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## Religion, Institutions, and Growth

In the evolving understanding of development, economists have identified proximate and more fundamental sources of economic development. The former include the investment to GDP ratio, level and growth of education, economic policies, and characteristics of the economy such as corruption. These determinants may in turn be endogenous, reflecting “deeper” characteristics of nations that can potentially explain diverse outcomes: in increasing order of amenability to intentional alteration, geography and the dependence of institutions on history, social groups, and religious affiliation.

Geography is obviously important in myriad ways, but economists tend to focus on two issues thought to have particular salience for development: whether a country is landlocked and as a consequence unable to exploit sea transportation or is dependent on its neighbors to do so and whether a country has a tropical climate and as a consequence its population is subject to deadly and debilitating tropical diseases.

Geography in this sense does not appear to pose a major constraint for the Middle East: Most of the countries have access to the Mediterranean Sea or other navigable bodies of water. And given the arid conditions of the region, tropical disease is generally not an issue, though malaria is a limited risk in some rural areas and Egypt experienced bilharzia as a result of the flooding of the Nile. Lack of fresh water, and the misallocation of this scarce resource, poses a challenge for most countries in the region, however (box 5.1).

At the level of political geography, it has been argued that the fragmentation of the region that accompanied the decline and eventual collapse of the Ottoman Empire, the partial colonization by England and

### **Box 5.1 Water**

The Middle East may be drowning in oil but is one of the world's most naturally water-scarce regions. This challenge is exacerbated by the odd fact that in some of the Arab countries this scarcest of resources is allocated badly. Analyses using optimizing models suggest that the shortage can be remedied using better pricing policies, although these may be politically difficult and require coordination across countries (Fisher et al. 2002).

The region faces both quantity and quality issues with respect to water: In Jordan, Saudi Arabia, Yemen, Tunisia, and Algeria, renewable supplies account for less than half of the demand, while quantity problems are compounded by quality problems as governments implement programs to reuse water (Richards 2001, Shetty 2006). Water management is further complicated by the fact that major rivers and aquifers span national boundaries.

Much of the region's fresh water is used in agriculture, reflecting both incentive policies such as generous support prices, which encourage agricultural production generally, and water pricing policies, which encourage the overuse of this specific input. For example, both Saudi Arabia and Syria subsidize wheat production, with Saudi Arabia even emerging as a significant exporter in the early 1990s, though budgetary pressures associated with the 1990s collapse of oil prices subsequently forced a scaling back of incentives. According to Shobha Shetty (2006), in some countries water prices do not even cover private costs. In the case of Syria, "most farmers tend to over-irrigate with water use reported at three times the optimal rate as defined by research trials" (Shetty 2006, 24).

Adjustment in agriculture is politically problematic, however. Not only do the rural beneficiaries of these distortions lobby for their continuance but also a squeeze on agriculture could accelerate potentially politically destabilizing rural-urban migration.

The ubiquity of such distortions also poses problems for trade policy both in the Doha Round of negotiations in the World Trade Organization and intra-regional economic integration initiatives discussed in chapter 8. All of the Arab countries except Morocco are net importers of food, and agricultural reforms that would reduce export subsidies by major exporters such as the European Union would have the effect of increasing world prices to the detriment of the Middle Eastern importers. Agricultural products are also covered in the intraregional proposals, but the prevalence of distortions both with respect to agriculture generally and the use of water specifically presents politically challenging adjustment issues for would-be reformers.

France, and the establishment of the state of Israel disrupted traditional patterns of commerce and social interaction, contributing to a stultifying parochialism (Said 1978, Fromkin 1989, Karsh and Karsh 1999). There is surely something to the notion that fragmentation and arbitrary borders have been a drag on development, though the magnitude of the impact is difficult to assess. As for the presence of Israel, given the existence of the Mediterranean and other sea routes, air transportation, and telecommunications, for most countries of the region Israel would seem to be less of a geographic obstacle to integration than a handy foil for governments seeking to deflect responsibility for local problems.<sup>1</sup>

The invocation of these political geography considerations, as distinct from the more narrow way that economists normally think of geography, leads quite naturally to a discussion of local institutions and their possible historical, religious, or cultural bases.

## Religious Affiliation and Growth Across Countries

A large literature argues that the institutional environment—the man-made constraints that structure political, economic, and social interaction, consisting of both informal constraints (taboos, customs, and codes of conduct) and formal rules (constitutions and laws)—may have an important impact on development. Policies can be thought of as the content-specific rules or decisions implemented through the institutional framework. Despite some assertions, Islam has not been inconsistent with growth in the Middle East nor in other areas—witness the spectacular performance of Indonesia and Malaysia between 1970 and the onset of the East Asian crisis in 1997 and the recent acceleration of growth in Bangladesh.

On a worldwide basis, Muslims largely reside in countries categorized as “lower middle income” in standard international classifications. In chapter 2 we showed that the heavily Muslim countries of the Middle East exhibited slow to average growth during the 1980s and 1990s, although we did not go into the fundamental determinants of the slower growth. Few in the region would consider Islam, the Middle East’s dominant religion, an obstacle to development; indeed they would find this line of inquiry odd, but it appears that many from outside the region disagree. Luigi Guiso, Paola Sapienza, and Luigi Zingales (2003, 228, 280)

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1. A particularly apt account is given in a long article in the *New York Times* by Michael Slackman (“Beneath the Rage in the Middle East,” February 12, 2006) in discussing the government-led efforts to shift attention from their shortcomings in 2005 and 2006 by focusing on Danish cartoons depicting the Prophet Mohammed. These problems included the slow response of the Egyptian government to a major boat catastrophe and the need for Syria to deflect attention from its role in the assassination of Rafik Hariri, the prominent Lebanese politician.

characterize Islam as being negatively associated “with attitudes that are conducive to growth” and among adherents to the world’s major religions, Muslims as being the most “antimarket.” Stefan Voigt (2005, 66) is blunt, stating, “Islamic values are a central cause of the poor economic performance of Muslim countries.”

Islam prescribes some unique economic institutions such as the prohibition on *riba*, commonly believed to be equivalent to the charging of interest, or the injunction to observe *zakat*, narrowly construed as the paying of alms, which could serve as the causal links between theological belief and economic performance at the aggregate level. The issue is whether these institutions can be shown to be the reason that countries still are “only” lower middle income or have experienced slow growth rates. There is some reason to be skeptical on this count: As reported by Frederic Pryor (2006), the share of *zakat* contributions in income or in conventional tax receipts, or the share of Islamic financial institutions in the financial sector as a whole is small, and the largest Muslim country in the world, Indonesia, is one of the few developing countries that did converge on the Organization for Economic Cooperation and Development (OECD) over the past half century. More generally economic growth tends to be fairly variable over both the short and long runs (Easterly and Levine 2001), so it is difficult to see how something as slowly evolving as religious practices or adherence could be the primary driver of economic performance. The relatively fast growth in 1960 to 1980 in the Middle Eastern nations considered in this book and the slowdown in the succeeding two decades can hardly be associated with a change in religion.<sup>2</sup>

The conventional wisdom is that the level of development in the Islamic world was higher than in Western Europe in the 10th century but that the West had caught up by the 17th or 18th century. The simplest interpretation would be that Islam is consistent with long periods of relatively rapid and slow growth and is not dispositive in any deep way. The other possible interpretation is that something fundamentally changed within either Islam or Christianity during this period that reordered the compatibility of these religions with economic development.

There are those who make the latter argument, from theological, sociological, and institutional perspectives. With respect to the first, what is needed is a theological break similar to the Protestant Reformation, which could alter behavior and provide the turning point between long periods of relatively successful and unsuccessful development. Bernard Lewis (1982) argues that somewhere between the 9th and 11th centuries, “the gate of *ijtihad*” (independent reasoning) was closed—meaning that all answers were

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2. Consistency of course is not required in casual explanations of economic growth. Many analysts confidently ascribed the bad performance of South Korea and Taiwan in the 1950s and early 1960s to the inimical effects of “Confucianism” and with similar omniscience attributed their rapid growth in the following three decades to the same factor.

already available, hence there was no need for inquiry, just follow and obey. Lewis (1993a) expands upon this critique of “the authoritarian character of traditional pedagogy” and its emphasis on rote memorization. Of course, authoritarian pedagogy and rote memorization are not unique to the schools of Islamic countries, as any Japanese or South Korean schoolchild could attest. Traditional Muslim education systems taught a set of accepted propositions rather than how to “use their own judgment, exercise their critical faculties, and decide things for themselves” (Lewis 1993a, 354; UNDP 2002). Neither Sufism nor Shi’ism, the most prominent departures from the orthodoxy, could provide the basis for a rigorous critique of the dominant practices à la Protestant Christianity.<sup>3</sup> Not surprisingly, this interpretation is highly controversial; Nazih Ayubi (1993) accepts Lewis’s interpretation of the closing of the gate of *ijtihad* but argues that it was reopened in the 19th century by the emergence of Jamal al-Din al-Afghani and his disciples. Wael Hallaq (1984, 1997) dismisses the whole proposition as “entirely baseless and inaccurate” (1984, 4).

With regard to the sociological origins of Islamic performance, Max Weber, following the writings of 14th century Islamic writer Ibn Khaldun, argued that Muslim societies were founded by nomadic warriors whose bands were characterized by intense group loyalty; once they settled down, however, their descendents succumbed to the vices of the cities and were replaced by another wave of tribesmen of greater social cohesion. Neither the warrior tradition with its plunder ethic nor the sedentary dynastic bureaucracy could provide the cultural rationale for development through intensive means.

Timur Kuran (2003a) provides an interpretation of how Islamic practices, for example inheritance rules, inhibited the development of commercial institutions comparable to those developed in the West during the Renaissance and as a consequence weakened Islamic merchants in competition with their Western counterparts.<sup>4</sup> Indeed, Kuran argues that these institutional constraints explain why commerce and finance within the Middle East came to be increasingly dominated by non-Muslim religious minorities until the widespread adoption of Western institutions and practices in the 19th century (Kuran 2003a, 2004).<sup>5</sup>

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3. See Turner (1974), Metcalf (1999), and Peters (1999) for discussions of the superficial similarities between the 19th century Islamic reform movements and the Protestant Reformation.

4. See also Greif (1994) and Lal (1998) for a complementary interpretation of institutional change in Western Christendom.

5. Lewis (1993b, 24–25) provides a fascinating illustration of this phenomenon: “In 1912, forty private bankers were listed in Istanbul. Not one of them was a Turkish Muslim. Those who can be identified by their names included twelve Greeks, twelve Armenians, eight Jews, and five Levantines or Europeans. A list of thirty-four stock brokers in Istanbul included eighteen Greeks, six Jews, five Armenians, and not a single Turk.” Kuran provides similar examples from Turkish and Arab commercial centers: “In 1826 individuals with names identifiable as

In sum, it could be that these negative interpretations of Islam's historical legacy are correct but that enough convergence in institutions, policies, and behavior has occurred so that the effects have been attenuated in the contemporary world or that other positive characteristics in Islamic societies overwhelm the negative influence of Islam, or that this received wisdom is simply wrong. After exhaustively analyzing a large number of indicators of institutions, practices, and outcomes, Pryor (2006) in fact concludes that today's majority-Muslim countries do not constitute a distinct group or define a distinct economic "institutional complex."

Ultimately, whatever the validity of these arguments, the question is, Does the empirical evidence provide any confirmation of the positive or negative effects of Islam during the last four decades? One way of getting at this is through the now ubiquitous cross-country regression approach. The earliest cross-country regressions attempted to account for growth rates using a production theoretic approach, explaining growth in output per worker by initial per capita income, a proxy for investment rates, and a measure of human capital in an effort to discriminate between endogenous growth models and the standard neoclassical growth model (Barro 1991; Mankiw, Romer, and Weil 1991). However, this early set of empirical estimates was soon supplemented by models that added measures of policy outcomes such as inflation rates, fiscal deficits, openness to foreign trade, quality of institutions, and size of government consumption. As Robert Solow (2001) and others have pointed out, this marked a change from a production theoretic basis—production functions do not conventionally include a measure of inflation as an explanatory variable. As noted above, other researchers have sought still more fundamental sources of growth such as colonial legacy, geography, and institutions. All of these studies have now departed substantially from the initial testing of the empirical evaluation of endogenous growth models versus the implications of the Solow-Swan model, which motivated considerable empirical research. Recent research is better interpreted as a search for empirical regularities without an agreed upon theoretical framework for interpreting correlations uncovered. But the correlations may prove to be of some interest.

The evidence on the impact of Islam on income and productivity growth derived from cross-country growth models is mixed, possibly due

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Muslims constituted only 6 of the 34 traders included in lists of local Beirut merchants in business with Europe; by 1848 this number had fallen to 3; and for the next three-quarters of a century the city's foreign trade remained almost entirely in the hands of Christian families. In Aleppo, Muslims maintained a major presence in commerce, but all the wealthiest merchants were Christians. Meanwhile, Baghdad's foreign trade fell largely under the control of local Jews, who benefited from their ties with Jewish merchant communities abroad. Alexandria, another major trading center, had 72 merchant houses in 1837; 43 belonged to Europeans, 27 to local minorities, two to Muslims, one a Tunisian, and the other a Turk" (Kuran 2004, 81). He goes on to observe that the official statistics document the same phenomenon with respect to trade within the Ottoman Empire and provides similar documentation of non-Muslim minority dominance of finance in these Arab commercial centers.

to the use of different samples, different economic fundamentals on which the religious adherence results are conditioned, and perhaps more importantly different excluded categories against which the estimated coefficients in the included religion categories are judged.<sup>6</sup>

Marcus Noland (2005a) extends the literature in several directions. Three sorts of evidence are brought to bear: first, a large sample of 78 countries over 1970–90 (most similar to Barro and McCleary 2003); second, a sample of 34 countries over the extended period 1913–98; and finally subnational data within three multiethnic, multireligious countries (India, Malaysia, and Ghana) with sizable Muslim populations from three different parts of the world. The last dimension of the analysis is particularly important— influences such as differences in trade policies or legal institutions that are difficult to control for in cross-country analysis disappear when examining subnational data for a single country. Moreover, Noland considers both per capita income growth and total factor productivity growth, while Barro and McCleary (2003) and Sala-i-Martin, Doppelhofer, and Miller (2004) examine only per capita income growth.

The results indicate that in both cross-country and within-country regressions, the null hypothesis that religious affiliation is uncorrelated with performance can frequently be rejected (i.e., religion matters), though the regressions do not yield a consistent and robust pattern of coefficients with respect to particular religions.<sup>7</sup> The correlations with respect to Islam do not support the notion that it is inimical to growth. As might have been expected on the basis of the analysis in chapter 2, predominantly Muslim countries are seldom outliers (either positively or negatively) in the cross-country regressions. In most cases, the coefficient on the Muslim popula-

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6. Robert J. Barro and Rachel M. McCleary (2003) examine the impact of religious affiliation and intensity of belief in an unbalanced panel of 59 countries (maximum of 37 cross-sectional observations for any given time observation) over 1960–70. Their sample is mostly developed countries and includes only four predominantly Muslim countries. They find that Islam (as well as Hinduism, Orthodox Christianity, and Protestantism) inhibits economic performance relative to Catholicism. The difficulty of relying on such regressions can be seen when economic performance of the 1980s is considered—the overwhelmingly Catholic countries of Latin America experienced no growth in per capita income for that decade as a result of policies adopted to redress the debt default that occurred in the early part of the decade. It would be difficult to set out a causal role for Catholicism as opposed to the impersonal effects of capital markets as a determinant of growth.

In a paper by Xavier Sala-i-Martin, Gernot Doppelhofer, and Ronald I. Miller (2004), religious affiliation is but one of many variables affecting per capita income growth. They find that Buddhism and Islam have a positive impact on growth (though the magnitude of the coefficient on the share of the population professing Buddhism is nearly twice as large as for the Muslim population share) relative to an “other religions” catch-all.

7. In Sala-i-Martin, Doppelhofer, and Miller (2004), “other religions” is the excluded category against which the impact of the included religious affiliation variables are assessed, but while they include Confucianism as a religion and put Judaism in the “other category,” Noland does the reverse.

tion share is statistically insignificant, with one exception—where it is significant, it is always positive. (The only case of a statistically significant negative coefficient is in a subnational regression for Malaysia.) Islam does not appear to be a drag on growth, as sometimes alleged. Even though the results are basically correlations without a strong theoretical foundation, they suggest that Islam has not been a notable correlate of growth retardation. The generally weak performance of most countries in the half century since World War II leaves a lot to be explained, both for Islamic and other countries.

At the same time, while Islam may not be strongly correlated with economic outcomes, it still could be the case that the Islamic religious tradition or other cultural or historical experiences may have affected the development of local institutions or conditioned local attitudes on a wide range of issues that could indirectly affect economic performance. Surveys and case studies indicate that Arab businessmen face a particularly unsupportive institutional environment (Nugent 2000). In this chapter we discuss economic institutions; in chapter 7 we discuss the possible constraints that elite and popular attitudes pose for internal reform; and in chapter 9 we discuss how local conditions may affect subjective assessment of risk that foreigners put on economic transactions with Middle Eastern countries.

Daron Acemoglu, Simon Johnson, and James A. Robinson (2001) in an influential paper argued that the quality of contemporary political institutions is highly correlated with colonial settler death rates between the 17th and 19th centuries. Societies where settlers had low death rates more successfully transplanted political institutions from Western Europe than those where disease impeded the establishment of significant settler populations with a stake in local governance. It might also be the case that differing colonial powers established political institutions of differing strengths in their colonies, though previous research does not appear to bear out this hypothesis (Przeworski et al. 2000). Most of the contemporary Arab countries were under Ottoman rule until the 19th century, when the British and French began expanding their influence at the expense of the Ottomans. With the possible exception of Algeria, the transplantation of large European settler populations was not widespread, however. From the standpoint of Acemoglu, Johnson, and Robinson, the absence of a core of colonists would not bode well for subsequent performance, since the European powers would have less of an incentive to match their diplomatic influence with investment in local institutions.

## Legal Systems and Growth

A related argument is that a country's legal system may affect the quality of governance, economic performance, and/or political stability, and Mid-

dle Eastern businessmen in fact cite problematic “enforcement of the legal system” as the single biggest obstacle to doing business in their countries (Zarrouk 2003, table 4-8), supporting the theoretical prediction.

With respect to economic performance, this argument revolves around the national origin of the commercial legal system, specifically whether its origins are in the British common law system or the civil law system of continental Europe, whether it originated in the country or was transplanted, and if transplanted the receptivity of the local population to the introduction of this legal system.<sup>8</sup> The typical result is that common law systems dominate civil law systems and that effectiveness is related to the directness of and receptivity to the institutional transfer. So, for example, the transfer of British common law to Australia would be expected to be successful, since the British colonial administrators were transferring it directly and the local population predominantly consisted of migrants familiar with the concepts of the common law system.<sup>9</sup> In contrast, a country like Guatemala would be expected to perform poorly—its legal system was imposed by a country, Spain, that itself was not the originator of the legal system it was transferring, and the system was being transferred to a local indigenous population for whom the basic precepts of the civil law system were alien.

For the most part the Arab countries would appear to be an intermediate case: Their modern commercial legal systems come directly from their British or French originators but were introduced to populations more familiar with traditional *sharia* law practices. In this regard it is worth noting that in a poll conducted in Egypt, Jordan, Lebanon, Morocco, Saudi Arabia, and the United Arab Emirates, majorities in four of the six countries supported governing business by sharia law, with pluralities in all six countries indicating that it required further interpretation to enable businesses in the Muslim world to integrate into the global economy (Zogby International 2005). Such attitudes are not of mere theoretical interest: Perceived inconsistencies between World Trade Organization (WTO) rules and local interpretation of sharia played an important role in delaying Saudi Arabia’s accession to that organization. Robert Jordan, the US ambassador to Riyadh at the time Saudi Arabia joined the WTO, has warned that sharia may continue to trump international arbitration decisions, and Charles Kestenbaum, a US Commerce Department official, has similarly expressed skepticism that in resolving commercial disputes, Saudi courts would challenge *fatwas* issued by the religious authorities (Clatanoff et al. 2006).

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8. See LaPorta et al. (1999); Mahoney (2001); Berkowitz, Pistor, and Richard (2003); and Djankov et al. (2003).

9. Of course, many may have been familiar with criminal law from the wrong side of the bench as Robert Hughes (1986) has shown that a high percentage of Australia’s initial colonizers were former criminals.

Table 5.1 summarizes data on the origins and perceived effectiveness of the commercial legal systems of our comparator countries. As it turns out, all of these countries are classified as “unreceptive”—the local populations had little familiarity with these legal systems at the time of their introduction, and in this sense the Arab countries are hardly unique. Most of these comparator countries received their legal systems directly via British or French imperialism, though there are exceptions—the origins of the commercial legal codes of South Korea and Taiwan lie in Japanese colonial occupation; the Japanese in turn adapted the German or more precisely the Prussian legal code of the late 19th century before imposing it on South Korea and Taiwan. China has a socialist legal system based on the Soviet model. Brazil, Indonesia, and Venezuela have commercial legal codes based on French law, which were transmitted indirectly via other European colonial powers.

The final five columns of table 5.1 report rankings of legal system effectiveness derived from survey data obtained from three sources. Data from the World Economic Forum’s *Global Competitiveness Report 2005–2006*, as indicated in previous chapters, are based on a survey of roughly 8,000 business executives in more than 100 countries during the first five months of 2005. The World Bank governance indicators are constructed by aggregating data from 37 data sources originating in 31 public and private organizations (Kaufmann, Kraay, and Mastruzzi 2005). The Opacity index originally was derived by surveying PricewaterhouseCoopers executives; its most recent incarnation, like the World Bank governance indicators, is constructed by amalgamating multiple original data sources (Kurtzman, Yago, and Phumiwasana 2004). The fact that the World Bank and Opacity indices share some underlying data sources, including the Transparency International and *International Country Risk Guide* rankings, means that their apparent consistency may be partly illusory. Conversely, divergences might point to fragility in these indices.

The scoring methods and country samples used by the three surveys differ so the data must be normalized in some way. In table 5.1 the scores are reported as percentile ranks (a larger number is better) derived from a common sample of 48 countries.<sup>10</sup> Given the previously acknowledged difficulties in interpreting such cross-country survey data, it is hoped that the use of multiple surveys will increase the reader’s confidence in the salience of these scores.

“Efficacy of the legal system” is the percentile rank of the assessment of how effectively the legal system resolves business disputes based on interviews with the corporate chief financial officers, equity analysts,

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10. The responses have to be normalized to a common sample because the sample sizes typically expand by increasing the number of small, poor, low-scoring countries. Unless one controls for this expansion, the addition to the sample of the Togos of the world spuriously improves the apparent performance of the larger, richer, higher-scoring sample incumbents.

**Table 5.1 Legal origins and effectiveness** (percentile)

Country	Family	Receptivity	Efficacy of legal system	Rule of law	<i>Global Competitiveness Report (GCR) score</i>		
					Judicial independence	Efficiency of legal framework	Property rights
Middle East							
Algeria	French	Direct	n.a.	19	15	28	11
Egypt	French	Direct	35	33	n.a.	37	33
Jordan	French	Direct	n.a.	38	52	52	43
Kuwait	French	Direct	n.a.	50	61	61	35
Lebanon	French	Direct	15	23	n.a.	n.a.	n.a.
Morocco	French	Direct	n.a.	33	20	33	17
Saudi Arabia	English	Direct	48	40	n.a.	n.a.	n.a.
Syria	French	Direct	n.a.	19	n.a.	n.a.	n.a.
Tunisia	French	Direct	n.a.	38	54	63	43
High-performing comparators							
South Korea	German	Indirect	44	52	43	48	43
Taiwan	German	Indirect	52	56	46	57	52
Large comparators							
China	Socialist	n.a.	33	25	24	33	17
India	English	Direct	29	31	65	59	48

*(table continues next page)*

**Table 5.1 Legal origins and effectiveness** (percentile) *(continued)*

Country	Family	Receptivity	Efficacy of legal system	Rule of law	<i>Global Competitiveness Report (GCR) score</i>		
					Judicial independence	Efficiency of legal framework	Property rights
Normally endowed comparators							
Bangladesh	English	Direct	n.a.	8	15	13	11
Brazil	French	Indirect	23	21	17	20	26
Pakistan	English	Direct	21	15	13	7	13
Turkey	French/German	Direct	31	29	33	26	30
Resource-rich comparators							
Botswana	English	Direct	n.a.	46	65	63	46
Indonesia	French	Indirect	19	6	20	22	11
Nigeria	English	Direct	4	2	37	17	15
Venezuela	French	Indirect	2	4	7	2	2

n.a. = not available

Notes: Transplants are classified as “unreceptive” in all cases. Data are in percentiles (higher number is better); GCR sample: n = 46; All others: n = 48.

Sources: Origin and receptivity: Berkowitz, Pistor, and Richard (2003); Efficacy of legal system: Kurtzman, Yago, and Phumiwasana (2004); Rule of law: Kaufmann, Kraay, and Mastruzzi (2003); GCR score: *Global Competitiveness Report 2005–2006*.

businessmen, and PricewaterhouseCoopers employees residing in-country. Data are available for only three Arab countries: Egypt (35th percentile), Lebanon (15th percentile), and Saudi Arabia (48th percentile). On this measure Saudi Arabia fares noticeably better than its resource-laden comparators, Indonesia (19th percentile), Nigeria (4th percentile), and Venezuela (2nd percentile). Egypt does not look distinct from other resource-scarce comparators on this dimension, while Lebanon is obviously a laggard.

“Rule of law” is a broader index from the World Bank, combining indicators of confidence and acceptance of legal rules, effectiveness and predictability of the judiciary, incidence of crime, and enforceability of contracts (Kaufmann, Kraay, and Mastruzzi 2003). In absolute terms the region does poorly: Only Kuwait (barely) makes the top half of the sample. Yet the results are broadly consistent with the previous indicator: Saudi Arabia scores noticeably better than the other oil producers, and high-performing South Korea and Taiwan aside, Egypt and Lebanon are similar to other comparators. Robert Z. Lawrence (2006) analyzes the same data, normalizing it for per capita income levels, and finds that Morocco, Jordan, Egypt, and Tunisia all score at or above their expected levels, though adjusting for per capita income, and Lebanon lags. The 2005 accession to the WTO of Saudi Arabia (as well as prospective accession by Algeria, Iraq, Libya, and Yemen—all are observers in the process of negotiating membership) could be expected to contribute to the further strengthening and modernization of the legal system, at least in the commercial sphere, as it commits countries to an internationally enforceable set of global norms and procedures.

The next three columns in table 5.1 report data from the *Global Competitiveness Report 2005–2006* on judicial independence, the efficiency of the legal framework with respect to commercial issues, and the existence of clearly delineated and protected property rights. There is a very high degree of intragroup variation in these scores. Among the natural resource-based economies, Kuwait and Botswana stand out with high scores, while the remaining oil exporters score poorly. Focusing on the more typically endowed economies, the smaller and modestly more economically liberal Tunisia and Jordan are in the middle of the pack overall, placing them in the same league as South Korea, Taiwan, and India in these dimensions, while the larger and less politically open countries of Egypt and Morocco lag, more like China, Turkey, and some of the low-income comparators.

The same three sources report indices of regulatory quality, but there is far less consensus across these measures, possibly reflecting the less precise comparability in the information solicited (table 5.2). The PricewaterhouseCoopers index for regulatory structures is again a relatively narrow index comparing the financial or investment regulatory structure and the ability to settle disputes arising out of the investment process with those existing in the United States and the United Kingdom. The World Bank index attempts to proxy the regulatory burden imposed by “market-unfriendly policies such as price controls or inadequate bank supervision, as well as

**Table 5.2 Regulation** (percentile)

Country	Regulatory structures	Regulatory quality	Burden of regulation
Middle East			
Algeria	n.a.	13	11
Egypt	4	17	43
Jordan	n.a.	31	87
Kuwait	n.a.	35	30
Lebanon	15	15	n.a.
Morocco	n.a.	27	41
Saudi Arabia	2	29	n.a.
Syria	n.a.	4	n.a.
Tunisia	n.a.	25	87
High-performing comparators			
South Korea	17	25	83
Taiwan	42	52	93
Large comparators			
China	13	19	65
India	10	21	28
Normally endowed comparators			
Bangladesh	n.a.	2	17
Brazil	25	33	2
Pakistan	65	6	22
Turkey	21	27	39
Resource-rich comparators			
Botswana	n.a.	46	72
Indonesia	8	8	54
Nigeria	6	2	59
Venezuela	38	13	7

n.a. = not available

Note: Data are in percentiles (higher number is better); Burden of regulation sample: n = 46; All others: n = 48.

Sources: Structures: Kurtzman, Yago, and Phumiwasana (2004); Quality: Kaufmann, Kraay, and Mastruzzi (2003); Burden: *Global Competitiveness Report 2005–2006*.

perceptions of the regulatory burden imposed by excessive regulation in areas such as foreign trade and business development” (Kaufmann, Kraay, and Mastruzzi 2003, 3). The *Global Competitiveness Report* asks questions about whether regulations are “burdensome.”

On the first criterion (regulatory structures), the listed countries generally score poorly on this measure with the Arab countries appearing dis-

tinctively bad. Pakistan scores the highest, and given the strong historical performance of at least some of these countries, one wonders what the PricewaterhouseCoopers index is capturing. A similar comment could be made with respect to the World Bank's regulatory quality measure: Most of the countries in table 5.2 score poorly, though some have done quite well, leading one to query the salience of this measure. Kuwait and Saudi Arabia, though lagging Botswana, outrank the other oil exporters by a considerable margin; Algeria appears to be more typical along this dimension. Among the more typically endowed economies, normalizing for income levels, only Jordan and Morocco reach their expected scores (Lawrence 2006). Oddly, on this measure, Pakistan, which scored strongly on regulatory structures, ranks quite badly on regulatory quality. Again, it gives one pause in interpreting these results.

The final column reports the "burden of regulation" rankings from the *Global Competitiveness Report*. As with the legal effectiveness criteria, Jordan and Tunisia score very highly with respect to lack of burdensome regulations, Algeria on the other end of the spectrum, with Egypt, Kuwait, and Morocco in the middle. The resource-scarce Arab countries generally do better than their resource-poor comparators on this criterion.

Whatever the "true" information provided by the various measures of legal structure, the Arab countries do not appear conspicuously weak relative to comparable countries. Moreover there is considerable intragroup variation among the Arab countries. Kuwait and Saudi Arabia generally score better than other oil exporters, while Algeria lags, comparable to Indonesia, Nigeria, and Venezuela. Among the nonoil-based economies, the existing legal institutions appear to be no more of a hindrance to development than those in comparable countries—they are far from distinctively bad.

## Corruption and Growth

Microeconomic distortions (hence policy) and weak governance can generate opportunities for corruption. A small cottage industry now scores countries on this criterion. Table 5.3 reports corruption rankings from four sources (Transparency International is the additional source), again normalized for a common underlying sample. A wide range of behavior could be considered corrupt, and hence considerable scope exists for disagreement over what corruption is or how different forms of corruption should be weighted in forming an overall score, but the data in table 5.3 are relatively consistent across sources. This consistency may be in part due to the fact that the World Bank, Opacity, and Transparency International indices are based on some common components. Morocco is an exception in this regard, exhibiting significant variance across the four sources, ranging from the 35th percentile (World Bank) to the 4th percentile (*Global Competitiveness Report*).

**Table 5.3 Corruption** (percentile)

Country	Corruption	Control of corruption	Corruption perceptions index	GCR business costs of corruption index
Middle East				
Algeria	n.a.	15	17	15
Egypt	23	27	25	26
Jordan	n.a.	35	54	52
Kuwait	n.a.	58	46	30
Lebanon	2	25	17	n.a.
Morocco	n.a.	35	25	4
Saudi Arabia	40	48	29	n.a.
Syria	n.a.	27	29	n.a.
Tunisia	n.a.	40	54	46
High-performing comparators				
South Korea	40	38	46	41
Taiwan	56	56	56	61
Large comparators				
China	19	21	29	33
India	19	29	21	30
Normally endowed comparators				
Bangladesh	n.a.	4	2	2
Brazil	56	35	40	17
Pakistan	15	15	6	11
Turkey	25	23	25	22
Resource-rich comparators				
Botswana	n.a.	54	58	48
Indonesia	4	4	4	20
Nigeria	6	2	2	15
Venezuela	15	8	8	4

n.a. = not available

Notes: Data are in percentiles (higher number is better); GCR sample: n = 46; All others: n = 48.

Sources: Corruption: Kurtzman, Yago, and Phumiwasana (2004); Control of corruption: Kaufmann, Kraay, and Mastruzzi (2003); Corruption perceptions index: Transparency International (2004); GCR index: *Global Competitiveness Report 2005–2006*.

The results are quite interesting. In an absolute sense the Arab countries do not look particularly good, mostly falling into the bottom half of the sample. In relative terms, the resource-scarce countries do not look all that different from their comparators though, in some cases, notably the smaller countries of Jordan and Tunisia, they rank markedly higher. (Along

the same lines, Lawrence [2006] finds that Morocco, Jordan, and Tunisia surpass their income-adjusted expected scores by noticeable margins.) Saudi Arabia outranks the other oil producers but lags Botswana, which again scores distinctively high among the natural resource-based economies.

A real-life experiment on government officials' willingness to abuse diplomatic immunity for private gain confirms the tenor of these survey results. Raymond Fisman and Edward Miguel (2006) examine parking tickets received by diplomats posted in the United Nations in New York and find a strong correlation between violations per diplomat and the corruption indices reported in table 5.3, suggesting that there may indeed be "cultures of corruption." Two Arab countries, Kuwait (246.2 tickets per diplomat) and Egypt (139.6 tickets per diplomat), top the list of scofflaws, and Middle Eastern countries receive an unusually large volume of tickets even when other attributes such as per capita income are taken into account. All is not bleak, however: The United Arab Emirates and Oman are among the group of countries whose diplomats received no parking tickets during the sample period.

Not all corruption, whether it be bid rigging or double parking, has the same implications for economic performance, however. "Cascading corruption" in which interaction with the government is pervasive and transaction costs are imposed at all levels of the bureaucracy may be more debilitating than corruption that is concentrated at the top of the political system; the monetary costs to business may be the same, but the transaction costs are much lower (Shleifer and Vishny 1993). One might think of the Indian "license raj" as representing the former and South Korea as representing the latter—nontrivial levels of corruption but relatively effective administration of policy once decisions were made at the top.

Some indirect indicators of this distinction, taken from the *Global Competitiveness Report*, are reported in table 5.4. The first column reports the extent of bureaucratic red tape. There is considerable intraregional variation, with Tunisia scoring well, and Egypt and Jordan falling into the bottom decile along with socialist China, which did not preclude rapid Chinese growth. Recall from chapter 4 that in Jamel Zarrouk's survey, Middle East businessmen identified having to spend excessive amounts of time with customs and other officials and the opportunities that this contact created for the solicitation of bribes as being a serious nontariff barrier to international trade, though this problem appeared to be easing in Egypt and Jordan while worsening in some other countries.

The Arab countries do much better on the favoritism by government officials and organized crime criteria, however, with Jordan and Tunisia surpassing South Korea and Taiwan and Egypt not far behind. Even the normally laggard Algeria does not look bad on these criteria. On the bottom-line question of the magnitude of the business costs, Jordan and Tunisia actually outrank South Korea and Taiwan, with the others in the middle of the league.

**Table 5.4 Indirect indicators of corruption typologies** (percentile)

<b>Country</b>	<b>Extent of bureaucratic red tape</b>	<b>Favoritism in decisions of government officials</b>	<b>Organized crime</b>
<b>Middle East</b>			
Algeria	49	71	50
Bahrain	14	67	85
Egypt	7	51	65
Jordan	8	91	97
Kuwait	12	70	87
Morocco	38	47	48
Qatar	5	97	98
Tunisia	72	92	72
United Arab Emirates	48	80	94
<b>High-performing comparators</b>			
South Korea	64	89	54
Taiwan	74	97	66
<b>Large comparators</b>			
China	2	75	45
India	50	36	64
<b>Normally endowed comparators</b>			
Bangladesh	6	17	11
Brazil	43	3	16
Pakistan	32	21	24
Turkey	34	45	43
<b>Resource-rich comparators</b>			
Botswana	28	79	67
Indonesia	60	62	33
Nigeria	3	71	18
Venezuela	3	6	12

Note: Data are approximate percentiles (higher number is better); sample: n = 117.

Source: World Economic Forum, *Global Competitiveness Report 2005–2006*.

One does not want to push this sort of survey evidence too far: There are all kinds of problems with respect to interpretation of responses and comparability across regions. Nevertheless, by examining a variety of indicators generated from several sources, we have tried to derive the broad outlines of a portrait: Arab countries as a group are bureaucratic states with a lot of regulation and red tape but implemented through legal and administrative systems that are not dysfunctional.<sup>11</sup> Nor have they been captured by organized crime: As governments, they look more like pre-

collapse Soviet Union than postcollapse Russia—i.e., they are not mafia states. As a group they might be compared with prereform India of the “license raj.” There is noticeable within-group variation: Algeria appears to be the most bureaucratic, not surprising for a country that took the Soviet Union as a model, while Jordan and Tunisia appear the most liberal. Saudi Arabia actually compares favorably with some of its resource-abundant comparators, as does Kuwait on a more limited sample of indicators.

## Concluding Remarks

To return to the original question, there is nothing here to suggest that the Islamic tradition has bequeathed these countries unusually weak institutions. If anything it could be the opposite. As a consequence, it could be that the negative interpretations of Islam’s historical legacy reviewed earlier are correct but that enough convergence in institutions, policies, and behavior has occurred that the effects have been attenuated in the contemporary world. It could also be that other positive characteristics in Islamic societies overwhelm the negative influence of Islam, or it could be that this received wisdom is simply wrong.

In any event the evidence suggests that these are reasonably functioning states, embodying a modicum of state capability, at least with respect to their existing practices, which appear to impose considerable dead-weight losses. It could well be the case, for example, that authorities competent to regulate highly repressed financial systems will prove inadequate to administer a more open sophisticated system. We now turn to the content of traditional economic policies, both macro- and microeconomic.

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11. See Zarrouk (2003) for examples of bureaucratic red tape and Nugent (2000) for proposals for legal reform, judicial reform, and implementation of alternative dispute resolution mechanisms.