Corruption and Economic Development

Selected Papers from
The Economic Research Forum
18th Annual Conference

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For more information, please contact:

Economic Research Forum
21 Al-Sad Al-Aaly
Dokki, Giza
Egypt
Tel: 00 202 333 18 600 - 603
Fax: 00 202 333 18 604
Email: erf@erf.org.eg
www.erf.org.eg

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An Economic Research Forum Publication

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Foreword

Two years into the Arab revolutions, much of ERF's region is still in search of a new social contract and state rebuilding. The original demands of those revolutionaries remain largely unmet. One of these demands is eliminating corruption. In contribution to this debate, ERF's 18th Annual Conference, held in Cairo, March 2012, was devoted to the topic of *Corruption and Economic Development*. This Conference Proceedings Volume contains a selection of the conference papers.

The starting point for the debate was that endemic corruption marked many of the former regimes in the Arab Spring countries. According to Transparency International's Corruption Perception Index, only three countries in ERF's region score above 5 on a scale of 1 to 10. The vast majority of countries fell in the bottom third.

The key questions addressed by the conference participants were related to the link between corruption and economic development, the causes of corruption as well as its possible remedies.

In Part 1, Lisa Anderson discusses *The Determinants of Corruption*. From a political scientist's perspective, she covers three things: Firstly, modern corruption has a specific historical origin and secondly it comes in many forms. Finally, the discourse of corruption in the Arab world (and in many other places) today conflates its moral and public dimensions in ways that often confuses policy responses and may privilege political actors who deploy a religious idiom in politics. Her paper is followed by Jeffrey Nugent's: *Detecting Corruption and Evaluating Programs to Control It: Some Lessons for MENA*. It assesses the seriousness of corruption in the MENA region and how it might have developed over time.

Izak Attiyas kicks off Part 2 with a paper on *Enhancing Competition in a Post-Revolutionary Arab Context: Does the Turkish Experience Provide Any Lessons?* The paper explores the possible role of a regulatory environment in enhancing competition and reducing corruption in the post-revolutionary Arab societies. Drawing on the Turkish experience, he focuses on how state power can be used to maximize citizens' welfare rather than the welfare of state elites and/or their constituencies. His paper is followed by another by Imane Chaara, who looks at influence of another sort; that of religion. Under the title of *Pro-Women Legal Reform in Morocco: Is Religion an Obstacle?* she looks at the delicate balance between

religion and development. She asks whether modern law can trigger social change, reaching some surprising conclusions.

Finally, the volume wraps with a paper by Saifedean Ammous on *Arab Corporatism*. Ammous traces the emergence of "corporatist" political regimes, the result of free market reforms meant to transform former socialist market economies into free capitalist market ones. Instead, what emerged were omnipresent police states and unaccountable rentier governments dependent on foreigners, not citizens, for their financing.

All in all, we feel the volume makes for engaging and challenging reading. We hope you agree.

Ahmed Galal
Managing Director
Economic Research Forum

Contributors

Safiedean H. Ammous
Lebanese American University, Lebanon

Lisa Anderson
American University in Cairo, Egypt

Izak Atiyas
Sabanci University, Turkey

Imane Chaara
University of Oxford, United Kingdom

Jeffrey Nugent
University of Southern California, USA

Part 1

On Corruption

1

Determinants of Corruption: Preliminary Thoughts

Lisa Anderson

1. Introduction

As a political scientist among economists—indeed, among economists many of whom have spent a good part of their professional lives debating the measurement, consequences and control of corruption—I am both honored and humbled to be invited to contribute to these deliberations. Some of what I say here may be elementary, but since I cannot analyze what I do not understand, nor measure what I cannot identify, I need to revert to definitions and delineations before addressing determinants. I hope this modest return to first principles will be of some utility.

I intend to make three simple points:

1. There is a specific historical origin and context to what may be called "modern" or "public" corruption and that origin and context shapes its meaning and parameters today.

2. There is a perhaps surprising variety in the types of public corruption we see—it is not all of one piece, as I will try to suggest using examples from several countries in the Arab world—and this should inform the kinds of remedies we propose.

3. The discourse about corruption in the Arab world (and in many other places) today conflates its moral and public dimensions in ways that often confuses policy responses and may privilege those political actors who deploy a religious idiom in politics.

Lisa Anderson

1.1 The Origin of Modern Corruption

Ibrahim Shihata, then the General Counsel of the World Bank, is quoted in a 1997 Bank report as observing that:

> Corruption occurs when a function, whether official or private, requires the allocation of benefits or the provision of a good or service. . . . In all cases, a position of trust is being exploited to realize private gains beyond what the position holder is entitled to. Attempts to influence the position holder, through the payment of bribes or an exchange of benefits or favors, in order to receive a special gain or treatment not available to others is also a form of corruption, even if the gain involved is not illicit under applicable law. The absence of rules facilitates the process as much as the presence of cumbersome or excessive rules does. Corruption in this sense is not confined to the public sector and, in that sector, to administrative bureaucracies. It is not limited to the payment and receipt of bribes. It takes various forms and is practiced under all forms of government, including well-established democracies…. However, its level, scope, and impact vary greatly from one country to another and may also vary, at least for a while, within the same country from one place to another. While corruption of some form or another may inhere in every human community, the system of governance has a great impact on its level and scope of practice. [1]

This subtle and comprehensive treatment—to which I will return—is often lost in efforts to find simpler, more easily observable or measurable definitions; Shihata's own colleagues at the World Bank, for example, ultimately settled on a far more limited designation; as they put it: "We settled on a straightforward definition—the abuse of public office for private gain." [2] This is typical: most definitions link corruption to the behavior of a public official; Transparency International describes corruption as "the abuse of entrusted power for private gain." [3]

Yet, in general and intuitively, we would concede that not everything that is illegal is corrupt, and not everything that is corrupt is illegal. Shihata himself makes this point: corruption may not be "illicit under applicable law" or "confined to the public sector." But this should remind us that there persists a much older meaning of corruption, one which transcends the legal and political institutions of the day and conveys moral depravity or perversion. In fact, there are two distinct meanings—what might be called public corruption and moral corruption—in circulation today, and that is important for our purposes.

Understanding corruption as "the misuse of public office for private gain" implies that there exists a significant social consensus about what is "public" and what is "private." As Jens Chr. Andvig and Odd-Helge Fjeldstad put it, "The decisive role of the state is reflected in most definitions of corruption, which will define corruption as a particular (and, one could say, perverted) state-society relation… corruption exists at the interface of the public and private sectors…".[4] In fact, throughout most of the world, this distinction was quite attenuated, if not absent altogether, until the middle of the 18th century. For most of human history, there was little or no secular public sphere.   Social, political and economic transactions took place between individuals and groups defined by personal and property relations; that is, by ties of kinship, patrimonialism, slave-holding, clientelism, feudalism and the like. These relations may have included "entrusted power" but they afforded little room for a "public sphere" or "public interest." What transcended this kind of transactions and defined the basis of trust was typically defined in religious terms: the imagined communities of mutual obligation beyond personal experience were not nations of fellow citizens but the various communities of the faithful. They provided hope and solace to individuals in this world and permitted them to identify with others whom they would never meet face-to-face.

It was perfectly possible, and indeed quite common, for people to be corrupt in this context, since the ethical imperatives of social and religious life in a family, a slave plantation, or a faith community are typically quite clear.[5] Murder, lying and cheating are vices or sins in all human communities. That kind of unethical and immoral behavior has been identified, described and condemned from the beginning of human society, and it is relatively stable across time and space: Dishonesty, greed, sloth, deceit, theft, etc. are widely recognized features of corruption, whether of a soul or of a society.

Starting in the 18th century, however, with the development of the modern state and the creation of large scale polities that were neither the private domain of a king nor the worldly expression of a religious identity, a secular public sphere developed. It is this sphere, reflecting not religious imperatives but something approaching popular sovereignty, which contains goods and services that are not to be put to personal use. The public treasury was slowly but surely distinguished from the privy purse.

This process is often visible in the history of monarchies. Until quite recently, for example, the funds of the privy purse and the public treasury of the British

monarchy were coming led and even now British taxpayers contribute to the maintenance of the private estates of the monarch. Thus, while lavish spending by non-hereditary rulers, such as presidents, is routinely decried as corrupt, and the morality of greed is condemned everywhere, monarchs are often supported in ways that are disallowed for presidents because the religious or personal legitimacy formulae of kings who claim divine or hereditary rights to rule do not make a sharp distinction between their public and private rights and obligations.

Why is this important today? It is important because modern-day corruption is often a reflection of behavior at the metaphorical edges of an expanding public sphere. Where the existence or legitimacy of this public domain [6] is incomplete, misunderstood or disputed, behavior which was perfectly ordinary and necessary—indeed respectable—in a world governed by personal relationships and religious imperatives may come to be seen as corrupt. As Andvig and Fjeldstad put it: "In many developing nations, holders of public office derive their administrative and professional legitimacy from training in modern European administration, but their social legitimacy may imply to act in conformity with different socio-cultural logics." [7]

Let's examine a simple example from close at hand. In a country like Egypt, where the formal labor market is relatively underdeveloped—where there are very few hiring halls, newspaper job listings, headhunters, employment agencies or career fairs—it is not unusual for an employer to recruit from a pool of prospective employees drawn from the friends and relatives of those already employed at the firm or institution. And in fact, many people expect that those fortunate enough to be employed as large institutions should arrange for the employment of their close relatives. Is the hiring or relatives a pragmatic accommodation of market failures, a virtuous devotion to the well-being of families, or a corrupt expression of nepotism? Or is it, perhaps, all three?

Similarly, changing government strategies or what might be called "policy logics" may represent major changes in what Andres and Fjeldstad call the "social legitimacy" of policy instruments, including the use of networks that straddle the public and private sectors. A second example: after the revolutions of the Arab spring, many senior government officials of the defunct regimes were accused of corruption in their oversight of privatization programs of the old regimes. Obviously, over the next few years, corruption trials may permit an accounting of the guilt or innocence of individuals but inevitably such trials will be vexed by the

competing definitions of the standards by which the accused should be judged. As Shihata reminded us, the prevailing legal framework may not capture the extent of abuse: "special gain or treatment not available to others is also a form of corruption, even if the gain involved is not illicit under applicable law." Yet, as Michael Johnston observes, "particularly in the midst of economic liberalization and privatization... policy changes may redefine public roles as private, or delegate power and resources to organizations that straddle state/society boundaries, in the process changing rules and accountability." [8] What was once intrinsically corrupt—the delivery of public resources into private hands—had become official policy, often sanctioned, indeed celebrated, by the international community, even in the face of weak oversight and limited popular appreciation of the terms of the policy or the nature of its instruments.

All of which is to say, when we discuss corruption we need to recognize that at least one of its determinants is the size, scope and strength of the public sphere. But, if we combine the analytical approaches of politics and economics, this permits us a useful perspective. If we can take the relative size of the informal sector of the economy as a useful, if not perfect, proxy for that remains outside the public sphere,[9] we have a provocative and intuitively plausible[10] hypothesis:

- The size of the informal economy is directly correlated with the level of corruption.

This in turn produces a policy proposal:

- One of the most effective ways to eradicate corruption is to broaden participation in the formal economy.

This should permit better monitoring of financial transactions, making the payment of bribes, the offering of discounts, the favoring of personal clients, etc., more difficult as a technical matter and, more importantly, it shouldexpand exposure to and investment in the notion that the state represents public goods, whose care is entrusted to public servants. That is my first point.

2. Different Types of Corruption

My second point is about the importance of distinguishing among different kinds of corruption. Michael Johnston has pointed out that, particularly in the policy and advocacy communities, there has been insufficient attention to the various forms corruption may take.

> There is little debate anymore as the broad effects: strong theory
> and evidence suggest that corruption delays and distorts economic
> growth, rewards inefficiency, and short-circuits open competition.
> [But] there is little attempt to differentiate among corruption prob-
> lems, either between or within societies; instead much research seeks
> to explain variations in whole countries' scores on one-dimensional
> corruption indices. There are thus few variations in suggested re-
> forms, and little guidance as to which remedies should be applied
> first, later , or not at all…. Corruption is…unlikely to be the same
> problem everywhere, and scores along one-dimensional indices may
> tell us little about different sorts of societies.[11]

In fact, of course, there are different varieties of corruption and to illustrate sev-
eral, I will use three countries in the Arab spring—Tunisia, Egypt and Libya—to
illustrate my argument that there are different patterns of corruption and that ad-
dressing them will therefore probably require different kinds of policy responses.

In a wonderful little pamphlet distributed by the World Bank for teaching youth
about good governance,[12] they explain the widespread and a simple distinction
between

- Administrative Corruption: Corruption that alters the implementation of
  policies, such as getting a license even if you don't qualify for it.
- Political Corruption: Corruption that influences the formulation of laws,
  regulations, and policies, such as revoking all licenses, and gaining the sole
  right to operate the beer or gas monopoly.

I would add a third, which might be called "Systemic Corruption," in which the
very existence and stability of the public sphere is deliberately subverted to sustain
the regime in power.

Administrative corruption is not unusual, and it is endemic in Egypt, from the
private lessons given by public school teachers to the payoffs provided to police to
cleanse arrest records, where the public sector is poorly paid and poorly managed.
It is widely recognized for what it is, however, and to use a distinction made by
Hazem Beblawi at the Economic Research Forum conference in Cairo in March
2012, its correction is very, very important but not necessarily urgent. That is to
say, it will be rectified as its determinants—low salaries and incompetent manage-
ment in the public sector and the consequent strength of the informal economy—
are addressed.

Political corruption is, oddly, more urgent but not as important. The rapacious

behavior of the Ben Ali family in Tunisia was not only expensive, it was an embarrassing affront to Tunisian national pride. It needed urgent attention, which it finally got in the Tunisian revolution of last year, but because it was so closely associated with a limited number of identifiable individuals, it could be curbed fairly quickly. In part because of the relatively strong educational system and high per capita income—the relatively high participation in the formal economy—but also thanks to popular revulsion against the Ben Ali family, administrative corruption is not as endemic as in Egypt, and corruption should not be as much of a public policy challenge to development.

Systemic corruption is both urgent and important, and it is very difficult to address. The Qaddafi regime systematically subverted public order in order to make all Libyans dependents of the regime, implicated in the deliberately humiliating theatrics of a regime bent on eradicating the public sphere altogether and destroying the autonomy of its own citizens. Arbitrary and capricious withholding of resources, inartificial scarcities of essential goods and political litmus tests for virtually any jobs, required ordinary citizens to resort to any expedient—including lying and cheating—to ensure they had access to food, schooling, health care. The regime knew this, and knew that the threat of exposure was a useful mechanism by which to control people, which it did for quite a long time. As John Waterbury put it thirty five years ago in discussion of a different Arab country, "The participant becomes an accomplice of the system." [13]   Obviously, the insecurity and degradation deprived people of professional satisfaction and personal pride; it also made those people profoundly angry—with their regime, with each other, and, most poignantly, with themselves. The success of the Libyan revolution has appeased some of the self-hatred but the societal insecurity and distrust that are a legacy of systemic corruption is still very much alive. Here, transitional justice will be an important feature of the response to corruption.

Thus, to sum up this point: there are different kinds of corruption and I have suggested three: administrative, political and systemic. They have different determinants and they require different policy responses, from formalizing the economy, to removing the worst offenders, to a nation-wide process of transitional justice and reconciliation. Obviously, they are usually present in some combination, but it is worth considering which seems to predominate in any given case, since that will shape the speed and direction of the reform designed to eradicate this kind of misuse of public resources.

3. The Idiom of Corruption

My final point is quite simple.

Because it provides a ready-made vocabulary of virtue and vice, religious discourse is very effective in providing an ostensibly apolitical idiom in which to address corruption. I would argue, in fact, that one little appreciated element of the popularity of religious trends in the three countries I just discussed is that the religiously-based movements and parties decried vice long before the secular nationalists, liberals or leftists took up the cause. Indeed, for those who dwell primarily in the secular public sphere, I suspect that discussions of virtue and vice are vaguely embarrassing—the rule of law is a far more congenial framework from which to address wrongdoing. As Robert Klitgaard wrote twenty-five years ago, "economic metaphors [are] useful in working with policymakers in developing countries [because it] enables them to confront the topic of corruption without becoming ensnarled in moralisms and local sensitivities…. The moral angle of corruption, the intertwining of ethical judgments with policy choices, makes scholars shy away." [14]

But for populations outside the reach of the law, who live in the legal twilight of the informal sector, conventional demands for the rule of law and economic metaphors are far less compelling than an ethical, moral or religious critique. And, in fact, one of the appeals of the call for imposition of Shari'a law is the promise of a common legal standard by which everyone will be judged and by which moral corruption will be acknowledged, measured and punished.

The confusion of religious and public notions of corruption is useful for expanding the reach of religious parties; it is not necessarily useful for actually building and sustaining a secular public sphere that is robustly resistant to diversion of resources for private gain. In post-revolutionary Egypt, for example, it sometimes seems that wealth is prima facie evidence of corruption—which it may be in religious terms, that is not for me to dispute. Wealth itself should not a vice in the secular public sphere, however, where the definition of corruption must be about the process of accumulation, not the inherent legitimacy of accumulation itself or of its fruits. Unless we are prepared to argue that capitalism itself is intrinsically corrupt—and that is also another debate, perhaps worth having, but on its own terms—we need to sustain the definition of corruption as the diversion of public resources to private gain, and not let it become a term of condemnation for private gain itself.

In sum, confounding time-honored definitions of moral depravity with modern conceptions of affronts to the public sphere serves a particular ideological position: that of the politicized religious groups like the Christian evangelists of US Tea Party to the Muslim Salafis of the Egyptian Al-Nour Party. Insofar as reach of the modern public sphere is inversely proportional to the strength of informal economy, it is at that seam, between the formal and informal, the public and the private, that much of the confusion about the origins and determinants of corruption rest. The origin of modern corruption in the development of a public sphere, the inverse link between that public sphere and the informal economy, and the strength of moral critiques of vice in the debates about corruption are all illustrated in the various kinds of corruption—and the varied political debates about corruption—we see in the Arab world today.

Notes

1. "Helping Countries Combat Corruption: The Role of the World Bank," Poverty Reduction and Economic Management, The World Bank, September 1997, pp. 19-20 http://www1.worldbank.org/publicsector/anticorrupt/corruptn/corrptn.pdf
2. Ibid, p. 8
3. See http://www.transparency.org/whatwedohttp://www.icgg.org/downloads/contribution07_andvig.pdf
4. Jens Chr. Andvig and Odd-Helge Fjeldstad, with Inge Amundsen, Tone Sissener, and Tina Søreide, Research on Corruption: A policy oriented survey, Chr. Michelsen Institute (CMI) & Norwegian Institute of International Affairs (NUPI) December 2000, p. 11.
5. Almost as an afterthought, Andvig and Fjeldstad recognize this, observing: "Besides, corruption also exists as a moral and cultural problem in society, among individuals in their personal dealings, " but they suggest that this is a concern because "Generally, such practices impose hidden costs on public services and/or confuse the distinction between public and private." Op. cit., p. 14.
6. This "public domain" is in many ways coterminous with what has come to be known as "civil society," defined by the World Bank as, "the wide array of non-governmental and not-for-profit organizations that have a presence in *public life*…" (Emphasis mine.) In discussing corruption, however, I favor terminology that emphasizes the importance of the public sphere. See "What is Civil Society?" http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/

CSO/0,,contentMDK:20101499~menuPK:244752~pagePK:220503~piPK:22 0476~theSitePK:228717,00.html

7. Op. cit., p. 72.
8. Michael Johnston, *Syndromes of Corruption: Wealth Power and Democracy* Cambridge University Press 2005, eBook loc 219.
9. Political scientists typically use the notion of "informality" somewhat differently from economists. Two representative examples: For economists, "the term "informal economy"… refers to all economic activities by workers and economic units that are – in law or in practice – not covered or insufficiently covered by formal arrangements. (Kristina Flodman Becker, "The Informal Economy," SIDA Fact finding study March 2004. http://rru.worldbank.org/ Documents/PapersLinks/Sida.pdf) For political scientists, by contrast, "Informal institutions are the unwritten rules of political life: shared understandings created and enforced outside formal or legal channels... that complete, coordinate and operate parallel to their formal counterparts." (Julia R. Azari and Jennifer K. Smith, "Unwritten Rules: Informal Institutions in Established Democracies," *Perspectives on Politics*, 10:1 March 2012, pp. 49, 38.) That is, economists see the informal sector operating outside and in competition with the formal sector while political scientists see informality as an often essential supplement to the formal rules of the modern bureaucracy. (As Samuel Huntington famously wrote in *Political Order in Changing Societies* [New Haven: Yale University Press,1968]: "in terms of economic growth, the only thing worse than a society with a rigid, over-centralized dishonest bureaucracy, is one with a rigid, over-centralized, honest bureaucracy.") This is why in political science there is a modest but perennial literature on the utility of corruption—e.g.Frank Anechiarico and James B. Jacobs, *The Pursuit of Absolute Integrity: How Corruption Control Makes Government Ineffective* (University of Chicago Press 1996). For my purposes, the "public sphere" is equated in both extent and impact with the "formal economy"—and informality works to undermine, rather than supplement, the operations of the public sector.
10. As Daniel Treisman reports, "the main perceived corruption index… correlates positively with the size of the unofficial economy." "The causes of corruption: a cross-national study," *Journal of Public Economics*, 76 (2000), p.400
11. Johnston, *Syndromes of Corruption*, Locs 320, 486
12. "Youth for Good Governance: Distance Learning Program, "Introduction to Corruption" http://img.modernghana.com/images/content/report_content/ youthforgoodgovernance.pdf
13. John Waterbury, "Endemic and Planned Corruption in Monarchical Regime" *World Politics* 25:4, July 1974
14. In *Controlling Corruption* Berkeley: University of California Press, 1988 eBook, Loc 58, 2138

2

Detecting Corruption and Evaluating Programs to Control It: Some Lessons for MENA

Jeffrey B. Nugent [1]

1. Detection of Corruption in MENA Countries and Links to Determinants and Policies

In view of (1) the very uncertain policy and institutional environments lying ahead for MENA countries, especially of those going through rather fundamental economic and political transitions, (2) the importance of predictable futures to business firms and households, and (3) the relevance of corrupt acts as a means of reducing uncertainty about the future institutional environment, corruption is likely to pose a serious challenge to the quality of governance and economic success throughout much of the MENA region for some time to come. Moreover, unacceptably high levels of corruption at the highest levels of government have been cited as one of the main causes for the revolutions that have taken place between 2010 and 2012 in several MENA countries. For this reason, controlling corruption deserves priority attention. But, since it varies in form and seriousness from place to place, to know how best to attack corruption in any particular country it is imperative to learn where it is most serious, and either its determinants or at least the circumstances that are most closely linked to it.

One mean of identifying areas in which corruption seems to be most endemic would be to conduct comprehensive reviews at the country level of national legislation and related enforcement for dealing with corruption. Such reviews should be

able to identify areas in which national laws and/or their enforcement are lagging behind those of other countries and/or of regional and international standards in anti-corruption efforts. An important mechanism for doing just this is the United Nations Convention against Corruption (UNCAC), initiated in 1996 and officially signed in the UN General Assembly in 2003 by 140 countries. Its importance can be attributed to the fact it is the first legally binding system for committing countries to anti-corruption measures and holding individual countries to live up to the international standards set by UNCAC.

Unfortunately, to date such assessments have been completed in only a few MENA countries and those completed assessments are not yet available to researchers and the general public. All MENA countries should allow this to happen as soon as possible. In the meantime, in what follows we attempt to make use of some scattered information from existing surveys.

First in Table 2.1, we provide country-specific scores on various alternative indexes of freedom from corruption from three different sources identified in the table. Each such source uses a different scoring system but in each case, a higher number indicates that corruption is perceived to be a less serious problem. Generally speaking, these sources rely heavily on investor opinions and reports. Perhaps as result of this, with the possible exception of the International Country Risk Guide's (ICRG) score for Iraq in 2009, the scores from the different sources are fairly consistent. At present, Qatar, UAE, Jordan, Kuwait, Bahrain, Oman and Turkey seem to be among those with the least serious corruption, and Iraq, Libya, Lebanon, Iran, Sudan, Syria and Yemen among the countries with the most serious corruption problems. The table, however, reveals two rather alarming findings: (1) In recent years, at least, no MENA country comes even close to the freedom from corruption score of Singapore which has colonial, historical and some geographic characteristics not unlike some of the smaller MENA countries and which has long been held as a model by at least one of them (Bahrain). (2) With the possible exception of Egypt and especially Turkey (which improved substantially on all three indexes), virtually every MENA country with comparable scores in both 1990 and a more recent year experienced a substantial decline in at least one of its freedom from corruption scores. The indexes show that the averages for MENA as a whole also declined whereas the already high scores for Singapore increased further on two of the three indexes.

Table 2.1 Indexes of Freedom from Corruption, MENA and Singapore Compared

	ICRG		Heritage Foundation		Transparency International	
	1990	2009	1990	2009	1998	2011
Algeria	3.9	1.5	50	30	2.6a	2.9
Bahrain	2	2	70	50	6.1a	5.1
Egypt	2	2	30	33	2.9	2.9
Iran	3	2	n.a.	25	3.0a	2.7
Iraq	2	4.4	n.a.	n.a.	2.2a	1.8
Jordan	3.8	3	n.a.	47	4.7	4.5
Kuwait	3	3	70	43	5.3a	4.6
Lebanon	1	1	50	35	3.0a	2.5
Libya	1	1.5	10	25	2.1a	2
Morocco	3	3	50	35	3.7	3.4
Oman	3	2.5	70	47	6.3a	4.8
Qatar	2	2.5	90	60	5.6a	7.2
Saudi Arabia	2	2	70	34	4.5a	4.8
Sudan	2	1	n.a.	30	2.3a	1.6
Syria	2	2	n.a.	24	3.4a	2.6
Tunisia	3	2	50	42	5	3.8
Turkey	2	2.5	10	41	3.4	4.2
UAE	3	2.5	90	57	5.2a	6.8
Yemen	3	2	10	25	2.6a	2.1
MENA Average	2.46	2.23	51.42	38.5	4.1	3.72
Israel					7.1	5.8
Singapore	5	4.5	90	93	9.1	9.2
USA					7.5	7.1

Notes: (a) indicates data is from 2003, the earliest year possible from this source. n.a. indicates data not available.
Sources: for ICRG: ICRG International Country Risk Guide: www.prsgroup.com/icrg.aspx. For Heritage Foundation: http://www.heritage.org/explore for Transparency International: http://www.cpi.transparency.org/cpi20112011/results.

While Table 2.1 alerts us to the apparently growing seriousness of the corruption problem in most MENA countries, a low freedom from corruption index tells us nothing about where in the country to look for that corruption, such as problematic sectors or types and sources of the corruption. One small step in that direction is taken in Table 2.2 which shows the percentages of firms saying they would be expected to give gifts to officials for each of 10 different purposes as well as the size of the gift for securing a government contract and the percentage of firms identifying corruption as a major constraint. These percentages are computed from data taken from the most recent World Bank's Enterprise Surveys (between 2006 and 2011). Such information is available for only nine MENA countries plus the West Bank and Gaza and nearby Mali and Mauritania. While several MENA countries have lower percentages of firms responding positively to these questions than those responding in all survey countries combined (labeled "All" in this table), it should be considered that few such surveys have been undertaken in high income countries where corruption is generally low. The countries where the surveys have been undertaken are with a few exceptions limited to developing and transition countries in which corruption is generally quite serious. Yet, from the most comprehensive indicator given in the final column of the table, the only MENA country with a lower than average "percent of firms identifying corruption as a major constraint" is Morocco. The overall MENA average of such scores is over 20% higher than that of the world as a whole. Once again, corruption seems to be most common in Yemen, Syria, West Bank and Gaza, Lebanon, Algeria and Iraq. The value of the gift required to secure a government contract relative to the value of that contract is highest for Egypt, followed closely by Lebanon, Yemen and Syria. Over 90% of the firms in Egypt and Lebanon and about two-thirds of those in Syria and Yemen say that gifts are necessary to obtain government contracts.

These results, therefore, would seem to identify the countries and sources or types of corruption that would seem more serious and thus deserve priority attention in the attempt to reduce corruption. For example, corruption in obtaining government contracts would seem to deserve priority attention in Egypt, Lebanon, Yemen and Syria. On the other hand, corruption with tax officials would seem to be most serious in Syria and Yemen. The percentage of firms saying that firms are expected to give gifts to get an operating license in Yemen is far higher than that in any of the other countries or regions. Iraq and Yemen would seem to deserve priority for dealing with corruption in getting access to electrical connections and Syria

Table 2.2 Percentages of Firms Responding Positively to Questions in Enterprise Surveys about Corruption

Economy	Year	% of firms expected to give gifts to public officials "to get things done"	% of firms expected to give gifts to get an operating license	%of firms expected to give gifts to get an import license	% of firms expected to give gifts to get a construction permit	% of firms expected to give gifts to get an electrical connection	% of firms expected to give gifts to get a water connection	% of firms expected to give gifts in meetings with tax officials	% of firms identifying the courts system as a major constraint	Bribery index (% of gift or informal payment requests during public transactions)	% of firms expected to give gifts to secure government contract	Value of gift expected to secure a government contract (% of contract value)	% of firms identifying corruption as a major constraint
All		25.7	15.2	14.4	23.1	16.0	15.4	15.7	19.1	15.1	23.9	2.3	36.1
EECA		24.9	14.3	16.7	25.3	13.0	10.5	14.2	20.6	14.9	18.0	1.5	34.5
MENA		37.0	16.5	22.9	25.1	22.0	14.4	23.4	28.2	20.4	37.9	3.6	56.5
SSA		36.2	20.1	16.3	25.9	21.6	21.5	18.3	14.8	18.7	35.0	3.3	37.5
Algeria	2007	66.6	7.3	34.9	12.0	13.2	7.5	15.0	29.3	14.2	34.8	4.1	64.3
Egypt	2007	6.5	11.7	10.1	6.1	13.1	9.2	23.8	17.2	22.1	92.4	9.2	59.3
Egypt	2008	15.2	13.4	20.0	40.0	31.1	27.8	5.3	6.5	6.6	32.0	1.2	45.2
Iraq	2011	31.8	24.2	41.0	29.1	48.7	17.3	29.1	14.0	33.8	31.0	1.8	62.3
Jordan	2006	18.1	3.1	1.3	11.8	8.8	4.5	0.9	16.6	1.8	2.3	0.1	40.7
Lebanon	2009	22.9	12.5	0.0	27.5	8.9	9.1	19.2	40.2	17.2	97.7	8.8	66.5
Morocco	2007	13.4	0.0	20.0	15.3	5.0	4.2	10.7	30.1	8.4	6.4	0.3	27.3
Mali	2010	19.4	42.4	35.2	39.9	39.5	40.2	20.2	15.9	23.4	22.8	2.5	24.8

Table 2.2 Continued

Economy	Year	% of firms expected to give gifts to public officials "to get things done"	% of firms expected to give gifts to get an operating license	%of firms expected to give gifts to get an import license	% of firms expected to give gifts to get a construction permit	% of firms expected to give gifts to get an electrical connection	% of firms expected to give gifts to get a water connection	% of firms expected to give gifts in meetings with tax officials	% of firms identifying the courts system as a major constraint	Bribery index (% of gift or informal payment requests during public transactions)	% of firms expected to give gifts to secure government contract	Value of gift expected to secure a government contract (% of contract value)	% of firms identifying corruption as a major constraint
Mauritania	2006	82.1	33.2	32.8	53.0	39.9	76.4	48.2	10.8	46.6	76.2	8.1	17.1
Syria	2009	83.8	25.2	25.2	25.8	28.5	9.3	61.0	60.8	34.3	66.4	7.2	67.1
Turkey	2008	18.0	10.7	0.3	14.0	3.1	3.9	4.0	19.8	5.8	23.1	2.3	42.3
WB and Gaza	2006	13.3	1.6	2.9	2.6	7.1	5.9	2.7	17.1	2.5	4.7	0.5	66.5
Yemen	2010	68.2	60.8	61.1	62.3	46.2	44.1	66.7	39.0	65.2	66.2	8.3	68.3

Notes: EECA represents Eastern Europe and Central Asia, MENA = Middle East and North Africa, SSA = Sub Sahara Africa
Source: World Bank: Enterprise Surveys;http://www.enterprisesurveys.org., World Bank

priority for corruption by users of courts. In the case of "speed money" or "the need for firms to give gifts to public officials to get things done," as shown in the table, this is again a very pervasive problem for firms in Syria, Yemen and Algeria but not in the other countries. Naturally, answers to such a question do not identify the exact reasons lying behind affirmative answers in these cases but regulations and the delays in getting things done in relation to these regulations would seem like good candidates. To the extent that this is true, and perhaps similarly for many of the other columns in the table, the culprit may be the cumbersomeness of regulations of the type indicated, be it getting a license of a particular type or gaining access to electricity or water.

Unfortunately, not all questions on gifts were asked in all surveys. Table 2.3 presents the answers to somewhat similar questions from the Enterprise Survey for Egypt for 2006 but with an added item, namely payments to labor administrators (representatives), normally the employees of the Ministry of Labor who are responsible for worksite inspections concerning labor laws and regulations. Note from the first column of this table that almost 85% of Egyptian firms reported the need to make such payments, slightly higher even that the percent indicating the need to make gifts to tax officials. The remaining columns of this table do a little more detective work showing how these percentages vary by location and ownership of the firms. With respect to location, industrial zones are often looked at as convenient places for firms to locate to make it easier to gain access to the services they need. Note, however, that in this case the average percentage of firms located inside these zones making gift payments to officials are in many cases higher.[2] A shortcoming of Tables 2.2 and 2.3, however, is that, because they do not give the magnitudes of these payments, they do not necessarily translate into the overall cost to the firm of total gifts.

Closely related to the questions given in Tables 2.2 and 2.3 is the question posed to each sampled firm in most of these Enterprise Surveys concerning the relative importance (usually on a 0-4 scale) of a particular "obstacle" to the current operations of this firm's business. Among the obstacles firms were asked to evaluate are: access to telephone lines, to land, to electricity, to licenses and permits, or to finance, crime, competition from the informal sector, political instability, labor regulations, tax rates, tax administration, inadequately educated workforce, and finally corruption. Given the extent to which corruption is seen to be pervasive in most MENA countries from Table 2.1, we attempt to make use of the firm-specific

Table 2.3 Percentage of Egyptian Firms Giving Gifts to Officials by Location and Owner

Purpose of Gift to Officials	Location			Ownership			
	Overall	Outside of Zone	Inside Industrial Zone	Domestic	Arab	Foreign	Government
Customs for Imports	12.5	11	17	11.6	33.3	32.1	16
Registration	10.6	12	7.1	11.1	0	10.7	2
Obtain License	15.9	15.4	17.3	16.3	27.8	17.8	6
Obtain Contract	9.6	9.2	10.6	9.7	5.5	3.6	10
Tax Administration	84.2	82.5	86.9	83	91.8	83.6	94.8
Labor Representative	84.6	83.1	90.4	84.7	90.7	82.1	94.2
General	14.9	15.4	13.6	15.4	11.1	17.8	6

Source: Enterprise Survey of Egypt for 2006, N = 985

responses to these questions to link the various more specific problem areas (obstacles) of firms to the firm-specific evaluation of the relative importance of corruption. Relatively complete responses to the relevant questions on the obstacles including the corruption obstacle are available for the eight MENA countries listed in Table 2.4 and for some 45 non-MENA countries. In the case of Syria we make use of two different surveys (those of 2003 and 2009) since both were based on reasonably large numbers of firms and were taken with a considerable number of years apart, potentially allowing us to detect possible changes in the determinants of corruption between the two years.

In Table 2.4, for each of these countries and a pooled cross section of countries as a whole we present the results of regressions of the following form:

$$CORRUPT_i = \alpha + \beta_{jk}\ OBST_{ik} + \gamma_{ij}\ X_{ij} + \varepsilon_i$$

where for each country $CORRUPT_i$ represents the importance of corruption as an obstacle to the current operations of establishment i, OBST is the vector of $k = 14$ other subjective indexes of the degree of severity of each of the obstacles identified above, and X_{ij} represents the vector of $j = 12$ other controls (for location, size, ownership, age, technological characteristics, the perceived consistency of government policy, unionization and use of an external auditor identified in the top portion of the table), and ε represents the error term. The values of the constant terms are not included in the table.

In the top part of the table are the parameter estimates and statistical significance

Table 2.4 OLS Regression Results: Dependent Variable The Importance of Corruption as an Obstacle to the Firm's Business

Country - Year	Algeria - 2002		Egypt - 2004		Jordan - 2006	
Capitol City			0.066	**	0.024	
Multi-plant	0.042					
Size			-0.178	**	0.01	
Foreign 1	-0.164		0.323		0.053	
Foreign 2	-0.004		-0.116		-0.44	
Government	-0.176		-0.373		0.127	
Age of Firm	-0.009	**	-0.002		-0.01	
Quality Certificate			0.016		0.281	
New Technology			-0.018			
Email	-0.051		0.476	***	-0.13	
Website	0.037		0.09		-0.34	
Capacity Utilization	0.001		-0.006	**	-0	
Age of Exporting	0.01	*	0.005			
Consistent Government Regulations	-0.15	***			-0.23	***
Union Percent	-0.001		0.001		-0.01	*
External Auditor	-0.228	*	0.301	**	0.456	**
Obstacles to Business (Strength)						
Telephone	0.009		0.092		0.031	
Electricity	0.036		0.014		0.25	***
Transport			0.034		-0.12	*
Land	-0.016		-0.032		0.064	
Tax Rates	0.02		0.014		0.072	
Tax Administration	0.158	***	0.068	*	0.132	**
Customs	0.024		0.056		-0.01	
Labor Regulations	0.06		0.057	*	0.045	
Education/skills of workers	0.023		0		-0.08	
Licenses, Permits	-0.021		0.067	*	0.028	
Access to Finance	0.015		0.071	**	-0.02	
Political Instability	0.301	***	0.264	***	0.282	
Crime					0.207	
Informal Sector	0.167	**			-0.07	
N	530		905		348	
R2 (Adjusted for degrees of freedom)	0.276		0.168		0.421	

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Table 2.4 Continued

Country - Year	Lebanon - 2006		Morocco - 2004		Oman - 2003	
Capitol City			-0.028			
Multi-plant			-0.292	*		
Size	-0.019		0.018		0.031	
Foreign 1	0.532		0.146		-0.24	
Foreign 2	0.157		0.235		-0.3	
Government			-1.048		0.177	
Age of Firm	-0.002				-0.01	*
Quality Certificate	0.064		0.078			
New Technology	0.108		0.046		-0.42	*
Email	-0.026		-0.112		-0.22	
Website	-0.187		0.093		0.19	
Capacity Utilization	-0.004	*	-0.001		-0	
Age of Exporting			-0.006		-0.02	
Consistent Government Regulations	0.011		-0.034			
Union Percent	-0.002		0.001			
External Auditor	0.016		0.412	***	0.066	
Obstacles to Business (Strength)						
Telephone	-0.022		-0.035		0.131	*
Electricity	0.094	*	0.029		-0.01	
Transport	-0.077		0.062		-0.08	
Land	0.052		-0.024		0.015	
Tax Rates	0.022		-0.016		0.022	
Tax Administration	0.153	**	0.068	**	0.106	*
Customs	0.036		0.035		0.017	
Labor Regulations	0.064		0.212	***	-0.04	
Education/skills of workers	-0.002		0.048		0.053	
Licenses, Permits	0.045		0.157	***	-0	
Access to Finance	0.053		0.013		0.099	*
Political Instability	0.187	***	0.085		0.16	
Crime	0.231	***	0.512	***	0.506	***
Informal Sector	0.144	***	0.073		0.162	***
N	353		834		283	
R2 (Adjusted for degrees of freedom)	0.368		0.47		0.489	

Table 2.4 Continued

Country - Year	Syria - 2003		Syria - 2009	
Capitol City			0.209	*
Multi-plant	-0			
Size	0.05		-0.209	
Foreign 1	0		0.15	
Foreign 2	1.31		0.064	
Government			0.34	
Age of Firm	0.01		-0.006	
Quality Certificate	0.21		-0.04	
New Technology	-0.36	*		*
Email	0.96	**	0.066	**
Website	-0.58		-0.214	
Capacity Utilization	-0			
Age of Exporting	-0.04	**	0.018	**
Consistent Government Regulations			-0.091	
Union Percent	0			
External Auditor	-0.01		0.129	
Obstacles to Business (Strength)				
Telephone	0.15	**	0.029	**
Electricity	0.11	**	0.023	**
Transport	-0.03		0.012	
Land	0.12	**	0.08	**
Tax Rates	-0.08		-0.018	
Tax Administration	0.14	**	0.089	**
Customs	0.05		0.156	
Labor Regulations	0.14	**	0.011	**
Education/skills of workers	-0.08		0.056	
Licenses, Permits	0.24	***	0.052	***
Access to Finance	0.04		0.025	
Political Instability	**	0.069	**	0.027
Crime		0.089		0.512
Informal Sector	0.1	*	0.096	*
N	319		493	
R2 (Adjusted for degrees of freedom)	0.28		0.265	

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Table 2.4 Continued

Country	Turkey - 2005		45 Countries including Non-MENA	
Capitol City	0.244	***	0.121	**
Multi-plant	-0.004		0.424	***
Size	-0.084		0.054	***
Foreign 1	-0.371	*	-0.082	**
Foreign 2	-0.789	*	-0.16	**
Government	-0.028		-0.361	**
Age of Firm	-0.003		0	
Quality Certificate	-0.052		-0.019	
New Technology	-0.145	**	-0.097	***
Email	0.2	*	0.027	
Website	-0.031		0.026	
Capacity Utilization	-0.002		-0.001	**
Age of Exporting	0.004			
Consistent Government Regulations	-0.048	**	-0.018	***
Union Percent	0.001		-0.001	***
External Auditor	0.141	*	0.013	
Obstacles to Business (Strength)				
Telephone	0.003		0.222	***
Electricity	-0.037		-0.014	**
Transport	0.022		0.091	***
Land	-0.009		0.136	***
Tax Rates	0.12	**	0.003	
Tax Administration	0.031		0.123	***
Customs	0.061	**	0.16	***
Labor Regulations	-0.045		0.005	
Education/skills of workers	0.034		0.025	**
Licenses, Permits	0.032		0.035	**
Access to Finance	0.017		-0.183	**
Political Instability		0.013	**	
Crime	***	0.059	***	
Informal Sector	0.19	***	-0.013	
N	1139		408,297	
R2 (Adjusted for degrees of freedom)	0.47		0.362	

*Note: *, ** and *** indicate that the regression coefficients are statically significant at the 10, 5 and 1 percent levels, respectively.*

levels of the various controls and in the bottom part of the table are those for the various aforementioned obstacles to doing business. In both parts of the table one can see some heterogeneity in the direction of the effects from one country to another, but also some general patterns. For example, in the top half of the table, location in the capital city tends to be more positively related to CORRUPT and both size and age of firm and government ownership are negatively related to CORRUPT. Firms with external auditors, however, are likely to have significantly higher CORRUPT scores in Egypt, Jordan, Morocco and Turkey but lower ones in Algeria. Of particular importance may be the fact that firm perceptions concerning the consistency of government regulations are significantly negatively associated with CORRUPT in most of the countries where this question was asked (Algeria, Jordan, Syria (2009) and Turkey). This could be interpreted to reflect that corruption tends to be more serious in environments where firms are led to believe that the regulations are not consistent across time and areas of the economy, perhaps prompting a firm to bribe officials to gain greater assurance about its own treatment and the future stability of such treatment.

More important, however, are the parameter estimates for the different obstacles to doing business in the bottom part of the table. Most of these relate to specific types of regulations or access to public sector supplied services. With the minor exception of access to transport (which has a coefficient -0.121 which is significant at the 10% level in Jordan, there are no cases of the seriousness of these obstacles being negatively related to CORRUPT and at least one country for which the association is positive and significant for each of the other obstacles. Not surprisingly, the largest number of MENA countries (seven) with significant positive associations with CORRUPT is for tax administration. But, the obstacles for political instability, crime and the informal sector have positive and significant parameter values for five MENA countries while those for labor regulations and licenses and permits are positive and significant for three countries. The only other obstacle without a positive and significant relation to CORRUPT in at least one country is access to an educated and skilled workforce (which is hardly a service directly supplied by government).

While we can certainly not claim that these relationships demonstrate causality from these other obstacles to CORRUPT, it would generally seem more plausible that the direction of influence is more from them to CORRUPT rather than the other way around. In any case, it is those firms reporting greater problems with tax

administration, political instability, crime, "unfair" competition from the informal sector, labor regulations and licenses and permits that subjectively rate corruption to be more serious than those for whom these obstacles are less severe. While the coefficient for crime on CORRUPT tends to be larger than those for the other obstacles (especially in Morocco, Oman and Turkey), one should probably not make too much of this since for this obstacle reverse causality from CORRUPT to crime may be quite plausible.

In any case, the positive and significant relationships revealed in the obstacles portion of Table 2.4 may well serve as additional signals as to areas on which the individual MENA countries might do well to focus in their anti-corruption activities. For example, despite the previously stated qualification for the magnitude of the coefficient of crime on CORRUPT, attempts to identify further the reasons lying behind this relation deserve serious scrutiny in every country where this relationship could be estimated. Similarly, the results of the relation between tax administration and CORRUPT would seem to suggest that all countries included in the table except Turkey might do well to investigate corruption in tax administration. The results also suggest that all countries except Oman and Turkey could do well to do the same with policies and other changes that might influence perceptions of political instability. Similarly, all countries except Jordan and Morocco could benefit from carefully investigating the various kinds of regulations giving rise to informality and making firms which do abide by the regulations feel that competition with firms in the informal sector represents a serious obstacle to their business. The activities in enforcing labor regulations and in granting licenses and permits for various activities would seem to deserve priority attention in Egypt, Morocco and Syria (though note that in the 2009 Enterprise Survey this association has seemingly disappeared). Access to electricity would seem associated with corruption in Jordan, Lebanon and Syria and also access to telephone lines in Oman and again until recently in Syria. The findings for access to land obstacle would seem to indicate that the process of gaining access to land could be a source of corruption only in Syria.

The above analysis is based on those rather explicit forms or manifestations of corruption between identifiable agents and their clients. But beyond this, there is another category of corruption that is especially hard to identify but can be measured at the country level in terms of balance of payments. Global Financial Integrity (a program of a US-based NGO, the Center for International Policy) has been

measuring illicit financial flows worldwide since 2000 based on data and methods first developed by The International Monetary Fund and The World Bank. They use two different methods to construct measures of these illicit financial flows. The first method (labeled GER for Gross Excluding Reversals has been in use for some time and derives from the over-invoicing of imports, and under-invoicing of exports, a common method of sending capital out of developing countries illegally. The second method, based on the change in external debt (CED), net FDI inflows, the current account balance (CAB) and the change in international reserves (ΔR), is measured by: (CED +net FDI) – (CAB + ΔR). The terms inside the first parentheses represent the country's source of funds during a specific period and those inside the second parentheses represent the use of funds. The two sets of computations can be carried out for each country over time and compared with each other as well as each of these across countries. When the recorded uses of funds outweigh the sources of funds from the country's international accounts, it implies illicit outflows of funds. These outflows presumably reflect illegal transfers and other unrecorded transactions.

Actually, for MENA countries, the computations of Global Financial Integrity reported in Kar and Freitas (2011) show that, while the first measure (GER) proves to be a major source of illicit capital flows for China and other developing countries of Asia and Africa, it is actually not very important in MENA, constituting no more than 4% of the total of the two measures for this region. However, the CED–based calculations revealed this source of capital outflows to be unusually large (those accumulated over the 2000-2009 period are valued at US $1.33 trillion) and growing over time. Despite a sharp decline in the level of these outflows in MENA during the year 2009 due to the financial crisis, MENA's share in the world total in 2009 was 18.6%, a share that was higher than all regions except Asia. The growth of the illicit financial outflows by this method in real terms over the period 2000-2009 for the world as a whole was 10.2% whereas for MENA it was 19.6%, only slightly lower than that of Africa. It was noted that most of these illicit capital outflows in MENA were in the oil exporting countries, indeed with Saudi Arabia, UAE, Kuwait and Qatar being ranked the 4th, 6th ,7th and 12th largest in the world in terms of the accumulated flows over the period 2000-2008. While these flows reflect unrecorded transactions that cannot easily be tied to certain types of agents, as Kar and Freitas noted, it seems due to the incomplete accounting of transactions between oil producers and host country governments.

2. Model of Principal and Agent

Now that there is at least some, albeit admittedly crude, evidence on at least some of the various determinants or types of corruption, we turn to identifying possible ways of dealing with them. As has been noted by many analysts in the past, one can obtain at least an intuitive understanding of the essential features of the forces giving rise to corruption as well as potentially useful insights into how to deal with it from the perspective of a simple principal-agent analysis. The following simple account illustrates this.

The principal (the president, a governor or minister) hires an agent to collect taxes, provide *client firms* with licenses to operate, construct, buy land or imported machinery or raw materials and provide *client households* with access to electricity, jobs, health facilities, food subsidies or schools. Both agents and clients are assumed to make rational choices as to whether to be honest or corrupt based on the expected benefits and costs of each alternative. The agent's reward for being honest and avoiding the temptation to be corrupt is the utility obtained from his base salary (S) plus that obtained from the moral satisfaction of (or reputation for) being an honest person (M), i.e., U (S, M). On the other hand, the agent's benefit of being corrupt depends on the size of the bribe B, the probability of being caught accepting the bribe (p), the fine (in monetary or utility terms) imposed if caught (F), and the loss of M, i.e., U(S+B (1-pF)). In turn, the size of the bribe B may depend on the extent of the benefit that the client might derive from the exchange. Thus, if markets were highly competitive and hence the benefit that the client firm might obtain from an additional license to produce, or that a client household might obtain from access to a special health facility were very small, B would presumably be small as well. The overall benefit to the corrupt agent would be U(S+B) if not caught receiving a bribe and U(S+B –F) if caught. The rational agent will choose to be honest only if U(S,M) >U(S+B) (1-p) F. Clearly, the higher is S and M for given p and F, the more likely the agent will be honest. So too, the agent will be more likely to be honest, the lower the bribe (B) and the higher the probability of being caught taking a bribe (p).

Knowing this, and assuming that the principal was interested in limiting corruption in government, the principal may want to choose among several options according to the benefits and costs of each. These options might well include: (1) offer the agent a high S, (2) offer moral training so as to raise U(M), (3) increase his monitoring of the agent to increase the probability of detection of a corrupt

agent (p), and (4) raise the fine F, or (5) any combination of (1)-(4). The particular action (if any) chosen by the principal would presumably depend on the costs to the principal as well as the benefits anticipated from each of these actions in terms of both his own distaste for corruption and any threats to his continued term as principal that might arise from adverse sentiment of the public with the appearance of corruption. It is quite possible that some of the constraint-relaxing benefits that his client might extract from the corrupt agent could be welfare-increasing for the public. It is also quite possible that each of the aforementioned alternative actions that the principal might take (higher S, training for M, etc.) might be subject to diminishing returns. If so, a combination of such actions might be optimal, rather than any single most cost-effective method.

As experience in MENA has shown, principals are not necessarily free from corruption, and indeed the magnitude of the corruption from which they benefitted has constituted one of the several major motives for the revolutions that have comprised the "Arab Spring." In any such case, the principal could be thought of as an agent with monopoly power, so that the same framework could be applied to the case of a principal extracting corruption payments directly from the clients.

The more ambiguous the rules that the principal asks the agent to administer and enforce and hence the more discretion that is given to the agent, the more likely the agent will be able to obtain a larger bribe and avoid being caught violating the rules. Ambiguity in the rules, therefore, will increase the incentive for the agent to be corrupt. By the same token, the agent, either independently or in collusion with the principal, may try to design or amend the rules in such a way as to make them more ambiguous and serve as a magnet for rent-seeking behavior on the part of clients. The above four examples of actions that might be taken to reduce corruption could be supplemented by a variety of complementary activities. For example, Lambsdorff and Nell (2005) advocates that the bribe givers are also penalized (indeed more severely than the bribe takers if the bribe is rewarded with a favor) and further that some agents be induced to fail to deliver on the expectations of a benefit in return for their bribe, both actions intended to discourage clients from approaching agents for favors.[3]

Political and other institutions can also play an important role in determining the particular way in which principals, agents and their clients interact. For example, principals may be more likely to exercise greater monitoring over their agents when they are being encouraged to do so by international agencies or for-

eign donors upon which they may depend. They also may be more likely to do so in democratic contexts in which incumbent corruption-ridden regimes may be voted out when citizens feel adversely affected by corruption. Likewise, it may be easier to detect corruption in countries characterized by freedom of the press and other media. So too, honest agents and clients might be more likely to "blow the whistle" on their corrupt counterparts the more that they feel protected by whistle blower protection measures and honest well-functioning and independent courts.

Given the obvious plausibility of several of the aforementioned policy actions that might be taken to limit corruption, for several of these possible options there has emerged a considerable literature on the experience to date. In Section III, we take up a number of the proposed actions, one at a time, drawing primarily on empirical analyses and especially recent experimental evidence.

3. Methods of Fighting Corruption and Relevant Evidence

From the insights of the principal-agent model and related literature on corruption, in this section we consider ten different common proposals for fighting corruption. Several of them may be considered naïve and there is no claim that the list is exhaustive. The ten anti-corruption actions are:

1. limiting the size of the public sector and privatization,
2. stimulating competition and openness,
3. decentralizing the government,
4. simplifying regulations, limiting variations over time and space, and lessening the room for discretion and ambiguity in program rules and increasing transparency and information,
5. raising the salaries (both present and future) of the agents (bureaucrats),
6. increasing the extent and adequacy of monitoring agents and clients,
7. firing and replacing the endemically corrupt agents,
8. establishing an anti-corruption agency,
9. allowing free access to media and creating an effective and free press, and
10. making greater use of international standards.

In several cases, various complementary measures are identified that could make the particular action under consideration more likely to succeed. As a result, in effect, the list of policy actions goes beyond the ten mentioned above. For each of the ten proposed actions, some relevant evidence is cited.

3.1 Limit the Size of the Public Sector and Privatize

Since much of the corruption that households and business firms are concerned with is that involving government, a common view of businessmen and the general public is that corruption increases with the size of the public sector. The larger the public sector, the more bureaucracy is likely to invade the private space of households and business firms and the more permits and regulations that are likely to be required. This view is buttressed by the idea that services provided by the government are less likely to be priced by the forces of supply and demand and hence when priced too low, they may have to be rationed. Clients with close connections to either the principal or agents may like this. To maximize the rents and bribes that they may be able to collect, agents may deliberately distort rules and regulations.

This rationale leads to policy proposals that corruption can be and should be reduced by reducing the size of the government sector. This would seem especially relevant in MENA countries where governments often play a larger role in the economy than in other countries at their respective income levels. Methods of accomplishing this might include reducing the share of government expenditures in GDP (LaPalombara 1994), reducing the share of state-owned enterprises in both investment and non-agricultural GDP (Elliott 1997), privatization, or more generally minimizing the scope for "grabbing hand" in the economy (Shleifer and Vishny 2002). Nevertheless, as the experience with massive and very rapid privatization in transition countries showed, the process was often characterized by large scale corruption. The MENA region has had the experience of a number of substantial privatizations. It might be useful to search for evidence of diminished or increased corruption resulting from privatizations in individual countries.

3.2 Increase Competition and Openness

Closely related to the rationale for privatization and reducing the size of the public sector is that of decreasing the incentives for rent-seeking behavior (Krueger 1974).. Means of accomplishing this would include greatly reducing licensing, non-tariff barriers and the incentives to create monopoly power (Klitgaard 1988) and more generally opening up each product market to competition by deregulating product markets and liberalizing trade (Ades and di Tella 1997/1999; Gerring and Thacker 2005), and committing to international trade liberalization agencies like the WTO

and IMF which also provide enforcement (Sandhholtz and Gray 2003) with respect to each of several dimensions of openness to trade (Sachs and Warner 2001).

3.3 Decentralize Government

Instead of the excessive size or competition-reducing character of government, another common complaint in developing countries in general and MENA countries in particular is the high degree of government centralization, with all key decisions being made by centralized ministries or even higher level decision makers. Since these central decision makers are far from the problems of households and businesses in different parts of the country, decentralization is seen as a possible way of aligning incentives of government with the needs and capabilities of its citizens, thereby limiting the need for getting around the misaligned incentive system through corruption and bribes. This would suggest that, in small countries or in large countries with more decentralized government, citizens may be in a better position to monitor their governments and thereby control corruption than those in large countries with centralized government administrations.[4]

3.4 Simplify Regulations and Lessen Discretion and Ambiguity in Program Rules and Increase Transparency and Information

Still another popular fix for corruption is to limit the complexity, quantity, time and cost of regulations. Some at least crude indications of the link between regulations and corruption for MENA countries was presented in Section I. Corruption was seen to be related to those obstacles to business having to do with tax regulations, labor regulations and product and process regulations in the form of permits and licenses. It is both the number or regulations and their complexity and ambiguity that matter. The more steps involved, the more costly they are in time for both clients and agents and the more willing firms are to pay "speed money" to speed up the processing.

Naturally, regulations can provide benefits such as protection from a variety of dangers (to health, accident and so on) but Broadman and Recanatini (1999) and Djankov et al. (2002) have provided evidence suggesting that rent-seeking effects (corruption, creation of barriers to competition) seem to vastly outweigh the

benefits to safety, health and other conditions. On the other hand, deregulation of safety, building codes, financial regulations and so on has often resulted in calamities. So, what to do? One useful approach seems to be eliminating ambiguity and the scope for discretion by the potentially corrupt agent, such as by unifying rates on taxes and customs duties and eliminating vagueness in the rules while not eliminating them.[5] Another complementary approach is to raise transparency regarding the existing rates and rules, not only about taxes and tariffs but also about government decisions and programs. In situations where information about service availability or the means of gaining access to public services is limited, such services can more easily be diverted from the poor (their intended users) to the elites with better informational access. Hence, in such situations lack of transparency about regulations and programs can give rise not only to corruption but also to greater inequality. Publicizing the programs and regulations in a simple way through open village meetings, local newspapers, mailed and emailed announcements can help mitigate the capture of such programs and regulations by the rich, including public sector officials.[6]

Another demonstration of the relevance and importance of information availability for controlling corruption is provided by Yang (2005). In this case, information in the form of pre-shipment evaluations of imports (PSI) was provided by a private firm to each of 19 different countries at some time between 1980 and 2000. The information supplied by the private firm was the appropriate trade classification and tariff code number applied for each shipment of imports in the country of origin (i.e., the exporting country). PSI programs do not replace local customs officials in the importing country, but the availability of this information was shown to limit the extent to which an individual customs official would depart from that classification and associated tariff rate supplied by the PSI, and would solicit bribes from the clients. The cross-country panel results in the study showed that, on average, tariff revenues increased by somewhere between 15 and 30% in the first five years after the introduction of the PSI programs and that the revenue gains were 2-3 times as large as the costs.[7]

3.5 Raise the Salaries (both present and future) of the Bureaucrats

As noted in Section 2, many economists and administrators have derived from the principal-agent model the policy prescription that, when the salaries of the agents

are low, e.g., near subsistence, and hence bureaucrats may be virtually forced to accept bribes to survive, agent salaries should be increased. Empirical evidence on this, however, is quite mixed. Van Rijckeghem and Weder (2001) made use of data on the wage rates in government relative to those in manufacturing from a cross section of 31 low income countries to show that countries with relatively higher government salaries tended to have lower corruption (measured by the ICRG's corruption index) but that the effect was rather small. While the authors attributed this to the higher opportunity cost of being detected as corrupt when salaries are high relative to when they are low, they admitted that alternatively this could be due to the perception of fairness as might well be the case when the increase in wage rates is viewed as correcting a previous inequity with respect to the pay of others. The opportunity cost explanation was also confirmed in a laboratory setting by Abbink (2004). On the other hand, Grindle (1997) reported the results of a study across some 29 organizations and countries in which it was shown that, by itself, higher wages did not improve performance unless a corruption-free culture and leadership was first established through training and leadership in reducing corruption (Bridi, 2010).

Barr et al (2004) applied the salary-raising experiment to a different setting, an experimental one involving both health workers who had an opportunity to embezzle some funds and monitors (either elected or appointed) whose task was to prevent them from doing so in Ethiopia. They found (1) that health workers with higher salaries embezzled less, but once again only slightly less and, (2) that monitors facing elections were more diligent in monitoring than appointed ones. Abbink and Ellman (2004) added some wrinkles to the analysis, showing that, if an intermediary is requested by the donor to help in getting the resources to the poor in the community, the benefits of the monitor being elected tended to disappear because of collusion between the intermediary and community elite.[8]

Since the threat of future fines and loss of salary could play an even more important role in the decision of agents to be honest or corrupt, the prospect of higher future salaries of bureaucrats could be even more important than the level of current ones. Mayors of cities often have higher salaries than others in government and average citizens. As a result, Ferraz and Finan (2011) argued that when audits were conducted to detect possible misuse of funds by the mayors, those mayors with the possibility to remain in power at least one more term would have greater incentive to avoid misuse of funds than mayors without that possibility. To test this

hypothesis, the authors made use of data from such audits to compare the extent of missing funds between those Brazilian cities with first term mayors who were eligible for an additional term and those where they were already in their last terms. The finding was that there were 27% less misappropriated funds in those cities where the mayors could run for an additional term. Further, they showed that these effects were greater in those communities where information access was weakest and judicial punishment for embezzled funds was lower. Hence, these results suggest electoral rules could be particularly important when other conditions for dealing with corruption are especially weak and in those MENA and other countries moving toward democracy at local and national levels.

A quite common form of dereliction of duty, and perhaps corruption, is absenteeism from work without good reason. This is a particularly serious problem in India. Duflo et al (2012) report the results of a randomized experiment in which teacher's pay was changed to reward presence in the classroom in randomly selected subset of sample schools. Apparently, monitoring was pretty good as it was, so that, even without extra monitoring tools, teachers with the incentivized pay schedules had average absence rates only half those of the non-incentivized teachers (which were 42%). Moreover, when more intensive monitoring (with photograph verification) was added to the higher pay treatment, there was no additional increase in teacher attendance. Perhaps even more importantly, the authors also showed that student test scores increased over time in those schools with the incentivized pay schemes.

Another issue in the design of incentive pay schemes to reduce corruption or increase performance is whether the incentives should be on a group basis or an individual basis. One can easily think of reasons (such as peer pressure) which might favor group-based incentives but on the other hand the group system could also lead to greater free-riding and hence lower effectiveness. Muralidharan and Sundaramian (2009) compared the effectiveness of these two types of pay incentives in improving student test scores in government-run rural primary schools in India. They found statistically significant positive effects of approximately equal magnitude for the two incentive types in the first year of operation but by the second year the group incentive seemed to be less effective in raising test performance than the individual one.

Naturally, in evaluating the effects of wage incentives for teachers designed to improve student performance, e.g., student test scores, attention should be given

to the extent to which teacher and student efforts are merely diverted from another dimension of performance to test scores via "teaching to the test." Indeed, Glewwe et al. (2010) reported the outcome of a study showing that student performance increased as a result of the incentives only on those specific measures on which the incentive pay program was concentrated.

3.6 Increase Monitoring to Detect Corruption

As indicated in the previous section, higher wages to agents are unlikely to reduce corruption very substantially without effective monitoring and enforcement. Olken (2007) reported the outcome of an ingenious way of finding out how best to do this in the context of over-invoicing of reimbursable costs on Indonesian village road projects. Villages were eligible to propose local road projects for funding and when their projects were selected the projects were assigned to village teams which bought the materials, hired the labor and other inputs to complete the projects. The teams then reported costs to the funding agency for reimbursement. These reports with receipts were subject to a randomized auditing procedure, which in principle could result in someone being indicted for overbilling. Whereas in the baseline only 4% of the executed projects were audited, after treatment in one group of villages all projects were audited. Corruption, measured as the gap between the expenditures reported for each project and the estimates of an independent engineer in the treated group of villages was reduced on average by 8% (or by one third of the average gap of 24% of total cost in untreated villages). The author also reported the outcome of some alternative treatments. In one treatment in which the local citizens were empowered to do the monitoring instead of the central auditor, this had the effect of reducing the more easily observed over-invoicing of labor costs, but these benefits were small relative to the total costs. In another treatment, anonymous comment forms were distributed to the local citizenry which allowed the local citizens to express their concerns without fear of reprisal from the powerful elites. In this case, two different means were used for distributing the forms to the citizens, namely, neighborhood leaders and school children. The largest reduction in over-invoicing was obtained when the forms were distributed by the school children because when distributed by the leaders, the forms were distributed primarily to those closely related to the elite.

In another study making use of the variation in misuse of funds across Brazilian

municipalities Ferraz and Finan (2008) showed that conditional on the number of fund use violations, those mayors whose cities were audited prior to an election were less likely to be reelected than those audited after the election. As Olken and Pande (2011) noted, this demonstrates an important complementarity among monitoring activities, information availability and electoral accountability. The effectiveness of monitoring can be increased when information about the outcome of such monitoring is made available prior to election.

Since monitoring is costly, an important practical issue is the choice of what to monitor. Shleifer and Vishny (1993) develop a very simple model for helping to answer that question. Their analysis focuses on the incentives of the agents offering a particular permit and those of their customers and the role of competition among both agents and customers. Competition among agents is likely to increase the ability of agents to price discriminate so as to maximize their revenues (and perhaps be able to bribe the top tier of government for the job). Competition among the customers for the permits is also important. The keener the competition becomes, the more it will push up the demand for permits and the bribe price. But whether or not this happens depends on the payment (if any) that the government gets for the issuance of the permit by the corrupt agent. If he can avoid having to pay anything to the government for selling the permit to his customer, the profit maximizing interests of the corrupt agent and the customer are aligned (but at the expense of the government), since the customer can get the permit at a price below what he would otherwise have to pay had the agent paid the stipulated price to the government. Otherwise, the corrupt agent will charge the customer a price above that which would maximize the agent's own profits but thereby introducing a built-in conflict between the agent and his customer. The absence of such a conflict would mean that it would be in neither the agent's nor the customer's interest to turn the other to the authorities. The stronger the competition for permits, the more this corrupt system would continue to spread. As a result, priority should be given to monitoring the payment of the permit fee of the agents to the government, rather than their illegal receipt of bribes.

An equally important issue in the case of monitoring is the way in which the permit-granting agents are organized. Typically many different permits are required to start a business, e.g. a building permit, a health permit, a labor permit, permits to obtain electricity and water, an investment permit and property rights permit of some sort. Since the services provided from all these permits are complementary,

the pricing of each exerts external effects on the value of the other. Again under endogenous bribe or fee-setting, Shleifer and Vishny (1993) demonstrates that, if this were done independently by each agent, the bribe prices might well be set so high as to make the activities economically infeasible. On the other hand if they were provided in a single one-stop shop, the prices of the different permits would be lower and coordinated in such a way that social welfare (agents plus customers) would be maximized. Further, if competition among the providers of each different service/permit is fostered (as in a federalist system), this may minimize the bribes but not the fees for the government as long as these payments are properly monitored.

3.7 Rotate, Fire and Replace the Endemically Corrupt Agents

From the principal-agent problem and the actions identified above, taking away the salary and imposing a steep fine on the corrupt agent would be another and rather straight-forward strategy for lowering the incidence of corruption. However, this may not be appropriate or feasible under weak monitoring and enforcement. In particular, the principal may have little evidence of corruption on the part of an individual agent, just overall indications of leakage of funds and anecdotes about corruption. So what can be done under such circumstances?

Abbink (2004) investigated in his computer laboratory an action that had been introduced by the German government a few years earlier, namely, the regular rotation of staff in corruption-prone activities. He did this by investigating the outcome of dictator-type sequential transfer games between individual agents and clients over a sequence of 30 sequential plays of the game. The key feature was that in one experimental group each pair played each sequential game with the same partner whereas in the other group the pairs were rotated at each stage. When the pairs were rotated, the average bribe was reduced by almost 50% relative to that when the pairs remained the same throughout the plays. Moreover, the likelihood of a bribe was reduced by about two-thirds.

In practice, however, staff rotation alone may be less productive. For example, if nothing is done except for the agents' being replaced by similar ones and then they once again repeat their interactions, the same behavior may arise with the new agents as long as the clients are still interested in getting favors from the agents. A common response to this situation is to supplement staff rotation with providing

"moral training" for the new agents. However, Lambsdorff (2007, 55-56) cites an account of this supplementation being put into practice in Tanzania: it didn't work. All that happened was that the clients made use of those same dismissed agents they had learned to trust; in this case as middlemen between the new agents and the clients, but with the same corruption-induced distortions on resource allocation.

Sometimes the collective firing of existing corrupt agents has been accompanied by their replacement by a very different set of agents, e.g., with a new set of experienced agents from another country with no links whatsoever to existing clients. The new hires may have worked with NGOs or other organizations outside the government. Such an approach was somewhat successful with respect to customs agents in Indonesia. Yet, Bridi (2010) reported that since employing outsiders is very expensive and eventually the government needs to reinstate a national staff the benefits are unlikely to be lasting. This was true of Mozambique in part because there was little transfer of knowledge from the foreign staff to the nationals at the time of returning the operation to government officials.[9]

3.8 Establish a High Profile Anti-corruption Agency

Several countries (e.g., Hong Kong, Singapore and Botswana) have received attention for having introduced—with considerable fanfare—high-level anti-corruption agencies that have been deemed very successful (de Speville 1995; Doig and Riley 1998; Quah 1989/2000).[10] The creation of these agencies has been said to send a message to both agents and clients in the home country as well as abroad, the principals' (renewed) commitment to fighting corruption. Huther and Shah (2000), however, suggested that these agencies work best in countries where they are needed the least, i.e. in countries with relatively low corruption and other strong governance institutions. Moreover, Pope (2000) showed that in other countries with greater corruption and poor governance, the creation of such agencies has been much less successful. One way in which they fail is by having incomplete support from various parts of government and the private sector. When this is the case, those benefitting from corruption can usually find some basis for discrediting the new agency and hence setting back its mission, perhaps forever.

In an interesting attempt to compare the effectiveness of high level anti-corruption agencies with other anti-corruption strategies such as new laws and signing onto international conventions in the transition countries of Central and Eastern

Europe, Rousso and Steves (2006) showed that anti-corruption agencies were on average perhaps slightly more effective, though not in a statistically significant way because of the limited number of observations and the time period under study.[11] In the their conclusion, Rousso and Steves (2006) draws the following inferences from the experience with Anti- Corruption Agencies: (1) the effects of such actions take time to become effective, (2) they will not be effective if they are not sustained, (3) they are more likely to be successful the more well-coordinated they are within the country and the more they involve NGOs.

3.9 Grant Freedom of the Press and Media Access

Another implication easily derivable from the principal-agent problem outlined above, and an immediate derivative of Policy 4 above, concerning the importance of simplifying regulations and providing information and transparency for reducing corruption, is the usefulness of granting freedom of the press and of media access. Indeed, one interesting finding from the Rousso and Steves (2009) study mentioned in the previous paragraph was that the only variable with a statistically significant negative effect on at least one corruption measure was an index of Media Freedom (from Freedom House). Their analysis treated media freedom as a control variable having only a direct effect on the change in corruption, whereas one might also think that there could be an indirect effect by making some of the other actions more transparent to the public at large.

More generally, among institutional factors that could be expected to deter corruption which have received empirical support from cross-country empirical analyses, the negative effect of various measures of press freedom on corruption has been found quite consistently (Adsera et al. 2000; Lederman et al. 2001; Sung 2002; Brunetti and Weder 2003; Besley and Prat 2006). Press freedom may act to reduce corruption through several channels. One is by simply exposing corruption; then, once corruption has been detected, a free press can damage the reputations of the corrupt agents, and further it can pressure governments to enforce the penalties on the corrupt agents and reveal the extent of their diligence in trying to detect corruption. Naturally, freedom of press and media access could be expected to diminish the incentive of agents to be corrupt and increase the interest of the principal in dealing with corruption.

Yet, especially since press freedom and media access might be deemed to be

more effective in democratic countries with well-educated populations than in autocratic ones. And since autocratic regimes tend to have more corruption and less educated populations, an important issue is whether the causality in this relation goes from lack of press freedom to corruption or the other way around. Since most of these studies are based only on cross section analysis, most are potentially vulnerable to both omitted variable biases and reverse causality.

In an especially impressive paper, Brunetti and Weder (2003 tried to tackle this problem by using an instrumental variable approach and panel data. They instrumented press freedom in several alternative ways: (1) by a measure of the level of political rights (2) with an index of democracy and (3) by the fraction of the country's population which adhered to the Protestant religion and spoke a European language. The key characteristic of a valid instrument is of course that it has a significant effect on the variable instrumented but no effect on the dependent variable (in this case the average score of the corruption index produced by the ICRG) other than that through the variable instrumented (press freedom). While the authors pointed to a previous study by Ades and DiTella (1999) showing that political rights had no significant effect on corruption, they offered no formal test results to support their claim there was no direct influence in this case. What they did, however, was to conduct a number of sensitivity tests showing the results, even with respect to magnitudes, to be quite robust to the use of different measures of both corruption and press freedom, to the inclusion of alternative control variables, time periods and estimation procedures (OLS, TSLS, Ordered Probit, and panel estimates with and without fixed effects). In particular, they showed that an increase in press freedom from the average score to highest value would increase freedom from corruption from its cross-country mean to about 30% above this level, irrespective of choice of sample, specification, measures and estimation procedure. While their analysis did not include access to cellphone, Facebook, Twitter or other technologies which would seem increasingly important in recent years, they found virtually equal effectiveness in almost every component of the press freedom index they used (the absence of newspaper censorship, the independence of newspapers, independence of book publishers, and independence of broadcasting).

Nevertheless, the interdependency between press freedom and these other institutional measures led Lambsdorff (2007, 46) to suspect that increasing press freedom, by itself at least, would be insufficient to significantly reduce corruption. Of particular relevance here is the quality and independence of the judiciary.[12] It

is not always the case that everything in the press is true and hence inaccuracies, especially about corruption, can be misleading. If libel charges can be filed by individuals and groups which feel that they have been incorrectly blamed for corruption, the press will have an incentive to be truthful. However, if the judiciary is corrupt, inefficient or not independent of the executive and legislative branches of the government officials can easily discredit the press or prevent it from being aggressive in its investigation of corruption and other issues.

3.10 Make Greater Use of International Standards and Monitoring

While monitoring would seem to be one of the most important means of both detecting and reducing corruption, monitoring can be very costly and in many cases very difficult to accomplish even with the best of intentions. Yet, it is important not to lose sight of the fact that international organizations and institutions can also be called into the fight against corruption in any particular country. Such institutions provide useful standards which can enhance transparency in transactions of all kinds, both commercial and governmental. These international agencies or conventions can either monitor directly or, more commonly, train nationals in how to organize anti-corruption activities, identify existing laws and regulations that may allow corruption to flourish and point to other activities and institutional mechanisms that could be used to advantage in the fight against corruption.

In that respect, at the beginning of Section I, we already identified the United Nations Convention Against Corruption (UNCAC) as a major international institution that could be put to good use. By the end of 2011, 158 countries had ratified this convention, but several countries in the MENA region, such as Oman, Saudi Arabia, Sudan and Syria, had not yet done so. This convention includes chapters specifying various means of dealing with corruption, such as those concerning prevention, criminalization and law enforcement, international cooperation, asset recovery, technical assistance and perhaps most importantly monitoring each country's compliance to UNCAC standards. Several regional organizations have been organized to coordinate monitoring efforts in their respective regions, to provide the training needed to assure the validity of the monitoring and to translate the findings of shortcomings into remedial actions. The Arab Governmental Expert Group (AGEG) is the relevant organization for Arab countries, set up by the UNDP's Regional Program on Governance for the Arab Region (UNDP-POGAR). Arab

nationals with experience in these activities were nominated by their governments and appointed to AGEG which has already carried out several region-wide training programs and then subsequently assisted others at the national level to help conduct the self-assessments mandated by UNCAC. These self-assessments are carried out in three stages. First, a country does its own self-assessment, then it is subjected to a desk review by all relevant organizations within the country and eventually as amended and supplemented it goes to a full, formal evaluation by an outside committee of evaluators from two different countries. Jordan and Algeria were the first two MENA countries to go through such reviews.

As Repucci (2009) indicated, the assessments in these countries demonstrated rather clearly the importance of broad participation and coordination among as many relevant public agencies and NGOs as possible. This study also identified the learning benefits derived from these first self-assessment exercises for subsequent exercises in Kuwait, Iraq, Morocco and Yemen. Several of them were especially innovative, Kuwait's being the first in the world to have formally involved NGOs, and Morocco's for the breadth of ministries and other agencies engaged in its self-evaluation process. Early experience in the MENA region and elsewhere is generally said to have demonstrated how important it is to involve NGOs and the private sector, especially in those countries where governments are not strongly committed to anti-corruption activities and the goals of UNCAC. In any case, even if initially less than perfect, these self-evaluations should be of great use in identifying problem areas, encouraging greater monitoring of corruption and stronger coordination among government agencies in assessing penalties, coordinating actions and strengthening enforcement against corruption. Comparisons over time should also yield lessons on actions that work and actions that don't.

But there are many other international agencies and conventions that could also be important. For example, the aforementioned study on corruption changes in 26 transition countries by Rousso and Steves (2006) created an index of participation in such conventions based on seven different conventions involving different aspects of the fight against corruption such as civil and criminal law, anti-bribery , anti-corruption , money laundering and so on. Recall also that their regressions showed at least some indication that countries whose indexes of participation in these conventions increased tended to have larger declines in their corruption measures than did other transition countries.

One important international organization that can help or even force countries to

improve monitoring of corruption, introduce a wide variety of policies designed to lower the incentives for corruption and to undertake new anti-corruption measures is the International Monetary Fund (IMF). Wolf and Gurgen (2002), for example, pointed to a number of actions with respect to corruption that the IMF had pushed on borrowing countries in their stand-by agreements with the IMF as well as in other programs. This was subsequent to the IMF adopting a new set of guidelines on governance issues in 1997 which also called for technical assistance from the World Bank on how best to deal with corruption. They provided many examples of specific IMF programs in specific countries that pushed anti-corruption actions like those identified in the preceding subsections.

In fishing, an industry of some importance to a number of MENA countries, there are several international standards which MENA countries might do well to sign onto, especially given how poor the information on various aspects of fishing is and how much illegal fishing seems to take place. Information on the management of fisheries, number of fishing boats with licenses, government expenditures on fisheries, fisheries agreements with other countries,[13] and transparency in policy making are all very weak. Though seriously understudied in most regions where it has been investigated such as in Asia and Africa (Standing 2011), revenues have been shown to be seriously underreported and the embezzlement of these revenues and license fees to be quite serious (Tsamenyi and Hanich 2009; Standing 2011). A study commissioned by the British aid agency (DFID), MRAG (2005) documented the extent to which the lack of transparency in fishing had resulted in illegal fishing. But there are international conventions that could help and others that could be developed. For example the FAO has developed an international agreement on port state measures to prevent, deter and eliminate illegal fishing as well as the Global Record, an ambitious protocol in which every fishing vessel in the world would be assigned an ID number, and information on vessel characteristics, ports used, inspections and catches would be recorded and made publicly available.

Of all the industries in the world, the one which has been associated most strongly with corruption is the oil industry (e.g., Hsieh and Moretti 2006; Ross 2012). This is attributed to several factors. One is the lack of transparency in relations between the producers of oil and host governments on the one hand (which involve licensing, exploration, development, production, trade and transport through refining and marketing) and the distribution of those revenues among citizens in general, users of oil and the welfare of those living in the areas near the production

sights. This was reflected by the fact that as discussed in Section I above it was the oil exporting countries of MENA that were ranked so high in terms of illicit capital outflows through the CEB method used by Global Financial Integrity reported by Kar and Freitas (2011). Another problem associated with oil exporting countries is excessive economic volatility (Gelb and Associates 1988) which can lead to very serious inefficiencies in resource allocation as well as to alternating cycles of inflation and unemployment. For the latter problem and following the lead of Norway, Sovereign Wealth Funds have become an important institutional mechanism for pulling out revenues during boom times for use during bad times and more importantly by future generations after oil reserves have been used up. Even here, however, inter-country comparisons of sovereign wealth funds have generally shown the operations of those in MENA countries to be much less transparent than those of Norway and others. Given the importance of oil and gas and other natural resource industries in the MENA region, the ability to make use of sector-specific international standards for dealing with corruption and other problems in this sector could be of great use to citizens of MENA countries. Le Billon (2011), among others, has identified a number of such mechanisms, divided into the different kinds of functions served, namely, (1) contract and revenue transparency, (2) certification, and (3) broader governance standards.

With respect to contract and revenue transparency the aforementioned Extractive Industries Transparency Initiative (EITI) is perhaps the most impressive initiative available, though still only in its early stage of development. Participation in EITI is voluntary. To gain compliance status a government must first gain candidate status. Then, on the basis of annual reports submitted, it has two and a half years to achieve compliance status from the EITI Board. To achieve compliance status a government must require firms operating in the industry to publish their payments to governments and the latter must publish what they receive from the companies with which they deal and provide an independent audit to reconcile differences. EITI compliance also requires that civil society should be involved in the design, monitoring and evaluation of the audits. According to EITI's website, at present 13 countries have achieved compliance status and 21 others have achieved candidate status. Only two MENA countries have achieved either of these (Iraq as a candidate and Yemen as a compliant country, although Yemen's compliance status has been suspended because of concerns that the involvement of civil society with respect to the auditing process was inadequate). While EITI participation may be a step in

the right direction as far as disclosure and transparency are concerned, there remain loopholes. The EIYI doesn't require publication of expenditures by firms which could be another way for funds to disappear and to get into corrupt hands, it doesn't require sufficient detail in the accounts that governments and firms must submit and until recently at least its civil society engagement requirement is too vague. There seems to be no evidence that compliance status has yet lowered corruption. But the main problem is that governments and firms have preferred keeping their accounts hidden so as not to tip off competition, and existing EITI members have resisted making the requirements for compliant status more stringent (Le Billon 2011).

Another initiative with promise in this area is the Dodd-Frank Wall Street Reform and Consumer Protect Act turned into law in July 2010 in the United States. Among the financial reforms required by this act is disclosure of payments by issuers of financial instruments in resource extraction industries to the SEC of the U.S. This would include payments made by the firm and by any of its subsidiaries to a foreign government. The SEC, however, has not yet issued its final guidelines and U.S. oil companies have objected that drafts of this treatment would be discriminatory since it would apply only to those firms regulated by the SEC and by their greater stringency of its disclosure requirements relative to those of EITI. However, since a number of other countries with financial markets in which oil and other natural resource firms are involved are currently considering similar developments, the discrimination critique could be weakened over time.

Since eventual success in reducing corruption through any of these international initiatives is likely to hinge on the effectiveness of the involvement of civil society in these audits and processes, however, to accomplish this may require major improvements in a much broader set of governance institutions.

4. Conclusions

In Section 1 we provided various kinds of data measuring the extent of corruption in MENA countries relative to other regions. Two alternative data sets were presented, first, survey-based data reflecting the opinions based on a variety of sources suggesting a number of specific types and sources of corruption, and second, aggregate statistical data calculating illicit financial flows calculated as a residual from the recorded international transactions.

Data from both sources indicates that a couple of decades ago, corruption was less serious in MENA than in most other regions of developing countries. On the other hand, the data also indicated that corruption in MENA has been on the rise and that in some respects MENA seems to stand out for having more corruption than other regions of developing countries, and much higher corruption than the world average in general.

On both dimensions of corruption we have seen much variation across countries. From the survey-based data sources on both firm and household levels and for most types or forms of corruption, countries like Syria, Egypt, Morocco and Tunisia would seem to be countries where corruption is most evident and serious while the oil exporting countries of the GCC would seem to be among the most corruption-free. On the aggregate measure of illicit financial flows, however, the picture is reversed with several GCC countries having some of the largest illicit flows in the world, in some cases despite their small size, with little evidence of such problems in other MENA countries.

To a great extent, these inter-country, cross-corruption type differences are explainable. First, in terms of regulations of international trade, finance, and product markets, the non-oil countries are more heavily regulated than the oil exporting countries. Second, as suggested by the principal agent model of Section 2, even though there are regulations in countries of the GCC, because government salaries and fringe benefits are extremely high, there is little incentive for bureaucrats to be corrupt. This may not be the case in the non-oil countries with large, poorly paid bureaucracies. Third, as indicated in subsection 10 of Section III above, the monopolistic and secretive character of oil operations, the non-transparent relations with host governments (some with royal families in which it may be difficult to distinguish between private and public accounts), and the rather dominant role of oil in the GCC countries makes them especially susceptible to unrecorded transactions and therefore illicit financial outflows.

For identifying corruption within MENA, Section 1 pointed to a variety of types of surveys that can and should be used to further pinpoint where specific types of corruption occur. These surveys can also monitor changes over time as might be relevant in evaluating the effects of various anti-corruption programs and strategies. In Section 3 above we have identified a wide variety of policies and programs that might be taken against corruption, reviewing evidence from different countries around the world of the degree of success that various countries have had

in implementing them. Clearly, local circumstances are very relevant so that any claims that "one size will fit all" with respect to anti-corruption programs should be viewed with great skepticism.

It is our hope and recommendation that the designers and evaluators of anti-corruption efforts will take advantage of the methods noted in the cases referred to in the studies for measuring specific types and sources of corruption and for evaluating the effectiveness of various alternative programs to reduce it. Indeed, given the growing importance of corruption in MENA, and the extent to which its persistence seems to have been an important trigger for the Arab Spring, existing governments, donors, and research networks like the ERF would do well to initiate anti-corruption programs and related research activities taking advantage of these studies and methods. Many of these are designed to deal with specific types of corruption.

Yet, there are apparently two other activities at the government or international levels that will also be essential for success in dealing with corruption in MENA countries. First, MENA governments should participate largely, and more effectively and openly, in the United Nations Convention Against Corruption (UNCAC) and in Arab Governmental Expert Group (AGEG) activities fostered by the United Nations Development Program. As noted in subsection 10 of Section III, the first of these is a potentially important way of very comprehensively identifying corruption and weaknesses in existing means of detection and reduction. Yet until recently—as of the end of 2011 at least—Oman, Saudi Arabia, Syria, and Sudan had not yet ratified this convention and thereby failed to take advantage of the self-assessment and review mechanisms it afforded. Even among the signatories to UNCAC, not all have made use of the training and related assessment mechanisms of AGEG. In view of the large size of the public sector in most MENA countries and the understandable desires of the private sector for stable policy and regulatory regimes, it will be very important to have the private sector better represented in these activities, perhaps through NGOs.

Second, given the importance of illicit financial outflows in the GCC countries, and the vulnerability of oil revenues to these illicit outflows, further activities to control illicit financial outflows in oil and other natural resource exporting countries in the region would seem warranted. Such activities are especially needed given the apparent desire for secrecy by each government and each oil country. Again, as indicated in subsection 10 of Section 3 above, each resource exporting country

would be advised to sign onto the Extractive Industries Transparency Initiative (EITI) initiated by former British Prime Minister Tony Blair and to go through the steps needed to become compliant with the standards that have been established under that initiative. These include requiring all firms operating in these industries to publish their payments to governments, and governments to provide a full account of what they receive from the firms. Taking advantage of this mechanism and going on to investigate discrepancies could go a long way toward reducing the enormous illicit financial outflows that currently exist in GCC countries. Beyond this, the international community can be useful in forcing all firms wishing to have shares traded in the stock exchanges to publish the sources of their oil and all other payments to host countries. Such efforts would have the additional and very desirable effect of increasing the transparency of budgetary policies, consequently encouraging the use of fiscal rules that could greatly reduce the volatility and procyclicality of government spending in natural resource exporting countries, excessive volatility being a well-known cause of slower growth in the long run.

Notes

1. The author expresses his appreciation for the research assistance of Rose Gauthier and to comments and suggestions from Ragui Assaad, Mine Cinar, Ishac Diwan, Heba Handoussa, Rob Jenson, Daniel Kauffman, and other participants in the Annual Conference of the Economic Research Forum in Cairo, Egypt, March 2012.
2. None of these differences, however, is statistically significant.
3. The reasons for this is their belief that major social cost arises from distortions to competitive resource allocation that would result from the agent delivering on the request of the rent-seeking client and that any agent that reneges after not delivering the favor to the client is already likely to be in danger of retaliation by the client.
4. Empirical evidence in favor of this policy approach has been provided by Root (1999) and Fisman and Gatti (2002), although Knack and Azfar (2003) and Shleifer and Vishny (1993) suggested that when the size of the bribe would be endogenously determined by the individual agents, they would not be likely to take into consideration externalities such as the effect of their bribe setting on the revenues to be captured by other agents.
5. Impressive evidence in support of this approach was provided by Gatti (1999) and Lambsdorff and Cornelius (2000).
6. Reinikka and Svensson (2004/2005) documented the success of an information

campaign in Uganda in the late 1990s which called attention to the rules that were used by the government in allocating funds to individual public schools. Prior to the information campaign none of the relevant decision makers at the local school and village level knew that each local school was entitled to funds from the central Ministry of Education depending strictly on the number of students in the school and given per student. As a result, neither the teachers nor parents (who were paying most of the costs) nor even the school administrators were aware that they were almost invariably not receiving the funds to which they were entitled and which were in fact disbursed by the Ministry. After this was discovered, a public sector tracking survey (PETS) was undertaken to measure the extent to which each school was actually receiving the disbursements to which it was entitled. Rather shockingly, the survey's results showed that less than 13% of the funds allocated actually reached the schools. This angered members of the local parent teacher associations (PTAs), teachers and others. It led to a newspaper campaign carrying reports about the diversion of funds and the subsequent indictments of numerous officials, but above all, about the information on what the rules were. Another PETS study was done after the information campaign, in this case also collecting information about access to newspapers and rules of the grant program and even about the means by which such information became available. The results showed that by then the percent of disbursed funds had risen to more than 80%, with larger increases in the poorer school districts than in the better off ones demonstrating that the information program was both corruption-reducing and equity-increasing. A two-step estimation procedure was used, the first stage for information access (instrumented by distance to a place where newspapers were delivered) and the percentage of disbursed funds actually received by each school in the second stage.

7. Notably, Yang went to some effort to distinguish the PSI treatment effects from other simultaneous changes in tax collection elsewhere in PSI-treated countries which might have reflected the influences of other policy or program changes, but found that none of these factors influenced the results. The evidence showed that PSI both decreased undervaluation of import values and reduced the coefficient of variation of the classification differences. For additional corroborative evidence of the effects of PSI information programs in a more experimental setting see Yang (2006).

8. Other circumstances may affect the effectiveness of wage increases to agents in diminishing corruption. Di Tella and Schargrodsky (2003), e.g., investigate the effects of higher wages on the extent of corruption in the procurement of material supplies by hospitals in Buenos Aires in two different time periods: first, during a time in which there was a big crackdown on paying excessive prices and then again somewhat later. Immediately after the crackdown on such cor-

ruption when monitoring was at its maximum, hospital purchase prices were reduced by 15% but with no difference between the hospitals receiving the higher pay treatments and the untreated ones. On the other hand, somewhat later, when such monitoring was less intense and the price reductions were no longer as large, hospitals treated with the higher wages were associated with a significant reduction in prices compared to the untreated ones, indeed the changes reflecting a wage elasticity of prices paid, of more than - 0.2.

9. As suggested in policy suggestion 3 above, with or without collective firing and replacement, a more productive complement may be to provide greater transparency in all the actions taken. Among such measures would be to require that all the transactions between individual agents and clients be recorded digitally as well as computerizing information on total revenues collected by agents during a particular shift, day or type of client and to make it publicly available. As Bridi (2010) explained, the client will be less inclined to pay bribes not only because of the greater risk of getting caught but also by virtue of seeing that others are paying the full amount of the taxes and that the tax revenues are being channeled into their provision of infrastructure and other public goods desired by the client.

10. Note from Table 1 above that Singapore has, for many years now, been among the least corrupt countries in the world (#5 in the world in the Corruption Perception Index of Transparency International 2011). Hong Kong was # 12 and Botswana #32 in the same index. This placed Singapore and Hong Kong as the top 2 rated countries in Asia and Botswana as the top country in Africa.

11. This was done by quantifying the cross-country relation between anticorruption measures of different types in one period to changes in various bribe intensity measures in a subsequent period.

12. Lambsdorff (2007) cites a study by Voight et al. (2004) indicating that de facto judicial independence may be more important than de jure judicial independence, but suspecting that the lack of a significant relation between de jure judicial independence and corruption could be due to reverse causality, i.e., where corruption is rampant it leads to laws and regulations strengthening the judiciary's hand in dealing with the issue.

13. According to Standing (2011), some of these agreements are with European Union (EU) countries but even in these cases, the EU refuses to make these agreements public, compounding the degree of secrecy in the industry.

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Part 2

On Competition, Both Man-made and Divine

3

Enhancing Competition in a Post-Revolutionary Arab Context: Does the Turkish Experience Provide Any Lessons?

Izak Atiyas [1]

1. Introduction

The purpose of this paper is to explore the possible role of the regulatory environment in enhancing competition in post-revolutionary Arab societies, drawing on the experience of Turkey in the last decade. The pre-revolutionary regimes in these countries are often perceived to entail a distorted form of competition where firms with political connections have the upper hand, and where profitability results not from productivity but from privileged access to scarce resources controlled by the political authority or from politically established barriers to competition. It is well accepted that long-term growth, on the other hand, requires a system where creative destruction can work its way. This requires a policy and regulatory framework that constrains political authority in such a way so as to limit arbitrariness and discrimination in policy toward firms and ensures more equal access to politically controlled resources. The regulatory framework needs also to redirect public authority to address various market failures so as to reduce barriers to entry, and, in particular, to prevent anti-competitive behavior and foreclosure by dominant firms. More generally, transition to a more competitive environment requires institutional measures to ensure that state power is used to maximize citizens' welfare rather than the welfare of state elites and/or their constituencies.

This paper will provide a review of these institutional measures. These measures—or new rules of the game—include remedies such as privatization, delega-

tion of authority (in particular to relatively independent regulatory agencies), a competition law and its enforcement, liberalization, stakeholder participation in governance and monitoring, and open and non-discriminatory procedures for public procurement. The remedies also include forms of public-private participation schemes in order to attract private capital to finance the provision of public services, especially in infrastructure. In this paper, these remedies will be referred to as the competition-enhancing reform package.

Significant variability across different jurisdictions notwithstanding, it would be fair to say that this reform package has gained global acceptance over the last three decades. Several developments have been instrumental in this. One important factor has been technological change, in particular the emergence of the possibility of introducing competition to industries that had until then been organized as state monopolies, for example electricity and telecommunications. The possibility of introducing competition did not mean that anti-competitive behavior no longer posed problems. The need to constrain anti-competitive behavior created a necessity for a new regulatory framework so that new entrants could have a chance of survival and gain market share. Another widespread reason was the desire of many governments to reduce the burden of infrastructure investments on the public budget and attract private investments instead. Although this "public finance" motivation for the reform package has been underlined for emerging economies, the literature suggests that it was an important consideration in the case of developed economies as well. A parallel development has been a tendency to seek contractual forms to shift the provision of various public services from within agencies of central or local governments to the private sector, in the hope that competition would enable the provision of these services more efficiently. International organizations such as the World Bank and the International Monetary Fund expressed dissatisfaction with the performance of public enterprises, and the political mood in some countries reflected a similar disappointment and saw privatization as a solution.

These components of competition/liberalization, private participation and privatization were emphasized to different degrees in different jurisdictions. Hence the overriding concern in the European Union (EU) as a whole has been competition/liberalization, as well as the formation of a single market, and the emphasis on privatization has differed significantly across member states. The privatization component was emphasized in many World Bank and IMF programs in developing and transition countries, partly reflecting the ideological shifts in the post 1980

environment, and partly reflecting the need to generate public revenues to help resolve fiscal and financial crises. It would be fair to say that the reform package and especially its privatization component are being subjected to a more critical assessment now.[2]

An important political dimension of the reform package has been the delegation of substantial regulatory rule-making and enforcement power from ministries and ministerial departments to what have been called independent regulatory authorities (IRAs). Several normative and positive explanations have been advanced for this transfer of power, including the insulation of the regulatory process from short term political influence, deployment of mechanisms of credible commitment to reduce fears of expropriation, ensuring that state intervention is implemented in a non-discriminatory manner and without favoring firms with political connections, and enhancing the state's ability to attract the necessary human capital for complex regulatory tasks. Delegation of rule-making authority to IRAs was also meant to reduce the discretionary powers of the political authority and attain a more rule-based and transparent framework for economic policy.

The paper will use Turkey as the main example from which useful lessons can hopefully be learnt. The country is an interesting example because it has adopted many elements of the reform package in the last two decades or so. Hence one can ask: To what extent have these institutional changes produced the desired results? Have adoption of new laws and establishment of IRAs really created a more competitive environment? Or were these changes merely cosmetic? It is hoped that a critical review of Turkey's experience may provide lessons about the likely outcomes of similar institutional changes elsewhere.

The paper is organized as follows. Section 2 will review the content and institutional set-up of a competition enhancing reform package. Section 3 will present an overview of the Turkish experience. On the basis of that experience as well as suggestions from the literature, Section 4 will discuss some tradeoffs and challenges in pursuing reform. Section 5 will conclude.

2. A Competition Enhancing Reform Package

The adoption of the elements of the competition-enhancing reform package in most developing countries occurred as part of a transition from an economic policy regime where the state played a direct role in allocating resources to one where the

market mechanism was given a more prominent role. From a normative point of view this required a new system of rules, or an overall regulatory framework to ensure that the market mechanism worked properly and that various forms of market failures were addressed.

2.1 The Content

In most countries, at the heart of this new regulatory framework lies competition law which applies across industries a set of rules that outlaws anti-competitive agreements among firms and prevents dominant firms from exercising market power in an abusive manner. The main logic and language of competition law has also been more or less applied to other industries previously organized as public monopolies and which have been liberalized to allow entry by new players and where market structure makes it especially easy for incumbent players who own or control the basic infrastructure facilities (such as transmission and distribution networks, or fixed or mobile telecommunications infrastructure) to foreclose markets to these new players. However, in these so-called network industries, competition law has been seen as insufficient to ensure effective competition and most countries have enacted sector-specific regulations that constrain the behavior of incumbents in an ex-ante manner and that ensure new players non-discriminatory access to network facilities.

In industries where the service in question does not allow meaningful competition among multiple service providers and where it is desired that the private sector play an active role in the provision of the public service in question, mechanisms have been developed to ensure that the concession in question is awarded to those private players who are most fit. Hence the logic of competition has also been extended to public procurement. As stated by one observer "the main principle in public procurement is to facilitate open and non-discriminatory competition with free entry" (Limi 2011, 121). This is probably an over-simplification, since from the government's perspective the procurement process starts with a decision about whether to produce the service in question in-house or whether to engage the private sector in its provision. This is then followed by an ownership decision: should the assets be owned by the government or the private sector, and if by the latter, for how long? Still, it would not be a mistake to state that the logic of a competitive process has become more prominent in the search for desirable mechanisms of

procurement. In particular, designing procedures that are "open and non-discriminatory" has become an important guiding principle for governments.

2.2 The Institutional Setup

Replacing direct and often discretionary state control with new forms of control through rules and procedures corresponds to a major realignment in the structure of the state and in the way state power is deployed. What made this restructuring even more drastic has been the specific institutional form that has accompanied it. In most countries adoption of the reform package has been accompanied by the establishment of IRAs which have been delegated the power to design and implement many of these new rules and procedures. Competition laws are enforced through independent agencies almost everywhere in the world, and IRAs have been established for network industries and other industries where market failures are apparent such as financial markets and banking industries and even other areas where governments interact with the private sector such as public procurement.

The literature has identified a number of reasons behind this delegation of authority:

1. Independence from the political realm is necessary so that regulatory objectives are differentiated from other political objectives. For example, the regulation of prices to contain monopolistic abuse should not be contaminated with other objectives such as fight against inflation (Ugaz 2002). Overall price stability is more effectively attained through other (monetary and fiscal) policies.
2. Efficient regulatory decisions can require a long-term outlook and politicians often have shorter term horizons (Ugaz 2002).
3. An independent body, relative to a ministry directorate, is more effective at providing regulatory credibility and commitment. Both are necessary to reduce the risk of expropriation in general but also specifically to reduce the risk of discrimination in favor of politically connected investors. Delegating the power of regulatory authority to an IRA that is not under the direct control of the political authority may be an effective institutional measure to generate this credibility.
4. Sector specific regulation often requires expert skills that may be difficult to attract within the confines of current personnel regime and pay scales of the public administration. Relatively independent bodies may be established with their own personnel policies.

In what sense are IRAs supposed to be independent? First they are expected

to be independent from politicians. The literature has emphasized a number of formal conditions, discussed below, that characterize political independence, but it is also emphasized these de-jure conditions do not in themselves ensure de-facto independence. Independence also refers to independence of IRAs from the firms that they regulate or other interest groups that have a stake in regulation. The term "capture" is often used to refer to influences by various players that make regulatory activity produce results that are different from those that serve the public interest, whichever way the latter is defined. Estache and Wren-Lewis (2010a) distinguishes between capture of decisions and capture of information, where the former refers to interest groups' direct influence on decision makers and the latter to ability to withhold information and prevent it from being disclosed so as to appropriate information rents. They also distinguish between ex-ante and ex-post capture: ex-ante capture refers to interest groups' efforts to influence laws and regulations whereas ex-post capture occurs within the existing legal framework (e.g. effort to inflate costs to get higher rates).

In reference to formal conditions of political independence the literature emphasizes the following (e.g. Thatcher 2011). First, independence means that the IRA can act without the approval of the ministry and that the ministry cannot overturn a regulation or decision handed over by the IRA. It also means that if the politicians want to change the behavior or the aim of IRAs, they have to do this by enacting laws rather than issuing instructions. Second, regulators cannot be dismissed by ministers at will, except on the basis of wrongdoing or incapacity. Typically regulators are appointed (or, in some jurisdictions, elected) for a fixed term. Whenever regulators are run by boards rather than a single director, there are often recommendations that board members should be appointed in a staggered manner. The third condition emphasized in the literature is financial independence. This usually means that the budget of the authority should not be at the discretion of the government. This condition is often implemented through earmarked taxes or special revenues earmarked to the agency such as license fees or penalties. Of course, even when these conditions are met, politicians may affect regulatory decisions through various means. For example, since in many jurisdictions appointment of regulators is a political process, this may give politicians the opportunity to appoint individuals who are likely to have similar preferences or who are more susceptible to influence.

IRAs are not meant to be completely independent from the political realm; after

all their creation is a political act (often a constituting piece of legislation). The general formulation is that the determination of policy is carried out in the political realm and the task of the IRA is to design, implement and enforce the secondary legislation through which the policy is realized. Independence from the political realm also does not mean that IRAs are not accountable. Again, the literature lists a number of measures to ensure accountability. A classic list is provided by Smith (1997, 1):

- Ensure rigorous transparency—including open decision-making and publication of decisions and the reasons for those decisions
- Provide an appeals process
- Scrutinize the agency's budget, usually by the legislature
- Prohibit conflicts of interest
- Subject the regulator's conduct and efficiency to scrutiny by external auditors or other public watchdogs[3]

These can be taken as the basic measures to ensure the independence and accountability of IRAs. The institutional design of IRAs contains additional variables or dimensions that need to be decided on and how variations along those dimensions are likely to affect IRAs' performance has been a subject of debate. These dimensions will be discussed in the sequel.

3. The Experience of Turkey

Turkey's transition to a market oriented policy regime started in the 1980s. Before that Turkey was pursuing a model of import substitution industrialization with widespread state intervention through direct production and various forms of price controls, subsidies and directed credit. The economic presence of the state notwithstanding, however, the role of the private sector was important. In fact, the objective of state intervention was partly to help develop private industry, and private industry did develop albeit in a highly concentrated, oligopolistic and internationally uncompetitive manner.

Hence when Turkey started to move towards a more market oriented economic policy regime in the 1980s, there was already a relatively developed private sector led by diversified holding companies owned by dynastic families. Most of these holding companies actually developed starting in the 1950s. This followed a move from a single party to a multi-party regime—a decision taken in 1945—and in the election in 1950 the opposition won with a landslide and there was a change in the

government. In any case, although not independent of the state and possibly highly dependent on it for capital accumulation as well as critical inputs, by the 1980s the private sector in Turkey was an important locus of economic and social power. [4]

3.1 From Discretionary Capitalism to Institutional Reform[5]

In the 1980s barriers to international trade and finance were reduced or removed, so were controls on domestic financial markets and more specifically on the banking system. However during the 1980s and 1990s governments in Turkey did not show a deep interest in developing a solid legal and regulatory framework for a market economy.[6] This was especially true for the financial markets. The liberalization of the capital account itself was carried out without the approval of the central bank (and against warnings that liberalizing international finance under conditions of macroeconomic instability was not a good idea). The banking sector expanded rapidly without an effective system that would ensure that excessive risk-taking would be curtailed. This was especially relevant given the availability of arbitrage opportunities provided by borrowing in foreign currency and investing these funds into domestic assets, especially government securities bearing high real interest rates, reflecting some sort of collusion between the banking industry and fiscally profligate governments (Alper and Onis 2004). The weakness of regulation of the banking system not only encouraged excessive risk-taking, but also allowed several cases of gross corruption where banks assets were siphoned off by bank managers and owners (Atiyas and Emil 2005). Along with deterioration of public finances (see below) the weaknesses in the banking system was among the primary triggers of the financial crisis of 2000-2001.

    Attempts to privatize state assets were undertaken through half-baked laws and often through decrees with the force of law. Governments basically tried to give substantial discretion to the executive or to specific agencies controlled by the executive, on the procedures and methodologies to be followed in the privatization process; in effect, they would have allowed governments to pursue privatizations in unaccountable and un-transparent ways. Most of these efforts were met by annulments by the Constitutional Court, in most cases on the grounds that the laws or decree-laws effectively transferred legislative authority to the executive: in other words, the Constitutional Court demanded that details of the procedures to be followed during privatizations, the options available regarding privatization methods

and the like should be explicitly stated in the law and should not be left to the discretion of the executive. In short, then, in the choice between rules versus discretion, the governments of 1980s and 1990s were clearly in favor of discretion.

Throughout the 1990s there were attempts to pursue privatizations or private participation in telecommunications and electricity without first establishing a regulatory framework to contain the exercise of monopoly power or to ensure the development of competition. With regards to the energy sector, governments tried to attract private capital through various contractual schemes entailing[7] monopoly rights and government take or pay guarantees. Some of these contracts were awarded without a competitive tender procedure. These contracts have been later investigated by the High Court of Accounts and criticized for high costs, possible irregularities and incompatibility with competitive markets (Atiyas 2005). The contingent fiscal liabilities generated by these contracts also caused concerns.

What happened in the fiscal area during the 1990s can be best characterized by fragmentation and disintegration. The political science literature on Turkey has emphasized the importance of populism and patronage in political competition. In terms of fiscal policy, this means that the use of public resources to nurture political support is a central instrument of political competition. This puts pressure on public finances and creates a strong tendency to generate public deficits. Towards the end of 1990s budget "unity" broke down completely: there were various forms of off-budget expenditures, especially through state-owned banks in the form of support for agriculture and small enterprises. The real magnitude of these quasi-fiscal expenditures and their implied burden on the budget and public debt were at the time not shown in official statistics and disclosed to the public. It is generally accepted that hidden public debt also played an important role in the events leading to the crisis of 2000-2001.[8]

Overall, then, it can be said that while the scope of state intervention decreased in the 1980s and 1990s relative to the previous few decades, this period was nevertheless characterized by discretionary rather than a rule based policy environment. There were important initiatives during this period which were exceptions to this characterization. The first was the establishment of the Capital Markets Board (CMB) in 1982 to develop and regulate securities markets in Turkey. The CMB was the first independent regulatory authority (IRA), and, as discussed by Atiyas and Ersel (1994), it was evident that, since it entailed delegation of significant rule-making authority away from the government and ministries, it represented a

counter-example to the centralization of policy making authority that characterized most of the 1980s and 1990s. One possible explanation for this move is the rapid and uncontrolled growth of non-bank financial institutions from 1980-81, which subsequently resulted in the "bankers' crisis" of 1982, and lead to a loss of popular confidence in the non-bank financial system. CMB was seen as necessary to restore the confidence without which capital markets could not develop. The development of capital markets was seen in turn as a necessary component of the economic transformation the country was going through in the post-1980 period.

The second initiative was the enactment of a competition law in 1994 and the establishment of the Competition Authority in 1997. These moves can be explained by Turkey's commitments under the Customs Union with the EU in 1996. Indeed, as will be discussed in more detail below, the path towards EU accession (as well as pressures from international agencies such as the IMF and the World Bank) played major roles in the evolution of Turkish economic institutions.

The program that was launched after the crisis of 2000-2001 entailed a number of significant institutional measures. In a way, the program adopted the "second generation reforms" proposed by international organizations such as the IMF and the World Bank, but by and large the reforms also coincided with those that Turkey had to pursue as a country in the process of accession toward membership to the European Union. Many of these reforms which were part of the recovery program launched in 2001 were adopted without much change and even extended by the AKP government that came to power after the elections of 2002.

One of the most important steps undertaken in the reform program was to introduce independence of the central bank. A supportive fiscal policy stance played an important role in the success of monetary policy. A Public Financing and Debt Management Law adopted in 2002 subjected all central government borrowing and guarantees to strict rules and imposed reporting requirements on all debts and guarantees. The Public Financial Management and Control Law passed in December 2003 consolidated all fiscal operations of the government in an integrated general government approach, from the preparation to the closing stages of the budget. It also envisaged a three-year budget framework. These are measures that substantially improve fiscal control and transparency of the budget process. To the extent that any expenditure has to be executed within an established budget process and in a transparent manner, and therefore would be scrutinized by the public, it can be said that these measures also limit the discretionary powers of the executive. Overall

the governments in the post-crisis era have been very successful in implementing a large fiscal adjustment even though observers have identified a significant number of slippages in the implementation of the new fiscal framework (Dedeoglu 2010).

Another critical dimension of the post-crisis program was strengthening the supervision and regulation of the banking system. The Banking Regulation and Supervision Authority (BRSA) was established in 1999 but its powers were significantly increased after the crisis. It has engineered a massive recapitalization of the banking system and has earned a reputation for being a strong regulator, a sharp contrast with the weak regulatory environment in the previous two decades. Tight regulation of the banking system is generally seen as a major factor behind the resilience of the financial sector in Turkey during the 2008-2009 global crisis.

Regarding competition proper, as mentioned above, a Competition Law, modeled after that of the EU, was already enacted in 1994 as part of a Customs Union with the EU. The Competition Authority is recognized to be a professionally competent and relatively independent agency, not only by domestic stakeholders, but by international peers as well (OECD 2005). The decisions of the Competition Board are required to be publicly available and published with justifications, which increases the transparency and accountability of the agency. This may have created an added source of discipline that has improved its performance. Maintaining independence may have also been easier due to the fact that it functions across many industries and does not deal in a continuous manner with a specific enterprise or groups of enterprises, a situation that could have facilitated capture.[9] This does not mean that there are no shortcomings: there are instances of favoritism towards state owned enterprises, inconsistencies in decisions across cases or over time, insufficient or sometimes deficient economic analysis, excessive formalism and the like. Nevertheless these shortcomings do not change the basic fact that overall the agency's decisions are seen to be free of systematic bias and to meet a minimum level of quality, at least relative to the rest of the RAs in Turkey.

In the area of privatization, by the end of the 1990s the legal infrastructure was almost complete. In effect, the executive had been forced to reduce the degree of administrative discretion and establish more transparent and accountable procedures for privatization. In addition, as discussed below, by 2001 legal regulatory frameworks were also established for the deregulation and privatization of industries which were hitherto dominated by public monopolies, namely telecommunications and energy. While privatization revenues generated until 2000 were below

$9 billion, more than $30 billion has been raised between 2001-2010 (Onis 2011). Among privatized assets were large enterprises in industries such as petrochemicals, petroleum refinery, telecommunications, electricity distribution, banking, and alcohol and tobacco products.

Overall, privatizations in Turkey have been revenue-driven. The problem with revenue-driven privatizations is that the governments may overlook competition problems or indeed may endow enterprises to be privatized with monopoly rents in order to increase privatization revenues. The Competition Authority has been involved in the privatization process and has been able to influence some privatization transactions to ensure that measures are undertaken to reduce competition problems that may arise once assets are turned over to private ownership. For example during the privatization of Turk Telekom the Competition Authority has required that the provision of internet services be organized as a separate legal entity and that the cable TV infrastructure be separated from Turk Telekom. More recently, the Competition Authority has prevented investors from owning both gas and electricity distribution companies in the same region. The idea here was that under separate ownership gas and electricity distribution companies may enter each other's business areas and thereby give rise to a competitive process, whereas placing them under the ownership of a single investor will prevent the development of this form of competition.

In industries characterized by natural monopoly segments such interventions by the Competition Authority have limited influence on market outcomes; ultimately the evolution of market structure depends on the existence and effective implementation of a regulatory framework that protects competition, ensures access to network facilities by new entrants, presents exclusionary and discriminatory behavior by incumbents, etc. As discussed below, these competition-enhancing aspects of institutional change in industries characterized by competition problems have not been very strong in Turkey.

In the telecommunications industry, at the risk of oversimplifying, the story is one of substantial capture by the fixed line incumbent operator. The Telecommunications Authority (now the Information and Communications Technologies Authority, ICTA) was established in 2001 and Turk Telekom was privatized in 2005. Privatization has possibly resulted in a significant increase in productivity of Turk Telekom: Employment was reduced by almost 50 percent after privatization, reflecting the extent of politicization and over-employment under state ownership.

However, Turk Telekom maintains dominance in the broadband internet services market (over 90 percent market share) as well as long distance and International calls markets (more than 50 percent market share). Until very recently Turk Telekom was protected from competition by high interconnection rates, delays in the licensing of new entrants, delays in the introduction of services that would allow new entrants greater command over the range of services that can be provided over the fixed line network. To most observers, these outcomes reflect Turk Telekom's influence over the Ministry of Transport and by consequence, over the IRA. While the telecommunications laws contained standard measures that have ensured ICTA's de-jure independence, the authority's de-facto independence was significantly curtailed (Atiyas and Doğan 2010).

However, the stance of the ICTA in the mobile industry provides and interesting contrast. Compared to the fixed segment the ICTA has adopted a more competitive stance in the mobile segment, as reflected, for example, in interconnection rates which have been quite low by international standards. Atiyas and Doğan (2010) argue that this may reflect the fact Turk Telekom's subsidiary is a new entrant in the mobile telecommunications markets. The interesting point here is that, if the ICTA's more aggressive pursuit of competition in the mobile industry can indeed be explained by political economic factors, this stance was carried out through the established rules of the game (i.e., lower interconnection rates) rather than by more coarse and discretionary interventions. In other words, the ICTA's tendency to favor Turk Telekom was curtailed by the new rules and had to be mediated by an overall more competitive stance. This suggests that perhaps the new rules did have some bite after all.

In electricity, the restructuring process in Turkey started with the adoption of the Electricity Market Law in 2001 which envisaged unbundling of distribution, transmission and generation assets, establishment of non-discriminatory access to the transmission and distribution networks and the formation of Energy Market Regulatory Authority (EMRA), the IRA responsible for electricity, natural gas and oil industries.

The electricity restructuring process has been driven by privatization. Privatizations themselves have been structured so as to generate maximum possible revenues for the government. As a result, competition and consumer welfare has taken a secondary role, since there is a danger that high purchase prices will eventually reflect themselves in higher consumer prices. Privatizations have been delayed significantly,

and privatization of generation assets, where productivity increases are most likely to occur as a result of competition, has not even started. Hence, in fact, ten years after the launch of the restructuring process, the extent of competition is still limited to about one quarter of generation capacity, the rest of the capacity being either under non-competitive contracts inherited from the past, or under government ownership. Moreover, the government is still perceived to be quite active in setting some of the retail prices while in principle this should be under the authority of the EMRA.

It should be stressed that it is not government ownership of these assets that prevents the development of competition: there are examples of countries where governments own significant parts of generation assets but still have competitive markets. What Turkey could have done is to horizontally break up and corporatize these assets, place them under competent management and give them the mandate of behaving in a competitive manner. The primacy of privatization as the driving force of the restructuring process has precluded this option.

These problems notwithstanding, the restructuring model has been successful in attracting new investments in capacity by the private sector without any non-competitive contracts, of the order 3-4000 MW each year since 2008. This is largely due to the fact that under the new model a wholesale market was established where prices are determined by supply and demand. In effect, the establishment of a wholesale market meant that the government relinquished a significant tool that could in principle be used for expropriation or favoritism.

In the area or procurement, Turkey has adopted a Public Procurement Law (PPL) in 2002, largely modeled after the EU Public Procurement Directives. Again, the accession process has been an important motivation in the adoption of the Law, and ostensibly in the many amendments that have been implemented since then. The PPL permits domestic preferences; there is a price advantage of up to 15% for domestic contractors offering domestic products. In procedures for contracts below the thresholds, contracting authorities may restrict participation to Turkish companies. The number of amendments since has been high, and as reported by SIGMA (2008) "some of these amendments were introduced on an ad hoc basis by individual ministries and Parliamentarians rather than as part of an overall government strategy. These amendments have introduced exemptions that had not been envisaged under the acquis communautaire." Importantly, private sector utilities (in the water, energy, transport and telecommunications sectors) are not covered

in the PPL. The PPL also established a Public Procurement Authority. SIGMA's (2008) assessment of the PPA was that it was a "stable and strong institution. It has already largely contributed to the establishment of a modern public procurement system and, in general, has the capacity to implement procurement legislation effectively." Recently investigations were launched against some PPA staff and a member of the Board on the grounds that they have accepted bribes from business people and engaged in corruption in close to 100 public tenders.

In most cased discussed above, the delegation of regulatory authority to a relatively independent agency resulted in an overall increase in the transparency of the policy making process. Even though there are variations across IRAs, they generally work in a more transparent manner relative to ministries: putting draft regulations up on websites for public consultation has become routine. To different degrees, the decision making processes of IRAs are bound by procedural rules that are encoded in regulations; such rules reduce discretion and enhance predictability. The Competition Agency and the ICTA are required to provide justifications for their decisions. Requiring IRAs to provide justifications for their decisions makes a major contribution to transparency and accountability and makes judicial reviews more effective and credible. Even though implementation differs across agencies (more effective implementation in the case of the Competition Authority), this requirement allows stakeholders to be more demanding in terms of transparency.

There is one area where developments regarding transparency and accountability have been in the reverse direction, and that is the case of the Housing Development Administration (TOKI). TOKI is directly attached to the Prime Ministry. It builds public housing with the collaboration of private contractors. It has free access to public land and wide discretionary powers over land that is under its control. Construction activities of TOKI are exempt from the Public Procurement Act; TOKI is also exempt from the Public Financial Management and Control Law. It has been reported that its assets have reached about 2% of GDP, though financial information about its activities is hard to find because of lack of financial reporting. While most of the IRAs reported above are audited by the High Court of Accounts (Sayıştay), which reports to the Parliament, TOKI is audited by the High Audit Board (Yüksek Denetleme Kurulu), which is attached to the Prime Ministry, implying that the financial transactions and activities of TOKI are not being audited by an independent body. It is also known to be an efficient developer and has built over half a million residences, 85% of which consists of social housing. In short,

TOKI has the ability to manipulate land rent in a highly discretionary and non-transparent manner meanwhile supporting a network of construction companies.

3.2 Assessment

The review presented above suggests a number of comments. The first has to do with the role of crises. The fact that economic crises facilitate or sometimes trigger a process of economic policy reform has been emphasized frequently in the literature and in that sense Turkey is no exception. It is interesting to note that central bank independence, regulation of the banking system and measures that enhanced the controllability of the budget figured prominently in the aftermath of the crisis of 2000-2001 as these were among the most problematic areas prior to the crisis. The second aspect that needs to be emphasized is the role of international agencies and especially of the European Union. The IMF and the World Bank played a significant role in the adoption of the reform laws in many areas including telecommunications and electricity, but the prospect of membership to the EU played a crucial role: It increased acceptance of and created legitimacy for reform and at the same time it vastly reduced transaction and bargaining costs among stakeholders in Turkey by providing templates of what was largely perceived as best practices in a wider range of areas including telecommunications, energy, competition law, banking and public procurement. Third, it is clear that the Turkish experience towards a more rule-based policy environment has been an uneven process. Even though most IRAs were given formal independence, de-facto independence varied significantly across agencies. Still, even in cases where independence was more nominal than real, the mere existence of a new set of rules and formal institutional arrangements seems to have helped these industries to become more competitive. This is suggested by the experience in the mobile industry and wholesale electricity markets mentioned above.

While this paper has emphasized the institutional dimensions of enhancing competition, the Turkish experience does underlie the importance and complementarity of the broader economic policy framework. After all the institutional and competition enhancing measures described above were undertaken in an environment of more or less liberalized product and financial markets, a process that started in the 1980s. Liberalization of domestic markets was complemented by liberalization of foreign trade and international finance. As examined in Atiyas and

Ozan (2011/2012), however, both labor productivity and total factor productivity increased faster in the 2000s relative to the 1980s and 1990s, perhaps reflecting improvements both in the institutional environment and macroeconomic stability in the last decade.

Finally, it is not yet clear whether the emergence of these institutions represents a new equilibrium and whether they are compatible with the underlying political institutions in Turkey. The important role of the perspective of EU accession was mentioned above. This perspective has been weakening in recent years and it remains to be seen how this will affect the conduct of economic policy in Turkey. Recently there are signs that the government may be considering steps that will reduce the powers of IRAs. The government recently passed a decree law which authorized ministries to "inspect" the activities of agencies associated with the ministries. The decree law gives ministries the authority to harass agencies by subjecting them to inspections. These inspections would concentrate primarily on procedural and not substantial issues. More importantly, ministries still cannot overturn IRA decisions. However, it is very possible that this power to inspect will be used to curtail the de-facto independence of IRAs. In addition, several members of the governing party and the Prime Minister have been quoted in the press complaining about the excessive authority of the IRAs and the fact that they lack political accountability.

4. Evaluation: Trade-offs and Challenges of Enhancing Competition

This section will discuss some elements and tradeoffs that need to be considered in the design and implementation of a competition-enhancing reform program. It will try to draw on lessons from theory, the Turkish experience and empirical studies.

4.1 A Brief Review of Empirical Evidence

Empirical evidence on the role of IRAs on economic outcomes generally focus on infrastructure industries. There is quite a bit of evidence that there is a positive correlation between the presence of an independent regulator and sectoral performance. Many studies focus on the telecommunications industry. In a widely cited paper Wallsten (2001) examines the effect of privatization and regulation in the telecommunications industry of 34 African and Latin American countries. He finds

that privatization in the presence of an independent regulator is positively corre-lated with telecom performance measures such as connection capacity, penetration and labor productivity. Privatization alone, however, is associated with few ben-efits, and is negatively correlated with connection capacity. A positive correlation between the presence of an independent regulator and sector performance, espe-cially penetration, has been found in other studies as well, see Estache and Wren-Lewis (2010b and 2009) for reviews. The impact of IRAs however does depend on the details of the regulatory framework. For example Estache and Rossi (2005) focuses on the electricity industry and finds that privatization with the existence of an independent regulator utilizing incentive regulation is associated with higher efficiency relative to firms under public ownership. By contrast, the efficiency of privatized firms under rate of return regulation is not significantly different from those of the public firms. More recently, Cambini and Rondi (2011) look at invest-ment rates of utilities in Europe and find that regulatory independence has a posi-tive effect on investment.

Another way in which the presence of an IRA may affect economic outcomes is that they may reduce transactions costs. Guasch, Laffont and Straub (2007 and 2008) find that the existence of an independent regulator decreases the extent of re-negotiation of concession contracts in the water and transport sectors. The reason could be that the presence of a regulator may have improved the contract design to begin with, which in turn would reduce future conflicts. Also, under the presence of a regulator, disputes may be handled within the regulatory framework, with no need to change the initial contract.

There is also some evidence on factors that influence the degree of formal in-dependence of regulatory authorities. In a recent study using data from 175 IRAs worldwide from seven industries, Hanretty and Koop (2012) find that indepen-dence is more likely or higher in utilities and financial markets. Independence is positively associated with "replacement risk" which captures the frequency with which governments are replaced with government with different partisan com-positions. In countries where replacement risk is high and consequently policies may change frequently, delegation may enhance policy stability, which will have a positive effect on investments. Independence is also negatively associated with the number of veto players in the political system. This is captured, for example, by the number of parties in government, the number of constitutional bodies that may influence policy (such as the number of legislatures), the degree of homogene-

ity of parties in the parliament, etc. The reasoning behind the negative correlation is that the higher number of veto players may be a functional equivalent of more independence in delegation, because more veto players make policy changes and reversals more difficult, reducing the need for independence of IRAs. These results in general provide support to theories that see delegation to IRAs as a solution to regulatory credibility and risk of expropriation.

A few studies attempt to measure the association between formal and de-facto independence, but here the problem is that measuring the degree of de-facto independence on a consistent basis across countries is very difficult. In the limited number of studies on Europe, the relation between formal and de-facto independence is found to be weak. Given this weak relationship, the fact that many studies have found a positive relation between the presence of an independent regulator and economic performance mentioned above is interesting.

There is also evidence that the regulatory environment interacts with other characteristics of the political environment. One important variable in that regard is the extent of corruption. Wren-Lewis (2011) examines the impact of corruption on the efficiency of electricity distribution companies in Latin America and the Caribbean but this paper also examines whether that impact depends the institutional environment, namely ownership of the distribution assets and the establishment of IRAs. The theoretical analysis shows that corruption should have a negative effect on efficiency. The impact of degree of independence of the agency, however, depends on the relative corruptability of agencies versus politicians. For the specific case of electricity distribution companies in Latin America and the Caribbean, Wren-Lewis (2011) finds that the overall degree of corruption does indeed have a negative impact on the efficiency of distribution companies. Moreover, the presence of an IRA significantly reduces this effect. Privatization is also found to lower the negative effect of corruption on efficiency, but this finding is not robust to controlling for the endogeneity of ownership.

4.2 The Politics of Enhancing Competition

Institutional reform has a basic paradox: Important elements of the competition enhancing reform package entails delegating substantial discretionary authority from the ministers and agencies that they control to IRAs. Assuming that the IRAs are more independent then ministerial departments, the delegation therefore entails

significant dispersion of previously centrally held political power. Hence while delegation is partly to ensure that regulatory decisions are insulated from political influence the paradox is that at the same time, this act of delegation itself is a political act. The question is: when is such delegation in the interests of those who currently hold political authority? That is, when is delegation incentive compatible with political power?

Both the theory and empirics behind IRAs suggest a few answers to this question: An important dimension of the act of delegation is an increase in regulatory credibility and a decrease in expropriation risk. This suggests that governments will be interested in delegating if they have a strategic interest in attracting private capital, both domestic and foreign. This may be true for several reasons. The cost of public finance or the existing level of public debt may be high. Or governments may be interested in allocating public funds primarily to social sectors such as education, health, poverty alleviation or even support for SMEs, and rely on private investment for infrastructure industries.   Hence the "public finance" motive for liberalization would also favor the creation of a competitive environment. Even there the political elite always have the alternative of striking special deals with individual investors and share monopoly rents. The cost of that would be slower growth, so governments under a popular mandate and political pressure to deliver high growth would have better incentives to create a competitive environment. In addition, enhancing the competitive environment would also create a more conducive setting for the growth of small and medium enterprises. For these reasons one might think that post-revolutionary Arab societies would contain the correct political incentives for improving the level of competition.

Another possibility is that governments may be interested in encouraging the competitive process in some industries while continuing to regulate the creation and distribution of rents in others. This seems to be part of the story behind the experience in Turkey. It seems that the government opted in favor of competition in tradable sectors as well as (at least to a degree) in electricity and telecommunications while continuing to play a much bigger role in construction and urban development.

Assuming that those who hold political power are convinced of the necessity of reform, one still has to consider the issue of broader popular political support. The global experience seems to suggest that public support for the adoption of a regulatory reform program is not a major constraint. Assuming that the reforming

government is willing and has a winning coalition in the legislature adoption of the program can only be hindered through popular discontent expressed through mass protests that create political instability and perhaps violence. This is not likely to occur save for a few components or instances such as privatization that is expected to create substantial unemployment, an eventuality that may generate substantial resistance from labor and trade unions. It should be possible and relatively easy to deal with this problem by including in the reform program well designed labor adjustment programs that aim at compensating the losers. With significant expected productivity increases from privatization, financing such programs should not be that difficult.[11] Privatization has other potential political hazards that the literature has identified, these will be mentioned below. The rest of the regulatory reform program is not likely to generate significant political sentiments that would result in mass protests.

Popular support for the sustainability of the program is a different game because in the medium term popular opposition and discontent cannot be disconnected from electoral politics; if there is popular discontent with the program then the opposition may win elections on an anti-reform program and the program may be reversed. In the medium term the main means through which popular support can be maintained seems to be through successful implementation of the regulatory reform program: if public services are successfully provided and if access to services is successfully enhanced, this should be an important factor that ensures public support. In any case, over the medium term one should expect a positive concordance in the sense that successful reform would generate its own political support. But this potential of positive concordance also suggests a constraint: the reform has to deliver over a reasonable time frame if it is going to be politically sustainable. This can be called the deliverability constraint. Note that while partly a technical issue, high level of delivery also hinges on ability to curb capture and corruption.

Political support for the reform as well as the degree of success in implementation is also related with the way in which reform is carried out. In many developing countries regulatory reforms are adopted during or immediately after major economic crises, often as part of conditionality imposed by multilateral organizations such as the World Bank and the IMF. As discussed above, this was certainly the case in Turkey (see Ozel and Atiyas, 2011) for telecommunications and electricity. This is often done without much discussion and in a top down manner. Laws are

typically prepared by relatively small teams of believers, with little or no public consultation. In fact, the Turkish experience suggests that the reforming team often carries out its work in secrecy exactly because of fear of resistance from the rest of the political (and bureaucratic) elite. This is expedient in the short run: If the government has a majority in the enacting body, swift adoption is assured. The Turkish experience also suggests that lack of wider ownership creates major hazards over the medium term which also hurts the deliverability constraint. This works in various ways. First, secrecy and bypass creates resentment, and resentment of the bureaucracy creates resistance and hurts implementation. But perhaps even more importantly, bypass also prevents the establishment of a common understanding about the objectives of the program and more importantly how the various parts of the program fit together. For example restructuring in the electricity industry is quite a complicated project consisting of multiple dimensions. Consistency among these dimensions is a must. However, in the case of Turkey it took a tremendous amount of time for the bureaucracy (and even the private sector) to really understand the different dimensions of the restructuring process. This has resulted in faulty designs of incentive mechanisms and very long delays in implementation.

4.3 The Role of Privatization (vs. Liberalization)

The Turkish experience suggests that the role of privatization in curbing inefficiency and capture in industries where competition is limited or non-existent was exaggerated. The literature suggests that (under contractual incompleteness) relative to private ownership, public ownership performs better for allocative efficiency and worse for productive (or cost) efficiency (e.g. Schmidt 1996). Hence regulators and policy makers face a trade-off. In the case of Turkey, electricity distribution suffered from high electricity losses and theft. They are being privatized and their tariffs are subject to incentive regulation with loss targets. If companies can decrease losses to levels beyond the targets, their profits increase. This is a potentially high powered incentive to cut costs, but the obvious welfare loss is the surplus that is captured by the distribution companies. This is a clear example of the efficiency-rent extraction trade-off discussed in the literature on regulation under asymmetric information (e.g. Laffont and Tirole 1993).

Martimort and Straub (2009) also suggests that collusion between regulators and private firms may lead firms to appropriate a larger share of increases in efficiency in

the form of higher prices, especially for firms in sectors involving large fixed costs and requiring high mark-ups to cover total costs (such as water, roads, port and airport construction). The authors suggest that this result may explain the widespread dissatisfaction with privatization in Latin America even though many studies find that privatization leads to efficiency increases.

This is not meant to suggest that the public finance justification for privatization (i.e. privatization to raise revenues) may not be justified under certain circumstances. The purpose here is to suggest that, absent competition, the benefits of privatization may be exaggerated and that under certain circumstances it is worthwhile to think of alternatives, especially public management reform, corporatization, etc.

4.4 Separation of Powers and the Special Role of a Competition Authority

In the literature on regulation under asymmetric information, one way to ensure that the (non-benevolent) regulator acts in the public interest is to make the payments made to the regulator contingent on the report that the regulator provides to the government on the costs of the firm.[12] As emphasized by Dal Bo (2006) making contingent payments to regulators is not a realistic option. An alternative proposed by Laffont and Martimort (1999) is the separation of regulatory powers. The Turkish experience actually seems to support this suggestion.

In Turkey the competition authority and sector-specific regulators have quasi-concurrent powers over anti-competitive behavior in the regulated industries. Of course, the existence of concurrent powers is likely to increase regulatory uncertainty whenever the respective agencies reach conflicting verdicts on specific issues. Separation of powers may also lead into inter-agency conflict and push agencies into a power struggle to maximize their jurisdiction. It may also induce firms in the regulated industries firms to abuse the separation of powers by picking and choosing agencies so as to maximize the likelihood of a favorable decision. In the Turkish case the degree of regulatory uncertainty has been reduced through a division of labor that has emerged over time: the competition authority has come to limit its intervention into areas of market behavior that are not directly regulated by the sector-specific agencies. This of course reduces the welfare enhancing impact of separation of powers, but this loss of impact can partly be compensated by vesting the competition authority with a strong advocacy role. Under an advocacy duty, the authority submits its opinions in areas where it has no direct jurisdiction.

It turns out that such opinions can have a critical role in increasing the overall transparency and accountability of the regulatory system.

Note that even when regulatory agencies are not corrupt, sector specific regulators and the competition authority may legitimately have somewhat different preferences: For example, electricity or telecommunications regulators may have an interest in network expansion and they may attach a lower weight to the development of competition in their respective industries. A critical dimension of the separation of powers problem is to place the authority to regulate mergers and acquisitions under the competition authority. Mergers and acquisitions potentially play a critical role in the evolution of market structure and are critical determinants of the degree of competition in the medium and long term. Undue increase in concentration raises the likelihood of anti-competitive behavior and it becomes much more difficult to protect consumer welfare through conduct remedies. Regulating mergers gives the competition authority the power to prevent increases in concentrations that are likely to lessen competition.

An important dimension of regulating concentrations is the role of the competition authority in privatizations. As mentioned earlier, a critical danger of privatization in concentrated or monopolistic industries is to turn public into private monopolies. The incentives of governments (especially the Treasury or the Ministry of Finance) during privatization are towards raising maximum revenues to the detriment of developing competition. This would not only run counter to the agenda of developing competition but would also represent a big threat to generating political support for the reform agenda. The Turkish experience suggests that engaging the competition authority in the privatization process may be an effective way to decrease the likelihood that public monopolies are turned into private monopolies. The competition authority in Turkey has taken critical decisions during the privatizations in electricity, telecommunications and transport (ports) industries that have helped reduce (to some extent) the creation of private firms that hold excessive market power.

One important detail in this regard is that normally competition laws do not empower competition agencies to prevent ownership changes that do not increase the degree of dominance in the market. So normally a competition agency would not be able to prevent the purchase of a monopoly by a private investor that does not have a prior presence in a specific industry. The Turkish Competition Authority has gone out of its way to usurp that power through a communiqué, and for

reasons that are hard to understand, this (albeit welfare enhancing) transcendence has not been legally or politically challenged. It may be wise to actually endow the competition authority with such power in the laws that form the legal basis of privatizations.

4.5 Empowering Consumer Groups

In environments where the risk of capture of the IRA by the firms that it is supposed to regulate is relatively high (or where the information advantage of the regulated firm is relatively high) one remedy that has been proposed is to develop publicly funded consumer advocacy groups. Besides compensating for the threat of capture by firms, establishing publicly funded (but not controlled) consumer advocacy groups may help with generating political support for the sustainability of the reform program. Consumer advocacy groups may also help create a wider base of legitimacy for the reform program and help with the objective of creating new sources of social and political power. But one should also note that this requires education, expertise, and active media etc. The literature suggests that such initiatives may be effective. There is empirical evidence, cited in Del Bo (2006) that in the US regulated prices are lower in states where there are consumer advocates.

4.6 Selection of Regulators

There is evidence cited in Dal Bo (2006) that the method of selection of regulators may have an impact on regulatory outcomes. For example, some studies show that when the regulators are elected, or appointed by legislators, or when executive appointments require legislative approval, regulated prices tend to be lower, possibly reflecting the influence of consumers. It should be pointed out that most of these studies are on the US and may be less relevant for countries with parliamentary systems, especially when the government parties also hold majorities in the parliament. What is not clear in some of this research is whether electoral influence works through incentives or through selection of different types of regulators. Besley and Coate (2003) explores the following idea: When regulators are appointed by the executive, sensitivity of regulatory policy to voter preferences is dimmed because "regulatory policy becomes bundled with other policy issues that the appointing politicians are responsible for." By contrast, when regulators

are elected, their stance on regulation is the only salient issue so that the electoral incentive is to run a pro-consumer candidate. They find evidence that support the idea that elected states are more pro-consumer in their regulatory policies in that they allow less pass-through of fuel costs to electricity prices. Overall, these studies suggest that elected regulators are more pro-consumer. Of course, this does not immediately suggest that from a social welfare point of view this is a better design because it may reflect populism and lower than optimal prices, possibly endangering future investments. On the other hand, in environments where capture by regulated firms is the more powerful distortion, elected regulators may be a welfare-improving remedy.

In any case, obviously the preferences of the board or the directors play a crucial role in the performance of the agency. This, in turn, means that the procedure set for the appointment of the regulatory agency is very important as well. Often regulators are appointed either by the executive or the legislature. In parliamentary systems, separation of powers is weak so the executive branch of the government often has ultimate influence on the appointments. While from a social welfare point of one would desire that people who are appointed would be types who would protect the independence of the agency and who would try to encourage decisions that would maximize a well accepted measure of welfare (say total or consumer surplus). Above all, this would require people with competence and integrity. It is very difficult to find procedural ways to reduce the influence of the executive so as to increase the quality of appointments. Perhaps a better way to improve the quality of appointments is to increase the transparency of the appointment process. For example, both the executive and the opposition can have the right to nominate candidates, information about whom can be made public before the executive makes its final choices. In addition, the opposition may have the right to question the candidates in hearings held at the relevant parliamentary committee. Under such a procedure, the executive would still have the final choice, but may have to better justify its choices.

5. Conclusion

This paper has drawn from the experience of Turkey to discuss various changes in the regulatory environment that can be instrumental in enhancing competition in post-revolutionary Arab societies. Presumably the enhancement of competition

entails a transformation from a regime where profitability relies on special political connections to one where success is predominantly driven by productivity. This in turn requires a policy and regulatory framework in which the political authority is constrained in its ability to discriminate among firms on the basis of political connections.

Establishing a non-discriminatory policy and regulatory framework often entails institutional remedies whereby substantial amount of decision and rule making authority is delegated to agencies that are relatively independent from the government and individual ministries. The paper has discussed the objectives and characteristics of this delegation, the nature of the independence and other dimensions such as accountability and transparency.

The paper has also reviewed the experience of Turkey where such delegation has occurred in the last decade or two, albeit imperfectly and in a way that is non-uniform across sectors. Even in its imperfect form, and where de-facto independence of the new agencies is questionable, it has discussed examples where the new rules of the game did have some bite in limiting the extent of capture. It has underlined the particular importance of the role of crises, international organizations and the perspective of accession to the EU. Moreover, it has discussed that in the case of Turkey enhanced transparency and accountability in some sectors occurred simultaneously with increased discretion in others. The jury is still out, however, on whether the new institutions will survive political dynamics where the EU anchor is becoming weaker.

There is quite a bit of evidence that the presence of IRAs especially in infrastructure industries is associated with better performance. The presence of IRAs also seem to moderate the negative impact of corruption on efficiency. There is also evidence that independence of IRAs is higher in environments predicted by theory, that is environments where political "replacement" risk is higher and the number of veto players is lower. The verdict is yet to be spelled out but the Turkish experience as well as the empirical evidence suggests that institutions that enhance competition may play a role in creating an environment that is more conducive to investment and growth.

Notes

1. I am grateful to Ishac Diwan and participants at the Pre-Conference Workshop on the *Political Economy of Arab Awakening* for their comments. All remaining errors are mine.
2. See, for example, Roland (2008) on privatization in general and Estache et al. (2009) for reform in utilities.
3. Indeed, the Turkish experience, discussed below, provides compelling examples about how these elements may make a crucial difference in the performance.
4. Ersel (2012).
5. This section borrows from Atiyas (2012).
6. An important exception is the enactment of a competition law, see below.
7. These were schemes involving Build Operate Transfer, Build Operate Own and Transfer of Operating Rights.
8. One could say that emergence of corruption in the financial sector and the disintegration of fiscal institutions were expressions of a more general institutional decay going on in the country as reflected in the emergence of paramilitary illegal gangs to pursue murders on behalf of the state or the overall Susurluk scandal involving the close relationship between the state and organized crime.
9. One should point out that most observers single out another important factor that may help explain the degree of professionalism of the Competition Authority: the high quality of the bureaucrats who were initially appointed as line managers and who have shaped the emerging culture of the agency.
10. See Atiyas (2012) for more details.
11. After the privatization of Turk Telekom, the incumbent telecom operator in Turkey, employment was reduced by almost 50 percent. This did not create an uproar thanks to a program that gave options to workers either to opt out with a hefty severance pay or find employment elsewhere in the government.
12. The non-benevolent regulator is modeled as the middle layer of the three-layer principal agent hierarchy with a (benevolent) government at the top, a firm with private cost information at the bottom and the regulator. The regulator obtains private signal about the cost of the firm and reports that to government. However, the firms can bribe the regulator into reporting false information, or claiming to have generated no information.

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4

Pro-Women Legal Reform in Morocco: Is Religion an Obstacle?

Imane Chaara[1]

1. Introduction

The persistence of inequitable practices that are supported by social norms is an important dimension of social justice. In most developing countries, the social organization is such that some sections of the population are marginalized (women, foreigners, low caste members…) while others benefit from some privileges within their family, their community or society as a whole (men, natives, high caste members…). These various groups have antagonistic preferences and the status quo may correspond to a zero-sum game where the marginalized suffer and the dominant party is the beneficiary. The members of the marginalized group are not necessarily able to coordinate their actions and act as a social force in order to trigger a change in the treatment they receive. Moreover, even if the marginalized succeed in coordinating their actions, the dominant party will not be inclined to accept any change. Therefore, a third party intervention is needed. The state has a role to play and public action is justified.

A natural way of acting for a state concerned by equity criteria is the enactment of new laws that protect the marginalized groups and grant them new rights. Aldashev et al (2012) show that under certain conditions, the law can indeed lead to a change in agents' behavior in the direction intended by the legislator. One important condition for the effectiveness of the law is that the disadvantaged people identify with it and recognize its legitimacy. In order words, they must consider

that the law represents their interests, which implies that their preferences are not shaped by the values of the dominant group.

In this paper, we focus on a specific institutional change, the 2004 reform of the Family Law in Morocco and show that the law is not necessarily well received by its beneficiaries. The lack of adherence to the legislation may not be a marginal phenomenon among the targeted social group since some clauses of the law are rejected by the majority. This observation is quite striking and therefore deserves a careful analysis. The objective of the paper is to identify the key determinants of the support for the law[2] and, in particular, to investigate whether the diffusion of religious conservative ideas plays a critical role. The analysis is based on a unique database created from a survey we conducted in Morocco in 2008, four years after the reform.

The rules that govern marriage, divorce, inheritance and child custody have been changed. The new legislation aims at improving women's status by assigning them a new role in the family (they are now on an equal footing with their husbands in matters of family responsibility) and granting them new rights (such as the right to initiate a divorce without being required to produce evidence of ill-treatment or witnesses).

From the data we collected, we observe that despite the new laws improving women's status in the family as well as in the society, and granting them new rights, women are not unanimously in favor of the law: barely half of them strongly support the change of the legislation. Conversely, we observe that a non negligible proportion of men (20%) strongly support the Code. The fact that a significant proportion of women are not in favor of progressive changes in the Family law, which aims at improving their status, is surprising and raises several questions. However, as pointed out by Kabeer (1999: 460), access to new resources (in our case, new rights), may open up new possibilities for women, but the latter are unlikely to realize these possibilities in a uniform way. An empirical analysis is therefore needed in order to explore the characteristics of those women who expressed an opposition to the reform.

The position adopted by men also deserves probing. Even if a woman is in favor of the law, her bargaining strength may not be enhanced if she has poor fallback options and her male relatives are opposed to change. Several studies have tried to explain the emergence of new rights favorable to women by focusing on men's conflicting interests as husbands and fathers (see for instance, Doepke and Tertilt,

2008; and Fernández, 2011). We differ from this literature since our main concern is not to provide an explanation for the emergence of the law. Yet, some arguments in this literature are relevant to our inquiry. For example, we want to verify if married men who have daughters adopt a different position with respect to the law.

Several factors are likely to influence people's behavior with respect to the new legislation. In particular, we examine to what extent differences in support for the law can be explained by three key factors: education, location and religion. We formulate two different scenarios and we try to identify which one is the most plausible. The first one is based on 'naïve beliefs' and the second on observations made by anthropologists and political scientists. 'Naïve beliefs' would suggest that rural men with a low level of education and intense religious practice express a lower support to the new Family Code. On the other hand, several anthropologists and political scientists argue that, in the case of Morocco, religious puritanical movements are essentially present in urban areas and attract educated people (see, for instance, Geertz 1968; Lapidus, 2002; and Tozy, 1999). We may, therefore, suspect the existence of interactions between education and the people's religiosity. There has not been any systematic enquiry about the latter issue, hence the pioneer character of our empirical exploration based on first-hand data.

Concerning education, we expect more educated people to be more in favor of a progressive change in the law. Numerous studies link education to liberal attitudes such as tolerance and support for civil liberties (see Phelan et al, 1995). Education is also seen as promoting individualistic values (Weakliem, 2002), which is a relevant concern to the extent that the reform of the Family Law shifts the focus from collective values to more individualistic ones. As a matter of fact, Cavatorta and Dalmasso (2009) assert that the Code represents a fundamental transformation of the Moroccan society in the sense that it notably integrates the fact that social modernization requires a rebalancing of rights in favor of the individual over the collective (p. 489). Regarding location, a reasonable hypothesis is that urban people are more likely to be in favor of the new legislation. This is supported by observations made by sociologists according to whom less populated communities are more conventional and less prone to cultural change (Chou et al., 1982; Fisher, 1978; both cited by Coleman et al., 1989). Fisher (1978) argues that innovations and new opinions emerge first in urban areas and diffuse afterwards to less populated communities. As the process of change is continuous, a gap persists between urban and rural areas in terms of social attitudes. Finally, the impact of religion on

the support for the law is not evident. We expect an ambiguous effect since it is not clear that Islam supports unequal rights between men and women. Different positions coexist in the Muslim world as well as within each Muslim society. To our knowledge, there are no studies available about this subject that could guide our intuition. Hence, our preference goes for an agnostic approach.

Our main finding is that for both men and women, there is no straightforward relationship between education, location and religious practice, on the one hand, and support for the law, on the other hand. A key result is thus that the intensity of religious practice is negatively correlated with the likelihood of supporting the Code, but only for educated people. Rather paradoxically, conservative positions are observed among educated people, when they are very religious. We mainly explain this result by the diffusion of conservative ideas through religious movements which became very active in the education system since the late 80's. This goes against the preconceived idea according to which puritanical movements essentially influence non-educated people who are allegedly prompted to adopt a traditional interpretation of religious prescriptions. We also find that education per se is positively correlated with the likelihood of supporting the Code, but essentially among men. Finally, location per se is not significantly correlated with the support to the law. However, the negative relationship between the intensity of religious practice for educated people and their support to the Code is stronger (both in intensity and statistical significance) for women residing in rural areas.

The next section of the paper briefly examines the historical process which led to the emergence of the new Family Code as well as its content. It also positions Morocco in terms of women's rights in the context of the MENA region. Section 3 describes the strategy adopted to conduct the survey. Section 4 discusses our main assumptions. Section 5 presents key variables and some descriptive statistics, while Section 6 describes the methodology used for the analysis of the data. Section 7 discusses the results and Section 8 concludes.

2. Emergence of the new Family Code

2.1 The Historical Background

After the independence of 1956, the first Family Code was enacted. This Code was founded on a combination of religious values and other rules with their origins in customary norms. It therefore legitimises practices based on patriarchal values

and is inspired by 'Maliki rite', which is one of the four legal schools of thought in Sunni Islam.[3] The code was created in a context where the nationalists had a scripturalist approach in matters of religion and were fighting against Western values which endangered national identity (Geertz, 1968). This situation allowed conservative nationalists to defend the dominance of patriarchal values in the name of cultural integrity (Dalmasso, 2008). Furthermore, by that time, the Monarchy was also well inclined towards the tribes' chiefs and therefore endorsed the adoption of rules rooted in customary practices (Cavatorta and Dalmasso, 2009).

Despite some debates in the 1970s and the 1980s, the Family Code has remained virtually identical to that which was enacted after independence. In the early 1990s, the debate concerning the Code began to grow in importance. In 1993, a campaign led by the associative sector managed to collect one million signatures to support the claims of those working towards a change in the law. The Women's Action Union (UAF) founded in 1987 presented an open letter to the House of Representatives including claims based on a triple standard: the objectives of Sharia (under Islamic law), social reality, and universal human rights. This letter was addressed to politicians, not to the king who is the 'Commander of the Faithful.' King Hassan II reacted stating that the issue is based on religious values and declared that its treatment was the prerogative of the 'Commander of the Faithful' and not the political world. The king then received a delegation of women. He quoted *ijtihad*,[4] stressing that legal prescriptions cannot prohibit what God has not prohibited, and cannot allow what has not been permitted by God. He promised amendments proposed by a committee composed of *ulama* (Muslim legal scholars). In 1993, the Family Code was reformed for the first time since Morocco's independence. However, the changes are limited. The steps taken towards establishing a polygamous marriage and obtaining a divorce are more complicated than before. These changes offer women some protection against men's abuses. In addition, woman must now provide her consent to marriage and if she loses her father, she is no longer subject to matrimonial guardianship. Despite minor changes, the reform has helped remove the sacred character from the Code's text (Benradi, 2004: 40).

In 1998, the new government presented a reform which sparked a bigger debate. The progressive associative sector protested against the lack of change. The more conservative politicians such as members of the PJD (Justice and Development Party) criticized the resolutions which they considered inconsistent with Moroccan identity, culture and religion. In 2000, two major demonstrations were organized:

a demonstration in favor of the reform (in Rabat), and another in opposition to it (in Casablanca).

In 2003, King Mohamed VI took matters into his own hands and used a method similar to that used by his father saying, "I cannot in my capacity as 'Commander of the Faithful' allow what God has prohibited or forbid what the highest body has authorized." The king set up a committee who would develop the new provisions of the Code. This time, the Committee was composed mainly of academics (including three women) and religious representatives, the *ulama*. The associative sector had also been invited to participate by submitting proposals to the commission. The work of the commission led to the development of a new Code whose main provisions were presented at a royal speech on 10th October 2003. The king used religious references and referred to *ijtihad* practice in order to grant legitimacy to the new provisions and thus prevent changes from being perceived as an attack on religion. The efforts of *ijtihad* suggest that the unequal rights among Muslims are more human than divine (Benradi, 2004: 86). It shows that the opposition to a move towards more equality between the sexes is, in some cases, motivated by a commitment to a society based on patriarchal logic and male privileges rather than on an authentic loyalty to a religion (Benradi, 2004: 86).

The voting on the text of the new Family Code in the parliament happened in a particular context, a few months after the Casablanca bombings (May 16, 2003). These attacks resulted in a witch-hunt to find the radical groups and it was a sign for movements with religious connotations to keep a low profile. Not only was it necessary to avoid being associated with a radical group but it was necessary to participate in a national union to show modern and progressive Morocco. In Morocco, there are essentially two main religious movements: a political party, the Justice and Development Party (PJD) and an organization, the Justice and Charity movement (*Jamiat Al Adl wal Ihsan*) which is illegal but tolerated by the authorities. The Justice and Development Party (PJD) which presents itself as a party with moderate views approved the text of the Family Code with the other parties represented in parliament. Yet, it was opposed to the first government initiative of 1999. Actually, the party defends a quite conservative line on social issues as the place of women in society (see Willis, 2007). The Justice and Charity movement presents itself as an association promoting the idea of political change - they are asking for a change of the constitution – rather than an association with radical religious views. However, they do not defend a model of equal rights and responsibilities between men and

women. The movement presents itself as a non-violent association despite some fiery speeches of its founder, Abdesslam Yassin. Both religious groups include a feminist branch. INSAF, the feminist organization linked to the Jamiat Al Adl wal Ihsan, accepts the rejection of polygamy in certain cases, and favors the model of the nuclear family including the belief that woman can have an activity outside the house. The members of this association agitate for a feminist interpretation of the religious texts. On the contrary, ORCOFE, the women association linked to the PJD party, considers that the privileged family structure is the one defended by the old Family Code: they are favorable to polygamy, the guardianship of the father and marriage for women from the age of 15 (Ramírez, 2006; Dalmasso, 2008). According to Clifford Geertz, mass fundamentalism was held in check in Morocco since there are no "mass party, public organization or famous personalities that openly defend a hard line" (Geertz, 1968: 7; the introduction was written in 1991). Even if the religious-inspired movements express some disagreements with the content of the new legislation, their reactions were brought under control.

2.2 Positioning Morocco in the MENA Region

By implementing the reform of the Family Code, Morocco became the most progressive country in terms of Family Law matters in the MENA region after Tunisia.[5] This is reflected in the SIGI index which looks at gender inequalities embedded in social institutions, i.e. essentially de jure inequalities but it also looks at some facts (for example, excision prevalence). The higher the value of the index, the more unequal the social institutions. The SIGI index classifies Morocco as the 43rd country out of 102 developing countries but as the second within the MENA region after Tunisia (see Branisa, Klasen and Ziegler, 2009). The SIGI index is composed of five sub-indices, each of them measures a different dimension of social institutions related to gender inequality: Family Code, civil liberties, physical integrity, son preference and ownership rights. For the first sub-index, Morocco occupies the 48th position in the ranking but once again the second across the MENA countries. A complementary source of information for the relative position of Morocco in terms of women's rights is the Women Social Rights Index of the CIRI Human Rights Data Project. This index measures whether women have a series of social rights under law and whether these rights are enforced. The emphasis is therefore not only on rights de jure but also de facto. The index is measured between 0 and 3, the higher the value of the index the more favorable is the environment for women.

Before the reform of the Family Code, the value of the index was 0 for Morocco; it rose to 2 the year of the reform (2004) and decreased to 1 three years after (2007). As a matter of fact, several women's and human rights associations denounce the lack of enforcement of the law (i.e. LDDF annual reports) and this is probably the reason why Morocco experienced a fall in its score. Among the MENA countries for which the index is computed, Morocco appears to have the best score (even Tunisia has a zero value index),[6] and this is indicative of how bad the region is doing in women's social rights.

2.3 The Content of the New Family Code

The Code regulates family relations. A legal framework is established for all matters relating to marriage, dissolution of marriage, parentage, children's rights and inheritance. The creation of family courts is organized by the Code and any dispute regarding the Code should be treated by appealing to these courts. The most revolutionary changes concern the status and rights of women. Moreover, the powers of the judges specialized in family matters have been reinforced. Foblets and Carlier (2005) believe that the new Code has somehow deepened the roots of family life in the judicial system. They believe that this 'legalization' of family law is at the expense of the prerogatives of the *adouls*[7] and the *cadi*,[8] which are considerably reduced since the new Code came into force (Foblets and Carlier, 2005: 9-10). A final feature of the Code which we wish to stress is that, unlike the Tunisian Code of Personal Status, the *Moudawana* allows people to make choices (the law is not completely rigid) with respect to (i) matrimonial guardianship, (ii) the monogamous or polygamous nature of the marriage contract, (iii) the drafting (or not) of a contract to regulate all dealings involving the goods and properties of the couple.

The main changes of the Family Code can be summed up into eleven points:

1. The family is placed under the joint responsibility of both spouses. The Code indicates that the "wife is responsible, jointly with her husband, for managing home affairs and the protection of children" (Article 51, 3). Husband and wife must work together when a decision is being made concerning the family. Women no longer have to obey the husband in terms of home duties. Yet, the provision does not extend to relieving the husband's duty of supporting his wife (Foblets and Carlier, 2005: 44-45).

2. The new Code gives women the right to express their own interests, options and choices regarding matrimonial guardianship: 'A woman can have her own marriage contract or delegate, to that effect, her father or one of her

kin" (Article 25, Foblets and Carlier, 2005: 27).

3. The new Code establishes equality between men and women when it comes to the age of consent: 18 years old. The judge has the right to reduce this age in justified cases (it should be exceptional): if the marriage of a minor does not represent a danger to health or a disturbance in their life (article 20). In these specific cases, the text does not include a minimum age for marriage. "Nevertheless, the conditions required for an authorization are that the beneficiary must have the maturity and physical ability for marriage and discretion of consent to get married" (Foblets and Carlier, 2005: 25). For this to happen, the judge must consult the minor, and he must also consult the parents for their approval.[9] In addition, the judge may need to carry out a medical and social survey.

4. Polygamy is subject to severe restrictions: it is no longer a right and permission must be granted subject to the authorization of the judge. First, a non mandatory clause in the marriage contract gives the wife the right to require that the marriage is monogamous. In this case, the remarriage of the spouse is prohibited. Second, if this clause does not exist, polygamy is still subject to conditions: in addition to financial requirements, the judge must ensure fair treatment of the two wives and their children and the spouse must provide an 'objective and exceptional' reason to justify his desire to become a polygamist. Third, the woman may seek divorce on the grounds of a prejudice following the remarriage of her husband (her compensation is then provided by the spouse and the amount is fixed by the court) (Foblets and Carlier, 2005: 32-36).

5. The Code allows Moroccans living abroad to marry according to the procedure prevailing in the host country provided that two Muslim witnesses are present and the marriage is registered with the consular services.

6. Divorce is a right exercised by husband and wife, according to legal conditions which are specific to each of the parties and under judicial supervision. Divorce requires the prior approval of the court, thereby preventing, among other things, any abusive use of divorcing by the man (repudiation). The Code provides strengthened mechanisms for reconciliation and mediation. Before granting the divorce, the judge must ensure that the divorced wife benefits from all the rights granted to her (the same applies for the rights of the children).

7. The Code strengthens the rights of women to seek judicial divorce if the husband breaches one of the conditions stipulated in the marriage contract, for example, if he inflicts injury on his wife (poor maintenance, neglect of marital home, violence or other abuse). Furthermore, the Code introduces divorce by mutual consent under judicial supervision: the judge controls that divorce is not imposed by one party and pays special attention to the interests of the children.

8. The Code aims to better protect the rights of the children. Concerning custody of the children, the interests of the child must be taken into account.

From the age of 15, children can choose which parent they want to live with. Ensuring adequate accommodation of the child becomes an obligation which is separate from general maintenance.

9.   The Code protects the right of the child to be recognized by his father whether marriage has been formalized by an act, or not.

10. Children have the right of inheritance from their maternal grandfather (the only change in terms of inheritance)

11. The two spouses can agree on how to manage their property in a separate document added to their marriage contract. In case of a disagreement, the judge will base his decision on evidence provided by both spouses.

3. Methodology of Data Collection

Data was collected in 2008 in three of the 16 administrative regions of Morocco: Tangier-Tetouan, Casablanca and Souss-Massa-Draa, and 542 people were interviewed. The regions were not randomly selected but were chosen on the basis of characteristics relevant for our study. The Tetouan region was chosen for its conservatism which was repeatedly stressed in studies about the new Code. The conservatism of the region is commonly reflected in the behavior of the population and of the judges who have to enforce the legislation (Elharras and Serhane, 2006). It was also pointed out in various discussions we held with Moroccan jurists. Casablanca was chosen because of the importance of immigration in the region. Its population is heterogeneous, composed of individuals with diverse backgrounds who have learnt to live together. Inhabitants are therefore confronted with traditions and values of other social groups. Finally, the Ouarzazate region was chosen because the majority of its population is rural and a significant part is Berber. The Berber population is known for being attached to tradition and the ancestral customary law.[10] This choice should allow us to include in our study populations which have been subject to different influences in the course of their history and control for unobserved differences by including regional dummies in our analysis. Furthermore, within each region, we conducted a survey in both rural and urban areas.

We worked with the Office of National Statistics based in Rabat in order to construct a sample of 180 individuals in each region. Apart from the size of the samples, several criteria have been established: the choice of provinces, cities, rural municipalities and districts (in the city Casablanca), the allocation of the samples throughout the provinces and between urban and rural areas, and some selection criteria used at an individual level. Our framework is the sample of the National

Survey on employment, which is conducted quarterly. Annually, 60,000 house-holds are surveyed (40,000 urban and 20,000 rural). In each province, the samples of this survey are representative of the population of the province.

The choice of provinces, towns and rural municipalities was made with a view to reducing geographical distances to cover during the survey. The allocation be-tween the provinces in the same region was made according to the demographic weight of each entity within the region, while the allocation between urban and rural areas was based on the demographic weight of each group within the prov-ince.[11] In the rural communities, villages were randomly chosen. In villages and towns, individuals were selected randomly using the marital status as a stratifica-tion criterion. Other criteria included gender, level of education, age, and the living environment (only for Casablanca) have been taken into account. However, these criteria have been used only to ensure that sufficient variance exists for each of them. Concerning marital status, we imposed a strict rule using the information provided by the Office of National Statistics about the proportions of each marital status in each province of interest and in each environment. Since the proportion of divorced people in the population is very low and we are very interested in capturing a sufficient number of them, we did not reproduce the proportions of the population in the samples: we multiplied the percentage of divorced people by 5. The proportions of the other marital status categories (single, married and widow) were correspondingly reduced. We allocated the sample on the basis of these new proportions. By doing so, we artificially increased the number of divorced people. Finally, within each marital category, we chose people randomly, checking that we have sufficient variance for the other criteria. The details concerning the sample creation in each region are presented in Appendix 4.1.

In each family visited, the questionnaire was administered to a randomly cho-sen individual on the condition that he (or she) is over 18 years old. The first part of the questionnaire concerns the whole nuclear family to which the person inter-viewed belongs as well as people who are not part of the nuclear family but live under the same roof (possibly members of the extended family). The second part focuses specifically on the interviewee. The questionnaire is relatively long and contains parts that need lengthy explanations, especially the part concerning the Family Code. This part is central to our investigation and we have taken many precautions to make sure that the questionnaire was well understood. The author herself oversaw the entire investigation process. She accompanied the teams carry-

ing out the surveys in each village and participated in a large number of interviews, either partially or for the whole interview. She was thus involved in all the rural and urban surveys. The interviews were conducted either in colloquial Moroccan Arabic or in Berber (for the villages of the Ouarzazate province).

To sum up, our sample is distributed across three different regions: the grand Casablanca for which we use the name CASA, the region of Tangier-Tetouan whose denomination in the paper is TETOUAN and the region of Souss-Massa-Drââ which we name OUARZAZATE, and across two residential environments: urban vs. rural. The distribution across regions and residential environments is given in Table 4.1. It appears that the sample is quasi equally distributed across urban (274 individuals) and rural (268 individuals) areas.

Table 4.2 presents the distribution of the sample according to gender and marital status (our stratification criteria). Married people represent more than half of the sample, singles quasi a third and divorced 9%. There are more women than men in the sample; this is also reflected in the official national statistics.

Table 4.1 Distribution of the Sample across Regions and Residential Environments

	Urban	Rural	Total
CASA	123	55	178
	(69.10%)	(30.90%)	
TETOUAN	91	94	185
	(49.19%)	(50.81%)	
OUARZAZATE	60	119	179
	(33.52%)	(66.48%)	
Total	274	268	542
	(50.55%)	(49.45%)	

Table 4.2 Distribution across Gender and Marital Status

	Single	Married	Divorced	Separated	Widow	Total
Men	97	145	6	1	3	252
	(38.49%)	(57.54%)	(2.38%)	(0.40%)	(1.19%)	(46.58%)
Women	72	148	43	6	20	289
	(24.91%)	(51.21%)	(14.88%)	(2.08%)	(6.92%)	(53.42%)
	169	293	49	7	23	541
Total	(31.24%)	(54.16%)	(9.06%)	(1.29%)	(4.25%)	

4. Main Assumptions

From a theoretical point of view, at least three obstacles to the identification of women with the law can be thought of. First, some women have already internalized the values of the dominant party, the men, and follow the right way to behave as defined by a patriarchal society. In this case, they might even defend patriarchal values with more enthusiasm than men. Kabeer (1999) indicates that the internalization by women of their social status as persons of lesser value has been largely emphasized in the literature on gender and well-being. Kabeer (1999: 440) also points out the fact that such behavior can have adverse implications for their own well-being as well as for the well-being of other female family members (see, for instance, Shaffer, 1998, in the case of Republic of Guinea). According to Axelrod (1986), the internalization of norms and values means that violating an established norm is psychologically painful even if the direct material benefits are positive. Second, the fear of conflicts in the sphere of informal relations, i.e. relations within the family, will make some women refuse to appeal to the new law. Third, some women have a different understanding of what is good for them. In fact, some women consider that they are better protected by tradition. Indeed, some women we met on the field explained that they prefer to marry with the consent of their father (their official guardian as long as they are single).[12] They think that, thanks to his consent, they will be respected in their husband's family and will enjoy a stronger bargaining power within their nuclear family. Notice that the first and the third obstacles are closely linked to each other but the logic behind each of them is not the same. When there is an internalization of patriarchal values, no alternative to the tradition is conceivable. Yet, new legislation opens a window of possibilities for women. As pointed out by Kabeer (1999: 442), "we have to ask ourselves whether other choices were not only materially possible but whether they were conceived to be within the realms of possibility". Furthermore, Posner (1997) adds that when a norm is fully internalized, there is no personal choice; the choice is made by relatives, peers, etc. In the case of the third obstacle, women are, in a sense, choosing their second best option.

On the other hand, in a patriarchal society, men attached to their privileges are likely to oppose a reform that induces more equality in rights between men and women. They might perceive the new rights given to women as a threat to their privileged position in the family. This threat is serious since the new Family Code calls into question the identity of the family.

The three aforementioned obstacles to the identification of women with the law can be caused by several factors. We will essentially focus on three of them: education, location (urban vs. rural) and religion. These same factors could also influence the position adopted by men with respect to the law.

First, education calls dominant values and traditional ways of doing things into question. Numerous studies link education to liberal attitudes (see Phelan et al, 1995) and to the promotion of individualist values (Weakliem, 2002). Regarding this last point, Cavatorta and Dalmasso (2009) explain that the Code represents a fundamental transformation of the Moroccan society in the sense that it notably integrates the fact that social modernization requires a rebalancing of rights in favor of the individual over the collective (p. 489). Insofar as educated people are open-minded and progressive, they are likely to support the effort of the lawmaker in adapting the law to the evolution of society. Also, because educated women have better outside options, they are more able to assert their rights if a family conflict arises.

Second, the place where people live may affect their perceptions and, as a consequence, their position with respect to the law. In urban areas, people are exposed to new values and experiences that might impact on their behavior, whereas, in rural areas, people are deemed to be more respectful of traditional values. As a matter of fact, observations made by sociologists support the idea that less populated communities are more conventional and less prone to cultural change (Chou et al, 1982; Fisher, 1978; both cited by Coleman et al., 1989). Fisher (1978) argues that innovations and new opinions emerge first in urban areas and diffuse afterwards to less populated communities. As the process of change is continuous, a gap persists between the two kinds of areas in terms of social attitudes. In the case of Morocco, Bourqia (2005) explains that social changes since the independence in 1956 have caused the emergence of new, more individualistic values.[13] The evolution of values is likely to be more rapid in urban areas given that they are more connected to the external world. As a rule, urban people are expected to be more 'progressive.'

Third, concerning religion, contrary to the widely held view the Western world tends to proclaim, it is not clear whether Islam supports unequal rights between men and women. This is a question of interpretation of the Quran, the *Hadith* (statements of the Prophet) and all other religious sources. Actually, there exist four major sources of Islamic jurisprudence (Quran, *Sunna* including *Hadith*, *Ijtihad* and Ijma (consensus)), the primary one being the Quran (Al-Hibri et al., 2006:

152). There is no unique interpretation of religious prescriptions and four schools of thought coexist (Hanafi, Maliki, Shafi'i, and Hanbali schools) in Sunni Islam.[14] The reform of the Code has largely been justified by a reinterpretation of the Quran (*Ijtihad*), in reference not only to the Maliki School - the dominant school in Morocco – but also to the other schools of Sunni Islam. Moreover, religious practices are the result of the interaction between religious prescriptions on one hand, and dominant local customs and traditions preexisting to the introduction of Islam, on the other hand. This explains why there are custom-based legal differences among Muslim countries (Al-Hibri et al., 2006: 156; see also Platteau, 2008). In addition, some conservative movements such as Wahhabism or Salafism which defend a puritanical interpretation of Islam are trying to extend their influence in regions characterized by more progressive schools of thought.

The multiplicity of movements creates antagonisms in an important part of Muslim societies. On one side, some interpretations are more favorable to women than traditions.[15] In this case, the approach supports the idea that the interpretation must be adapted to the evolution of society. Al-Hibri et al. refer to the juristic principle that 'laws change with the change of time and place'. This principle does not encompass basic Islamic principles that are unchangeable, but derivative ones that are capable of adaptation (Al-Hibri et al., 2006: 156). Some Muslim jurists have also embarked on a gender-sensitive reading of the Quran which is more favorable to women (Al-Hibri et al., 2006: 156). On the other side, an interpretation exists based on patriarchal values. Al-Hibri et al. (2006: 155) point out the fact that "patriarchal thinking found expression within Islamic jurisprudence at various levels, including interpretation of the Quran, validation and interpretation of *Hadith*, and selective adoption of cultural customs". Consequently, religion can precisely determine the obstacles to the identification of women with the law, thus undermining the law, if its current interpretation favors the dominant party, i.e. the men. If puritanical religious traditions predominate, they might thus inhibit the success of reforms.

The interpretation of religious prescriptions is also a central issue for individual perception-building about the duties of a 'good Muslim.' Traditionally, the Islamic law is divided into two general categories: *ibadat* or matters of worship (between a person and God), and *mu'amalat*, or transactions (among people). These two categories represent the duties by which Muslims have to abide. The first category includes matters of faith, such as prayer, fasting, and tithing. The second category

includes matters such as contract law, property law, and constitutional law. Both categories are proper subjects of Islamic jurisprudence and are governed by the Quran and *Sunna* (Al-Hibri, In Witte & Ellison, 2005: 188). At present, in Morocco, the *mu'amalat* are governed by positive law. The rules are not based on religious principles and they apply to everybody.[16] The *ibadat*, that encompass religious personal practices, are for the believers a way to signal their degree of religiosity. One may expect that more conservative believers practice more. At the same time, a believer who practices intensely is not necessarily a conservative person. Since there is no consensus concerning religious prescriptions about women's rights, we might observe a variety of attitudes towards the Code. One may suspect the existence of an ambiguous relationship between the intensity of religious practice and the support for the law, and this justifies an empirical analysis.

Several anthropologists and political scientists argued that, in the case of Morocco, religious puritanical movements are essentially present in urban areas and attract educated people (see, for instance, Geertz 1968; Lapidus, 2002; and Tozy, 1999). We therefore suspect the existence of complex interactions between education and agents' religiosity. Consequently, we want to test for the following assumption: the intensity of the religious practice has an ambiguous effect on the support of the law, depending on the agent's level of education.

5. Key Variables and Descriptive Statistics

In this section, we define the key variables used in our analysis: support of the law, intensity of religious practice and education; and we present the relevant descriptive statistics. The questionnaire is very long and complex. For the purpose of our analysis, we constructed several variables using raw data. The construction of each of these variables is explained in the following sub-sections.

5.1 Support of the Law

The main part of the questionnaire is dedicated to the new Family Code. In this section, we identify how much information is held by the respondents concerning the new legislation, their position with respect to eight particular clauses of the new Code, and their opinion vis-à-vis hypothetical situations that may occur in family life (for instance: "If your daughter marries without involving

her guardian, i.e. without notifying his consent in the marriage contract, will you accept her choice?")

The questions about the clauses of the Code allow us to measure the degree of the respondents' adherence to the new legislation. The clauses that were chosen are the most sensitive in the sense that they have triggered a lot of debates and controversies. They are generally the ones that have changed significantly. These clauses have been explained in Section 1.2 as they are part of the eleven afore-mentioned main changes of the legislation. They concern (1) the joint responsibility of the family, i.e. the family is under the responsibility of both spouses, (2) the husband's duty of supporting his wife, (3) the removal of one of the wife's duties: the obedience to her husband, (4) the marriage of women without the consent of their guardian, (5) the marriage of minors in age, (6) polygamy, (7) divorce, and (8) the contract which states how to manage property in the case of divorce. For each of these clauses, we ask the respondent to notify the information she/he has concerning the clause, whether she/he is supporting the change, and whether she/he considers that the new clause is in accordance with religious principles of Islam, and in accordance with local customs. In the case where the respondent is not correctly informed about the clauses, we explain the content of the law to him/her before asking other questions.

For each clause, we know if the respondent is favorable or not, and hence we know how many clauses out of eight she/he supports. We can, therefore, construct a variable indicating whether the respondent is strongly supporting the Code or not. Toward that purpose, we have to fix a threshold above which we will consider that the support is effectively strong. By looking at the data, we observe that for three clauses, the support is very high (above 87% of the respondents).[17] Consequently, we argue that supporting less than four clauses indicates that the respondent is not really a fervent defender of the new law. For three others clauses, the support is quite high (75%, 79% and 81% of the respondents).[18] Lastly, two clauses exist which are supported by less than one third of the respondents: the one concerning the removal of the wife's duty to obey her husband and the one concerning the marriage of women without the official consent of their guardian. We therefore define as a strong support of the new legislation a respondent's attitude that is favorable to seven or eight clauses of the Code. Indeed, this means that they support at least one of the most debatable clauses and at the same time, are favorable to a large number of clauses. The variable called STRONG_SUP-

PORT is equal to one if the respondent supports more than six clauses, and to zero otherwise. This variable is the dependent variable used in our analysis.[19]

From the data, we observe that 96% of those supporting the two debated clauses appear as strongly supporting the Code (STRONG_SUPPORT=1). 83% support all the dispositions and 13% support seven dispositions out of eight. 80% of those supporting the disposition concerning the end of the wife's obedience to her husband strongly support the Code while 67% of those supporting the disposition concerning the marriage of women without the official consent of their guardian strongly support the Code.

A second approach that we follow in the paper uses the information concerning the support for the law at a disaggregated level (see Section 7.4 and Appendix 6). Instead of using as a dependent variable a dummy indicating if the support for the law is strong or not, we use the information we received about the support for each of the eight clauses. We estimate a system of equations composed of eight equations, one equation per clause. Each dependent variable is a dummy whose value is one if the respondent supports the clause. We also estimate a biprobit model in which we focus on the two clauses that are the least supported; clauses 3 and 4. This approach allows us to look at the sensibility of our main factors to the different elements of the law.

A third approach would be the use of a continuous dependent variable corresponding to the number of clauses supported by each individual. However, there are at least two reasons for not opting for this approach. First, by using a continuous variable, we might consider individuals as being identical while they are deeply different in the sense that they took a different position on the Code. In fact, two individuals supporting the same number of clauses might actually support different clauses. For instance, in the case where two individuals support each one four clauses, the first may support clauses 1 to 4 and the second, clauses 5 to 8. If it is the case, one cannot consider that these two individuals support the law in the same way. By choosing a high threshold for the construction of our variable STRONG_SUPPORT, we considerably limit this problem. Second, the use of a continuous dependent variable is not adequate given our purpose: the identification of people who strongly support the change of the legislation. The research question will be different and will not correspond to the study of the adherence to the law as a whole. We will look at the correlation between some key factors and the number of clauses supported rather than the relationship between some key factors and the probability of strongly supporting the new law.

A corollary to the third approach would be the use of an ordered variable constructed on the basis of the proportions of respondents who support a specific number of clauses. For the whole sample and for both subsamples of women and men, we can identify threshold numbers of clauses at which we observe jumps in the proportion of adherents. For the whole sample, three groups can be identified: those who support less than 6 clauses (34%), those who support 6 clauses (32%) and those who support more than 6 clauses (34%). For women, three groups are identified using the same threshold values: those who support less than 6 clauses (16%), those who support 6 clauses (37%) and those who support more than 6 clauses (47%). For men, we also identify 3 groups but the threshold values are slightly different: those who support less than 5 clauses (40%), those who support 5 or 6 clauses (41%) and those who support more than 6 clauses (19%).[20]

The proportions of individuals strongly supporting the law in the above-defined sense are presented in Table 4.3, for the whole sample and for all the categories comprising our key variables. Only one result is according to expectations: women are much more likely to support the Code. The other results are rather surprising.

First, the proportion of individuals strongly supporting the Code is not significantly different between urban and rural areas. Second, educated people (baccalauréat[21] or university degree) are slightly more in favor of the new legislation but the difference is not significant. Third, people with a moderate religious practice

Table 4.3 Proportion of Respondents Strongly Supporting the Code

Categories	Nr. Obs.	STRONG_SUPPORT (%)	P-value
Whole sample	541	33.83	
Women	289	46.71	0.000
Men	251	19.05	
Rural	267	32.96	0.674
Urban	274	34.67	
Without education	235	33.62	0.928
Primary	110	32.73	0.785
Secondary	115	33.04	0.842
Bac or university degree	81	37.04	0.508
Low religiosity	178	32.02	0.535
Moderate religiosity	179	37.99	0.150
High religiosity	184	31.52	0.416

are proportionally more favorable to the new law.[22] However, the difference with respect to the two other groups (people with a low practice and a high practice) is not significant.

5.2 The Intensity of Religious Practice

One of the sections of the questionnaire is dedicated to religious practices. Each respondent was asked whether she/he obeys a series of practices. In the affirmative, she/he was asked about the frequency of her/his practice. The combination of the responses to these two kinds of questions allowed us to construct several discrete variables: for each practice, the higher the value of the variable, the higher the intensity of the practice. We then used these variables to construct an aggregate index measuring the intensity of religious practice by applying the Multiple Correspondence Analysis methodology.[23] The questions that were used to construct this index concern the obligatory prayers (five per day), the prayer at dawn (*fjar*), the prayer during the night (*qyam layl*), the non-obligatory prayers (*nawafil*), the supplementary prayers of the Ramadan (*tarawih*), the fasting beyond the Ramadan, the tithing duty called *zakat*, whether the respondent owns the Quran, whether the respondent owns the *Hadith*, whether the respondent owns books about the Islamic thought, whether the respondent looks at religious programs on TV, and whether the respondent shares her/his knowledge of religious principles with her/his circle of kin, friends and neighbors.[24] We decided not to keep questions about readings as they will bias the 'score' of the respondents who cannot read. We also decided to remove the question concerning visits to the mosque since this question will bias the 'scores' in favor of men. We believe that it is essential to have a multidimensional measure of the religious practice because the importance that a respondent attaches to each practice is subjective. Consequently, by arbitrarily choosing one specific practice as a proxy for the respondent's religiosity, we are likely to obtain different rankings across individuals depending on the choice of the practice. Moreover, the use of a multidimensional index takes into account the accumulation of various practices. As for the Multiple Correspondence Analysis, it allows for the existence of proximities between individuals and 'correlations' between variables. We constructed the variable REL1, as we define it, and it is the first dimension in the Multiple Correspondence Analysis. It is therefore continuous: the higher the value of the variable, the more intense the religious practice.

The use of a factorial technique could be criticized for at least two reasons. First, the technique aggregates information from several variables that sometimes represent quite different aspects that are difficult to combine so that we do not know what the aggregate information represents. In our case, we aggregate information by using a series of categorical variables that all measure the same thing, the intensity of a specific religious practice, and all practices are measured in the same way: the higher the value the more intense the practice. Consequently, we do not think that it is problematic to combine the information provided by these categorical variables. Second, even if an index is easy to interpret (in our case, the higher its value the more intense the religious practice) a precise interpretation of the results obtained in an econometric analysis is difficult. In fact, if we observe that an increase of 'a' in the index leads to an increase of 'b' in the dependent variable, we cannot concretely indicate what an increase of 'a' represents. However, we can get a sense of the importance of this increase by comparing it for instance to the standard deviation of the index. In order to test the validity of our measure and the robustness of our main results, we construct an alternative index using the same categorical variables. We create the variable REL2 by adding up all the categorical variables that compose REL1. We find that the correlation between REL1 and REL2 is very high: 0.96. Table 4.4 presents the main descriptive statistics for both variables when considering the full sample and several subsamples.

We observe from Table 4.4 that individuals living in urban areas practice more but the difference with individuals from rural areas is not significant. Moreover, the variance of the practice is slightly higher in cities. Women practice significantly more than men, and among men, the variance of the practice is higher.[25]

5.3 Education

Concerning education, we asked the respondent whether she/he has ever been to school. In the affirmative, we asked her/him which is the highest level of education she/he completed. In the case she/he is still at school, we asked for her/his actual level. We used the responses to these questions to construct categories composed of individuals with different levels of education. We constructed several binaries, each of them representing one specific level: NO_EDUC for people who have never been at school or people who just followed lectures in a mosque; PRIMARY for people who achieved a primary school education; SECONDARY for people

Table 4.4 Indices Measuring the Intensity of Religious Practice

Religion						
Categories	Nr. Obs.	Mean	Std. Dev.	Median	Min	Max
REL1						
Full sample	541	-0,0017	1,0016	0,1625	-2,2762	1,9162
Rural	267	-0,0315	0,9348	0,1239	-2,2762	1,7869
Urban	274	0,0274	1,0635	0,2129	-2,2044	1,9162
P-value = 0.494						
Women	289	0,2036	0,8112	0,2895	-2,2762	1,9162
Men	252	-0,2371	1,1397	-0,0736	-2,2762	1,8195
P-value = 0.000						
REL2						
Full sample	541	18.3993	8.8942	19	1	43
Rural	267	18.1798	8.1340	19	1	41
Urban	274	18.6131	9.5873	19	2	43
P-value =0.572						
Women	289	20.0830	7.7100	20	1	43
Men	252	16.4683	9.7455	16	1	41
P-value = 0.000						

who achieved the collège education (the first four years of the secondary school) and for people who went to the lycée (the three last years of the secondary school) without obtaining the baccalauréat; HIGH_EDUC for individuals who completed the baccalauréat or a university degree (or an equivalent one). We also constructed a dummy variable EDUC whose value is one for the respondents who achieved the collège education, the respondents characterized by a lycée level (with or without the baccalauréat) and those who obtained a university degree (or an equivalent degree). This variable is thus a combination of the variables SECONDARY and HIGH_EDUC. Table 4.5 presents the distribution of the respondents across the different levels of education.

A large part of the sample is composed of people who have not taken part in the education system (43.44%). This is very much in line with the reality of Morocco. In fact, Morocco is characterized by a high illiteracy rate (55.6% of the adult population).[26]

Table 4.5 Distribution of the Respondents by Level of Education

	No education	Koranic school	Primary	Collège	Lycée (without Bac)	Lycée (with Bac)	University	Total
Men	51 (20.24%)	27 (10.71%)	50 (19.84%)	41 (16.27%)	26 (10.32%)	35 (13.89%)	22 (8.72%)	252
Women	151 (52.25%)	6 (2.08%)	60 (20.76%)	36 (12.46%)	12 (4.15%)	10 (3.46%)	14 (4.84%)	289
Total	202 (37.34%)	33 (6.10%)	110 (20.33%)	77 (14.23%)	38 (7.02%)	45 (8.32%)	36 (6.66%)	541

6. Empirical Methodology

Our purpose is to identify the key determinants of support for the law. In our analysis, we use as our main dependent variable a dummy whose value is 1 when the respondent strongly supports the law. The support for the law is conditional, among other things, on the perceived legitimacy of the law which is, in turn, influenced by a series of factors. In this study, we look at the impact of essentially three variables of interest: education, religion and location. First, we estimate a reduced form model and add successively explanatory variables, and we finally allow for interaction between education and the intensity of religious practice. Whether the effect of the intensity of religious practice on the support for the law varies with the level of education is the effect that we want to test through the interaction term.

Our main dependent variable is a dummy. In this case two kinds of models can be estimated: a linear probability model and a non-linear model (Probit or Logit). The linear probability model considers that the probability of success or failure is a linear function of the independent variables. Consequently, in this model, the marginal effect of each independent variable is constant. Whatever the initial value of the explanatory variable, a unit variation of this variable will always imply the same variation of the probability of success. This is one of the drawbacks of this method. Two more problems can arise. First, the expected probability of success or failure may lie out of the interval [0,1]. Second, one should expect a problem of heteroskedasticity. If it is the case, the estimated coefficients are unbiased but the standard errors are no longer valid for constructing confidence intervals and t statistics (Wooldridge, 2002: 248). In the Probit and Logit models, the expected probability is an increasing non-linear function of the explanatory variables. Consequently, the marginal effect induced by a one unit variation of the explanatory variables is not constant. Moreover, the probability of success is strictly between 0 and 1.

However, the use of an interaction term in non-linear models is slightly more complex than in linear models. In fact, we have to test for the sign and the significance of the interaction term by using the methodology proposed by Norton, Wang and Ai (2004). The results concerning the interaction term are not straightforward. We need to base the test about the statistical significance on the estimated cross-partial derivative of the expected value of the dependent variable. For a simple interaction, the test is quite easy. However, we will occasionally use models with a double interaction term. In this case, the test proposed by Norton and al. cannot

be directly implemented. Consequently, by using a non-linear model we cannot interpret the coefficient of the interaction terms. A doubt will persist concerning their sign and their significance. In those cases, we will therefore use a linear probability model. Following Wooldridge (2002: 455), "if the main purpose is to estimate the partial effect of x_(j)on the response probability, averaged across the distribution of x, then the fact that some predicted values are outside the unit interval may not be very important. The linear probability model need not provide very good estimates of partial effects at extreme values of x".[27] Moreover, in practice, OLS estimation provides a good guide to which variables are statistically significant (Cameron and Trivedi, 2005: 495). Finally, a big part of our explanatory variables are discrete variables (most of them are dummies). In this case, the linear probability model is completely general in the sense that we need not worry about fitted probabilities less than zero or greater than one (Wooldridge, 2002: 456-457). Our results are corrected for heteroskedasticicity. We provide the heteroskedasticity-robust standard errors.

In models with simple interaction term, we use a Probit model. The conditional expected value of the dependent variable is given by the following expression:

$$E[y \mid Rel, Educ, Z] = \Phi(\beta_R Rel + \beta_E Educ + \beta_{RE} Rel*Educ + Z\varphi) = \Phi(u)$$

Where Φ corresponds to a standardized normal cumulative distribution function; Rel represents the variable RELIGION which measures the intensity of religious practice; $Educ$ corresponds either to the dummy variable HIGH_EDUC, or to the variable EDUC; Z is a vector of the characteristics of the individual and the household to which she/he belongs.

We use a linear probability model whenever a double interaction term is introduced. In this case, the model we estimate is characterized by the following specification:

$$y_i = a + \beta_1 Rel_i + + \beta_2 Educ_i + \beta_3 X_i + \beta_4 Rel_i*Educ_i + \beta_5 Rel_i*X_i$$
$$+ \beta_6 Educ_i*X_i + \beta_7 Rel_i*Educ_i*X_i + Z\varphi + \varepsilon_i$$

Where y_i corresponds to the dummy variable STRONG_SUPPORT whose value is 1 if the individual i expressed a strong support to the Code; Rel_i represents the intensity of religious practice; $Educ_i$ corresponds either to the dummy variable HIGH_EDUC, or to the variable EDUC; X_i corresponds successively to several

dummy variables whose value is one for some specific social groups for which we want to test if a differential effect exists; *Z* is a vector of individual *i*'s characteristics and characteristics of his household; and ε_i is the error term.

First, we estimate our models using the whole sample. In a second step, we create two subsamples according to the gender of the respondents. Finally, we work separately on the sample of single individuals and married people.[28] This allows us to introduce characteristics of parents for the single individuals and characteristics of spouses for the subsample of married people. This last approach allows us to adopt a matching perspective in the analysis of the position adopted by married people.

An alternative approach that we present in Section 7.4 uses the information concerning the support for the law at a disaggregated level. Instead of using as a dependent variable a dummy indicating if the support for the law is strong or not, we use the information we received about the support for each of the eight clauses. We estimate a system of equations composed of eight equations, one equation per clause. Each dependent variable is a dummy whose value is one if the respondent supports the clause. The independent variables are the same in all the equations. We estimate both a SURE model and a multivariate probit. We also estimate a biprobit model by focusing on the two most debatable clauses of the new Family Code; clauses 3 and 4. The results of this approach are presented in Section 7.4 and Appendix 4.6.

7. Results

First, this section presents some basic evidence consistent with observations made by anthropologist and political scientists: conservative religious movements attract educated people. We then provide some descriptive statistics to identify the characteristics of men who are ready to accept more equality in rights between men and women. In Section 7.2, we present the main results concerning the identification of the key factors playing a role in the support for the law. The results are presented successfully for the whole sample, the samples of men and women. Section 7.3 presents the results for the samples of single individuals and married people . This last approach allows us to adopt a matching perspective. In Section 7.4, we provide a discussion about alternative approaches for analyzing the support for the law that are based on disaggregated information.

7.1 Introductory Evidence

The main hypothesis we want to test is whether the correlation between the intensity of religious practice and the likelihood of supporting the Code varies with the level of education. This hypothesis is derived from observations made by anthropologists and political scientists according to whom conservative religious movements attract essentially educated people in urban areas. From our data, it appears that among educated people the mean level of religiosity of those supporting the code is significantly (at 5% level) lower than for those who do not strongly support the Code. For non-educated and poorly educated individuals, we observe the opposite: the mean level of religiosity of those supporting the code is significantly (at 1% level) higher than for those who do not strongly support the Code. The box plots in Figure 4.1 presents the dispersion of the index measuring the intensity of religious practice for different levels of education (EDUC=1 and EDUC=0) and by making a distinction between those who support the new legislation (STRONG_SUPPORT=1) and those who do not (STRONG_SUPPORT=0). We can perceive the difference in means between people who strongly support the law and those who are not supportive. In the regression analysis we will verify whether these relations persist when controlling for other relevant characteristics of the respondents.

From our data, it clearly appears that women are more supportive than men (see Table 4.3). However, there is a non negligible part of men who are in favor of the law (about 20%). In Tables 4.6 and 4.7, we provide some insights about the characteristics of those men who are favorable to more equality in formal rights between men and women. We separately consider single men and married men in order to introduce information about parents and partners.

It appears that single men who strongly support the law are more educated; they have parents with higher levels of education; they are more likely to have a mother who exercises an income generating activity; they are less likely to have a father coming from rural areas; they are less conservative in terms of religious matters;[29] and they are less in favor of the traditional practice of endogamy. They also appear to be less religious, more urban and of higher socio-economic status but these last differences are not significant.

From Table 4.7, we observe that married men who strongly support the law are more educated; they match better in terms of education and age with their wives; their wives were older at the time of marriage; they have fewer children; they are

Figure 4.1 Support of the Law, Religiosity and Education
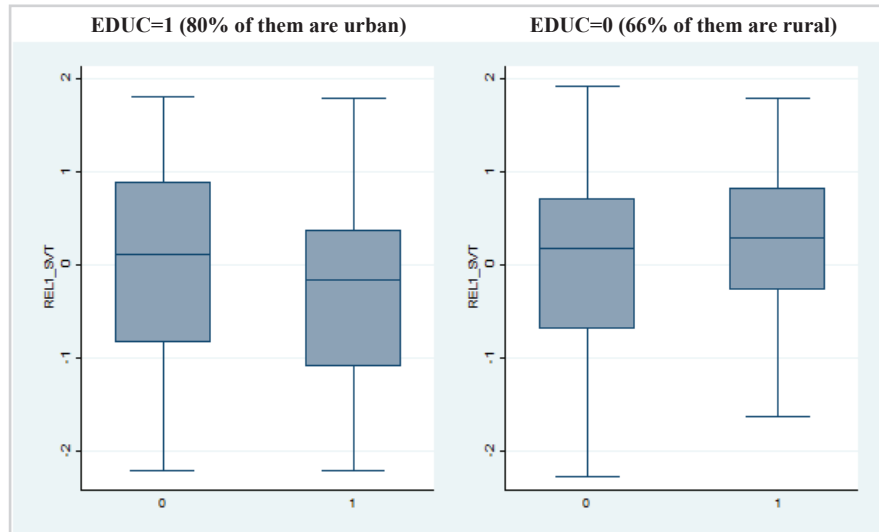
Table 4.6 Descriptive Statistics for Single Men

	Not Supportive	Supportive	P-value
REL1	-0.5921	-0.8922	0.1443
PRIMARY	15.58%	0%	0.059*
EDUC	66.23%	100%	0.002***
RURAL	46.75%	30.00%	0.178
NB_ROOM	0.8412	0.9938	0.2112
MOTHER_EDUC	1.3425	2.15	0.0005***
FATHER_EDUC	1.6866	2.8333	0.0000***
MOTHER_AGE_MAR	18.5333	19.4167	0.2281
FATHER_AGE_MAR	25.25	24.727	0.4078
MOTHER_ACT_REV	8.33%	44.44%	0.000***
FATHER_ACT_REV	81.25%	100%	0.060*
MOTHER_BIRTH_RURAL	38.96%	20%	0.113
FATHER_BIRTH_RURAL	37.66%	15%	0.055*
REL_CONSERV	0.1558	-0.2701	0.0461**
ENDOG_MAR	70%	95%	0.022**
FAM_AUTORITY	14.67%	20%	0.561

Table 4.7 Descriptive Statistics for Married Men

	Not Supportive	Supportive	P-value
REL1	0.0827	-0.1991	0.1301
PRIMARY	27.3%	18.18%	0.385
EDUC	30.63%	50.00%	0.079*
RURAL	55.86%	45.45%	0.371
NB_ROOM	0.9125	1.0009	0.2403
DIST_AGE	7.4182	5.5909	0.0545*
DIST_EDUC	0.4324	0.0909	0.0184**
WIFE_AGE_MAR	19.7615	22.3182	0.0178**
HUSB_AGE_MAR	27.0991	27.9091	0.2795
WIFE_ACT_REV	10.91%	4.55%	0.360
HUSB_ACT_REV	90.09%	81.82	0.262
NR_CHILD	3.5766	2.5455	0.0304**
DAUGHTER	72.97%	68.18%	0.647
REL_CONSERV	-0.0939	-0.4831	0.0695*
ENDOG_MAR	62.63%	78.95	0.171
FAM_AUTORITY	15.32%	33.33%	0.050**

less conservative in terms of religious matters; and they are less favorable to the existence of a central authority in the family. They are also less religious, more urban and of higher socio-economic status but these last differences are not significant.

7.2 Main Results

7.2.1 Whole sample

Table 4.8 presents the results obtained by using the full sample. The dependent variable is the dummy STRONG_SUPPORT whose value is one for the respondents strongly supporting the Code. The variable RURAL is a dummy variable whose value is one when the respondent is living in a village. The variable AGE is a continuous variable indicating the age of the respondent. The variable NR_ROOM gives the number of rooms per person living under the same roof as the respondent.[30] This variable is a proxy for the level of wealth of the respondent's family. The variable EDUC is one if the respondent achieved at least the collège level of education. PRIMARY and NO_EDUC represent the other levels of edu-

cation. NO_EDUC has not been introduced in the regression in order to avoid a problem of multicollinearity; it acts as the reference category.

First, we estimate a very simple model in which we want to verify if location per se has an influence on the position of the respondents with respect to the new legislation. In the first regression (regression (1)), we control for the gender of the respondent, her/his age and the socio-economic status. In regression (2), we add the level of education. In regression (3), an index measuring the intensity of religious practice REL1_STV is introduced as an explanatory variable.[31] In the last regression of Table 4.8 (regression (4)) the variables REL1_STV and EDUC have been interacted. We also introduce regional dummies in order to control any regional unobserved characteristics that may affect the results. These dummies capture, among other things, differences in local customary rules and social norms. For the interaction term, we verify the sign and significance of the coefficient by following the approach proposed by Norton et al. (2004). The results of this test are found in the last two rows of each table.

From Table 4.8, we observe that one very critical factor is gender; women are more likely to be in favour of the new legislation. This result is quite intuitive given that they appear as the first beneficiaries of the change in the legislation. In fact, the new law improves their status and strengthens their rights. It appears that the better the socio-economic status is, the higher the probability that an individual supports the new Family Code. Location per se does not seem to have any decisive influence on the support of the law. Education beyond a certain threshold level (collège degree) leads to a higher probability of supporting the new legislation.[35] A priori, religiosity does not appear as a key determinant of the support for the Code (regression (3)). However, when interacted with the variable EDUC, religiosity seems to matter and distinct effects are revealed depending on the level of education. The intensity of religious practice is positively correlated with the likelihood of supporting the law among non-educated and poorly educated people. For educated people, we observe an additional negative and significant effect (at 1% level). By computing a Wald test, we find that a negative and significant (at 1% level) correlation exists between the intensity of religious practice and the probability of supporting the new legislation among educated people. We thus observe that the correlation between the intensity of religious practice and the support of the law is different across individuals and depends on their level of education. Another reading of these results is that the positive effect of education is lower when the religious practice is more intense.

Table 4.8 The Whole Sample[32]

	(1)	(2)	(3)	(4)	
Dependent Variable: STRONG_SUPPORT					
	Whole sample	Whole sample	Whole sample	Whole sample	**Average Marginal Effects**
FEMALE	0.768***	0.885***	0.897***	0.952***	0.3106
	(0.119)	(0.126)	(0.130)	(0.136)	
AGE	-0.00618	-0.00248	-0.00201	-0.00257	-0.0008
	(0.00380)	(0.00408)	(0.00432)	(0.00440)	
NR_ROOM	0.184**	0.174**	0.174**	0.176**	0.0565
	(0.0761)	(0.0747)	(0.0745)	(0.0755)	
RURAL	-0.112	0.0493	0.0469	0.102	0.0328
	(0.124)	(0.143)	(0.143)	(0.145)	
PRIMARY		0.101	0.0989	0.175	0.0572
		(0.165)	(0.165)	(0.168)	
REL1_STV			-0.0217	0.177**	0.0568
			(0.0642)	(0.0830)	
EDUC		0.404**	0.406**	0.476***	0.1528
		(0.172)	(0.173)	(0.177)	
REL1_STV_EDUC				-0.460***	-0.1475
				(0.125)	
CONSTANT	-0.903***	-1.400***	-1.426***	-1.570***	
	(0.206)	(0.294)	(0.305)	(0.309)	
Regional dummies	Yes	Yes	Yes	Yes	
Nr. Observations	540	540	540	540	
Pseudo-R2	0.0851	0.0933	0.0934	0.1141	
Sign of the IT[a]				Neg.	
Significance of the IT[a]				***	

*Notes: * significant at 10% level, ** significant at 5% level, *** significant at 1% level; Robust standard errors are in parentheses; a: IT = interaction term*

These results establish the existence of interaction effects between religion and education. Moreover, in order to achieve an education beyond primary level, rural residents have to move to urbanized areas. Rural people who have received post-primary education have thus been exposed to a new universe and set of experiences. Our results suggest that people who have participated in the urban education

system (from urban or rural areas) and are characterized by a high level of religiosity are less likely to support a progressive legal reform. To understand this result, it is essential to focus on the recent evolution of the Moroccan society with a special attention to the education system.

In Morocco, we observe that puritanical movements are essentially present in urban areas where they mainly attract educated people. They have been present in universities since the 80s. These groups exert an important influence on university life: "with regard to cultural activities, the content of the courses, students' diary life, they impose permanently a quite conservative Islamic view of society, encouraged by the permissiveness of the professors who are de-motivated given their low salaries and the absence of a hierarchy" (Dalle, 2004: 706). They also control associations and student unionism (Dalle, 2004: 708; Tozy, 1999: 181). In the same vein, Clifford Geertz indicates that, in Morocco, fundamentalism is above all present in universities and some outlying regions (Geertz, 1968: 7; introduction rewritten in 1991). The influence of conservative movements is also detected at lower levels of education. The decline in the quality of public education leads to the creation of private schools, some of them being linked to religious movements, on the one hand, and to the supply of extracurricular activities by teachers linked to religious groups, on the other hand. They offer, for instance, free extra classes for students who need to catch up and have collective revision sessions. They also work as teachers or members of the administrative staff in public schools.[33] Moreover, they are active in centers which train future teachers (Tozy, 1999: 180-84). There are essentially two main movements active in the Moroccan society: Al Adl wal Ihsane and the PJD. Even if the two movements are not equally conservative in terms of family matters and women's rights, Willis (2007) points out the fact that many of the members and supporters of the two main religious movements have views that are substantively more radical than the ones expressed by their leadership.

The existence of radical positions among the intellectuals is not new. During the protectorate and at the time of the independence, the return to a scripturalist tradition was initiated by intellectuals in Arabized cities (Geertz, 1968).[34] Intellectual nationalists of the most important towns of the country joined the sripturalist Allal el-Fassi in order to launch the National Movement, the first mass movement for independence (Geertz, 1968: 95). By referring to the Berber Dahir of 1930, which allowed the Berber mountain tribes to use the customary law in civil disputes while

placing them under the French criminal code, Clifford Geertz points out the following fact: "Coinciding with the rise of the intense Islamic puritanism of the Egyptian and Afghan-Parisian reformers Abduh and Al-Afghani among the notables of the Arabized towns, and particularly those around the ancient Qarawiyin University at Fez, the Berber Policy and its implied threat to Islam stimulated the growth of nationalism under the banner of defending the faith against European-sponsored secularization and Christianization " (Geertz, 1975: 299). Furthermore, Lapidus stresses the fact that "Moroccan reformers, inspired by Muhammed Abduh, began an educational movement in Fez, Rabat, Salé, and other towns, founding schools to teach Arabic grammar, ethics, logic, Islamic history, and arithmetic, but not modern sciences. The Salafiya stressed the purification of Islam, opposing to saint worship, and defense against Western cultural encroachment " (Lapidus, 2002: 609).

On the one hand, the movement for independence opposed to the occupying forces was based on religion: this is the Islam of the Opposition as referred to by Clifford Geertz. On the other hand, the scripturalist doctrine was not exclusively oriented against the western values but also against traditional practices such as Maraboutism (Geertz, 1968: 81, Lapidus, 2002: 609). As for the Monarchy, it refuses to bring its position into line with the salafi nationalism defended by the Istiqlal movement and allows religious pluralism (Tozy, 1999: 168). In rural communities, the practice of saint worship and the existence of brotherhood persist. In cities, the indigenous population is eager to distinguish itself from the customary version of Islam (inspired by Sufism) as adopted by rural populations. Rural-urban migrants, in order to be accepted into the urban society adopt puritanical attitudes inspired by the scripturalist strand of Islam. Thus, the socialization of those coming from rural areas went through the adoption of a puritanical behavior (Tozy, 1999: 168).

To sum up our argument, it seems that two different mechanisms are likely to explain our results. First, educated people are living in cities or have been in contact with urban populations for a long period, and cities are dominated by a scripturalist religious tradition. Second, the education system is the object of cultural activism of radical movements. In universities, they are controlling student organizations. Even if real activists represent a small minority of the students, their ideas may spread to other students sensitive to their positions (Tozy, 1999: 170-74).

Finally, we constructed two more variables: MARRIAGE_MINOR whose value is one if the respondent's mother or one of his/her sisters married before 18 years old, and POLYGAMY whose value is one if the respondent has at least one

polygamist in his/her family. These variables measure the degree of conservatism of the family. By adding these variables as controls in our model, the results concerning the interaction term is robust. The results are presented in Appendix 4. In this appendix, we also present the results concerning the family structure: the variable SISTER_PROP gives the proportion of sisters among all respondent's brothers and sisters. Two contradictory expectations could be formulated concerning the family structure. The first one is based on the idea that the more women you have within your family the more you will be open to an improvement in women's rights because you become more sensitive to their status in the family and in society. On the contrary, if boys represent the minority, they may benefit from a privileged position in the family and play the role of traditional guardians who monitor their sisters. Consequently, the effect is not clear. From Table 4.17 (in Appendix 4.4), we observe that family structure does not actually play a significant role. Moreover, the interaction term still appears with a negative sign and it is significant at 1% level.

The analysis of the whole sample concludes to the existence of a robust negative correlation between the intensity of religious practice and the probability of strongly supporting the Code among educated people, even after controlling for various covariates and including regional dummies.

7.2.2 Men

For the sample of men, we also follow a stepwise procedure. We first estimate a basic model containing as explanatory variables RURAL and some additional controls. We then introduce sequentially the other variables of interest concerning education, religiosity and the interaction between the two. For the sample composed by men, the index measuring the intensity of religious practice takes into account an additional practice that essentially characterizes men: mosque attendance. The index is REL1_MALE.

Regarding the variables measuring education, we initially took those who have no education as the reference group (NO_EDUC = 1). This is done in regression (6) where the coefficient of HIGH_EDUC appears with a positive sign and it is significant at 1% level. SECONDARY coefficient is positive and significant at 5% level. PRIMARY coefficient is not significant. We then change the reference group in regression (7) which now corresponds to those who have completed the collège

degree or who have reached the lycée without having obtained the baccalauréat (SECONDARY = 1). In regression (7), the effect of HIGH_EDUC is not significant. On the other hand, PRIMARY coefficient is significant at 5% level and appears with a negative sign. Education is positively and significantly correlated with the support of the Code only above a certain level (at least the collège level). We therefore decided for regression (8), to use the variable EDUC (which is equal to 1 for individuals who achieved at least the collège level of education) for the construction of the interaction term with the variable REL1_MALE.

For men, it appears that education plays a significant role in supporting the law: men who have at least achieved a collège level of education present a higher probability of supporting the new legislation . Furthermore, the coefficient of our variable of interest, the interaction between the intensity of religious practice and the fact of having reached a certain level of education appears with a negative sign. Moreover, a Wald test confirms that the correlation between the intensity of religious practice and the likelihood of supporting the Code is negative and significant at 1% level. The existence of a distinct effect of the intensification of religious practice is thus confirmed: a more intense religious practice when the individual has reached a certain level of education is negatively correlated with the probability of supporting the law.

7.2.3 Women

In the models estimated on the subsample of women, we introduced an additional variable ACT_REV. The variable ACT_REV is a dummy variable whose value is 1 when the respondent earns money by exercising a professional activity (formal or informal). Through this variable, we want to verify whether being financially more independent or having an economic value give more confidence to women to assert their rights. The results for women are presented in Table 4.10.

For women, the decisive factors appear to be the socio-economic status and the fact of exercising an income generating activity. In fact, the respondent's socio-economic status, approximated by the number of rooms per person, is significantly and positively correlated with the probability of supporting the law. For women, it therefore appears that the socio-economic status is a more decisive influence than the level of education. The fact that women are engaged in producing an income is also associated positively and significantly with women's likelihood of supporting the law. The latter result is rather intuitive since a woman who acquires a minimum

Table 4.9 The Sample Composed by Men

	Dependent Variable: STRONG_SUPPORT						Average
	(5)	(6)	(7)	(8)	(9)	(10)	Marginal Effects
	Men sample	Men sample	Men sample	Men sample	Men sample	Men sample	
RURAL	-0.298	0.0502	0.0502	0.0505	0.0934	0.0523	0.0126
	(0.198)	(0.235)	(0.235)	(0.234)	(0.231)	(0.238)	
AGE	-0.00547	0.00387	0.00387	0.00407	0.00853	0.00608	0.0015
	(0.00613)	(0.00669)	(0.00669)	(0.00668)	(0.00719)	(0.00751)	
NR_ROOM	0.156	0.115	0.115	0.118	0.120	0.127	0.0307
	(0.129)	(0.123)	(0.123)	(0.123)	(0.118)	(0.115)	
PRIMARY		0.0570	-0.721**	0.0593	0.0796	0.100	0.0246
		(0.325)	(0.313)	(0.325)	(0.334)	(0.331)	
SECONDARY		0.778**					
		(0.324)					
HIGH_EDUC		0.859***	0.0804				
		(0.310)	(0.244)				
NO_EDUCATION			-0.778**				
			(0.324)				
EDUC				0.821***	0.890***	0.852***	0.2103
				(0.293)	(0.303)	(0.308)	

Table 4.9 Continued

	(5)	(6)	(7)	(8)	(9)	(10)	Average
	Men sample	**Men sample**	**Men sample**	**Men sample**	**Men sample**	**Men sample**	**Marginal Effects**
			Dependent Variable: STRONG_SUPPORT				
REL1_MALE					-0.185*	0.181	0.0435
					(0.103)	(0.169)	
REL1_MALE_EDUC						-0.559***	-0.1477
						(0.203)	
CONSTANT	-0.774***	-1.809***	-1.030***	-1.828***	-2.120***	-2.062***	
	(0.281)	(0.456)	(0.294)	(0.454)	(0.493)	(0.490)	
Regional dummies	Yes	Yes	Yes	Yes	Yes	Yes	
Nr. Observations	251	251	251	251	251	251	251
Pseudo-R2	0.0333	0.0752	0.0752	0.0747	0.0873	0.1151	
Sign of the IT[a]						Neg.	
Significance of the IT[a]						***	

Notes: * significant at 10% level, ** significant at 5% level, *** significant at 1% level; Robust standard errors are in parentheses. a: IT = interaction term

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of financial independence will be encouraged to claim rights that protect her status within the family.

The coefficient of the interaction term is negative and significant at 5% level. For educated women, the intensification of religious practice leads to a negative additional effect with respect to the non-educated or poorly educated individuals. However, among the educated women the correlation between the intensity of religious practice and the likelihood of supporting the Code is not significant. Among non-educated or poorly educated people, this correlation is positive and significant at 10% level.

The sample of women needs a more in-depth analysis. The first additional hypothesis we want to test is the following: is the correlation between the intensity of religious practice and the support for the law different for educated women from rural areas with respect to those living in cities? In order to test this hypothesis, we estimate a linear probability model where we use a double interaction term composed of the variables RELIGION, EDUC and RURAL. The results are presented in regression (15) of Table 4.10.

It appears that a negative correlation exists between the intensity of religious practice and the support of the law for educated women but this correlation is significant (at 5% level) only for women coming from rural areas. Moreover, educated women from rural areas are more likely to support the Code (the correlation is significant at 5 % level). An increase of about 1 unity of the index measuring the intensity of religious practice compensates the positive effect of education. Such an increase corresponds to 1.23 standard deviation of the index; that gives an idea of the importance of the increase that is needed to cancel the positive effect of education. Bearing in mind the influential effect of religious movements in the education system, one may suspect that those women coming from rural areas are more sensitive to new external influences. In fact, they are exposed to a new universe and set of experiences which may make them disoriented and the religious movements may offer them a comforting offset.[36] On the other hand, by pursuing their education beyond the primary level, they get in touch with a more conservative environment in what concerns religious matters than characterizes cities. They might adapt their positions for socialization purposes. Despite the fact that the living environment is not significantly correlated with the probability of supporting the new legislation, we find some interesting results concerning the living environment when we interact the variable RURAL with the variables RELIGION and EDUC.

Table 4.10 The Sample Composed by Women

	(11)	(12)	(13)	(14)	Average Marginal Effects	(15)
	Women sample	Women sample	Women sample	Women sample		Women sample (OLS)
RURAL	0.0208	0.108	0.140	0.172	0.0649	-0.0300
	(0.160)	(0.185)	(0.187)	(0.189)		(0.0839)
AGE	-0.00544	-0.00348	-0.00513	-0.00542	-0.0020	-0.00249
	(0.00492)	(0.00529)	(0.00555)	(0.00560)		(0.00214)
NR_ROOM	0.207**	0.199**	0.199**	0.201**	0.0757	0.0693**
	(0.0978)	(0.0986)	(0.0993)	(0.101)		(0.0333)
PRIMARY		0.167	0.191	0.172	0.0859	0.0512
		(0.212)	(0.213)	(0.189)		(0.0846)
EDUC		0.105	0.106	0.209	0.0786	-0.0436
		(0.220)	(0.222)	(0.228)		(0.102)
REL1			0.114	0.218*	0.0823	-0.0326
			(0.102)	(0.124)		(0.0687)
REL1_EDUC				-0.356*	-0.1335	0.0244
				(0.208)		(0.0945)
ACT_REV		0.359**	0.369**	0.376**	0.1436	0.146**
		(0.174)	(0.174)	(0.175)		(0.0658)
REL1_RURAL						0.189**
						(0.0855)

Dependent Variable: STRONG_SUPPORT

Table 4.10 Continued

	Dependent Variable: STRONG_SUPPORT					
	(11)	**(12)**	**(13)**	**(14)**	**Average Marginal Effects**	**(15)**
	Women sample	**Women sample**	**Women sample**	**Women sample**		**Women sample (OLS)**
RURAL_EDUC						0.319**
						(0.152)
REL1_EDUC_RURAL						-0.465***
						(0.151)
CONSTANT	-0.277	-0.532	-0.511	-0.566		0.392***
	(0.262)	(0.345)	(0.347)	(0.350)		(0.140)
Regional dummies	Yes	Yes	Yes	Yes		Yes
Nr. Observations	289	289	289	289	289	289
Pseudo-R2	0.0243	0.0370	0.0401	0.0468		
Sign of the IT[a]				Neg.		
Significance of the IT[a]				**		
R-squared						0.0892

*Notes: * significant at 10% level, ** significant at 5% level, *** significant at 1% level; Robust standard errors are in parentheses.; a: IT = interaction term*

We estimate the same model for the sub-sample of men. A negative correlation between the intensity of religious practice and the support of the law is observed for educated men from both rural (at 10 %) and urban (at 5 %) areas. One may wonder whether the result concerning urban men is essentially due to men from rural areas who migrated to cities. However, if we look at the data, it appears that 85% of the urban men were born in the city where they live, 12% were born in another city and only 3% of them were born in a village. Nevertheless, we do not have information about the entire life cycle of the individuals and do not know if being born in a city means being raised in a city. Moreover, we find a positive effect of education in both areas. In urban areas, an increase of about 1.51 of the index measuring the intensity of religious practice is needed to entirely compensate the positive effect of education. In rural areas, the increase is of 0.85. The standard deviation of the index REL1_MALE is 1.002; that gives an idea of the importance of the increase that is needed to cancel the positive effect of education.

A second additional hypothesis we want to test for women is whether the negative correlation between the intensity of religious practice and the support of the law characterizes essentially educated women coming from low socio-economic background. We want to test the idea expressed by Naciri (1998) according to which the recourse to religion represents a strategy of resistance for educated women from modest social background who have higher aspirations. In order to test this hypothesis, we estimate a linear probability model where we use a double interaction term composed of the variables RELIGION, EDUC and NR_ROOM a socio-economic proxy. Actually, in order to take into account the socio-economic background, we constructed several dummy variables taking the value 1 if the respondent is above the mean, the median (the median is lower than the mean) and the first quartile of the distribution of the variable NR_ROOM. We used these dummy variables in interaction with the variables RELIGION and EDUC. The results we obtained are not convincing in the sense that it does not seem that the correlation between the intensity of religious practice and the probability of strongly supporting the code among educated women depends on their socio-economic background.[37]

From regression (14), we also observe that the correlation between the intensity of religious practice and the support of the law among people with little or no education is positive and significant (at 10% level). By comparing educated women (those who at least achieved the collège level of education) and non educated or poorly educated women (achieving primary level education), we thus have an opposite

relationship between the intensity of the religious practice and the likelihood of supporting the Code. To understand this result, we have to highlight two facts. First, the majority of educated women are urban (86%) while the majority of non-educated or poorly educated women live in rural areas (61.3%). The understanding of Islam is different across the residential environments: Sufi and 'Maraboutic' Islam in rural areas and puritan scripturalist Islam in cities. Given this difference, an intensification of the religious practice is likely to have distinct meanings depending on where you are living. Moreover, in regression (15), we observe that the positive and significant correlation between the intensity of religious practice and the support of the law is essentially true for non-educated or poorly educated women living in rural areas (significant at 1% level). Second, during the interviews, we realized that less educated people tend to mistake tradition for religion. We therefore suspect that when poorly educated people do not practice religion intensely, they are likely to be badly informed about religious prescriptions. They therefore oppose the law because they think that it is not in accordance with religious prescriptions even though it is. If they practice more intensely, they are more likely to be informed about religious prescriptions and they can therefore understand that the law is essentially deviating from the custom. Moreover, Lawrence Rosen (1995), an anthropologist who did much work on Morocco explains that customs that are not clearly prohibited by Islam are considered as being themselves part of Islamic law. He argues that "North Africans commonly believe that local practices that are not forbidden by Islam do not stand apart from the formal religion but are, in the strictest sense of the term, themselves Islamic." According to him, this could be explained by an inclusive approach during the spread of Islam among divergent local traditions. Moreover, Rosen (1995) argues that the historical power of this amalgamative mentality goes beyond the missionizing appeal of Islam. He adds: "In the 1930s, when the French tried to divide Moroccans by placing Arabs under Islamic law and Berbers under customary Berber law, the Berbers were deeply offended: they insisted that since their practices were permissible within Islamic law they were Islamic law, a viewpoint that contributed markedly to the Berber's involvement in efforts to achieve national independence from the French" (p. 207). In the same vein, Platteau (2011) describes the cultural hybridization of Islam as a process through which Islamic law has been shaped by local customs, on the one hand, and customary rules have been implicitly endorsed by religion unless they are expressly rejected, on the other hand (p 53).

As a final result, it appears that, women who have a sister or a mother who married very young are more likely to strongly support the new Code (significant at 5% level). These results are presented in Appendix 4.4.

7.3 Secondary Results

7.3.1 Single individuals

In this section, the analysis is focused on single individuals. This allows us to control the characteristics of the parents as we suspect that the family environment may play a role in the adoption of liberal or conservative attitudes by children.[38] Regression (16) presents the results for our baseline model characterized by an interaction term between education and the index measuring the intensity of religious practice. We then introduce sequentially additional explanatory variables. FATHER_EDUC and MOTHER_EDUC represent respectively the level of education of the father and the mother. These variables vary between 1 and 4: 1 for people without any formal education; 2 for parents who achieved the primary level of education; 3 for those who received a collège degree and/or attended the lycée without receiving the baccalauréat; and 4 for parents who received the baccalauréat or a university degree. MOTHER_BIRTH_RURAL and FATHER_BIRTH_RURAL are dummy variables whose value is one when respectively the mother and the father are born in a village. MOTHER_ACT_REV and FATHER_ACT_REV are dummy variables which take the value 1 if the mother and the father respectively exercise an income generating activity.

We observe from Table 4.11 that education is a key factor and even a basic level of education is playing a significant role. In fact, the primary level of education appears with a positive and significant coefficient. The gender is also decisive; women are more likely to strongly support the Code. The sign of the correlation between the intensity of religious practice and the probability of supporting the new legislation depends on the level of education achieved by the individual. We find that a positive correlation exists for non-educated or poorly educated individuals.[39] An additional negative and significant effect exists for educated people (people who at least achieved the collège level of education). Furthermore, Wald tests confirm that, among educated people, a negative and significant (at 5% level) correlation exists between the intensity of religious practice and the likelihood of strongly supporting the law. This correlation is robust to changes in the specification of the model.

We additionally observe that the higher the education level of the parents, the higher the probability of strongly supporting the law (regressions (17) and (18)). It is not clear that parents with rural origin have a distinct influence on their children than urban parents. We find that having a father born in a village is associated with a lower probability of supporting the Code when controlling for the place of birth of the mother. However, this relation is only significant at 10% level. Finally, we find that individuals who have a mother exercising an income generating activity are more likely to support the new legislation. The father's activity does not seem to play a role.

7.3.2 Married individuals

In models estimated for married people, we introduce characteristics of spouses in order to follow a matching perspective. In particular, we verify whether spouses who match in terms of education and age differ in their position with respect to the new Family Code. The variable MATCH is a dummy variable whose value is one if the spouses have achieved the same level of education; and DIST_AGE gives the difference in age between the husband and his wife. It thus takes positive values when the husband is older than his wife. The results of this approach are presented in Table 4.12.

First, we estimate our baseline model comprising an interaction term between education and the index measuring the intensity of religious practice (regression (21)). We then introduce our 'matching variables', MATCH and DIST_AGE (regression (22) to (24)). We finally focus on the effect of matching in terms of education and verify if the 'matching effect' depends on the level of education achieved by the spouses (regression (25)). We test this by introducing an interaction term between education and the variable MATCH.

Women are more likely to support the new legislation. The higher the socio-economic status is the higher the probability of strongly supporting the law. Education above a certain threshold, the collège degree, is positively associated with the probability of supporting the Code; and this is only verified for individuals who match with their partner in terms of education. An alternative way of reading this last result is that matching in terms of education is positively associated with the support of the law only if the spouses have reached a certain threshold level of education.

Table 4.11 Single Individuals

	(16) Single individuals	Average Marginal Effects	(17) Single individuals	(18) Single individuals	(19) Single individuals	(20) Single individuals
		Dependent Variable: STRONG_SUPPORT				
FEMALE	1.208***	0.3638	1.328***	1.285***	1.296***	1.242***
	(0.248)		(0.287)	(0.260)	(0.261)	(0.300)
RURAL	0.0794	0.0220	0.312	0.249	0.289	0.0965
	(0.298)		(0.366)	(0.328)	(0.399)	(0.353)
AGE	-0.0222	-0.0061	-0.0499*	-0.0244	-0.0239	-0.0389
	(0.0201)		(0.0287)	(0.0220)	(0.0197)	(0.0326)
NR_ROOM	0.194	0.0536	0.190	0.150	0.172	0.203
	(0.131)		(0.139)	(0.130)	(0.137)	(0.256)
PRIMARY	1.053***	0.3061	1.145***	1.034***	1.128***	1.143**
	(0.373)		(0.420)	(0.385)	(0.380)	(0.449)
EDUC	1.090***	0.2545	1.094**	0.937**	1.183***	1.137**
	(0.374)		(0.448)	(0.392)	(0.378)	(0.470)
REL1_STV	0.524**	0.1450	0.491*	0.480**	0.491**	0.513**
	(0.211)		(0.259)	(0.220)	(0.217)	(0.244)
REL1_STV_EDUC	-0.867***	-0.1880	-0.975***	-0.816***	-0.835***	-0.918***
	(0.248)		(0.294)	(0.256)	(0.252)	(0.284)
FATHER_EDUC			0.392***			
			(0.140)			

Table 4.11 Continued

	Dependent Variable: STRONG_SUPPORT					
	(16) Single individuals	Average Marginal Effects	(17) Single individuals	(18) Single individuals	(19) Single individuals	(20) Single individuals
MOTHER_EDUC				0.346***		
				(0.134)		
MOTHER_BIRTH_RURAL					0.426	
					(0.361)	
FATHER_BIRTH_RURAL					-0.702*	
					(0.389)	
MOTHER_ACT_REV						0.685**
						(0.322)
FATHER_ACT_REV						0.0571
						(0.348)
CONSTANT	-1.982***		-2.515***	-2.417***	-2.028***	-1.895*
	(0.689)		(0.967)	(0.818)	(0.677)	(1.066)
Regional dummies	Yes		Yes	Yes	Yes	Yes
Nr. Observations	168	168	142	160	168	130
Pseudo-R2	0.2371		0.3036	0.2635	0.2503	0.2738
Sign of the IT[a]	Neg.		Neg.	Neg.	Neg.	Neg.
Significance of the IT[a]	***		***	***	***	***

*Notes: * significant at 10% level, ** significant at 5% level, *** significant at 1% level; Robust standard errors are in parentheses.; a: IT = interaction term*

Table 4.12 Married Individuals

	(21) Married individuals	Average Marginal Effects	(22) Married individuals	(23) Married individuals	(24) Married individuals	(25) Married individuals
			Dependent Variable: STRONG_SUPPORT			
FEMALE	0.887***	0.2772	0.908***	0.920***	0.953***	0.882***
	(0.211)		(0.210)	(0.212)	(0.210)	(0.209)
RURAL	0.0961	0.0295	0.104	0.126	0.140	0.177
	(0.201)		(0.203)	(0.204)	(0.206)	(0.211)
AGE	0.00389	0.0012	0.00357	0.00405	0.00353	0.00384
	(0.00753)		(0.00757)	(0.00820)	(0.00828)	(0.00820)
NR_ROOM	0.349**	0.1074	0.347**	0.373***	0.369**	0.324**
	(0.141)		(0.142)	(0.144)	(0.145)	(0.142)
PRIMARY	-0.161	-0.0486	-0.102	-0.201	-0.120	-0.286
	(0.240)		(0.251)	(0.241)	(0.252)	(0.258)
EDUC	0.428*	0.1355	0.461*	0.435*	0.483*	-0.347
	(0.261)		(0.268)	(0.263)	(0.268)	(0.391)
REL1_STV	0.151	0.0464	0.154	0.173	0.179	0.0507
	(0.109)		(0.110)	(0.109)	(0.110)	(0.0959)
REL1_STV_EDUC	-0.419**	-0.1337	-0.415**	-0.430**	-0.426**	
	(0.207)		(0.208)	(0.209)	(0.209)	
MATCH			0.133		0.188	-0.165
			(0.191)		(0.194)	(0.245)

Table 4.12 Married Individuals

	(21)	Average Marginal Effects			
		(22)	(23)	(24)	(25)
	Married individuals	Married individuals	Married individuals	Married individuals	Married individuals
EDUC_MATCH					1.179***
					(0.444)
DIST_AGE			-0.0250*	-0.0263*	-0.0234
			(0.0149)	(0.0150)	(0.0151)
CONSTANT	-1.829***	-1.932***	-1.728***	-1.866***	-1.490**
	(0.537)	(0.550)	(0.568)	(0.574)	(0.586)
Regional dummies	Yes	Yes	Yes	Yes	Yes
Nr. Observations	273	273	270	270	270
Pseudo-R2	0.1123	0.1138	0.1230	0.1258	0.1379
Sign of the IT[a]	Neg.	Neg.	Neg.	Neg.	Pos.
Significance of the IT[a]	**	**	**	**	***

Dependent Variable: STRONG_SUPPORT

*Notes: * significant at 10% level, ** significant at 5% level, *** significant at 1% level; Robust standard errors are in parentheses.; a: IT = interaction term*

From regression (21), we observe that among non-educated and poorly educated individuals, no significant correlation exists between the probability of supporting the Code and the intensity of religious practice. Concerning this correlation, an additional negative effect characterizes the educated people. We can equivalently assert that an intensification of the religious practice reduces the positive effect of education. Nevertheless, among educated people, no significant negative correlation exists between the intensity of religious practice and the likelihood of supporting the law (p-value = 0.13). These results hold when we control for the distance in age between the spouses and for the fact that spouses match or not in terms of education.

By looking carefully at additional descriptive statistics for married people, it seems that there are inter-group differences between educated people who match in terms of education with their partner and those who do not match. In fact, it appears that among educated people those who do not match with their partner in terms of education are both more religious and less likely to support the new legislation (see Table 13). Furthermore, for educated people who do not match, we observe from descriptive statistics that an intra-group negative correlation also exists between the intensity of religious practice and the probability of supporting the law: the more religious they are, the less supportive of the Code they are. However, the samples are too small to show significant correlation through regression analysis.

The distance in terms of education could be interpreted as a proxy for the bargaining power of each spouse. Among educated people, if women are as educated as their husband, they are more likely to assert their rights and less likely to adopt a traditional gender role within the household.[40] For educated men who are married to educated women, the net benefit of abandoning a traditional attitude is likely to be positive. Concerning this last point, Amato and Booth (1995) explain that when husbands adopt less traditional attitudes, their perceived marital quality increases.

There is probably also an auto-selection process, educated women with less traditional attitudes would prefer to marry men with more liberalized ideas and those are more likely to be among educated people. These men are less likely to oppose changes claimed by women, and therefore spouses are less likely to get into conflict. The same idea applies to progressive educated men.

Husbands with more traditional attitudes may be willing to avoid women who are assertive and may feel threatened by educated women who are more likely to endorse a career. Consequently, they would prefer to marry a woman with a lower

Table 4.13 Support of the Law and Religiosity of Educated Married People

	STRONG_SUPPORT (%)	REL1_SVT (mean)
MATCH=1	50%	0.0492
MATCH=0	14.7%	0.5304
P-value	0.002	0.0198

level of education. Finally, educated women who marry men who are less educated are probably initially less assertive and less opposed to a traditional way of organizing family life.

Finally, we observe that educated people who do not match with their partner in terms of education are more conservative in terms of religious matters. The difference in mean of the index REL_CONSERV between the two groups is significant at 1% level.

As a final result, it does not appear that married men with daughters adopt a more favorable position with respect to the law. Actually, the fact of having daughters is not related to the support of law neither for fathers nor mothers. Lastly it appears that women who married at an older age are more likely to support the law.[41]

7.3.3 Single vs. married individuals

Concerning our main result, it appears that the negative and significant correlation between the intensity of religious practice and the support of the law among educated people characterizes essentially single individuals. This result is consistent with one of the arguments we developed to explain our main findings. In fact, we suspect that the implication of religious movements in the education system may at least partly explain why educated people, when they are very religious, are the most reactionary. These religious movements became very active in the education system at the end of the 80's. For instance, a movement like *Al Adl wal Ihsan* has gained influence since the 80's among university students and students' unions. It is largely recognized that the association's recruitment activities are particularly concentrated in the educational sector, targeting teachers and students (Bekkaoui and Larémont, 2011: 45). The PJD is also active in universities through its student branch Al Wahda wa Tawasul (Bekkaoui and Larémont, 2011). Consequently, only the youngest individuals of our sample are likely to have been in touch with these

movements through the education system;[42] and single individuals are in mean significantly younger than married people.[43]

7.4 Sensitivity Tests

7.4.1 System of equations

An alternative approach in the study of support for the law is the use of information at a disaggregated level. In this approach, we use the information we obtained about the support for each of the eight clauses. We estimate a system of equations composed of eight equations, one equation per clause. Table 4.14 summarizes the information concerning the support to each clause.

Each dependent variable (SUPPORT) is a dummy the value of which is one, if the respondent supports the clause. The independent variables are the same in all the equations. We estimate a SURE model on the entire sample by controlling for several covariates.[44] This disaggregated approach allows us to test for the sensibility of our main result and the results concerning various covariates. The results of the SURE model are presented in Table 4.19 in Appendix 4.6.

The coefficient of the interaction term appears with a negative sign and it is significant at 5% level for the 3rd, the 4th and the 7th clause. Moreover, Wald tests confirm that a negative and significant (at 5% level) correlation between the likelihood of supporting the law and the intensity of religious practice exists for clauses 3, 4 and 6. This correlation is significant at 10% level for clause 5. By looking at Table 14, one can observe that the effect is significant for the most debatable clauses (those for which the adherence is lower). These clauses are also considered by a high proportion of respondents as not being in accordance with religious principles of Islam (61% for clause 3; 56% for clause 4; 22% for clause 6; 11% for cause 7 against less than 10% for the other clauses).

It also appears that women are systematically more likely to support the law except for clause 4 concerning guardianship.[45] Education (bac or university degree) is positively related to the probability of supporting the law for the clauses concerning family responsibilities (clauses 1), the obedience of women to their husband (clause 3), divorce (clause 7) and the sharing of property after divorce (clause 8). Primary education is also related positively with the support of the law for clauses 7 and 8 but also for the most debatable clauses 3 and 4. Secondary education is playing a positive role for clauses 3, 7 and 8. People from rural areas are less likely

Table 4.14 Support for the Clauses of the New Code

Clauses	Favorable (%)
1. The joint responsibility of the family	88.93
2. The husband's duty of supporting his wife	91.14
3. The end of the wife's duty to obey her husband	**32.59**
4. The marriage of women without the consent of their guardian	**31.61**
5. The marriage of minors in age	87.22
6. Polygamy	**75.56**
7. Divorce	**81.37**
8. The contract which states how to manage property in the case of divorce	79.63

to support the law for clauses 1 and 5. These are the clauses about the joint responsibility of spouses, and the conditions imposed on the marriage of minors in age. The higher the socio-economic status is, the higher the probability of supporting clause 3 which put an end to the obedience of women to their husband. There is a generational effect for clauses 4, 5 and 7, in the sense that the older an individual the less supportive he is. Those clauses concern guardianship, conditions imposed on the marriage of minor in age and divorce.

In sum, by looking at different elements of the law, we observe that the key factors are not the same from one clause to another, except gender which appears to be a critical factor. However, we observe that our main result is confirmed for the most disputable clauses.

7.4.1 Biprobit

A last approach we want to discuss is an approach in which we focus our analysis on the two most debatable clauses: clause 3 concerning the end of the obedience of women to their husband and clause 4 which gives women the right to marry without the official consent of their guardian. The results are presented in Table 4.21 in Appendix 4.6.

Our main results are confirmed in the sense that the interaction term appears with a negative sign and it is significant at 5% level for both clauses. Wald tests confirm the existence of a negative and significant (at 5% level for clause 3 and 10% level for clause 4) correlation between the probability of supporting the law and the intensity of religious practice among educated people. The socio-economic status and education only play a role for clause 3. However, primary education is

positively related to the likelihood of supporting clause 4. Some other results confirm what we found in the system of equations: the probability of supporting clause 4 is not higher for women, and older people are less likely to support it.

8. Conclusion

The question of the role of modern law in triggering social change is particularly important in developing countries. One of the conditions that may allow social change is the identification of the agents, particularly those who are favored by new legislation, with the law. When a law which favors some sections of the population is implemented, it is expected that the population targeted by the law will abide by the new legislation. Conversely, the groups whose privileges are reduced or lost are likely to oppose the reform. In reality, we observe that it is not necessarily the case. We therefore think that this surprising fact deserves an empirical analysis in order to produce some evidence about the underlying determinants of support (or the lack of support) for the law.

In this paper, we focus our analysis on the reform of the Family Code in Morocco. The new Family Code aims at improving women's status by assigning them a new role in the family and granting them new rights. The legislation is religious-inspired and the reform of the Code has largely been justified by a reinterpretation of the Quran, in reference not only to the Maliki School - the dominant school in Morocco – but also to the other schools of Sunni Islam.

We emphasize two alternative scenarios. The first one is the naïve one according to which rural men with a low level of education and intense religious practice express a lower support for the new Family Code. The second one is based on observations made by anthropologists and political scientists: religious puritanical movements are essentially present in urban areas and attract educated people. We use a unique database created from a survey we conducted in three regions of Morocco in 2008 to provide some evidence about the factors which drive conservative positions with respect to a progressive legal reform. Our results sustain the existence of interactions between religion, education and in some extent location. We found that the relationship between these factors and the support of the law is much more subtle than what naïve beliefs would state.

We show that the intensity of the religious practice is negatively correlated with the likelihood of supporting the Code, but only for educated people. Two potential

explanations can be thought of. First, educated people are living in cities or have been in touch with urban populations for a long period, and cities are dominated by a scripturalist religious tradition. The socialization of those coming from rural areas went through the adoption of a puritanical behavior (Tozy, 1999). Second, the education system is the object of cultural activism of radical movements. In universities, they control student organizations. Even if real activists represent a small minority of the students, their ideas may be taken into consideration by other students sensitive to their positions.

Additionally, it appears that the reactionary behavior among the educated individuals characterizes single people more clearly than those who are married. This actually reflects a generational difference among educated people. We argue that this observation is consistent with the idea that conservative attitudes are promoted by religious movements active in the education system since the late 80s.

Moreover, we show that education per se is positively correlated with the likelihood of supporting the Code but essentially for men. For women, it appears that the socio-economic status is a more decisive factor than the level of education. The fact that women are engaged in producing an income is also significantly related to a higher likelihood of supporting the law.

Location per se is not significantly correlated with the support of the law. However, among educated women, the negative relationship between the intensity of religious practice and the support for the Code is stronger (both in intensity and statistical significance) for women residing in rural areas.

Notes

1. The author would like to thank the Agence Française de Développement (AFD) for financial support, Jean-Philippe Platteau, Catherine Guirkinger, Jean-Marie Baland, Gérard Roland, Stephan Klasen, Vincenzo Verardi, participants at the 18th ERF Annual Conference, the CRED workshop and several other conferences for useful comments. Author's contact information: University of Namur (FUNDP) and CRED, 8 Rempart de la Vierge, 5000, Namur, Belgium. E-mail: imane.chaara@fundp.ac.be
2. The support does not necessarily imply the appeal to the law but it represents the implicit condition to the appeal. The adherence to the law is, in a way, measuring the upper band level of appeal. Moreover, as the law might have, under certain conditions, an indirect effect by acting on the change of customs

(see Aldashev et al, 2012), the adherence to the law is the necessary condition to induce this indirect effect.

3. The three others are: the Hanbali school, the Hanafi school and the Shafi'i school.

4. In Browning et al (2006), *Ijtihad* is defined as follows : « *Ijtihad* is used to refer generally to the jurisprudential activity in which scholars engage either to interpret the Quran and *Sunna*, where an interpretation is required, or to reach a ruling involving no clear Quranic pronouncement or prophetic precedent » (153-154). The *Sunna* is the example given by the Prophet through his life. Considered as the ideal Muslim, he offered the best guidance (Al Hibri et al, 2006: 153).

5. Tunisia appears as an exception in the Arab world. The President Bourguiba implemented a very progressive Code of Personal Status just after the independence of his country in 1956.

6. The most recent index computed for these countries goes back to 2007.

7. The new Code sustains adouls (Muslim notaries) intervention in terms of marriage and divorce, but their involvement is however subject to prior approval of the court.

8. Foblets and Carlier (2005: 136) provide the following definition: « The term cadi refers to the family judge in charge of marriage who gives permission for its conclusion. It also applies to the judge who certifies the notary acts of marriage or acts relating to all forms of repudiation, prepared by the adouls (Muslim notaries). Finally, it refers to the judge who enforces the rights of minors or disabled people and the management of their inheritance. The same judge may sometimes combine all these functions. »

9. The mother is also consulted. This effort is consistent with the joint responsibility attached to the family introduced by the new Code.

10. The Berbers continue to apply rules derived from the customary law. For example, the principle of "cad wa siava'' consecrated by the custom in the region of Souss, recognises that the wife shares the property acquired during marriage in addition to what she cwuld receive as heir upon the death of her husband .

11. Except for the region of Casablanca where the weight of the rural area is artificially inflated since the region is largely urban.

12. Following Al-Hibri et al. (2005: 204), to protect inexperienced, previously unmarried women from entering into unsuitable (hence potentially unsuccessful) marriages, Islamic jurists have either required or recommended that a woman seeks the approval of her wali – her guardian – in marriage.

13. However, Bourqia (2005) stresses the fact that traditional values also persist. She highlights the existence of a hybrid basket of values where the agents choose the more appropriate ones depending on their personal interests.

14. Two other schools dominate the shi'as: the Imami or Ithna 'Ashari in Iran, Irak and Lebanon, and the Zaydi in the Yemen (Mir-Hosseini, 2000: 6).
15. The approach adopted in this case is inspired by the revolution sparked by the prophet Muhammed when, among other things, he limited polygamy and allowed women to inherit.
16. The Family Code which is the only religious inspired legislation is part of the *ibadat*. There are, actually, several family legislations which apply to people depending on their religion (the *Mudawana* for the Muslims, the Hebraic Code for the Jews).
17. These clauses are the ones concerning the joint responsibility of the family (89% are favorable), the husband's duty of supporting his wife (91% are favorable), and the marriage of the minors in age (87% are favorable).
18. These clauses concern respectively polygamy, the contract of property management after divorce and divorce.
19. In order to produce some robustness checks, we also construct the variable SOFT_SUPPORT whose value is one if the respondent supports more than five clauses out of eight. These robustness check results are presented in Appendix 5.
20. The results of this approach are not presented in the paper but note that the main results of the paper are confirmed by the estimation of an ordered probit model.
21. In the French education system, the baccalauréat is the degree obtained by students who achieved successfully the secondary school.
22. The sample has been divided in three groups using the 33th and the 66th percentiles of the distribution of the variable REL1 (see Section 5.2).
23. The multiple correspondence analysis is a factorial technique which can be seen as a generalization of the principal component analysis when the variables to be analyzed are categorical variables.
24. The use of an alternative index which does not take into account the information provided by these last 5 questions does not alter our main results.
25. In order to make sure that our main results are not influenced by a difference in terms of variance between men and women, when working on the whole sample we rescale our measure of religiosity by gender. Prior to the estimation of our model, we divide the measure of religiosity of each respondent by the standard deviation characterizing her/his subsample.
26. This figure is given by the Haut Commissariat au Plan of Morocco for the adult population above 25 years old.
27. x_j represents the explanatory variable and x the vector of all explanatory variables of the model.
28. As robustness checks, we also estimate all the models by using OLS. However, we do not directly report the results in the paper. It is important to note

that our results are not sensitive to the estimation technique.

29. We constructed an index measuring conservative attitudes in terms of religious matters on the basis of several questions: Would you be happy to see your daughters wearing a *niqab*? Would you accept that your daughters do not wear the hijab? Do you think that it is acceptable that a man and a woman who are not married and who are not from the same family talk together without the presence of anybody else? In your family, do women wear the hijab in the presence of male members of their family other than their husband, sons and brothers? We constructed the index REL_CONSERV by using the Multiple Correspondence Analysis. The higher the value of the index is, the more conservative the individual.

30. We exclude the toilets, the kitchen and the bathroom.

31. This variable is equivalent to the REL1 index that we describe in Section 5.2 except that we divided the initial index of men and women by respectively the standard deviation of the index for the sample of men and for the sample of women. We rescaled the index as explained in Section 5.2.

32. Appendices 4.2 and 4.3 provide robustness checks using respectively REL2 as an alternative measure of religiosity and HIGH_EDUC as an alternative education threshold.

33. Tozy highlights the fact that in a high school of Casablanca, teachers and administrative members linked to religious movements were able to create classrooms composed by students abiding their ideas and receiving favourable treatment. Thus, they create an elite whose school success is linked to their religious investment (Tozy, 1999: 183).

34. Geertz considers, however, that the battle between scripturalism and maraboutism was initiated around 1900. Since 1870, a Berber student coming from a rural area and having studied in Egypt defended (at the Qarawiyine University of Fez) a literal interpretation of religious texts. The Salafi ideas began their influence (Geertz, 1968: 87).

35. This result characterizes men for whom the variable REL1_MALE is equal to zero. As the mean of the variable REL1_MALE is -0.00065, we can say that the result characterizes men with an average level of religiosity.

36. We do not believe that there is a selection bias due to the fact that among educated women from rural areas the most conservative stay living in villages and the most progressive in cities. In fact, in our sample, among urban women, only 12% were born in villages and only a few of them are educated beyond the collège level of education. Actually, they represent 1.37% of urban women and 3.2% of educated urban women.

37. We do not report these results in the paper.

38. Almost all single individuals of our sample are still living with their parents (96.3%).

39. By estimating a model where education and the index measuring the intensity of religious practice are interacted with the variable RURAL, we observe that this positive correlation characterizes people living in rural areas. We thus find the same kind of results as for the sample of women. These last results are not presented in the paper.
40. Non-traditional behaviour implies shared responsibilities and egalitarianism.
41. These last results are not reported in Table 12.
42. We estimated our model for respondents who are less than 40 years old and those who are more than 40. The negative correlation between the probability of supporting the law and the intensity of religious practice among educated people is only verified for those who are less than 40. Regarding educated people, it seems that a generational effect is at play.
43. The mean age of single individuals is 25, and the mean age of married people is 44.
44. We also estimate a multivariate probit to verify the robustness of our results. These results are presented in Appendix 6.
45. From fieldwork, we got the feeling that the reform which allows women to marry without the official consent of their guardian is perceived as being too radical (even if the marriage without a guardian is not imposed, it is just a choice that could be made by women). The respect of parents was mentioned; and some women explain that guardianship provides them a protection in the relation with their in-laws and their husbands.

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Appendix 1: Sample Creation for Each of the Regions Where the Survey Took Place

In the region of Casablanca, one third of the sample of 180 people is comprised of rural people and the remaining two thirds of urban people from Casablanca city. Two provinces were chosen: the city of Casablanca for the urban survey and the province of Nouacer for the rural one (Nouacer is the second province of the region in terms of population). There are 16 districts in the city of Casablanca but in order to avoid geographic dispersion, we decided to keep only 8 of them.[+] For the socio-economic background, the type of housing was used as a proxy. In order to establish the list of districts from where to select our sample units, we have produced a table showing the number of primary units (geographical areas that include about 300 households) for each type of housing in each of the districts of Casablanca. The different categories of housing are: deluxe (stratum 1), modern (stratum 2), old *medina* (stratum 3), economic and social (stratum 4), and slums (stratum 5). The *medina* is found in only two districts (El Maarif and Sidi Belyout), and we chose to keep both of them to include the residents of this urban environment in the sample. These are typically people who settled in Casablanca for several generations and whose socio-economic level is relatively low. Some districts, Hay Mohammadi and Sidi Moumen, have been selected for the preponderance of middle class people, lower middle and lower. Other districts have been chosen for their diverse population: Mers Sultan, Hay Hassani and Ain Chock. A striking feature of the latter districts is the proximity of villas and slums, which are sometimes adjacent to each other. Finally, the districts of Anfa and El Maarif have been selected because of the concentration of their populations in the first two categories of housing.

For the region of Tanger-Tétouan, two provinces were chosen: the Tetouan province and Chefchaouen. The sample of 180 people was split between the two provinces based on the demographic weight of the target group of people aged more than 18 years. Within each province, the division between urban and rural areas was made according to the importance of each type of residential environment within the province. In each province, three communes with primary rural units[++] have been selected following discussions with people from the region in order to take account of the accessibility of the villages and to avoid geographical dispersion. In the province of Chefchaouen, the communes which were selected are: Bab Taza, Derdara and Talambote, and in the Tetouan province: Azla, Ain Lahsen and Zaytoune.

For the region of Souss-Massa-Draa, we opted for a single province: the province of Ouarzazate. The 180 people were divided between urban and rural areas according to the importance of each type of residence within the province. For the urban area, Ouarzazate was the only city considered. For the rural areas, we drew a circle of 80km around the city of Ouarzazate, and decided to restrict our attention to the communes that lie entirely within this circle. The criteria of accessibility and geographical spread again motivated our choice of municipalities. A member of the High Commission for the region was consulted in order to help us. The municipalities selected are: Ait Zineb, Ighrem N'Ougdal, Ouisselsate, Skoura and Toundoute.

+ *We do not think it was necessary to survey 180 people in 16 districts since the important thing was that our choice provided sufficient variation in terms of socio-economic status.*
++ *A primary unit is a geographical area which is composed of 300 households.*

Appendix 4.2
Robustness Check: Alternative Religious Variable REL2

In the following estimated models, we use REL2, an alternative religious index presented in Section 5.2. REL2_SVT corresponds to the index rescaled by gender.

Table 4.15 Robustness Check 1

	Dependent Variable: STRONG_SUPPORT			
	(1) Whole sample	(2) Whole sample	(3) Whole sample	(4) Whole sample
FEMALE	0.937***	0.924***	0.925***	0.973***
	(0.140)	(0.139)	(0.143)	(0.148)
AGE	-0.00159	-0.00151	-0.00210	-0.00144
	(0.00438)	(0.00439)	(0.00440)	(0.00448)
NR_ROOM	0.168**	0.174**	0.180**	0.176**
	(0.0749)	(0.0744)	(0.0748)	(0.0749)
RURAL	0.0454	0.0437	0.0523	0.103
	(0.143)	(0.143)	(0.143)	(0.145)
PRIMARY	0.0895	0.0912	0.120	0.195
	(0.165)	(0.165)	(0.166)	(0.171)
SECONDARY	0.333*		0.382**	
	(0.191)		(0.194)	
HIGH_EDUC	0.496**		1.274***	
	(0.209)		(0.394)	
EDUC		0.401**		1.388***
		(0.171)		(0.331)
REL2_STV	-0.0460	-0.0411	0.0215	0.128
	(0.0655)	(0.0656)	(0.0695)	(0.0803)
REL2_STV_HIGH_EDUC			-0.370**	
			(0.165)	
REL2_STV_EDUC				-0.429***
				(0.122)
CONSTANT	-1.346***	-1.367***	-1.524***	-1.921***
	(0.295)	(0.296)	(0.306)	(0.340)
Regional dummies	Yes	Yes	Yes	Yes
Nr. Observations	540	540	540	540
Pseudo-R2	0.948	0.939	0.1035	0.1135
Sign of the IT[a]			Neg.	Neg.
Significance of the IT[a]			**	***

Appendix 4.3
Robustness Check with HIGH_EDUC as Education Threshold

A Wald test indicates that among the most educated (baccalauréat or university degree) a negative and significant (at 5% level) correlation exists between the probability of supporting the law and the intensity of religious practice.

Table 4.16 Robustness Check 2

	Dependent Variable: STRONG_SUPPORT				
	(1) Whole sample	(2) Whole sample	(3) Whole sample	(4) Whole sample	Average Marginal Effects
FEMALE	0.768***	0.893***	0.908***	0.909***	0.3014
	(0.119)	(0.127)	(0.131)	(0.133)	
AGE	-0.00618	-0.00265	-0.00208	-0.00276	-0.0009
	(0.00380)	(0.00407)	(0.00430)	(0.00432)	
NB_ROOM	0.184**	0.168**	0.168**	0.180**	0.0585
	(0.0761)	(0.0752)	(0.0749)	(0.0752)	
RURAL	-0.112	0.0515	0.0486	0.0538	0.0175
	(0.124)	(0.143)	(0.143)	(0.144)	
PRIMARY		0.100	0.0978	0.119	0.0392
		(0.165)	(0.165)	(0.165)	
SECONDARY		0.341*	0.341*	0.378*	0.1254
		(0.192)	(0.192)	(0.194)	
REL1_STV			-0.0272	0.0538	0.0175
			(0.0645)	(0.0697)	
HIGH_EDUCATION		0.491**	0.500**	0.538**	.1817
		(0.209)	(0.211)	(0.211)	
REL_STV_HIGH_EDUC				-0.405**	-0.1379
				(0.159)	
CONSTANT	-0.903***	-1.385***	-1.416***	-1.441***	
	(0.206)	(0.293)	(0.304)	(0.305)	
Regional dummies	Yes	Yes	Yes	Yes	
Nr. Observations	540	540	540	540	
Pseudo-R2	0.0851	0.0941	0.0943	0.1046	
Sign of the IT[a]				Neg.	
Significance of the IT[a]				Not sig.	

*Notes: * significant at 10% level, ** significant at 5% level, *** significant at 1% level; Robust standard errors are in parentheses; a: IT = interaction term*

Appendix 4.4
The Role of Family Conservatism and Family Structure

Table 4.17 The Role of Family Conservatism and Family Structure

	Dependent Variable: STRONG_SUPPORT					
	(1)	(2)	(3)	(4)	(5)	(6)
	Whole sample	Women	Men	Whole sample	Women	Men
REL1_STV	0.180**	0.167*	0.225	0.164*	0.164	0.155
	(0.0828)	(0.101)	(0.170)	(0.0838)	(0.101)	(0.177)
EDUC	0.509***	0.286	0.759**	0.548***	0.295	0.803**
	(0.178)	(0.229)	(0.317)	(0.181)	(0.239)	(0.317)
REL1_STV_EDUC	-0.471***	-0.286*	-0.593***	-0.479***	-0.297*	-0.548***
	(0.125)	(0.173)	(0.204)	(0.127)	(0.175)	(0.212)
FEMALE	0.930***			1.023***		
	(0.137)			(0.140)		
AGE	-0.00232	-0.00529	0.00585	0.00134	0.000269	0.00649
	(0.00442)	(0.00561)	(0.00747)	(0.00466)	(0.00600)	(0.00803)
NR_ROOM	0.177**	0.199*	0.130	0.197**	0.212**	0.174
	(0.0766)	(0.103)	(0.116)	(0.0782)	(0.105)	(0.120)
RURAL	0.106	0.139	0.0698	0.106	0.163	0.0167
	(0.146)	(0.187)	(0.241)	(0.148)	(0.191)	(0.239)
PRIMARY	0.195	0.275	0.101	0.219	0.283	0.179
	(0.169)	(0.216)	(0.335)	(0.171)	(0.220)	(0.340)
MINOR_AGE	0.0956	0.137*	-0.0303			
	(0.0649)	(0.0791)	(0.149)			
POLYGAME	0.146	0.133	0.281			
	(0.153)	(0.190)	(0.258)			
SISTER_PROP				0.121	0.288	-0.107
				(0.226)	(0.294)	(0.362)
CONSTANT	-1.654***	-0.609*	-2.059***	-1.870***	-0.856**	-2.088***
	(0.314)	(0.352)	(0.516)	(0.349)	(0.407)	(0.560)
Regional dummies	Yes	Yes	Yes	Yes	Yes	Yes
Nr. Observations	540	289	251	520	277	243
Pseudo-R2	0.1188	0.0443	0.1167	0.1237	0.0362	0.1272
Sign of the IT[a]	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.
Significance of the IT[a]	***	*	***	***	*	***

*Notes: * significant at 10% level, ** significant at 5% level, *** significant at 1% level; Robust standard errors are in parentheses; a: IT = interaction term*

Imane Chaara

Appendix 4.5
Robustness Checks: Estimations with SOFT_SUPPORT as a Dependent Variable

In order to produce some robustness checks, we also construct the variable SOFT_SUPPORT the value of which is one if the respondent supports at least six out of the eight clauses. For all regressions in Table 4.18, a Wald test confirms that a significant (at 5 %) negative correlation exits between the intensity of religious practice and the likelihood of supporting the law among educated individuals.

Table 4.18 SOFT_SUPPORT as Dependent Variable

	Dependent Variable: SOFT_SUPPORT		
	(1)	(2)	(3)
	Whole sample	Whole sample	Whole sample
REL1_STV	0.169**	0.179**	0.158*
	(0.0835)	(0.0832)	(0.0853)
EDUC	0.190	0.206	0.319
	(0.194)	(0.194)	(0.200)
REL1_STV_EDUC	-0.366***	-0.384***	-0.395***
	(0.125)	(0.124)	(0.130)
FEMALE	1.158***	1.148***	1.255***
	(0.139)	(0.139)	(0.146)
AGE	-0.0104**	-0.0103**	-0.00809
	(0.00474)	(0.00473)	(0.00496)
NR_ROOM	0.136	0.135	0.157
	(0.0887)	(0.0883)	(0.0963)
RURAL	0.0322	0.0344	0.0466
	(0.147)	(0.146)	(0.150)
PRIMARY	0.182	0.194	0.286
	(0.178)	(0.178)	(0.181)
MINOR_AGE		0.0386	
		(0.0686)	
POLYGAME		0.177	
		(0.165)	

Table 4.18 Continued

	Dependent Variable: SOFT_SUPPORT		
	(1)	**(2)**	**(3)**
	Whole sample	**Whole sample**	**Whole sample**
SISTER_PROP			0.0981
			(0.239)
CONSTANT	-0.146	-0.200	-0.397
	(0.341)	(0.342)	(0.374)
Regional dummies	Yes	Yes	Yes
Nr. Observations	540	540	520
Pseudo-R2	0.1669	0.1692	0.1840
Sign of the IT[a]	Neg.	Neg.	Neg.
Significance of the IT[a]	***	***	***

*Notes: * significant at 10% level, ** significant at 5% level, *** significant at 1% level; Robust standard errors are in parentheses; a: IT = interaction term*

Appendix 4.6
System of Equations and Biprobit Model
Table 4.19 SURE Model

	(1) CLAUSE 1	(2) CLAUSE 2	(3) CLAUSE 3	(4) CLAUSE 4	(5) CLAUSE 5	(6) CLAUSE 6	(7) CLAUSE 7	(8) CLAUSE 8
FEMALE	0.202***	0.0973***	0.323***	-0.0648	0.197***	0.365***	0.297***	0.251***
	(0.0308)	(0.0298)	(0.0478)	(0.0498)	(0.0344)	(0.0430)	(0.0388)	(0.0412)
AGE	0.000104	-0.000695	0.00188	-0.00263*	-0.00213**	-0.000839	-0.00235**	0.00152
	(0.000901)	(0.000871)	(0.00140)	(0.00146)	(0.00101)	(0.00126)	(0.00113)	(0.00120)
NR_ROOM	-0.0102	-0.0140	0.0688***	0.0312	0.00945	0.00681	0.0160	0.00611
	(0.0171)	(0.0165)	(0.0265)	(0.0276)	(0.0191)	(0.0238)	(0.0215)	(0.0228)
RURAL	-0.0522*	-0.0347	-0.0250	0.0370	-0.0621*	0.00368	-0.00360	0.0757*
	(0.0294)	(0.0284)	(0.0456)	(0.0475)	(0.0328)	(0.0410)	(0.0370)	(0.0392)
PRIMARY	0.0216	0.0461	0.0988*	0.117**	0.0274	-0.0203	0.0805*	0.123***
	(0.0346)	(0.0334)	(0.0536)	(0.0559)	(0.0386)	(0.0483)	(0.0435)	(0.0462)
SECONDARY	0.0371	-0.0517	0.139**	0.0377	-0.00927	0.0556	0.127**	0.127**
	(0.0405)	(0.0392)	(0.0629)	(0.0655)	(0.0453)	(0.0566)	(0.0510)	(0.0542)
HIGH_EDUC	0.145***	-0.0162	0.278***	0.0192	0.0750	0.0951	0.198***	0.147**
	(0.0442)	(0.0427)	(0.0686)	(0.0714)	(0.0494)	(0.0617)	(0.0556)	(0.0591)
REL1	-0.00704	0.0237	-0.00187	0.0170	-0.0221	-0.0144	0.0231	-0.00630
	(0.0153)	(0.0148)	(0.0238)	(0.0247)	(0.0171)	(0.0214)	(0.0193)	(0.0205)
REL_HIGH_EDUC	-0.0222	0.0143	-0.0988**	-0.110**	-0.0297	-0.0663	-0.0773**	-0.0235
	(0.0312)	(0.0302)	(0.0484)	(0.0505)	(0.0349)	(0.0436)	(0.0393)	(0.0417)

Table 4.19 Continued

	(1) CLAUSE 1	(2) CLAUSE 2	(3) CLAUSE 3	(4) CLAUSE 4	(5) CLAUSE 5	(6) CLAUSE 6	(7) CLAUSE 7	(8) CLAUSE 8
ACT_REV	-0.0549*	0.0103	0.0472	-0.0141	0.00442	-0.000209	-0.00240	-0.0221
	(0.0283)	(0.0274)	(0.0439)	(0.0458)	(0.0316)	(0.0396)	(0.0357)	(0.0378)
CONSTANT	0.864***	0.961***	-0.178*	0.308***	0.906***	0.550***	0.663***	0.464***
	(0.0684)	(0.0661)	(0.106)	(0.111)	(0.0765)	(0.0956)	(0.0861)	(0.0915)
Regional dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nr. Observations	540	540	540	540	540	540	540	540
R-squared	0.194	0.079	0.141	0.054	0.132	0.176	0.177	0.137

*Notes: * significant at 10%, ** significant at 5%, *** significant at 1%; Standard errors are in parentheses.*

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Table 4.20 Multivariate Probit

	CLAUSE 1	CLAUSE 2	CLAUSE 3	CLAUSE 4	CLAUSE 5	CLAUSE 6	CLAUSE 7	CLAUSE 8
				Dependent Variable: Support				
RELIGION	-.0721	.0764	.0730	.0335	-.1365	-.0423	.0671	.0628
	(.0865)	(.0912)	(.0647)	(.0664)	(.0861)	(.0723)	(.0768)	(.0751)
HIGH_EDUC	1.3586***	.4538*	.1432	-.0612	.9359***	.3401*	.9582***	.3166
	(.3243)	(.2479)	(.1783)	(.1803)	(.2545)	(.1902)	(.2521)	(.2061)
REL_HIGH_EDUC	-.2497	-.0128	-.2404*	-.2522*	-.3178	-.1915	-.3395*	-.1411
	(.2872)	(.1906)	(.1432)	(.1484)	(.2116)	(.1592)	(.1931)	(.1541)
RURAL	-.0693	.1478	-.4410***	.0518	-.0656	.0873	.0766	.3305**
	(.1773)	(.1611)	(.1228)	(.1170)	(.1475)	(.1271)	(.1463)	(.1402)
Controls	yes	yes	yes	yes	yes	yes	yes	yes
Nr. Obs.	540	540	540	540	540	540	540	540
Sign of the IT[a]	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.
Significance of the IT[a]	/	/	(sig. at 12%)	(sig. at 12%)	/	/	(sig. at 12%)	/

*Notes: * significant at 10%, ** significant at 5%, *** significant at 1%; Robust standard errors are in parentheses.; a: IT = interaction term; Controls: PRIMARY, SECONDARY, NR_ROOMS, AGE, ACT_REV, FEMALE.*

For the multivariate probit model, the coefficient of the interaction term appears with a negative sign and it is significant at 10% level for the 3rd, the 4th and the 7th clauses[++].

Table 4.21 Biprobit Model

	Whole Sample	
	(1)	**(2)**
	CLAUSE 3	**CLAUSE 4**
FEMALE	0.983***	-0.187
	(0.160)	(0.144)
RURAL	-0.0537	0.112
	(0.147)	(0.138)
NR_ROOM	0.203***	0.0878
	(0.0769)	(0.0796)
AGE	0.00556	-0.00870**
	(0.00438)	(0.00434)
SECONDARY	0.430**	0.100
	(0.204)	(0.194)
PRIMARY	0.305*	0.318**
	(0.168)	(0.161)
REL1_STV	0.00978	0.0790
	(0.0688)	(0.0711)
HIGH_EDUC	0.866***	0.0493
	(0.213)	(0.212)
REL1_STV_HIGH_EDUC	-0.296**	-0.345**
	(0.151)	(0.157)
ACT_REV	0.0932	-0.0241
	(0.141)	(0.134)
CONSTANT	-2.023***	-0.486
	(0.341)	(0.323)
Regional dummies	Yes	Yes
Nr. Observations	540	540

*Notes: * significant at 10% level, ** significant at 5% level, *** significant at 1% level; Robust standard errors are in parentheses.*

++We tested for the sign and the significance of the interaction term by using the methodology proposed by Norton, Wang and Ai (2004) and the three coefficients appear to be significantly different from zero at 12%.

5

Arab Corporatism

Saifedean H. Ammous

1. The Socialist Systems of Egypt and Tunisia

Modern discussions of economic systems generally revolve around two diametrically opposed systems: capitalism and socialism. There is, however, a third type of economic system that is not discussed as often: corporatism. The reality of a society is too complex to fit neatly into these broad categories, yet there are hallmarks that allow us to broadly characterize a country as having one of the three systems.

For Ludwig von Mises, the one criterion according to which it can be determined whether a society has a market economy or a socialist economy is its having a stock market. The presence of a stock market means that capital is privately owned and that the allocation of capital is determined through the decisions of private individuals and not the decisions of government bureaucrats. Without a stock market the decisions of production must be determined centrally, which means public control of capital and productive processes.[1]

Under such a definition, the Egyptian and Tunisian economies, in the two decades leading up to the revolutions of 2011, cannot be called socialist economies. While the state did own and operate some property and natural resources, the extent of this ownership was limited, and had been decreasing steadily with the powerful drive to privatization. Tunisia had a brief failed socialist experiment in the 1960s under President Habib Bourguiba but soon reverted to a more liberal market economic system. Nonetheless, the government continued to own and control large

parts of the economy, and the drive toward privatization started in 1987 with the initiation of a structural adjustment plan.[2] Tunisia has also had a functioning stock market since 1969.[3]

Egypt did have a largely socialist economic system after the military coup of 1952, which ended the rule of King Farouk. At that point the private sector accounted for around 76% of total investment in Egypt. Egypt soon joined the state-led-industrialization model that was popular around the developing world in the 1950s and 1960s, and the state was to establish many public manufacturers, in areas such as steel, cement, cars, and construction. The state's share in investments was around 80-90% of total investment until the 1980s. The government of Gamal Abdel Nasser closed down the Egyptian Exchange in 1961, which had been active (in various names and forms) since 1883.[4] During the rule of President Anwar Sadat, Egypt began to move away from the state-controlled socialist model, under the policy of Infitah (openness) which reduced barriers on trade and investment. But even as the economy was opening up, the state continued to control large swathes of industry through the 1980s. The real drive for privatization, and the dismantling of state ownership of economic activity, started in 1991. With the help of the International Monetary Fund and the World Bank, the Egyptian government began working on an Economic Adjustment and Structural Reform Program.[5] The Egyptian stock market was reopened in 1992.[6]

The Egyptian and Tunisian experiences with socialism were both failures economically, and this conforms with the prediction arrived at by an economic analysis of socialist economic systems. State socialism, economically, cannot work, for reasons that have been explicated by economists since the 1920s, and have been vindicated by events worldwide since. Economic socialism has caused untold economic ruin in the former Soviet Union, China, Cambodia, Cuba, North Korea, Syria and various other societies where it was implemented.

The most obvious and widely-cited problem in socialism is that of incentives: when profit accumulation is banned, there is less incentive for people to engage in productive activities that serve one another. Markets work through the incentive mechanisms of profits and loss: profits are generated when someone produces something for which other individuals are willing to pay a price higher than its production costs. Losses, on the other hand, occur when someone engages in an activity whose output is valued by other individuals beneath the cost of its production. The incentive to make profits and eschew losses is what drives humans to

serve one another voluntarily in a mutually-beneficial exchange. As Adam Smith put it: "It is not from the benevolence of the butcher, the brewer, or the baker, that we can expect our dinner, but from their regard to their own interest."[7]

Furthermore, if everyone is to be rewarded similarly, there will be no incentive to carry out the hardest and least pleasant jobs. But socialist economists have nonetheless imagined that this incentive problem can be overcome through changing human beings into a better more cooperative New Socialist Man. This has not successfully happened in any of the socialist societies but even if it had, it does not begin to address the real economic problems with socialism, which go far beyond the incentive problem. Socialism would remain an unworkable economic system, and to understand why, one must turn to the interwar debate on socialist calculation and the work of Mises on Socialism.[8]

Even after assuming away the problem of incentives, and assuming complete societal subservience to the central planners, the real problem of socialism is that the planners cannot know what to produce, how to produce it and what to do with it. For Mises, the fatal problem with socialism is that it is a system that prevents proper economic calculation. That the means of production are entirely owned by the government means that there can be no market in these means of production, and no way of determining the true production costs of different goods. This, in turn, destroys the profit/loss mechanism that is essential for determining the production that society favors. Murray Rothbard describes Mises'[9] point succinctly:

> "…socialism would lack the indispensable tool that private entrepreneurs use to appraise and calculate: the existence of a market in the means of production, a market that brings about money prices based on genuine profit-seeking exchanges by private owners of these means of production. Since the very essence of socialism is collective ownership of the means of production, the planning board would not be able to plan, or to make any sort of rational economic decisions. Its decisions would necessarily be completely arbitrary and chaotic, and therefore the existence of a socialist planned economy is literally 'impossible'…"

This criticism of socialism is inextricably linked to Mises'[10] criterion for socialism as being the absence of a stock market where the means of production can be traded among the public. The existence of a capital market is itself the coordination mechanism that allows individuals to make production decisions based on

their calculations of prices, costs, revenues, profits and losses. This is not a problem that can be wished away if one assumes an honest hard-working bureaucrat who genuinely tries his best to solve the socialist calculation problem, no matter what the computational power employed. For economic calculation includes not just the calculation of the existing economic data, but more importantly, the calculation of potential possibilities that currently only exist in the minds of those individuals that have not yet carried them out, and in relation to these individuals' private preferences that are only known to them. Knowledge, by its very nature is dispersed, tacit and context-dependent. It is also independently important in its relevance to people's individual means and ends. It cannot be centralized and processed by one source. As Friedrich Hayek puts it in The Use of Knowledge in Society:

> "The economic problem of society is thus not merely a problem of how to allocate "given" resources—if "given" is taken to mean given to a single mind which deliberately solves the problem set by these "data." It is rather a problem of how to secure the best use of resources known to any of the members of society, for ends whose relative importance only these individuals know. Or, to put it briefly, it is a problem of the utilization of knowledge which is not given to anyone in its totality." [11]

The coordinating role of the price mechanism and an open market for capital is not simply about successfully and efficiently managing the available resources using the available methods of production, but it is about something far more complex and unknowable: using this information to devise new products, procedures, and modes of production. As Mises put it:

> "it is vain to cite the honest corporation manager and his well-tried efficiency. Those who confuse entrepreneurship and management close their eyes to the economic problem … The capitalist system is not a managerial system; it is an entrepreneurial system." [12]

These and other considerations led Mises to write in 1920 about what the inevitable end of an economic system built on public ownership of capital would be:

> "One may anticipate the nature of the future socialist society. There will be hundreds and thousands of factories in operation. Very few of these will be producing wares ready for use; in the majority of cases what will be manufactured will be unfinished goods and production

goods. All these concerns will be interrelated. Every good will go through a whole series of stages before it is ready for use. In the ceaseless toil and moil of this process, however, the administration will be without any means of testing their bearings. It will never be able to determine whether a given good has not been kept for a superfluous length of time in the necessary processes of production, or whether work and material have not been wasted in its completion. How will it be able to decide whether this or that method of production is the more profitable? At best it will only be able to compare the quality and quantity of the consumable end-product produced, but will in the rarest cases be in a position to compare the expenses entailed in production." [13]

Mises' description from 1920 might have been written by an observer of the Soviet Union in the 1980s, or, indeed, of many other socialist economies whose failure came in this form of operational factories producing unwanted products. It is thus no wonder that the socialist experiments of Tunisia and Egypt failed to achieve their goals and instead led to economic stagnation. Tunisia's example was far less severe than Egypt, since its socialist system only survived for a few years.

From this brief exposition, it is clear that Tunisia (from the late 1980s) and Egypt (from the early 1990s) cannot be termed socialist economies in any real sense of the word. They were market economies. It does not follow, however, that those economies were capitalist economies. There are two distinct types of market economies: capitalist and corporatist. The distinction between the two is vital to understanding the economic context of the Egyptian and Tunisian revolution.

2. Capitalism or Corporatism?

Edmund Phelps defines capitalism, or free enterprise, as a system:

"characterized by great openness to the implementation of new commercial ideas coming from people in private business, and by a great pluralism of views among the wealth-owners and financiers who decide which ideas to nurture by providing them the capital and incentives necessary for their development. Although much innovation comes from established companies, as in pharmaceuticals, much also comes from start-ups—particularly the most novel innovations." [14]

Private ownership of capital and means of production on its own is not sufficient to establish a capitalist economic system. What is important is that the private owners of capital are also able to decide what they want to do with it and how. Perhaps the single most indispensable criteria for a capitalist economy is that market workings decide who enters and exits an industry. On the entry side, this means that there are no restrictions by the government on who enters an industry; in other words, the government does not use its force to establish monopolies or oligopolies and shield them from competition. Any innovator can enter a market, and if they provide a better and/or cheaper product that consumers freely choose over their competitors, then these competitors will receive no help from the government, nor will it hinder the upstart. On the exit side, this means that firms can go out of business if they cannot compete, regardless of how big, important or strategic they are. This freedom to enter and exit a market is what Joseph Schumpeter termed 'creative destruction.'

For Schumpeter creative destruction is the dynamic process by which capitalism purges itself of the old, unproductive and defunct, replacing it with the new, productive and revolutionary.[15] This is the élan vital of a dynamic capitalist economy. When creative destruction is allowed to proceed, only the productive and prosperity-enhancing firms and technologies survive. When it is forestalled, the unproductive and wasteful survive and grow, and the productive is punished. This eventually destroys the dynamism of an economy, bringing about stagnation and a grinding halt of innovation and prosperity. The typewriter is an especially salient example. What would have happened if the typewriter industry was saved by forestalling innovation in the field of computing; if the government had decided that the typewriter industry was too important to be left to fail? It could have successfully saved it and halted the development of the personal computer. While those involved in the typewriter industry would benefit in the short run, the long-run costs of foregoing the personal computer are incalculable. Arguably, even those harmed in the short run from the destruction of the typewriter industry are made better off in the future from the emergence of the personal computer, which has by now revolutionized most aspects of economic and personal life. The crucial point about forestalling creative destruction is that the foregone benefits can never be measured, since we cannot observe the counterfactual that never occurred.

In contrast to the capitalist system, Phelps characterizes the corporatist system as a system of private ownership that

"has been modified by introducing institutions aimed at protecting the interests of "stakeholders" and "social partners." The system's institutions include most or all (depending on the country) of the massive components of the corporatist system of interwar Italy: big employer confederations, big unions, and monopolistic banks." [16]

Phelps further elaborates on classic corporatism by drawing on the example of Interwar Italy:

"Classic corporatism, such as Mussolini's, sought to restructure the capitalist economy so as to speed economic growth – growth of productivity and national power – beyond the capacity of Continental capitalism. This meant state initiatives to that end in both the public and private sectors. The quest for growth was to be subject to "solidarity" and "social protection." That meant "concertation" with the "social partners," subsidies for regions or industries, and social charges. Put equivalently, the state took whatever measures it deemed desirable in the name of solidarity and protection, constrained by the need to show efforts to restore growth whenever the economy flagged." [17]

Phelps defines the goals of a corporatist system to be:

"First, there is the solidarist aim of protecting the "social partners"— communities and regions, business owners, organized labor, and the professions—from disruptive market forces; also the consensualist aim of blocking business initiatives that lack the consent of the "stakeholders"—those with a stake besides the owners, such as employees, customers, and rival companies. Second, elevating community, society, and being over individual engagement and personal growth appeals to antimaterialist and egalitarian strains in Western culture. Third, there is the "scientism" that holds that such a system can be more dynamic than the former system—maybe not more fertile in little ideas, such as might come to petit bourgeois entrepreneurs, but certainly in big ideas. Not having to fear fluid market conditions, an entrenched firm can afford to develop expensive innovations based on current or developable technologies. And with confederations of firms and state mediation available, such firms could arrange to avoid costly duplication of their investments. The state, for its part, could promote technological advances in cooperation with industry by harnessing the society collective knowledge. The

state could indicate new economic directions and favor some invest-
ments over others through its instrument, the big banks." [18]

The distinction, then, between corporatism and capitalism is in the role of the
state in the private-ownership economy, or to frame it differently, the role of pri-
vately-owned corporations in the state. Accordingly, a capitalist system is under-
stood as a system of free exit and entry into markets, and a system of individual
innovation in commercially viable directions. Capital owners, no matter how big or
small, are equal in front of the law. They are granted no monopolies or privileges
and are not shielded from competition. The state does not take into consideration
any special 'stakeholders' and cannot intervene to improve their economic outlook.
The freedom of the economic system from coercive government interference is the
highest consideration, and supersedes any consideration of the fate of any individu-
als or groups of individuals.

Alternatively, a corporatist system is one where entry and exit into markets
is heavily dependent on the decisions of government, while entrepreneurship and
innovation are centralized and face restrictions. It is the fate of the politically con-
nected special interest groups that is the foremost preoccupation of the govern-
ment. The government seeks to 'pick winners' and establish 'leaders' in certain
industries. It seeks to ensure that 'stakeholders' continue to get specific gains. It
is the fate of these stakeholders that primarily preoccupies the functioning of the
government.

For Phelps, capitalism better describes the economic systems that emerged in
Europe in the 19th century. The twentieth century witnessed both the rise of corpo-
ratism and socialism at various periods in different countries. The post-world war II
global economy contained a large degree of corporatism, particularly in Europe.

3. The Problems of Corporatism

The first problem with corporatism is one of moral hazard. By concentrating so
much economic power in the hands of the government, the individuals that make
up the government can use this power to their benefit and the benefit of their clients
and cronies. Instituting monopolies and bodies responsible for granting licenses is
a common method of establishing such client networks. Those who are connected
with the ruling regime can operate their businesses without competitive pressures,

making outsized profits; those who are not connected to the regime are legally banned from operating their businesses and competing with the insiders. As Phelps puts it: "This is the burden of extreme corporatism: the deprivations for few or many of basic goods like careers, which are not morally compensated by the spoils of the advantaged, few or many."[19]

It is important to emphasize here that criticizing corporatism for leading to corruption misunderstands corporatism; corporatism is corruption formalized and legalized. Under a socialist or capitalist system, an individual or firm that gets special favors from the government would constitute a corruption problem; but in corporatism, it is the defining feature of the system that different groups and stakeholders are treated differently. This is not just legal, but also viewed as desirable by the official organs of the state, and many of the population, perhaps even a majority. It thus does not make much sense to talk about 'corruption' problems in a corporatist economic system because the system is not corrupted in any meaningful way, it is meant to be that way. Clientelism and favoritism are a feature in corporatism, not a bug.

In this sense, the corporatist approach to the study of these economies offers an alternative to the usual "corruption" and "capture" approaches to analyzing moral hazard problems. The capture approach, emphasized by Kaufmann, begins with the starting assumption that the state has an important role to play in the management of the economy. If the state is 'captured', its influence can be used in counter-productive ways that hamper economic growth. The solution, as viewed from the capture paradigm, is to fight corruption so that the government plays a role conducive to economic growth. From the corporatist analytical approach to the economies of Tunisia and Egypt, the problem is not so much the capture of the state but the original fact that the government has an outsized role to play in the market economy. The problems of the Tunisian and Egyptian economies cannot be remedied by improving state-management of the economy or merely replacing some of the more important members of the ruling corporate regimes with new faces; what is needed is a systematic and wide-scale curtailment of the influence of the central government over market transactions and production.

Mushtaq Khan has suggested that the key to economic advancement in Egypt and Tunisia is the emergence of new patron-client networks that are conducive of economic development and growth. In contrast, when approaching the problem using the corporatist lens of analysis, patron-client networks are viewed as an es-

sential economic problem; the smaller the network of clients reliant on the government, the more free the economy is, and the more of society's productive members are engaged in productive work, and vice versa.

The essential problem with the patron-client network approach to economic development is that it is inherently not sustainable. Any benefits afforded to a client of a ruling patron are, by definition, an infringement of the normal working processes of a market economy (otherwise, the benefits would not be needed.) This favoritism must come at the expense of somebody else in the economy. The excluded are exploited, taxed and have their economic freedom restricted to the benefit of the exploiters in the patron-client network. Essentially, this system rewards failure while punishing success—a proven formula for achieving failure. This incentivizes more and more people away from productive work and into unproductive and parasitic work that is plugged into the rulers' patrimony networks, such as government employment, security agency employment, or membership in the ruling political party. As the number of the unproductive and parasitic members of society increases, the number of productive members of society decreases, and their productivity is decreased. The exploiters, inevitably, run out of the money of the exploited. Hence, no genuine sustainable economic progress can be achieved via changing the ruling elites and their clients; what is needed is a root-and-branch elimination of the mechanisms by which the government is able to control economic activity and establish these networks.

But moral hazard, in spite of all its negative and fundamentally unfair consequences, is not the main problem with corporatist economic systems; for they are but secondary considerations to the more serious problems at the heart of the definition of corporatism discussed above: economic miscalculation and lack of dynamism.

By subjugating the will of the owners of capital to the whims of government, corporatism will inevitably suffer from the same problem Mises[20] identified with socialism: Economic miscalculation. The absence of a freely-functioning price mechanism that aggregates societal knowledge to determine the relative productivity of various uses of capital means that prices will be skewed away from reflecting real market conditions, and the corporatist system will essentially face the same problems that destroyed all socialist economic systems. Whereas in socialism the price mechanism in the capital sector is inhibited by the public ownership of the capital, in corporatism the price mechanism is inhibited from functioning by the

interventions of the government in the capital sector. By subsidizing, taxing, and intervening in favor of and against various industries and owners, government intervention leads to similar capital allocation problems as socialism.

The third problem with corporatism is its impact on economic dynamism, which Phelps defines as 'innovativeness in commercially viable directions'.[21] Phelps outlines the case for economic dynamism based on three contentions:

> "First, virtually every employee down to the humblest worker has arcane "know-how," some of it what Michael Polanyí called "personal knowledge," and out of that know-how a new idea may come that few others, if any, would have. With openness to commercial ideas and acceptance of the entrepreneurs who develop them, a plethora of new ideas may be generated. Second, the pluralism of experience and knowledge that the financiers bring to bear in their decisions gives a wide range of entrepreneurial ideas a chance of an informed, insightful evaluation. And, importantly, the financier and the entrepreneur do not need the approval of the state or of social partners. Nor are they accountable later on to such a social body if the project goes badly, not even to the financier's investors. So projects can be undertaken that would be too opaque and uncertain for the state or social partners to endorse. Third, the pluralism of knowledge and experience that managers and consumers bring to bear in deciding which innovations to try and which of those to adopt is crucial in encouraging entrepreneurs to conceive new ideas and financiers to back them."[22]

Corporatism does not allow for free entry and exit to a market, and thus it stymies change, advancement, improvement—or dynamism, in short. For Phelps, the key difference between the corporatist and capitalist systems lies in the fact that the capitalist system has more dynamism.

> "On its face, the [corporatist] system impedes or discourages or simply blocks changes, such as the relocation and entry of new firms. The system's performance depends on established companies, in cooperation with local and national banks. What it lacks in flexibility it tries to compensate for with technological sophistication."[23]

The essence of corporatism, whenever it has been tried, is that the cooperation of the government with the big corporations will enable them to produce outputs that

are superior to what would emerge in a laissez-faire setting where the government stayed out of economic decisions. This is to an extent similar to the problem of socialist central planning: whereas socialists believe the central planner could control production to the benefit of society, corporatists believe that central planners could direct private producers' activities to the benefit of society. But the problems of knowledge, as outlined by Mises and Hayek,[24] that are faced by the socialist central planner will also be faced by the corporatist central planner. As Phelps puts it:

> "The pluralism of experience and knowledge that a capitalist economy's financiers bring to bear in their decisions radically widens the range of entrepreneurial ideas that have a chance of getting an informed, insightful evaluation. And it is very important that under capitalism, the financier and the entrepreneur do not need the approval of the state or of social partners. Nor are they accountable later on to such social bodies if the project goes badly, not even to the financier's investors. This allows projects to be undertaken that would be so opaque or complex as to be too uncertain for the state or social partners to endorse."[25]

In a corporatist system, only the well-connected can introduce new business and product ideas, and only their ideas get financing. This automatically excludes from innovating and inventing a large portion of the population. This majority of the population is excluded from the economy and prevented from reaping the benefits of creative and productive economic activity in which they would have gladly engaged.

In a capitalist system, any individual who finds an idea to improve others' lives faces little or no government barriers to them introducing this idea to others and to profit from providing others with what they want. This allows for the harnessing of the best ideas to the benefit of everyone. Similarly, any person who mismanages or fails in serving others will have no government support to prevent them from failing, and thus freeing up capital, labor and resources for others to use them more effectively. This takes the burden of having to support unproductive and parasitic firms of the shoulders of society.

Phelps and Zoega argue that Europe's corporatist institutions are inimical to dynamism, and go some way towards explaining the relative economic stagnation of Europe compared to other rich countries in the postwar period.[26] Phelps also provides evidence on the importance of dynamism for raising productivity and thus

wages and quality of life. But the importance of dynamism, it must be emphasized, is not just that it offers more prosperity and better material products. This is more of a side-effect of the real benefits from living in a dynamic economy: freedom and the opportunity to engage in voyages of self-discovery and self-realization. Workers in dynamic capitalist economies are engaged in their jobs; they have the opportunity to explore careers in any field they wish, and have the freedom to work whenever and wherever they like. They can pursue an arcane passionate interest of theirs and end up making that into a financially and personally rewarding career. Dynamism allows people higher levels of self-realization. Phelps emphasizes that the most important benefit conferred from an economically free system may not be the productivity of goods so much as satisfaction in their production.[27]

The corporatist model of economic development has been particularly disastrous in developing countries. Corporatist rigidity and centralized direction implies a certain formulaic aping of development experience of other countries. When a country's leadership undertakes a corporatist mandate to develop some industry, they are trapped into believing that the road to economic advancement lies through copying the same industries and technologies that other countries had developed. Corporatism sees the means of other countries' economic development and mistakes them for the ends of development. The industrial plans to develop advanced steal or car industries are particularly salient examples from the disasters of twentieth century state-led industrialization. This drive mistakes the products of a developed sophisticated dynamic economy (car and steel industries, for example) for being the means by which poor countries became rich and prosperous, when in fact these industries are the products of generations of dynamic economic growth resulting in more and more sophisticated products. This confusion leads to developing countries stifling the development of a dynamic economy (which is the real driver of economic development and growth) in order to boost particular firms or industries (which are in fact the product of economic development and growth.)

One can understand the history of failed industrial policies in the developing world as being a history of the failure of adopting the corporatist model to the development experience of poor and developing countries. What development history has shown is that there is no formulaic recipe for economic development. Egypt, Tunisia and other countries will not develop by aping the success of earlier developers, for many reasons.

Firstly, they do not have to. There are endless numbers of industries and sectors

in which different firms and countries could engage and become productive. Secondly, the paths in which other countries have succeeded have already had the most lucrative rewards distributed, the low-hanging fruits have been picked, and the returns are now diminishing. The first-movers have a large advantage and attempting to copy them will likely not be very lucrative. Third, the paths chosen by industries in other countries were highly context-specific, and relate to the time and place they were tried and the comparative advantages of the countries engaging in them. But the corporatist is unable to factor these considerations into their decisions. A victim of Hayek's *Fatal Conceit*,[28] he imagines that a developing country like Egypt could be transformed into a developed country like Germany if the government aggressively sets about aping the successful industries of Germany. In reality, he not only ends up making wrong decisions, but he takes away from others the ability to take the initiative and produce the innovations, business and industries that are best-suited for Egypt and that could in fact spur the country forward.

3.1 A Case Study of Corporatism: Google and Quaero

A good recent example of the difference between corporatism and capitalism is illustrated in the story of the development of internet search engines, and in comparing the performance of two particular search engines: Google and Quaero. Google was started by two Stanford graduate students—Larry Page and Sergey Brin—in their garage in 1996 as a research project. It was first incorporated in 1998, and had its Initial Public Offering in 2004, which estimated the company's worth at \$23billion. In 2010, its revenues were \$ 29.32b. The word Google has even entered the dictionary as a verb—such has been the success of this search engine. It is no exaggeration to say that Google has revolutionized the internet and human knowledge.

Quaero, on the other hand, has been a textbook case study of expensive failure. The Economist[29] magazine provides a good overview of the history of its development. The Quaero project was started in April 2005, announced by French President Jacques Chirac and German Chancellor Gerhard Schroeder as a response to the dominance of American search engines like Google. The idea was to mobilize public funding and support towards building the next generation of internet search engines, in order to "staunchly defend the world's cultural diversity against the looming threat of uniformity".[30]

The Agency for Industrial Innovation (AII) was set up mainly to oversee this

project, at a cost of $2billion—the bulk of which went to Quaero. The AII recruited several private companies, mainly from Germany and France, to work on this project, as well as several universities, public research institutes and other public organizations. The results, however, have hardly been stellar. In January 2007, The Economist reported that the project was scrapped since the German partners "grumbled about the cost and have indicated they will produce their own, scaled-down search engine."[31] Six years have passed since Chirac and Schroeder's announcement of the Quaero, and all that they have to show for it so far are press releases and no functional search engine. At the time of writing, Quaero's website (www.quaero.org) continues to exist as a platform for publishing press releases and speeches about the promised search engine.

The contrast between Google and Quaero serves as a very useful illustration of the difference between a corporatist system and a capitalist system. Google succeeded, even though it was started by two graduate students in a garage, and Quaero continues to fail even after billions have been spent on making it succeed. This, obviously, is not to say that if Quaero were started by two grad students in a garage it would have succeeded. Google did not succeed because starting from a garage is preferable; Google succeeded because it was one of very many private initiatives working towards developing a search engine with no centralized direction. When this healthy capitalist diversity of perspectives, initiatives and funding sources is allowed, the result is a flowering of many initiatives, only the best of which will succeed. Countless people worked on building a search engine, and the one that proved the most popular with users succeeded. The choice of Google was not made by a centralized authority that decreed Google superior to its competitors; it was purely the actions of many individuals preferring Google's platform over others that led to it succeeding.

Of all the search engines started over the last dozen years, there was no way of predicting in advance which would be the most popular, as that would depend on the preferences, decisions and actions of millions of consumers worldwide. The sort of knowledge needed to decide which search engine is best is the sort of dispersed, local and situated knowledge Hayek[32] discussed. When producers and consumers interact freely, the preferences of the consumers are translated into incentives for the producers to please their clients. The emergent solution, what Hayek[33] would term a spontaneous order, is the product of the independent action of many people around the world, but the conscious direction of none. As Adam Ferguson put it:

"nations stumble upon establishments, which are indeed the result of human action, but not the execution of any human design." [34]

The corporatist model, on the other hand, takes away from the consumers the sovereignty of choice to shape producers' decisions. It substitutes for it the rule of experts and bureaucrats who cannot know all the dispersed knowledge that all individuals have. The central planning experts may indeed chance upon a product that is successful. And given that they have recourse to taxpayer money which competitors do not, the odds are stacked in the experts' favor. The odds of success for the experts may well be superior to the odds of each single capitalist producer, but there are far more capitalist producers, and so the odds that any one of them succeeds are, in turn, higher than those of the corporatist planners. Hence, it wasn't exactly Google that beat Quaero, it was rather the capitalist system that gave millions of individuals the freedom to experiment with creating a search engine that succeeded over the corporatist French/German model of tasking experts with designing the best search engine.

There is another lesson to be gleaned from the tale of Google and Quaero, and that is about the opportunities that these two systems present to young people living under them. Under the capitalist system, motivated young people can undertake engaging challenges like setting up a new search engine, and can succeed in them spectacularly. Even if they fail, they end up learning a lot and can channel that knowledge into other enterprises or careers in other firms. But in the corporatist system, bright young minds have little chance of being creative on their own. They cannot follow their gut about a genius idea that they only believe in. If they want to make it in the search engine business, they need to enter a large firm that is well-connected to government officials assigning funding and granting monopolies. They need to be subordinated to the commands of many others and will be just a small cog in a larger wheel. There is no question which system young people prefer to enter.

The problem with corporatism, then, is not so much the problem of corruption that large state power can create. Corporatism destroys economic calculation and economic dynamism: it makes unlikely the failure of unproductive but well-connected firms and it stifles the ability of entrepreneurs to enter the market with their new ideas. It closes opportunities and leads to a growing disaffection among members of the population, who feel like unimportant cogs in a bigger machine. It takes away from individuals the chance at self-exploration and self-fulfillment; it

teaches them that their own hopes, aspirations and desires are to be subordinated to the higher goal of having particular large firms succeed.

4. How Did Corporatism Emerge in Egypt and Tunisia?

The emergence of the corporatist system in Egypt and Tunisia can be only understood in the context of the transition away from socialist economics to market economics under the auspices of international development organizations and the ruling authoritarian regimes. This reform movement was a seminal part of the politics and economics of Tunisia and Egypt for the past two decades, like many other developing countries around the world. The political rhetoric of these reforms was heavily-loaded with capitalist free market terminology: ownership of state assets was to become "privatized," entrepreneurship was to be encouraged, government intervention in the market economy was to be curtailed. The reality of these reforms, however, was different: Instead of ushering in a free market capitalist economy, these reforms fostered a corporatist and sclerotic unfree market system. It is thus more accurate to refer to these reforms as unfree market reforms.

Whereas state-owned enterprises were privatized, these assets remained under state control and "regulation", under the pretexts of ensuring that the privatization would meet social goals that the government was deemed fit to evaluate. This regulation essentially entailed limiting access into and out of the market to be decided by government employees rather than by the workings of the market economy. Whereas countless initiatives and programs were designed to encourage entrepreneurship, the reality for the majority of ordinary people remains that starting a business is a prohibitively complicated process at the mercy of bureaucrats.

Government continued to play a significant role in ordinary markets like those of food, fuel and other essentials. In spite of the enormous amount of evidence that price controls have overall negative consequences there is barely an essential good whose supply, price and production is not regulated in some form by the central governments of Egypt and Tunisia. Decades after the collapse of socialism, centralized bureaucracies like ministries of planning, agriculture and industry, continued to function and to centrally-plan economic production, with predictable consequences.

5. Examples of Egyptian and Tunisian corporatism

5.1 Ezzsteel

Ahmad Ezz was Deputy Secretary General of the NDP, Member of the People's Assembly and Chairman of its Budget Committee and also a close personal friend of Gamal Mubarak, the president's son and head of the NDP's Policies Committee. In addition to holding these high-ranking political positions, Ezz was one of the richest men in Egypt and one of its most prominent businessman as founder, chairman and majority shareholder of Ezzsteel, the largest steel company in the Middle East and North Africa. Ezzsteel controlled a large share of the steel market in Egypt. Allegations of corruption, monopolistic practices and illegal obtaining of licenses had surfaced for years around Ezzsteel, but no action was taken by the government against it. The Ministry of Trade and Industry tasked the Egyptian Competition Authority to investigate Ezzsteel under the Egyptian Competition Law in 2006 but cleared Ezzsteel and Ezz of any wrong-doing.[35] There were persistent complaints by consumer advocacy groups and political opposition movements that the company did indeed engage in monopolistic practices and that the government's investigations were politically influenced to clear Ezzsteel of all wrong-doing. After the demise of the Mubarak regime, however, Ezz was arrested and tried for "abusing his position to illegally accrue wealth and expand his steel business by monopolizing the industry and benefitting from state privatization projects."[36] Ezz was convicted on September 15, 2011. He was sentenced to 10 years in prison and fined LE660 million ($110m).[37] The court also revoked the production licenses awarded to Ezzsteel under Mubarak, requiring the firm to pay LE660 million to keep the licenses.[38]

The most high-profile case in Ezz's ascent was his takeover of Alexandria Iron and Steel Company Dekhila (AISCD). Established in 1982 and owned by a consortium of state-affiliated banks and petroleum companies, AISCD was the largest steel producer in Egypt, and its transition from statist control to Ezz's ownership is a good microcosm of Egypt's transition from socialism to corporatism. Ezz, who had owned the smaller Al-Ezz Steel Rebars (AESR), acquired a stake in AISCD in 1999 with little capital upfront and through large loan facilities secured through his political connections. He gradually increased his stake in the company until it was subsumed into his Al-Ezz Steel Rebars to form Ezz Dekhila Steel Company. Ezz was also granted a government contract for LE500 million ($100m) to build a railroad track between AISCD's plant in Alexandria and Al Ezz Steel Rebars plant

in Sadat City, at a time when the public railroad network in Egypt was crumbling in disrepair. With his acquisition of AISCD and the railroad linking it to AESR, Ezz cemented his grip on the steel industry in Egypt, since AISCD was the only domestic producer of pig iron billets, the intermediate stage in the production of steel from iron ore. This put all his competitors at a significant disadvantage.[39]

The extent of Ezz's enrichment from his political connections was not restricted to the steel industry. He also benefitted from several government initiatives and laws pertaining to Industrial Zones as well as Build-Operate-Transfer (BOT) contracts. Further, Ezz was able to secure millions of square meters of property in tourist and residential areas for investment. His fortune has been reported to be in the range of LE50 billion.[40]

This is not an isolated case. Some of the most politically powerful people in Egypt were themselves influential businessmen. These sorts of relationships are evidence of a corporatist system, and casts major doubt on labeling Egypt a free market economy or a capitalist system.

Attention is usually paid to the outsized benefits that accrue to beneficiaries of the corporatist regime, but far more important are the costs of this corporatist system to the rest of society, which far exceed the money that the corporatists made. These costs are inestimable, for we will never know what an Egyptian market economy freed from the shackles of corporatism would have produced in the previous years. In a dynamic competitive Egypt where insiders have no advantage over upstarts, one can imagine many new businesses would have been started, many entrepreneurs would have created new products, and many individuals would have rewarding careers in free market enterprises. This is an area that could benefit from future research.

5.2 Tunisian Banking

Tunisia's largest bank by revenue is the Banque International Arabe du Tunisie. Its largest shareholder is Mabrouk group, owned by Ben-Ali's son-in-law Marwan Mabrouk. Another major bank, and the oldest bank in the country is Banque du Tunisie. The chairman of the bank was Belhassen Trabelsi, brother of Ben-Ali's wife, and the CEO was Alya Abdallah, wife of Abdelwahhab Abdallah, a close advisor of Ben-Ali and one-time foreign minister. Ben-Ali's other son-in-law, Al-Matiri, was also involved in banking. He had made his fortune acquiring Banque du Sud

in a highly controversial privatization deal, for which he received funding from another bank that was close to Ben-Ali, the Arab Tunisian Bank, which had provided extensive financing to the Ben-Ali family. After the demise of Ben-Ali, fourteen branches of the Arab Tunisian Bank were torched by demonstrators. Al-Matiri was to later open his own bank, Zaytoona, in 2009.

This oligopolistic capture of the banking system is not just problematic because it allows insiders to gain large amounts of money, but more importantly, because it places in the hands of the ruling family enormous power in the vitally important capitalist function of allocating credit and capital. According to Tunisian Central Bank statistics, the family of Ben-Ali alone received loans from the Tunisian banking sector amounting to $1.75 billion, approximately 5% of all loans in Tunisia. These loans went to 182 companies owned by the family spread over most sectors of the economy, including banking, telecommunications, industry, cars, food, tourism, media, construction, insurance, import/export, and more.[41]

This is a clear example of the corporatist economic system at work. As Phelps explains, a vital part of the capitalist system is the pluralism of experience and knowledge that financiers bring to bear on funding decisions. This pluralism combined with free market competition allows them to look for, and find, the most promising business plans to fund. This provides start-up capital to ambitious entrepreneurs whose new businesses could transform their lives and those of others around them. But if a banking structure is captured by a corporatist regime, the incentive no longer exists for them to find the most promising ventures to fund; rather, the focus is to further the interests of the corporatists. This is best achieved by channeling money to close associates regardless of the quality of their ideas and enterprises, and freezing out the best potential competitors.

5.3 Tunisian Radio

Another example of the Ben-Ali family monopolizing an industry can be seen in Radio. Before the outbreak of the revolution, there were only five private radio stations in the country: Mosaic FM, owned by Belhassen Trabelsi; Al-Zaytoona FM, owned by Al-Matiri; Shams FM, owned by Ben-Ali's daughter Sireen (wife of Mabrouk);[42] Jawhara FM owned by Ali Belhajj-Youssef, a close friend and associate of Ben-Ali; and Express FM, owned by Murad Qadeesh, son of Ben-Ali's close advisor and personal doctor Mohammad Qadeesh.[43]

The true cost of this corporatist regime in the radio industry becomes apparent when one examines the unseen side of this oligopoly. Two private radio stations, Kalima and Radio Six FM, were closed down by the authorities in 2009 for not obtaining licenses.[44] Their equipment was also confiscated. As noted above, the real problem of corporatism is not the money made by the Ben-Ali associates through their control of the radio sector, but all the opportunities lost for many private individuals being unable to partake in this sector.

Tunisia had many young entrepreneurs with visions of starting their own businesses, such as the entrepreneurs behind Kalima and Radio Six. But it was not possible to do that because it did not coincide with the interests of the ruling corporatists of Tunisia. This is the embodiment of Phelps' discussion of the costs of corporatism mentioned above. The benefits continued to accumulate for the ruling regime, but the costs in unseen lost business opportunities and dynamism for the majority of the people are incalculable. As Phelps puts it: "the deprivations for few or many of basic goods like careers, which are not morally compensated by the spoils of the advantaged, few or many." [45]

Further, the importance of the radio industry goes beyond the financial, as it is vital in affecting public opinion and influencing individual political and economic choices. An important part of corporatist systems is the political repression and propaganda that goes along with the economic regime. This is beyond the scope of this study, but exploring the links between economic sectors, media and the security apparatus is an area of promising future research that will go a long way towards explaining the nature of the Tunisian corporatist economy under Ben-Ali.

5.4 Egyptian Food and Fuel Subsidies

One of the earliest and most essential lessons of economics is that price controls do not work. Studies of ancient Egypt itself provide some of the earliest lessons in the futility and counter-productiveness of price controls. The Babylonians, Romans, Chinese and countless other ancient civilizations learned these lessons the hard way.[46] The twentieth century witnessed an enormous amount of price controls and interventions applied across the world, particularly in socialist economies. As predicted by Mises and Hayek's analysis of the effect of disrupting the working of the price mechanism, price controls inevitably make matters worse.[47]

Yet Egypt continues with an extensive program of food and fuel subsidies.

Decades of liberalization rhetoric has certainly changed the forms of intervention and controls the government applies to economic goods, but it has not changed the fundamental reality that virtually all the vital markets in the economy are central-ized, price-controlled, subsidized, or taxed.

Since the 1950s, Egyptian farming policy has aimed at making basic grain and bean staples very affordable. This has meant extensive programs of support, sub-sidies and incentives for farmers to partake in the production of crops like wheat, rice, beans, and lentils. The motivation for these policies seems laudable: providing cheap food for the poor of Egypt. But the economic impact of these policies cannot just be estimated by looking at how affordable these staples become; it is far more important to understand the opportunity cost of these interventions and the implied economic consequences from them.

Basic economics tells us that prices are relative and resources are scarce: bring-ing down the price of some food groups necessarily means that prices of other foods must rise, relative to the cheaper crops. By directing farmers and their re-sources towards the production of wheat, rice, beans and lentils, the government diverts these farmers and their resources from the production of fruits, vegetables, and meat. More and cheaper wheat, rice, beans and lentils necessarily means fewer and more expensive fruits, vegetables, and meat. The impact of this policy has been ingrained in Egyptians' diet, health and even folklore.

Modern nutrition research shows how cheap staple crops (grains and seeds like the ones the Egyptian government subsidizes) are at the root of modern diseases such as diabetes, obesity, malnutrition and cancer.[48] These diseases have shock-ingly high prevalence in Egypt. It seems government intervention in the food mar-ket over the last six decades has favored unhealthy foods while making healthier options more scarce and expensive.

The detrimental impact of these policies has even been documented vividly in Egyptian popular culture, where comedians have for decades made jokes from the predicament of having to continuously eat the cheap fava Beans, with its famed mind-numbing effect, while meat remains a largely unattainable fantasy. Political singer Sheikh Imam Mohammad Ahmad Issa wrote a song entitled *El-Fool w'El-Lahma* specifically about this topic, dedicated to mocking a government expert named Dr. Mohsen who announces that modern science has shown that it is in the interest of the Egyptian people to eat fava beans and not meat. Imam concludes the song by asking Dr. Mohsen why rich people like him can't start eating fava beans

and leave the meat to the poor. The impact of these policies on Egyptian health and worker productivity cannot be underestimated, and constitute a fruitful avenue of future research.

Fuel subsidies are another example of the negative effects of price controls and corporatist economic management. The majority of Egyptian fuel consumption goes to the richest Egyptians; the individuals and industries that consume large amounts of energies. A fuel subsidy is essentially a regressive transfer from people who do not use a lot of fuel (mainly poorer) to those who use a lot of it (the richer). This regressive subsidy continues to weigh down on the poor not just in terms of the government revenue lost to these subsidies. More important is the distortionary impact on economic activity that these subsidies create, making it cheaper to buy cars and drive them around, as opposed to using public transportation. This contributes negatively to Egypt's disastrous traffic and pollution problems.

6. Why Did Corporatism Emerge in Egypt and Tunisia?

The two deep structural causes of the corporatist regimes can be identified as the rentier state and the police state. That the ruling elites in both countries could count on their foreign backers for support meant that they ran essentially extractive corporatist economies, not needing to be accountable to their peoples.[49] The large amount of monetary support these regimes received from abroad allowed them to build large police states to enforce economic corporatism and suppress dissent. This essentially led to a process of government that is heavily top-down, authoritative, and pervasive. The contrast is with forms of government that emerge from members of small communities accountable to their fellow community members.

Both Tunisia and Egypt received large amounts of economic aid and loans in various forms. The essential problem with this aid money is that it makes the sources of the funding of the government external to the people it rules over, reducing its accountability to them. As long as a government has to fund itself internally, the funding constraint exists as a deterrent against the growth of authoritarianism and tyranny. As government abuse grows, its unpopularity grows and it risks escalating resentment and refusal to pay taxation. But if it could count on external funding, it can arm itself to repress people into consent. This, essentially, is how the Mubarak and Ben Ali regimes functioned over their long tenures.

These regimes thus enforced rules from above, through extensive patron-client

networks in the bureaucracy and the ruling parties. This is manifest in the outsized scale of the central government compared to local and municipal governments. It is the central state's bureaucracy and the ruling party that impose political and economic rules on regions, rather than local members of their communities.

A related aspect of the rentier nature of these two regimes concerns their central bank reserves. Most of their reserves are composed of U.S. Dollars, with smaller amounts of Euros, gold and other reserve currencies. This over-representation of U.S. Dollars in central bank reserves is at the heart of the recent episodes of food price rises that occurred before and during the revolution of late-2010 and 2011.

As the U.S. has adopted overly loose monetary policy over the last several years, this has led to a large decline in the purchasing power of the US Dollar compared to other currencies, and most notably, against commodities. These inflationary impacts are not as severely felt in the U.S. itself, where basic food staples make up a far smaller share of expenditure than in developing countries, where it can have severe consequences.

This becomes apparent when one examines the data on the U.S. Dollar against basic foods and commodities. Figure 5.1 shows the average prices of six classes of commodities in U.S. Dollars from the twelve year period from January 2000 to February 2012. The average of these commodities' prices rose in that period by 162.8% in U.S. Dollars.

Figure 2 shows the same commodities' prices expressed in gold, which is traditional money of mankind. These commodities' prices declined to 42.89% of their value when expressed in terms of gold.

Figure 3 compares the two averages for prices in dollar and gold. As can be seen, the trend was generally downward in terms of gold, while upward in terms of the dollar.

The implication of this analysis is clear: The U.S. Dollar reserves of the Tunisian and Egyptian central banks lost much of their value compared to goods and commodities. This meant that the Tunisian and Egyptian currencies themselves suffered large devaluations compared to the basic commodities that citizens consume. This in turn meant that the prices of commodities in the local currencies were continuously rising for normal people. Had the central banks maintained a more diversified reserve portfolio, including higher gold reserves, the devaluation of the local currency would not have been as severe, and nor would have been the rise in food prices. This analysis is not just relevant looking backwards; it is a very perti-

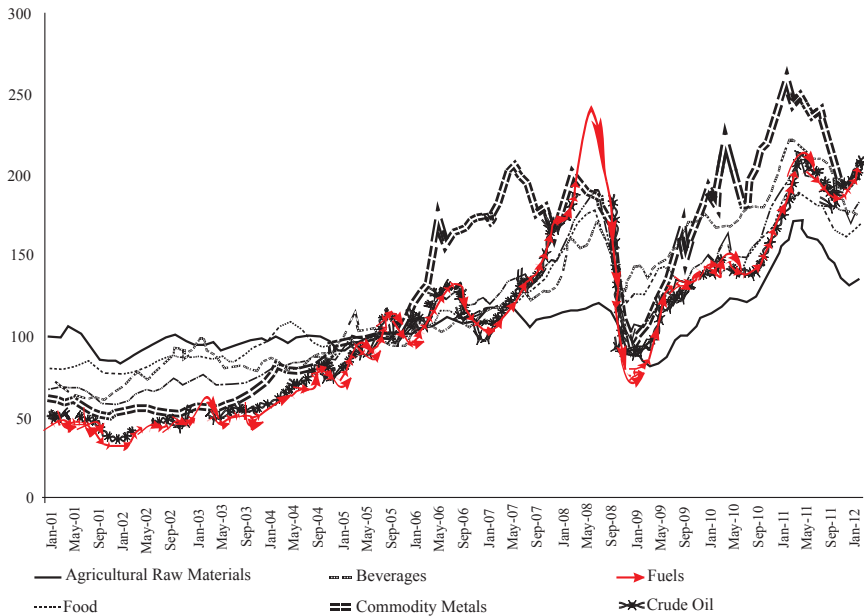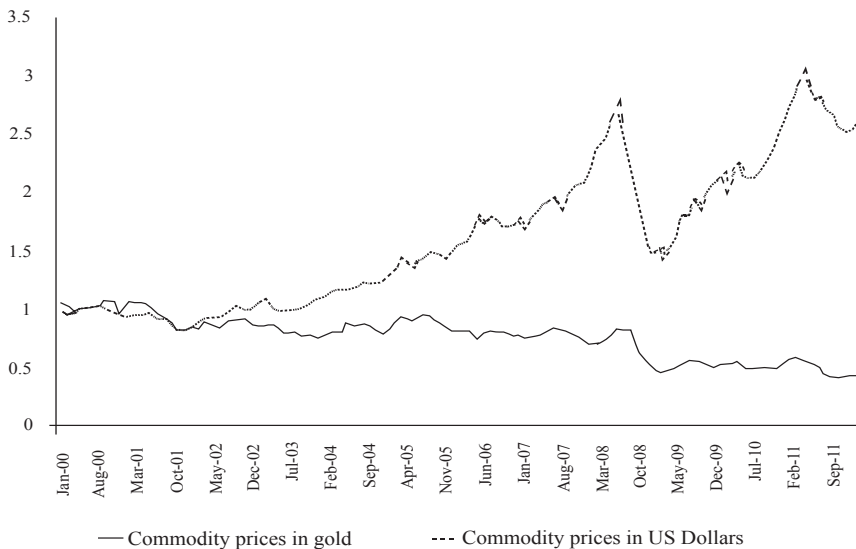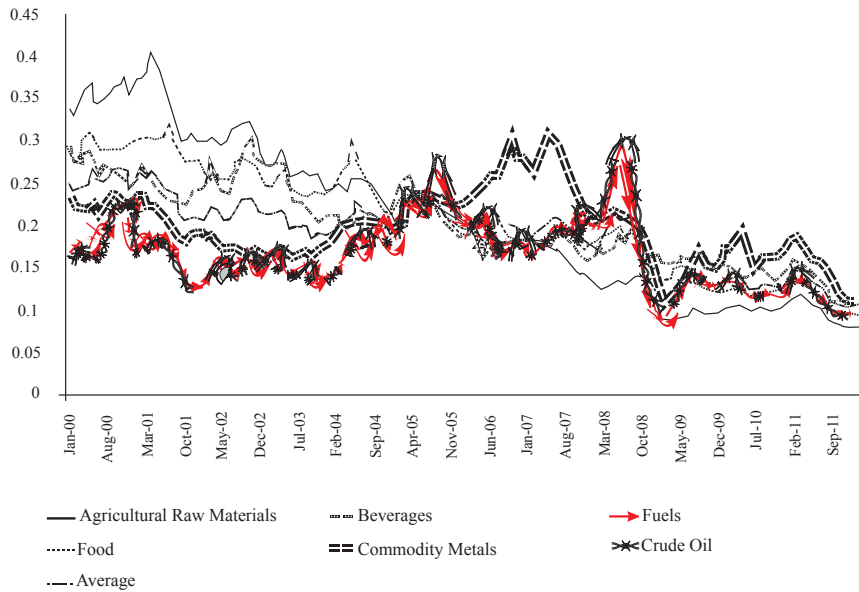**Figure 5.1 Average Prices of Six Classes of Commodities (US$)**

Figure 5.2 The Same Commodities' Prices Expressed in Gold

Figure 5.3 Comparing the Two Averages for Prices in Dollars and Gold

nent issue which Egypt and Tunisia need to consider in light of the specter of endless quantitative easing and monetary debasement by the U.S. Federal Reserve.

7. Conclusion and Implications

This paper suggests examining the economics of Egypt and Tunisia from the corporatist analytical framework to better understand the roots of the economic discontent that brought down long-standing totalitarian regimes. These regimes' extensive control of economic activity has not been relaxed meaningfully with the slew of unfree market reforms enacted over the previous decades of supposed liberalization. This control has profited the ruling regimes and their cronies, but the bigger problem with it is that it denies individuals in these societies the freedom to grow creatively, financially, and intellectually by subordinating these individuals' dreams, desires and plans to the survival of the corporatist regime and its cronies. Two deep structural factors fostered these corporatist regimes: Firstly, the rentier

state model of receiving extensive financing and lending from outsiders, not from citizens, thereby leaving the government accountable to foreigners rather than its own citizens, whom it can more easily repress. Secondly, these states ran extensive patron-client networks revolving around the police state and the ruling political parties' cadres. The opportunity for dynamic economic growth in Egypt and Tunisia depends primarily on the ability of normal citizens to engage in economic activity to serve each other freely. This, in turn, will only be accomplished with the dismantling of the channels of control of economic activity of these regimes, and the two deeper structural reasons that support it: the rentier state and the police state. The move away from being a rentier state should also be combined with a move to diversify central bank reserve holdings away from currencies that are depreciating quickly.

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