

Following in Your Neighbor's Steps:  
The Diffusion of Political Liberalism and Regime  
Responses During the Arab Spring

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**Abstract**

This article examines the diffusion of political liberalism. Past research has focused on endogenous or exogenous structures related to patterns of comparative democratization, or the diffusion of policy contributing to democratization. I improve upon past research by examining the diffusion of liberal political reforms in the Middle East and North Africa region, first by utilizing a cross-national quantitative study to confirm the presence of diffusion effects separate from regional clusters of domestic factors affecting liberalization trends. I then implement a qualitative analysis of three cases from the MENA region which have recently experienced demands for liberalization during the Arab Spring in order to explore two potential mechanisms: hegemonic coercion and neighbor emulation. Results of this mixed design demonstrate that diffusion is indeed a force in global and MENA region samples. The coercion mechanism explains initial diffusion of political liberal reforms, while neighbor emulation better explains subsequent liberalization and even retrenchment.

**Keywords**

Democratization and Regime Change; Diffusion; Mixed Methods Design

# Introduction

The world watched in wonder as first Tunisia, Egypt, Yemen, and then other persistent authoritarian states in the Middle East and North Africa were engulfed in turmoil. The intrigue that these events generated is not only due to their nature, but also their geography. Unrest in authoritarian states is a familiar phenomenon. Serious demands for regime change in a series of geographically proximate states, however, flags the attention of political observers and of curious citizens throughout the world. Political pundits and journalists were fairly quick to portray the so-called “Arab Spring” as democratization. While this was certainly an inaccurate understanding of what has happened in the region, it has renewed and invigorated the discussion of democratization and of the prospects for democracy globally and in the Middle East and North Africa (MENA) region.

Political scientists and the policy community alike are interested in a two part question: *is* democracy spreading from state to state throughout the MENA region, and if so, *how* is democracy spreading? Whether or not political liberalization diffuses, and how such diffusion occurs has clear implications not only for future research in comparative democratization but also for informing American foreign policy strategy in the region. Past research has either focused on endogenous or exogenous structures related to patterns of comparative democratization.<sup>1</sup> Other extant research has focused on the diffusion of policy, perhaps contributing to greater democratization, rather than political liberalism generally.<sup>2</sup>

Some scholars, beginning with Daniel Brinks and Michael Coppedge, have examined democratization in terms of the diffusion of liberalized political reforms and institutions.<sup>3</sup> However, due to the recency of the events in the MENA region, as well as the problems of data collection and comparability among authoritarian states, diffusion in the MENA region has been understudied compared to other regions. In light of these concerns, I examine the diffusion of political liberalism in both the world, and specifically in the MENA region where authoritarianism has long been considered intractable norm.<sup>4</sup>

I utilize a two part research design to examine if, and how, diffusion is occurring globally

and in the MENA region. First, following the extant literature<sup>5</sup> I employ a cross-national quantitative study to determine if there are diffusion effects at work in global patterns of democratization. In other words, I explore if regional clusters of domestic factors are driving global trends. Controlling for domestic factors, diffusion is present from 1972 to 2012 globally, impacts the MENA region. I then explore two potential mechanisms relating to regional diffusion focusing on the MENA region, in which states have historically been persistently authoritarian, but only recently have experienced significant demands for liberalization. Examination of three persistently authoritarian states—Tunisia, Egypt, and Yemen—that were affected by and in turn affected the events beginning in late 2010 allows exploration of two contrasting mechanisms behind the diffusion of political liberalism in the region: coercion and emulation.

This mixed methods approach is aimed at improving the growing literature on the diffusion of political liberalism and comparative democratization by using recent events and evidence to extend existing studies. The MENA region is a particularly intriguing region for studies of diffusion due to its relative size (smaller than Latin America or Asia) and its bevy of domestic factors supporting authoritarian persistence.

In the next section, I lay out my theory of diffusion versus domestic factors and outline both potential mechanisms that can explain diffusion in the MENA region. Included in the theory section are four testable hypotheses. In section three, I describe my research design including quantitative method, data, and qualitative cases. In section four, I present and interpret my findings. The last section offers a discussion of my findings and implications for future political science research and foreign policymaking in the MENA region.

## **Theory**

The policy diffusion literature is a useful starting point for the theoretical grounding of the diffusion of political liberalism. Since Jack Walker's early study about the spread of pub-

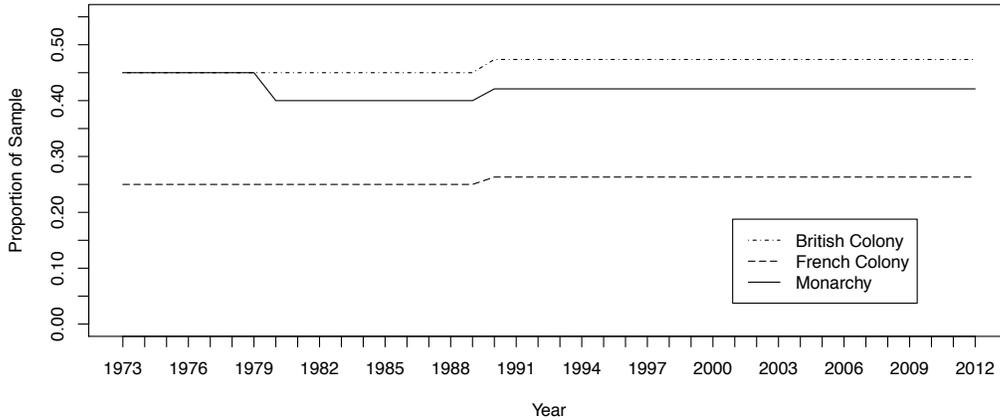
lic policy among the American states<sup>6</sup> and David Collier and Richard Messick's examination of social policy in the world,<sup>7</sup> scholars interested in policy diffusion have examined regional effects and policy innovation.<sup>8</sup> Prior to reviewing the theoretical basis of how the policy diffusion argument pertains to democratization, it is important to first be clear about the concepts at the core of this project. Political liberalization is conceptualized as the change in a state's political rights and civil liberties due to alterations in procedural democracy.<sup>9</sup> Following the policy diffusion literature, I theorize that political liberalization can change from year to year due to exogenous (diffusion) or endogenous (domestic) factors.

## **Regionally Clustered Domestic Factors**

The democratization literature provides a variety of domestic explanations as to the variation of political liberalism in the Middle East and North Africa and world. Following the literature,<sup>10</sup> I consider domestic variables to be the alternative to diffusion, and consider several contributions from the democratization literature. Political liberalism has been considered to be related to colonial influence, with British colonial past improving chances of democratization.<sup>11</sup> Another factor considered is economic development or modernity, with wealthier and more developed states having a higher likelihood of democratization.<sup>12</sup> Additionally, wealth leads to greater longevity after a transition to democracy.<sup>13</sup> Finally, the durability of monarchy is considered to have a strong effect on whether states will democratize due to uniquely resilient institutional structures.<sup>14</sup> While arguments about the effect of colonial experience or monarchy are particularly salient to the discussion of persistent authoritarianism in the MENA region, previously these approaches have little power in explaining how the region has recently experienced political liberalizations that are temporally and geographically proximate. Figure 1 illustrates the point by demonstrating that the proportion of MENA states that share each domestic factor barely changes; there is minor movement on these dummy variables only twice during the time covered in this study.<sup>15</sup>

The proportion of MENA states which were French or British colonies will not change in

Figure 1: MENA Domestic Controls



the time period covered by this study, since European powers were no longer adding colonial possessions or creating protectorates. Although it is possible that new monarchies could develop in the region as a feature of authoritarian transitions, this does not occur in the time period covered here. Figure 1 reveals no meaningful change on these variables, challenging their use as explanatory factors of changes in political liberalism.

While the democratization literature has built an understanding of the domestic factors that influence political liberalization, this clearly is not the entire story. Transnational influences must matter as well, as evidenced by the temporal and geographic proximity of the challenges in MENA states in the past few years despite no changes in colonial experience or transition from monarchy. I argue that the diffusion of political liberalism provides a more compelling alternative to the domestic factors explanation of patterns of democratization,<sup>16</sup> since diffusion effects can vary more over time than most domestic factors.

**Hypothesis 1** *Diffusion occurs in both the global sample and the MENA region, controlling for domestic factors.*

After I test for the presence of diffusion, the mechanism that explains how diffusion works needs to be addressed. I suggest that the diffusion of political liberalism throughout the world and the MENA region can be explained by two different mechanisms, which I discuss

here.

## Diffusion By Coercion

There is variation among MENA states in how involved the United States was at the time of the Arab Spring. Short of military occupation i.e. Iraq after 2003, most MENA states had some sort of relationship with the United States that could be characterized by economic ties, sanctions, foreign aid, or partnership in the War on Terror. The relationship between the United States and Egypt, for instance, centered around United States foreign aid in exchange for demilitarization and the cessation of conflict with Israel, which provided an opportunity to promote democracy in the persistently authoritarian Egyptian state.<sup>17</sup> Erin Snider and David Faris argue that this is exactly what United States foreign aid was aimed at doing.<sup>18</sup> In a variety of indirect and direct ways, the United States Agency for International Development (USAID) attempted to cultivate prodemocratic sentiment by integrating democratic principles and rhetoric into funding for programs in Egypt. The role of USAID in Egypt is evidence of a particular mechanism of the diffusion of political liberalism.

United States influence is what is referred to as *coercion*, one of the four testable mechanisms of diffusion outlined in the diffusion literature.<sup>19</sup> In this view, the United States can implicitly or explicitly influence the probability that weaker countries adopt their preferred policy by manipulating opportunities and constraints encountered by those target countries either directly or through NGOs that they control.<sup>20</sup> The United States has different relations with target countries that take into account the vast diversity of economic, political, and strategic preferences of the world's foremost hegemon. These relations are often complicated and counterintuitive as United States interests shift with new governments and the rise and fall of states challenging the United States' status quo global power, as is evidenced by the long history of United States involvement in the oil-rich and geopolitically central MENA region.<sup>21</sup> The utility of including qualitative historical analysis in this study is that

the peculiarities of the relationship that a regime had with the United States surrounding the challenges to MENA authoritarians in 2011 is able to be explored in greater detail.

Coercion can be conceptualized as different aspects of hegemonic behavior. One specific form, foreign aid, is particularly suitable for theories of diffusion.<sup>22</sup> The selectorate theory of foreign aid<sup>23</sup> argues that foreign aid is a means by which donors buy policy concessions from recipients.<sup>24</sup> Foreign aid can therefore be effective in democracy promotion under a specific set of conditions, most importantly high prospects of survival post liberalization for the dictator.<sup>25</sup> The United States will commit aid to authoritarian states as a signal that it supports liberalization, promising the target regime fungible resources (aid) in return for policy concessions. Without fungible resources, the target regime would need to increase extraction of resources from the population, a highly dangerous prospect in periods of unrest.

**Hypothesis 2** *United States foreign aid increases the diffusion of political liberalization in the MENA region through the coercion mechanism.*

It should be noted that the United States is not the only “big spender” in the MENA region. Saudi Arabia expends some of its extensive wealth as foreign aid to neighboring countries. Whereas the United States can be understood to match foreign aid with democracy-promoting rhetoric to induce the diffusion of liberalism, Saudi Arabia is highly unlikely to give aid for democratizing purposes. Instead, the Saudi monarchy is likely to give aid to stabilize authoritarian regimes in the MENA region, especially during periods of unrest.

**Hypothesis 3** *Saudi foreign aid reduces the diffusion of political liberalization in the MENA region through the coercion mechanism.*

Coercion through foreign aid commitment is not the only mechanism that can explain the diffusion of political liberalism in the MENA region. Regime elites often look much closer to home when evaluating the prospects of liberalizing reforms. Neighbor crises provide opportunities to copy successful responses. Neighbor emulation is therefore another mechanism of

diffusion.

## Diffusion By Emulation

The United States has played a hegemonic role in the global arena, evidenced by the military actions it has undertaken in the MENA region and western Asia. It can be suggested that despite the rhetoric of American policymakers and pundits since 2001, however, direct pressure by the United States is not the root cause of the liberalizing political reforms that follow the unrest across the region. Instead, it is reasonable to consider states which share historical experiences and cultural characteristics and do not pose an immediate military threat as emulate-able. Regimes in crisis seek to quickly adapt to the increasing political pressures and demonstrations that seek to destabilize them. Authoritarian governments in the MENA region will pay attention to how their neighbors deal with political crises, in an attempt to avoid the catastrophic violence and civil war that has plagued states like Syria and Libya since 2012. <sup>26</sup> discuss two related mechanisms relevant to this study, and despite their understanding of these mechanisms as separate, I argue that they are intrinsically related and together inform what I refer to as “emulation” of neighbors. The *learning* mechanism in <sup>27</sup> implies that the target regime observes neighboring regimes under duress and adds the resulting neighbor’s actions to the pool of possible strategies for dealing with challenges the target faces. The concept of targeted heuristic learning that <sup>28</sup> attribute to the sociological approach to diffusion best represents how target regimes might absorb information from neighboring regimes under facing similar challenges.

Often the time frame in which actors need to make decisions is not conducive to a holistic examination of available choices, and so target regimes can be expected to select neighboring regimes similar to their own to “learn” from.<sup>29</sup> In this way, the use of heuristic learning approximates the *emulation* mechanism, where a target regime can be expected to adopt a reform or repress strategy even if it is not clear that it is the best choice for their state.<sup>30</sup> Emulation in this temporally sensitive and informationally constrained environment

can lead to a target regime making mistakes. For instance, the Saleh regime in Yemen, perhaps attempting to learn from the regime response to popular demands in neighboring Oman, made promises of reform but failed to employ those policy concessions. Through a comparative case analysis, the details of the emulation mechanism can be examined closely to better understand the apparent pattern of regional diffusion in the global sample. The liberalizing effect of neighbor emulation is contingent on which neighbors a regime looks to for information on dealing with challenges. The primary reason emulation in the MENA region should lead to the diffusion of liberalism is that Tunisia was the first regime to liberalize during the “Arab Spring” and set the tone of potential emulation.

**Hypothesis 4** *Neighbor emulation increases the diffusion of political liberalism among MENA states.*

Neighbor emulation works best when similar states are in very close proximity to one another, either sharing borders or separated by small amounts of water. In relatively small geographies such as the MENA region, even states which do not border each other are likely to keep a close eye on the rest of the neighborhood. For example, Yemen might look to the North African Arab states for cues on how to deal with unrest. However the neighborhood is delineated, states pay close attention to their neighbor’s responses to political unrest for fear that they could soon face similar strife.

Emulation is a theoretically distinct mechanism from coercion as well. It can be argued that coercion is essentially forced emulation; coercive regimes attempt to affect change in their target that mirrors their own institutional arrangement. This is further complicated by the possibility that emulation of a coerced regime— such as a MENA state emulating Iraq in the future— could lead to empirically indistinguishable outcomes between these mechanisms.

The relatively voluntary nature of neighbor emulation makes this mechanism different from coercion in an important way. Emulation relies on action by the regime when faced with crisis. MENA regimes feeling the pressures of the “Arab Spring” which promised or made

concessions may have viewed neighbor emulation as necessary to deal with the challenge they faced. If these regimes were being pressured by the United States (coercion) they would not seek to emulate neighbors. It should be expected that among regimes being coerced, the emulation mechanism will not be applicable. The complicated nature of these diffusion mechanisms is why I have selected a mixed methods research design.

## Research Design

In following the advice of Brinks and Coppedge,<sup>31</sup> I have formulated my research design to contribute to the literature by examining the mechanisms behind neighbor emulation of political liberalization, as well as confirm the findings in previous studies regarding the patterns of regional diffusion. As such, I employ a mixed methods approach: first, a quantitative test of the relative explanatory power of domestic and diffusion variables among the global sample; and, second a qualitative comparative historical analysis of three representative cases to tease out the mechanism of diffusion at work.

It is useful to employ mixed methods research when examining questions of this nature. Despite the criticisms of small- $N$  research as problematic for sampling reasons and lack of variance,<sup>32</sup> within-case analysis provides an important contribution to social science research: historical process tracing.<sup>33</sup> As Evelyn Huber and John Stephens argue,<sup>34</sup> Brady, Collier, and Seawright are correct in pointing out that causal process observations give us the ability to examine mechanisms that large- $N$  quantitative studies cannot explicate.<sup>35</sup> The natural mix of quantitative and qualitative methods in this sense give my research design a well-rounded approach to exploring the diffusion of political liberalism.

## Quantitative Approach

The quantitative section of my analysis is a series of OLS regressions between yearly measures of diffusion, domestic controls, and political liberalism from 1972 to 2012 in 194

countries; including the 19 country MENA region. The dependent variable is measured as the change in country  $i$ 's political liberalism from the previous year.<sup>36</sup> I operationalize political liberalism by inverting the mean of combined Freedom House civil liberty and political rights scores, and then scaling and centering the variable for ease of analysis.<sup>37</sup> The resulting measure accounts for both positive and negative changes in political liberalism. Summary statistics for the dependent and independent variables for both the global and MENA region samples are located in the appendix.

I operationalize diffusion and its mechanisms with four variables. Regional diffusion measures the aggregate change in political liberalism in the previous year among all states in a region. Neighbor emulation is the aggregate change in political liberalism among neighboring states in the previous year.<sup>38</sup> I operationalize coercion by the United States and by Saudi Arabia with foreign aid committed by either coercing state. Aid committed to a target is measured by AidData 2.0,<sup>39</sup> and I create the United States coercion and Saudi coercion dummy variables to indicate whether any aid was pledged.<sup>40</sup> The United States pledges a great deal of aid to the MENA region, with regimes in Egypt, Israel, and post-invasion Iraq earning the highest pledges during the years covered in this study.

Domestic variables controlled for in the OLS regressions come several different sources. GDP per capita (in 2012 USD) is measured by the World Bank.<sup>41</sup> British and French colonial past is coded from the Issue Correlates of War Colonial History,<sup>42</sup> and for the MENA states, a monarchy dummy variable was coded from the CIA World Fact Book.<sup>43</sup> In addition to these controls, several dummy variables for region are used in the global sample to determine if any particular region precludes the diffusion effect. Finally, in all models I include a control for the level of political liberalism at the beginning of the dependent variable change period to account for states which are already at the maximum value of political liberalism, since these states cannot liberalize further.

## Qualitative Approach

The qualitative analysis in this paper provides a closer examination of the two alternative mechanisms. In the qualitative analysis, my dependent variable is change in political liberalism during the Arab Spring. In order to distinguish between durable and momentary changes in liberalism among these cases, each observation on the dependent variable corresponds to a change in Freedom House coding. Freedom House evaluates states each year, so for more specific timing on the dependent variable, I referred to an interactive web archive maintained by BBC News.<sup>44</sup> Key independent variables include regional and neighbor influences and changes in United States and Saudi aid. Table 1 contains descriptive information about each of the three qualitative cases as well as the outcome of the systematic comparison. There is both an ideal case element— Tunisia— and a most similar systems (MSS) comparison element— Egypt and Yemen— to this design.

Case selection for the comparative analysis has been conducted with careful attention to the suggestions and criticisms pertaining to small- $N$  case studies.<sup>45</sup> These cases have variation on the dependent variable, with the ideal case demonstrating a relatively major political liberalization and the MSS cases showing a minor liberalization and a reversal. The independent variables of interest also vary for these cases with the exception of regional diffusion, since the MSS cases are compared to the regional leader (ideal case). Additionally, Yemen, Egypt, and Tunisia are all overwhelmingly Arab, Sunni Muslim states which are not previous democratizers and were not monarchies.<sup>46</sup> There is little variation on the domestic factors GDP per capita and colonial past. All three cases have GDP per capita values that are below the MENA median (\$6,071), and all three have colonial histories, with the MSS cases sharing British colonial past. These domestic controls are explained in more detail in the following section.

Table 1: Summary of Qualitative Cases

	<i>Ideal Case</i>	<i>MSS Comparison</i>		
	Tunisia	<i>System 1: Egypt</i>	<i>System 2: Yemen</i>	Outcome
<i>Dep. Variable</i>				
Liberalization	major (Feb.)	minor (Feb.)	reversal (Nov.)	Difference ✓
<i>Emulation</i>				
Regional	none	Tunisia (Feb.)	Tunisia (Feb.)	Similarity ×
Neighbor	none	Libya (Feb.) Saudi (Mar.)	Bahrain (March) Saudi (March) Oman (May)	Difference ✓
<i>Coercion</i>				
U.S. Aid	large increase	minor increase	minor reduction	Difference ✓
Saudi Aid	no change	none	none	Similarity ×
<i>Controls</i>				
GDP per Capita	low	low	low	Similarity ✓
Colonial Past	French	British	British	Similarity ✓
Prior Democracy	none	none	none	Similarity ✓
Monarchy	none	none (since 1952)	none (since 1962)	Similarity ✓
Ethnic Majority	Sunni Arab	Sunni Arab	Sunni Arab	Similarity ✓

*Note:* The months listed for political liberalization and influences to liberalize led to a change in Freedom House score; all dates are from 2011. United States and Saudi aid reflects changes immediately prior to change in liberalization, relative to previous amounts committed.

## Findings

Overall, the results of this study are mixed. In the quantitative analysis, I find that there is diffusion in the global sample, as well as within the MENA region specifically. Domestic factors have very little explanatory power when compared to measures of diffusion in this analysis. However, there are some unexpected results in the quantitative portion, which are explored below in greater detail. The qualitative analysis confirms many of the findings in the quantitative section, and strengthens the claim that United States coercion fosters diffusion in the MENA region.

Table 2: Model Results

	<i>Global Sample</i>				<i>MENA Sample</i>			
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
Intercept	-0.001 (0.003)	0.017* (0.003)	0.093* (0.021)	0.075* (0.026)	-0.032* (0.010)	-0.042* (0.011)	-0.024 (0.017)	-0.038* (0.017)
Liberalism Lag	-0.039* (0.003)	-0.041* (0.004)	-0.079* (0.004)	-0.085* (0.005)	-0.042* (0.010)	-0.056* (0.011)	-0.039* (0.011)	-0.049* (0.012)
<i>Diffusion Variables</i>								
Regional Diffusion	1.029* (0.051)			0.994* (0.071)	0.980* (0.133)			0.857* (0.148)
Neigh. Emulation		0.076* (0.029)		-0.067* (0.032)		0.252* (0.074)		0.046 (0.080)
U.S. Coercion		-0.007 (0.003)		0.003 (0.004)		0.021* (0.007)		0.021* (0.008)
Saudi Coercion						-0.005 (0.007)		-0.002 (0.007)
<i>Domestic Factors</i>								
GDP per Capita			0.012* (0.004)	0.013* (0.004)			0.004 (0.008)	0.009 (0.008)
British Colony			-0.002 (0.008)	0.005 (0.010)			0.007 (0.017)	0.011 (0.016)
French Colony			-0.056* (0.011)	-0.057* (0.012)			0.007 (0.018)	0.005 (0.018)
Monarchy							-0.017 (0.015)	-0.015 (0.015)
<i>Regional Controls</i>								
MENA			-0.134* (0.025)	-0.125* (0.029)				
Sub-Sahar. Africa			-0.103* (0.024)	-0.104* (0.028)				
Continental Asia			-0.117* (0.025)	-0.100* (0.029)				
Southeast Asia			0.011 (0.023)	-0.041 (0.028)				
Europe			-0.013 (0.022)	-0.007 (0.026)				
Latin America			-0.043 (0.022)	-0.033 (0.027)				
<i>N</i>	6,963	6,008	6,383	5,548	744	742	677	677
<i>R</i> <sup>2</sup>	0.073	0.023	0.063	0.105	0.090	0.050	0.019	0.092
adj. <i>R</i> <sup>2</sup>	0.073	0.022	0.061	0.103	0.088	0.045	0.012	0.080
Resid. sd	0.251	0.268	0.257	0.261	0.172	0.176	0.170	0.164

Standard errors in parentheses.

\* indicates significance at  $p < 0.05$

## Quantitative Results

The results of several OLS regressions for both the global and MENA samples appear in Table 2 below. In the global sample (models 1 through 4), the effect of diffusion is evident. Regional diffusion and neighbor emulation are both statistically significant, although the sign on the emulation coefficient is negative, suggesting that states de-liberalized after in response to neighbor actions among the global sample. Looking to the full model (4), United States coercion appears not to play a statistically significant role at the global level when controlling for domestic factors and region. Interestingly, the MENA region dummy coefficient shows a negative sign. This suggests that compared to others, diffusion is muted in the MENA region. GDP per capita and French colonial past are the only statistically significant domestic controls in the global sample full model (4). This suggests that at the global level, at least some of the political liberalization from 1972 to 2012 can be explained by domestic factors in combination with diffusion. However, when examining the MENA region alone, domestic factors are much less powerful.

As in the global sample, the MENA sample reveals that there is a diffusion effect from 1972 to 2012. Without controlling for domestic factors, both proposed mechanisms show the hypothesized sign and are statistically significant (model 6). Predictably, domestic factors fail gain significance in models 7 and 8. The full model of MENA political liberalization (8) reveals that controlling for domestic factors, neighbor emulation is no longer significant. However, the United States coercion measure remains a good predictor of liberalization.

Perhaps the most interesting finding here is that the relative size of these effects points to the substantive significance of diffusion in these models. The variables included in all models have been standardized for direct comparison, and even with controlling for domestic factors in the global sample (model 4), the regional diffusion measure shows the largest effect by far. This is also true in the full MENA model (8), where regional diffusion has the largest effect. In this full MENA model (8) the other statistically significant variable, United States coercion, also has a large effect relative to the other variables. This demonstrates some

support for my theory, and a closer examination of some MENA cases further supports these findings.

## Qualitative Analysis

The quantitative results suggest that diffusion is present in the MENA region over the entire time period of this study, 1972 to 2012.<sup>47</sup> During the Arab Spring, reforms or retrenchments seemed to spread from nearby states. For instance, after the Saudi regime stepped up repression at home in March 2011, Saudi troops were sent to Bahrain in May to quell protests which resulted in Bahrain's sultan banning two Shi'a political parties in June 2011.<sup>48</sup> This is hardly the only evidence that diffusion might be at work during the Arab Spring. Among my three cases there are regional influences and either neighbors to emulate or United States and Saudi coercion that could explain how political liberalism diffuses. I explore each case separately, starting with the country that began the Arab Spring: Tunisia.

**Tunisia** When Mohamed Bouazizi set fire to himself in December of 2010, no one could have foreseen how that single desperate act would resonate through the entire region in a relatively short period of time. Tunisia is where the Arab Spring begins, since it was the first state to experience pro-liberalization protests. The Tunisian response, a relatively major liberalization,<sup>49</sup> gave other regimes in the MENA region an example of the alternative response to repression. Reform of the political system in early 2011 and elections in October of that year have increased political liberalization in the state, despite concerns over the rise of political Islamism. Since none of Tunisia's neighbors preceded it, the neighbor emulation mechanism is not much use in this case. However, the alternative mechanism can explain the liberalization in Tunisia.

The United States committed a larger amount of aid to Tunisia in 2009 and 2010 relative to earlier committed aid. This is evidence that the coercion mechanism played a role. The selectorate theory suggests that foreign aid can entice an authoritarian to liberalize, if they

perceive that they can survive the liberalization. In the case of Tunisia, Ben Ali fled to Saudi Arabia. This case is still illustrative of how this mechanism works: through foreign aid commitments the United States can entice liberalization, but mismanaged or misunderstood policy changes can go terribly wrong for the liberalizer.

**Egypt** The turmoil in Tunisia quickly began to affect other states in the MENA region. Egypt became the next state to face crisis, and the iconic images of protesters occupying Tahrir Square gave a mass movement feel to the constantly evolving regional scenario. However, the resulting liberalization was only minor when compared to Tunisia.<sup>50</sup> The parliamentary elections in late 2011 through January 2012 put Islamist parties in power, and the June election of Muslim Brother Mohammed Morsi consolidated that power, producing fresh protests and another military intervention in domestic politics. The minor liberalization that was gained in 2011 began to slip away.

Tunisia was a major regional influence on Egypt, especially at the outset as the Mubarak regime was toppled and reforms were instituted. However, neighboring influences dragged Egypt in the opposite direction. The drawn out conflict in Libya certainly had the attention of Egypt's "council of guardians," the Supreme Council of Armed Forces (SCAF) as they considered how to react to Morsi and the Muslim Brothers consolidating power. The Saudi crackdown in March 2011 also may have impressed upon the SCAF that repression was still a viable tool.

Notably, United States foreign aid commitment saw relatively minor increases from 2010 to 2011. Considering that this mechanism also can explain the outcome in the Tunisian case, this is an interesting finding. Egypt has been the target for a great deal of United States foreign aid since the Camp David Accord, often receiving the second highest commitment amounts among all targets.<sup>51</sup> The demands aired in Tahrir Square were born of a desire for poverty reduction as much as democratic progress, and since Egypt does not have much in the way of natural resources, United States aid can help keep prices low. In January of 2011

Mubarak may have assumed that larger commitments from the United States would follow if he could placate protesters by restructuring the cabinet and announcing that he would step down in September. As in the Tunisian case, Mubarak fell victim to poor policy decisions, and was forced to resign in February 2011. The combination of United States aid initially and neighbor emulation later can explain why Egypt experienced a minor liberalization but failed to prevent backsliding in the 2013.

**Yemen** The protests calling for the ouster of Ali Abdullah Saleh are not as often cited as those in Tunisia, Egypt, or the conflicts in Libya and Syria. The Yemeni case is however instructive as to the mechanisms explaining the relative political liberalizations during the Arab Spring. Yemen presents an interesting analytical case, since there was actually a reduction in political liberalism in late 2011 along with the end of Saleh's rule.<sup>52</sup> As with the Egyptian case, the Yemeni protests followed the Tunisian regime change and occurred at the same time as the Egyptian and Libyan revolts were reaching their highest levels. The Yemeni protests were marked by severe violence on all sides, and the regime response to increase repression followed from neighboring examples.

The Bahraini repression with the aid of Saudi forces and the Saudi crackdown which followed in March 2011 and the May 2011 imprisonment of protesters across Oman certainly had an effect on the Yemeni response. Repression of the protests eventually gave way to the removal of Saleh from power. He was replaced by Mansour Hadi, Saleh's deputy, after running unopposed. Hadi essentially has continued the same policies as Saleh, and has taken cues from neighboring Arab emirates that repression, not concession, is best.

United States foreign aid committed to Yemen saw a minor reduction leading into the Arab Spring. This is not surprising given the rocky relationship between the two countries over the past several years. The increased United States distrust of the Saleh regime to deal with al-Qaeda militants and to control its borders was met with frustration and public resentment by the Saleh regime. To make matters worse, the United States had looked

to Yemen as a symbol of the prospects for political liberalization in the early 2000s and by 2005 had abandoned hope for progress.<sup>53</sup> The reduction in aid commitment signaled to Saleh that the United States was no longer interested in providing the regime fungible resources to liberalize or deal with the conditions of poverty and joblessness that protesters rallied against. Since the Saudis committed no aid to regime running up to the crackdown, Saleh was put in a difficult position. The Yemeni case reveals the downside to the coercion mechanism: when the United States backs off aid commitments due to ambivalence, the outcome can be worse than a regime not liberalizing. For Yemen, United States coercion may have tipped the scales in favor of liberalizing elements and prevented Hadi from assuming power.<sup>54</sup>

**Domestic Controls** There is some variation on domestic factors, as evidenced in Table 1 above. GDP per capita values are different for each case, yet this variable cannot account for the difference in liberalization outcomes for the following reason. GDP per capita controls for how wealthy a state is, with the extant literature Adam Przeworski et al., *Democracy and Development: Political Institutions and Well-Being in the World, 1950-1990* (New York: Cambridge University Press, 2000) arguing that wealthier states are more likely to be persistent democracies and poorer states are likely to be persistent authoritarians. Instability is brought about by rapid wealth accumulation, which none of these cases experienced. Additionally, there is not enough variation relative to the MENA GDP per capita range to expect this measure to play a role in varied outcomes.

The differences between cases on colonial past runs counter to theoretical expectations. In the extant literature and in the OLS results presented above, British colonial past is understood to improve the chances of liberalization, while French colonial past reduces those chances. In the cases I have presented here, British colonial past has no effect (Yemen retrenches and Egypt makes minor gains) and French colonial past correlates with the biggest liberalization, Tunisia. If French colonial past were to have the theorized effect, we could expect Tunisia to be more like Algeria, since both experienced harsh French rule in the

late colonization period. This is further evidence that domestic factors are not affecting liberalization outcomes during the Arab Spring.

## Conclusion

The results of both the quantitative and qualitative analyses reveal some evidence in favor of three of my four hypotheses. First, the hypothesis (one) on whether diffusion effects exist in the global sample and in the MENA region when controlling for domestic factors does receive support in the findings I have presented above. Changes in political liberalism throughout the global sample and in the MENA region are related to net regional changes in political liberalism in the previous year, even when domestic factors are controlled for. At the beginning of the so-called Arab Spring, Tunisia initiated a change in the level of political liberalism in the MENA region, and other states followed. The backsliding that is now occurring suggests that the diffusion effect is working in the opposite direction. I have hypotheses on two different mechanisms that can explain how Tunisia began a positive surge towards political liberalism, but in the past two years there has been a negative retrenchment.

The results suggested that United States coercion was present in the global and MENA samples, but that the neighbor emulation mechanism had little support. The case studies elucidated this apparent contradiction. According to the results presented above, coercion instigates the diffusion of political liberalism, and neighbor emulation undermines it, instead diffusing repressive actions. In the global sample, the negative sign on the emulation coefficient and the lack of statistical significance in the MENA models for neighbor emulation makes sense in the context of the qualitative case analysis.

There is support for the hypothesis (two) that United States foreign aid increases political liberalism by causing diffusion. Each of the three cases support this mechanism, but perhaps most importantly the Tunisian case does. The events of the Arab Spring did not occur in a vacuum, and efforts to understand why Tunisia was the first to experience pres-

sure and react with liberalization that focus on domestic factors will undoubtedly miss an important factor: United States coercion. Signaling in the form of varying aid commitments led to different outcomes in each case, but also led to the upsurge of activity we refer to as the Arab Spring. The Saudi coercion hypothesis (three), however, was not supported by the findings presented above. The Saudi regime may spend money building the repressive capacity of autocratic friends in the region, like Bahrain, and Saudi military and financial support for the Yemeni regime has been crucial in recent years. This support seems not to reach the coercive levels that United States aid does; it is up to future research to explore why this might be so.

There is support for the hypothesis (four) that neighbor emulation is the mechanism by which diffusion effects are generated. It is evident based on the case studies reviewed above that where neighboring states used repression rather than concessions, there was an incentive to avoid liberalizing outcomes. This is more clear further along in the Arab Spring, where Tunisian liberalization and Egyptian wavering revealed that regimes could be ousted. Coupled with less United States coercion, emulating repressive neighbors can explain why the trend of political liberalization that seemed to be spreading throughout the MENA region in 2011 has been stymied by 2014. This can elucidate why there are mixed results between the global and MENA samples in the quantitative portion and a reversal of sign in the Egyptian and especially the Yemeni cases.

The implications of this analysis for future political science research and foreign policy-making are twofold. First, diffusion is a better explanation than domestic factors of changing levels of political liberalism in the world and MENA region from 1972 to 2012. Domestic factors may help understand specific cases and why certain conditions arise, and perhaps even may distinguish between the types of liberalizing policies that are adopted. Regional influences, neighbor responses, and United States coercing does a better job of explaining the spread of political liberalism when it does occur.

Second, the role of the United States in coercing authoritarians to liberalize matters

most in early stages of liberalizing waves. Evidence from the Arab Spring suggests that the United States enticed liberalizations in Tunisia and Egypt by offering authoritarians an incentive to avoid escalating repression in favor of moderate reforms. The regime changes that emerged from these reforms were very different in Tunisia and Egypt, however. If the United States hones its message better and applies pressure strategically, there is a small chance that the turn back to repression in the MENA region that has been building since late 2012 can be reversed again.

Future research can build off this analysis by improving the quality of the quantitative tests employed here, perhaps by using different statistical models that are more sensitive to time. The coercion mechanism analyzed here could be operationalized differently to confirm these findings in the MENA region and global sample.

## Notes

<sup>1</sup>Samuel P. Huntington, *The Third Wave: Democratization in the Late Twentieth Century* (Norman, Oklahoma: University of Oklahoma Press, 1991); Seymour Martin Lipset, Kyoung-Ryung Seong, and John Charles Torres, "A Comparative Analysis of The Social Requisites of Democracy," *International Social Science Journal* 45, no. 2 (1993): 155–155; Przeworski et al., *Democracy and Development: Political Institutions and Well-Being in the World, 1950-1990*; Michael L. Ross, "Does Oil Hinder Democracy?," *World Politics* 53, no. 3 (2001): 325–361; Michael Bernhard, Christopher Reenock, and Timothy Nordstrom, "The Legacy of Western Overseas Colonialism on Democratic Survival," *International Studies Quarterly* 48, no. 1 (2004): 225–250; Rolf Schwarz, "The Political Economy of State-formation in the Arab Middle East: Rentier States, Economic Reform, and Democratization," *Review of International Political Economy* 15, no. 4 (2008): 599–621; Ellen Lust, "Missing the Third Wave: Islam, Institutions, and Democracy in the Middle East," *Studies in Comparative International Development*, 2011, 1–28

<sup>2</sup>Kurt Weyland, "Theories of Policy Diffusion Lessons from Latin American Pension Reform," *World politics* 57, no. 02 (2005): 262–295; Natasha Borges Sugiyama, "Theories of Policy Diffusion Social Sector Reform in Brazil," *Comparative Political Studies* 41, no. 2 (2008): 193–216; Natasha Borges Sugiyama, "Bottom-up Policy Diffusion: National Emulation of a Conditional Cash Transfer Program in Brazil," *Publius: The Journal of Federalism* 42, no. 1 (2012): 25–51

<sup>3</sup>Daniel Brinks and Michael Coppedge, “Diffusion Is No Illusion Neighbor Emulation in the Third Wave of Democracy,” *Comparative Political Studies* 39, no. 4 (2006): 463–489; Beth A Simmons, Frank Dobbin, and Geoffrey Garrett, “Introduction: The international diffusion of liberalism,” *International Organization*, 2006, 781–810; Kristian Skrede Gleditsch and Michael D. Ward, “Diffusion and the Spread of Democratic Institutions,” in *The Global Diffusion Of Markets And Democracy*, ed. Beth A. Simmons, Frank Dobbin, and Geoffrey Garrett (New York: Cambridge University Press, 2008)

<sup>4</sup>See, for instance, Huntington, *The Third Wave: Democratization in the Late Twentieth Century*; Eva Bellin, “The Robustness of Authoritarianism in the Middle East: Exceptionalism in Comparative Perspective,” *Comparative Politics*, 2004, 139–157; Eva Bellin, “Reconsidering the Robustness of Authoritarianism in the Middle East: Lessons from the Arab Spring,” *Comparative Politics* 44, no. 2 (2012): 127–149; Raymond Hinnebusch, “Authoritarian Persistence, Democratization Theory and the Middle East: An Overview and Critique,” *Democratization* 13, no. 3 (2006): 373–395; J. Brownlee, *Authoritarianism in an Age of Democratization* (New York: Cambridge University Press, 2007)

<sup>5</sup>Brinks and Coppedge.

<sup>6</sup>Jack L Walker, “The Diffusion of Innovations Among the American States,” *The American Political Science Review* 63, no. 3 (1969): 880–899

<sup>7</sup>David Collier and Richard E Messick, “Prerequisites Versus Diffusion: Testing Alternative Explanations of Social Security Adoption,” *The American Political Science Review* 69, no. 4 (1975): 1299–1315

<sup>8</sup>See, for instance, Frances Stokes Berry and William D Berry, “Innovation and Diffusion Models in Policy Research,” in *Theories Of The Policy Process*, 2nd, ed. Paul A. Sabatier (Boulder, CO: Westview Press, 2007); Paul A. Sabatier, ed., *Theories of the Policy Process*, 2nd (Boulder, Colorado: Westview Press, 2007)

<sup>9</sup>This study is not focused on the diffusion of protests or the messages, methods, or mediums that mass movements adopted during the spread of the political unrest in the MENA region. Kurt Weyland has given this subject attention recently, and it is not my intention to duplicate nor dialog with his findings, as he is concerned with the cognitive heuristics aspect of boundedly rational decision makers in the context of mounting political demands and demonstrations in the region. Rather than follow Weyland’s and model adaptive strategies and decision making of protestors in the cases I have selected, I focus on the way regimes change as a response to demonstrations considering the context of domestic factors, United States influence, and regime changes in neighboring states. For more, see Kurt Weyland, “The Arab Spring: Why the Surprising Similarities with the Revolutionary Wave of 1848?,” *Perspectives on Politics* 10, no. 04 (2012): 917–934

<sup>10</sup>Brinks and Coppedge.

<sup>11</sup>See, for instance, Lipset, Seong, and Torres, “A Comparative Analysis of The Social Requisites of Democracy”; Bernhard, Reenock, and Nordstrom, “The Legacy of Western Overseas Colonialism on Democratic Survival”

<sup>12</sup>See, for instance, John O’Loughlin et al., “The Diffusion of Democracy, 1946–1994,” *Annals of the Association of American Geographers* 88, no. 4 (1998): 545–574

<sup>13</sup>For a complete discussion, refer to Przeworski et al., *Democracy and Development: Political Institutions and Well-Being in the World, 1950-1990*

<sup>14</sup>Victor Menaldo, “The Middle East and North Africas Resilient Monarchs,” *The Journal of Politics* 74, no. 03 (2012): 707–722

<sup>15</sup>The decrease in proportion on the monarchy indicator is produced by the overthrow of the Shah in Iran, 1979. The increase in all indicators is produced by a reduction in the number of countries due to the formal unification of North and South Yemen in 1990.

<sup>16</sup>Brinks and Coppedge.

<sup>17</sup>David W. Lesch, *The Middle East and the United States: A Historical and Political Reassessment* (Boulder, CO: Westview Press, 2007)

<sup>18</sup>Erin A Snider and David M Faris, “The Arab Spring: US Democracy Promotion in Egypt,” *Middle East Policy* 18, no. 3 (2011): 49–62

<sup>19</sup>Simmons, Dobbin, and Garrett, “Introduction: The international diffusion of liberalism”

<sup>20</sup>*ibid.*, p. 790

<sup>21</sup>For a complete overview, see Lesch, *The Middle East and the United States: A Historical and Political Reassessment*

<sup>22</sup>Foreign aid is a “soft” coercive technique, which is less costly for sending states to utilize when compared to traditional “hard” techniques like military domination.

<sup>23</sup>Bruce Bueno de Mesquita et al., *The Logic of Political Survival* (Cambridge, Massachusetts: MIT Press, 2003)

<sup>24</sup>When the United States provides to aid to autocratic recipients, the autocratic leader can use the aid revenue to buy political support Bruce Bueno de Mesquita and Alastair Smith, “A Political Economy of Aid,” *International Organization* 63, no. 02 (2009): 309–340; Bruce Bueno de Mesquita and Alastair Smith, “Foreign Aid and Policy Concessions,” *Journal of Conflict Resolution* 51, no. 2 (2007): 251–284 or to improve their coercive capabilities Simeon Djankov, Jose G. Montalvo, and Marta Reynal-Querol, “The Curse of Aid,” *Journal of Economic Growth* 13, no. 3 (2008): 169–194; Brian Lai and Daniel S. Morey, “Impact Of Regime Type on the Influence of US Foreign Aid,” *Foreign Policy Analysis* 2, no. 4 (2006): 385–404 Some selectorate theorists argue this increased capacity for patronage and repression may retard democratization, a valid

point in certain circumstances.

<sup>25</sup>See, for instance, Amanda A. Licht, “Coming into Money: The Impact of Foreign Aid on Leader Survival,” *Journal of Conflict Resolution* 54, no. 1 (2010): 58–87; Daniel Yuichi Kono and Gabriella R. Montinola, “Does Foreign Aid Support Autocrats, Democrats, or Both?,” *The Journal of Politics* 71, no. 2 (2009): 704–718; Joseph Wright, “How foreign aid can foster democratization in authoritarian regimes,” *American Journal of Political Science* 53, no. 3 (2009): 552–571

<sup>26</sup>Simmons, Dobbin, and Garrett, “Introduction: The international diffusion of liberalism”

<sup>27</sup>ibid.

<sup>28</sup>ibid.

<sup>29</sup>Weyland, “The Arab Spring: Why the Surprising Similarities with the Revolutionary Wave of 1848?”

<sup>30</sup>Simmons, Dobbin, and Garrett, “Introduction: The international diffusion of liberalism”

<sup>31</sup>Brinks and Coppedge, “Diffusion Is No Illusion Neighbor Emulation in the Third Wave of Democracy”

<sup>32</sup>See, for instance, Barbara Geddes, “How the Cases You Choose Affect the Answers You Get: Selection Bias in Comparative Politics,” *Political Analysis* 2, no. 1 (1990): 131–150; Gary King, Robert O. Keohane, and Sidney Verba, *Designing Social Inquiry: Scientific Inference in Qualitative Research* (Princeton, NJ: Princeton University Press, 1994)

<sup>33</sup>David Collier, James Mahoney, and Jason Seawright, “Claiming Too Much: Warnings About Selection Bias,” in *Rethinking Social Inquiry: Diverse Tools, Shared Standards*, ed. Henry E. Brady and David Collier (Lanham, MD: Rowman & Littlefield, 2004)

<sup>34</sup>Evelyn Huber and John D Stephens, *Democracy and the Left: Social Policy and Inequality in Latin America* (Chicago: University of Chicago Press, 2012)

<sup>35</sup>Henry E Brady, David Collier, and Jason Seawright, “Refocusing the Discussion of Methodology,” in *Rethinking Social Inquiry: Diverse Tools, Shared Standards*, ed. Henry E. Brady and David Collier (Lanham, MD: Rowman & Littlefield, 2004)

<sup>36</sup>Political liberalism could be operationalized using one of several extant measures commonly employed in the comparative democratization literature, with the two best candidates as the POLITY IV institutional democracy index and the Freedom House political rights and civil liberties index. There are limitations for each, since the updated POLITY dataset is only available through 2011 and Freedom House only reaches back to 1972. In the interest of building on the analysis in Brinks and Coppedge and including as many recent observation years, I use Freedom House scores. Monty G. Marshall, Ted Robert Gurr, and Keith Jagers, *Polity IV Project: Political Regime Characteristics and Transitions, 1800-2010* (Polity IV Project, 2010); Arch Puddington, *Freedom in the World 2013: Democratic Breakthroughs in the Balance*, technical report (Freedom House, 2013)

<sup>37</sup>The dependent variable ranges from -2.19 to 2.67 with a mean of 0.02 and a standard deviation of 0.26 (scaled for model interpretation).

<sup>38</sup>I use the Correlates of War Contiguity data, version 3.1 to identify the states that shared a direct territorial border or were within 24 miles of the observed state over water for each year. This data only covers years up to 2006, and so years 2007 to 2012 use the 2006 contiguity data. Regional diffusion has little variation, with a mean value of 0.02 and standard deviation of 0.06; neighbor emulation has a mean value of 0.01 and a standard deviation of 0.12 (scaled for model interpretation). See Douglas M. Stinnett et al., “The Correlates of War Project Direct Contiguity Data, Version 3,” *Conflict Management and Peace Science* 19, no. 2 (2002): 58–66

<sup>39</sup>Michael J. Tierney et al., “More Dollars than Sense: Refining Our Knowledge of Development Finance Using AidData,” *World Development* 39, no. 11 (2011): 1891–1906

<sup>40</sup>AidData 2.0 also measures donor intent, but in this analysis I consider targets to view aid committed as a coercion, regardless of intent or amount. The United States pledged aid to 47 percent of the sample. The Saudi regime pledged aid to only 5 percent of the sample, almost entirely in the MENA and Sub-Saharan regions.

<sup>41</sup>WB, *World Bank Development Indicators* (Washington, D.C.: World Bank Development Data Group, 2012)

<sup>42</sup>Paul R. Hensel, “ICOW Colonial History Data Set, Version 0.4,” <http://www.icow.org/colhist.html> (*August 31, 2013*), 2009,

<sup>43</sup>CIA, *The World Factbook 2013* (Washington, D.C.: Central Intelligence Agency, 2013)

<sup>44</sup>The BBC News archive can be found at <http://www.bbc.com/news/world-middle-east-12813859>, last accessed April 2014.

<sup>45</sup>See Barbara Geddes, “How the Cases You Choose Affect the Answers You Get: Selection Bias in Comparative Politics,” *Political Analysis* 2 (1990): 131–150; King, Keohane, and Verba, *Designing Social Inquiry: Scientific Inference in Qualitative Research*

<sup>46</sup>Marius Deeb, “Arab Republic of Egypt,” in *The Government and Politics of the Middle East and North Africa*, Sixth, ed. David E. Long, Bernard Reich, and Mark Gasiorowski (Boulder, Colorado: Westview Press, 2011) argues that prior to the 1952 coup, Egypt experienced relatively liberal democratic rule. While in theory Egypt was a constitutional monarchy from 1923 to 1952, in practice the regime fails the fourth criteria in Cheibub, Gandhi, and Vreeland. Since the same political party (*Wafd*) won all six elections, there was no democratic alternation in power. See José Antonio Cheibub, Jennifer Gandhi, and James Raymond Vreeland, “Democracy and Dictatorship Revisited,” *Public Choice* 143, no. 1 (2010): 67–101

<sup>47</sup>When the MENA sample is constrained to the years during the Arab Spring and the diffusion model (6)

is run again, neighbor emulation is the only statistically significant coefficient. The sample size was reduced to 57 observations, and all diffusion variables carried a positive sign. When the full model with domestic controls (8) is run again including only the years 2010 to 2012, no coefficients retain significance. This is most likely due in part to the shrinking sample size, which is now only 48 country-year observations with nine variables in the model. Results of these models are not shown due to space concerns.

<sup>48</sup>The details of monthly events discussed in the following sections have been cross-referenced with the BBC News web archive BBC, "Arab Uprisings," December 2013, <http://www.bbc.co.uk/news/world-middle-east-12813859> and corresponding country profiles unless otherwise noted.

<sup>49</sup>The actual positive change was from 6.0 on the Freedom House combined scale in 2010 to 3.5 in 2011. From 2012 to 2013 Tunisia liberalized further, moving to 3.0 on the Freedom House scale.

<sup>50</sup>The actual positive change was from 5.5 on the Freedom House combined scale in 2011 to 5.0 in 2012. Due to increasing turmoil after the Morsi election, Egypt deliberalized in 2013, returning to 5.5 on the Freedom House scale. This is, however, beyond the temporal domain of this research.

<sup>51</sup>Lesch, *The Middle East and the United States: A Historical and Political Reassessment*

<sup>52</sup>The actual negative change was from 5.5 on the Freedom House combined scale to 6.0, which has since remained constant since late 2011 despite the internal war and near collapse of central political authority in recent years.

<sup>53</sup>See Robert D. Burrowes, "Yemen," in *The Government and Politics of the Middle East and North Africa*, Sixth, ed. David E. Long, Bernard Reich, and Mark Gasiorowski (Boulder, CO: Westview Press, 2011)

<sup>54</sup>This is of course speculation. The divided nature of Yemeni political culture may preclude liberalization in the entire country anyway, but this is a question for future research.

# Appendix

Table 3: Summary Statistics

	Mean	Std. Dev.	Min.	Max.
<i>Dependent Variable</i>				
$\Delta$ in Political Liberalism	0.02	0.26	-2.19	2.67
<i>Diffusion Variables</i>				
Regional Diffusion ( $\Delta$ )	0.02	0.06	-0.32	0.23
Neighbor Emulation ( $\Delta$ )	0.01	0.12	-1.46	1.34
U.S. Coercion	0.47	0.50	0	1
Saudi Coercion	0.05	0.23	0	1
<i>Domestic Variables</i>				
GDP per Capita (USD)	7,069.02	13,689.14	64.81	193,892.32
British Colony	0.29	0.46	0	1
French Colony	0.15	0.36	0	1
Monarchy (MENA only)	0.42	0.49	0	1
<i>Regions</i>				
Sub-Saharan Africa	0.26	0.44	0	1
Asia	0.08	0.26	0	1
Southeast Asia	0.15	0.35	0	1
Europe	0.20	0.40	0	1
Latin America	0.18	0.38	0	1
MENA	0.11	0.31	0	1

Table 4: MENA Summary Statistics

	Mean	Std. Dev.	Min.	Max.
<i>Dependent Variable</i>				
$\Delta$ in Political Liberalism	0.00	0.18	-1.22	1.22
<i>Diffusion Variables</i>				
Regional Diffusion ( $\Delta$ )	0.00	0.05	-0.12	0.11
Neighbor Emulation ( $\Delta$ )	0.00	0.09	-0.61	0.49
U.S. Coercion	0.44	0.50	0	1
Saudi Coercion	0.13	0.34	0	1
<i>Domestic Variables</i>				
GDP per Capita (USD)	8,504.22	11,769.58	228.04	89,735.68
British Colony	0.46	0.50	0	1
French Colony	0.26	0.44	0	1
Monarchy	0.42	0.49	0	1