the national economy away from severe depressions lest they act as a spark for renewed political turmoil and conflicts;(b) maintain a proper balance between stabilization and structural reforms; and (c) set-up institutional mechanisms that ensure the proper management of rents. Economic success whereby the authorities in conflict-afflicted societies are able to generate public goods and services that have an impact on the welfare of the population would buttress popular political support for fundamental reforms. Otherwise, the threat of a return to some form of autocratic form of governance will always hover above.

A final word: so far the post uprisings experiences of four of the five Arab countries that witnessed uprisings in 2010/11 point to an opposite direction from institutional reform that cements national peace, democratic political governance and socio-economic inclusivity. We submit however, that basically this is due to strong external and destabilizing influences from which the region and these countries in particular continue to suffer preventing them from reaching internal resolution on such fundamental reforms. If and when these external influences recede, the internal environment favoring the implementation of reforms would be greatly strengthened. But even if disruptive external influences remain, it seems to us the uprisings have rung in the changes of an inevitable and deep-seated political and economic transformation in the Arab region, though its path and moment remain uncertain.

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Appendix

Data Sources
- All macroeconomic data were obtained from World Development Indicators of the World Bank (accessed on May 31, 2022), except for GDP per capita which comes from the Maddison Project Database and the Terms of Trade from IMF database.
- International Country Risk Guide (ICRG).
- Capital Account Openness, from Chin and Ito database, accessed December 17, 2021.
- Conflict database from Uppsala Conflict Data, accessed on December 17, 2021.
- Unemployment from ILO database, accessed on December 17, 2021.
- Political variables from Polity V project, accessed on January 21, 2022.
- Database of Political Institutions 2020, IADB, downloaded 23/4/2022.
- Mediation Efforts. The CWM dataset includes quantitative data on all occurrences of civil war mediation since 1946 and is still being updated and maintained.

List of Countries

Afghanistan	Gambia, The	Nigeria
Albania	Georgia	North Macedonia
Algeria	Ghana	Oman
Angola	Guatemala	Pakistan
Armenia	Guinea	Panama
Azerbaijan	Guinea-Bissau	Papua New Guinea
Bahrain	Guyana	Paraguay
Bangladesh	Haiti	Peru
Belarus	Honduras	Philippines
Benin	Hungary	Poland
Bhutan	India	Qatar
Bolivia	Indonesia	Romania
Bosnia-	Iran	Russian Federation
Herzegovina	Iraq	Rwanda
Botswana	Israel	S. Vincent
Brazil	Jamaica	Saudi Arabia
Bulgaria	Jordan	Senegal
Burkina Faso	Kazakhstan	Sierra Leone
Burundi	Kenya	Slovak Republic
C. African Republic	Korea	Slovenia
Cabo Verde	Kuwait	Solomon Islands
Cambodia	Kyrgyz Republic	South Africa
Cameroon	Lao	Sri Lanka
Chad	Latvia	Sudan
Chile	Lesotho	Suriname
China	Liberia	Syria
Colombia	Libya	Tajikistan
Comoros	Lithuania	Tanzania
Congo, Dem Rep	Madagascar	Thailand
Congo, Rep	Malawi	Togo
Costa Rica	Malaysia	Trinidad- Tobago
Cote d'Ivoire	Mali	Tunisia
Croatia	Mauritania	Turkey
Czech Republic	Mauritius	Tuvalu
Djibouti	Mexico	U. Arab Emirates
Dominican	Moldova	Uganda
Republic	Mongolia	Ukraine
Ecuador	Morocco	Uruguay
Egypt	Mozambique	Vietnam
El Salvador	Myanmar	Yemen
Estonia	Namibia	Zambia
Eswatini	Nauru	Zimbabwe
Ethiopia	Nepal	
Fiji	Nicaragua	
Gabon	Niger	