

**LIMITED GOVERNMENT IN NONDEMOCRACIES
(THE ROLE OF CAPITAL OWNERS)**

by

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To my son METIN

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CHAPTER I

INTRODUCTION

Democracy is a regime which guarantees effective *political participation* of citizens and *accountability* of political leaders via, above all other mechanisms, free, fair and regular elections. A nondemocracy, accordingly, can be defined as a regime in which the opponents of the government cannot openly and legally organize into political parties in order to oppose the government in free and fair elections.¹ Even when multiple parties are allowed, a nondemocratic regime lacks an arena of contestation sufficiently fair that the ruling party can be turned out of power.²

A leading student of democratization, Larry Diamond, stresses that “the distinction between *electoral democracy* and *electoral authoritarianism*³ turns crucially on the freedom, fairness, inclusiveness, and meaningfulness of elections.”⁴

“Elections are ‘free’ when the legal barriers to entry into the political arena are low, when there is substantial freedom for candidates and supporters of different political parties to campaign and solicit votes, and when voters experience little or no coercion in exercising their electoral choices. ... Elections are unfair and political systems descend into electoral authoritarianism when violations of the minimum

¹ Robert Dahl, *Polyarchy: Participation and Opposition* (New Haven: Yale University Press, 1971), p.1.

² Larry Diamond, *Developing Democracy: Toward Consolidation* (Baltimore: Johns Hopkins University Press, 1999), pp. 15-16.

³ For various classifications of nondemocratic regimes see Juan Linz and Alfred Stepan. *Problems of Democratic Transition and Consolidation: Southern Europe, South America, and Post-Communist Europe* (Baltimore: Johns Hopkins Press, 1996). Juan Linz, “Totalitarian and Authoritarian Regimes,” in Fred Greenstein and Nelson Polsby, eds., *Handbook of Political Science*, Vol.3 (1975), pp. 191-357. Larry Diamond, *Developing Democracy: Toward Consolidation* (Baltimore: Johns Hopkins University Press, 1999). Larry Diamond, “Thinking About Hybrid Regimes” and Andreas Schedler, “The Menu of Manipulation,” *Journal of Democracy* 13, no.2 (2002).

⁴ Diamond, “Thinking About Hybrid Regimes,” p. 27

criteria for democracy are so serious that they create an uneven playing field between government and opposition.”⁵

Diamond also notes that while an opposition victory is not impossible in such a regime, it requires a level of opposition mobilization, unity, skill, and heroism far beyond what would normally be required for victory in a democracy.⁶

Nondemocratic regimes are, therefore, marked by the *absence of a formal (or effectively functioning) institution available for the citizens to hold the rulers accountable* for their policies and actions, and to remove them from office in case of mal-performance. Under the conditions, one may inquire, *whether incumbents can stay in office and be totally unresponsive to the citizens’ interests*. Bueno de Mesquita et al. put forward in their seminal work “The Logic of Political Survival” that “everyone in a position of authority wants to keep that authority and that it is the maneuvering to do so that is central to politics in any type of regime.”⁷ Accordingly, they argue that “*every leader answers to some group that retains her in power: her winning coalition.*”⁸ They define ‘the winning coalition’ as a group of people who control enough instruments to keep the ruler in office.

“The winning coalition is defined as a subset of the selectorate⁹ of sufficient size such that the subset’s support endows the leadership with political power over the remainder of the selectorate as well as over the disenfranchised members of the society ... This group controls the essential features that constitute political power in the system. In democracies the winning coalition is the group of voters who elect the leader; in other systems it is the set of people who control enough other instruments of power to keep the leader in office. *If the leader loses the loyalty of a sufficient number of members of the winning coalition, a challenger can remove and replace her in office.*”¹⁰

⁵ Ibid.

⁶ Ibid., pp. 15-16.

⁷ Bruce Bueno de Mesquita et al., The Logic of Political Survival (Cambridge, London: The MIT Press, 2005), pp. 8-9

⁸ Ibid., p. 7. (Emphasis added)

⁹ *Selectorate*: “We define the selectorate as the set of people whose endowments include the qualities or characteristics institutionally required to choose the government’s leadership and necessary for gaining access to private benefits doled out by the government’s leadership... Membership in the selectorate is a necessary condition for membership in a winning coalition.” Ibid., p. 42.

¹⁰ Ibid., pp. 51, 7-8. (Emphasis added)

Because the members of the winning coalition, by definition, have the political or economic power to keep the incumbent in or remove her from the office, the leader is *directly accountable* to them. Thus, responsiveness to the interests of the winning coalition is a *necessary condition* of political survival. To remain in office, in exchange for the support of the winning coalition, the leader responds to their interests and needs by providing them with public or private goods in various forms and amounts.¹¹

“Leaders operating under certain institutional arrangements closely associated with republican government or democracy emphasize good public policies rather than establishing secret Swiss bank accounts because good policy—that is, policy that satisfies their crucial supporters—is essential to their personal political welfare. ... [L]eaders working under institutional arrangements correlated with authoritarianism are wise to establish special privileges for their backers like the special stores party members enjoyed in Soviet Union.”¹²

Against these powerful assumptions, I posit that, in capitalist economies, *responsiveness to the winning coalition is a necessary but not a sufficient condition for political survival; rulers, who are financially dependent on extraction from domestic resources (taxation), have to respond to the interests of the domestic capital owners and investors as well—regardless of whether they directly support the incumbent or not.* Furthermore, I claim that in *nondemocratic* regimes, under certain conditions, responsiveness to the interests of capital owners can be regarded as a form of accountability—*indirect accountability*. In that regard, I reformulate the classical ‘structural dependence of the state on capital’ argument in *nondemocratic* regimes, yet claim that contrary to its negative effect on a democratic government’s responsiveness to *all* citizens,¹³ in nondemocracies, capital owners may have an important role to play in

¹¹ Specifically, the ratio of the winning coalition over the selectorate, i.e. the *loyalty norm* determines the kind and the amount of goods that is necessary to maintain support of the winning coalition. “In political systems characterized by small winning coalitions and large selectorates—as is common in many rigged-election autocracies—supporters of the leader are particularly loyal because the risk and cost of exclusion if the challenger come to power are high. Conversely, in political systems characterized by large coalitions and large selectorates—as is common in many democracies—supporters of the leader have weak bonds of special privileges and so are more willing to defect.” Ibid., pp. 8, 19.

¹² Ibid., pp. 7-8, 18.

¹³ Dahl defines democracy as “a political system one of the characteristics of which is the quality of being completely or almost completely responsive to *all* its citizens.” Dahl, Polyarchy: Participation and Opposition, p. 2. (Emphasis added.)

generating government responsive to at least a segment of the society, and hence, in an indirect way, may sow the seeds of political accountability in the long run

The importance of capital owners does not reside in their political role; since not necessarily all capital owners directly (politically and economically) support the incumbents. Yet by investing and producing (simply for their own interests), and thus, by generating tax revenue for the state, they enable rulers to provide public or private goods to their supporters. That is, capital owners *indirectly* support the political survival of the rulers. Capital owners cannot directly remove the rulers from the office, either. However, in a capitalist economy investment decisions are to a great extent *private*; and, the willingness of capitalists to invest depends on their perception about the profitability of investment at present and in the future. That is, if capital owners anticipate unfavorable conditions they may hold investment (*investment strike*), or reallocate their money or business elsewhere (*capital flight*), which in turn halts or shrinks the size of economic activities from which the rulers extract their revenue (taxes). Accordingly, they can damage the ability of the rulers to provide public or private goods to their winning coalition. Due to the 'revenue imperative', hence, the rulers respond to the demands/interests of the domestic capital owners (at least, of those in the leading economic sector of their country) to avoid investment strike and capital flight. The main argument of the present study is, therefore, that when the ruler is *financially dependent on extraction from domestic productive forces*, and when those *productive forces are strong and independent enough to 'punish' the ruler by exiting in case their interests are not met*, government responsiveness to capitalists interests, to avoid their exit, can be regarded as a form of accountability.

Political accountability refers to the relationship or correspondence between what citizens want and what government officials do. It is built on a mechanism of punishment, and is one of the paths which generate government responsiveness to citizens' interests. In electoral democracies, this punishment mechanism is elections, by which citizens hold public officials accountable, in its basic form, for their past behavior. In the context of business-state relations, the punishment mechanisms are, in the words of

Waterbury, “the twin weapons of investment strike and capital flight”.¹⁴ Capital owners may hold policymakers accountable either *ex-post* for the policies in effect (a backward-looking reaction), or *ex-ante* for the effects of anticipated policies *ex-post* (a forward-looking reaction). In other words, if the government loses credibility in the eyes of the capitalists, even before any policy detrimental to their interests is made, capitalists may well react to such an atmosphere of uncertainty and risk by withholding investment (investment strike), or even by reallocating their assets elsewhere (capital flight). Acknowledging such reactions *ex-ante* (or *ex-post* following exit) and making policies to avoid it (or to re-attract capital), I claim, can be regarded as a form of accountability to a segment of the society, and also as restriction on the policy-making power of the ruler. Therefore, to reiterate the argument of the presents study from an other perspective, I claim that if responsiveness to capitalist interests springs from their implicit or explicit (voiced) ‘exit-threat’ or enacted ‘exit’, then it can be regarded as a form of accountability—indirect accountability. Any responsiveness to capitalist interests in the absence of adequate bargaining-power of the private sector (i.e. in the absence of credible exit-threat or exit) should be regarded as a function of a different causal mechanism—either external factors or structural reasons—but *not* accountability.

The idea that capital owners and investors have a central and determining role not only in the economy but also in policymaking finds its most radical form in the theory of ‘*structural dependence of the state on capital*,’ which is widespread both among neo-Marxists and neo-Pluralists. The adherents to this view do not draw distinction between different types of economic activity but see business/bourgeoisie as a unified actor—as *capital*. It simply departs from the fact that in a capitalist economy most investment decisions are made by private actors who respond both to market signals and expectations about the future government actions. Accordingly, this approach focuses on the constraints posed on the state by private control of financial assets and capital mobility.¹⁵ Among the neo-Marxists authors, Claus Offe, for example, says,

¹⁴John Waterbury, "From Social Contracts to Extraction Contracts: The Political Economy of Authoritarianism and Democracy." in John P. Entelis, ed. Islam, Democracy, and the State in North Africa (Bloomington: Indiana University Press, 1997), pp. 160-161.

¹⁵Haggard, Stephan, Sylvia Maxfield and Ben Ross Schneider, “Theories of Business and Business State Relations,” in Sylvia Maxfield and Ben Ross Schneider, eds., Business and the State in Developing Countries (Ithaca and London: Cornell University Press, 1997), p.38

“In a policy making process in which the state solves *its own* problems ... those groups are strategically located which are in a position to obstruct successful policies. This is, under capitalist relationships of production, the class of owners of (money) capital. What this class basically does is to decide on the volume, place, time and kind of exchange processes to take place. Seen in this way, the political power of the capitalist class does not reside in what its members do politically (exert “power” and “influence” in the decision making process, etc.) but it resides rather in what its members can *refuse to do economically* (namely initiate exchange processes through buying labor power and fixed capital; i.e. *invest*.”¹⁶

Fred Block similarly maintains that

“In a capitalist economy the level of economic activity is largely determined by private investment decisions of capitalists. This means that capitalists, in their collective role as investors, have a veto over state policies in that their failure to invest at adequate levels can create major political problems for state manager.”¹⁷

Those defining business primarily as capital, assume that interest realization of capitalists proceed automatically; that is, they need not be organized and mobilize resources in order to influence policy decisions; uncoordinated private investment decisions effect policy outcomes. In other words, “business influence already occurs in the absence of political pressure—the mere threat of a decline in business confidence is sufficient to induce state managers to act in favor of business.”¹⁸ This idea is summarized by a neo-pluralist, Lindbloom, who argues that because the level of investment determines economic growth, government decision-making in a mixed economy is always constrained by *anticipated* private reactions.¹⁹ He says, “even the unspoken possibility of adversity for business operates as an all-pervasive constraint on government

¹⁶ Claus Offe, *The Capitalist State and the Problem of Policy Formulation*. In: Leon Lindberg (ed.), *Stress and Contradiction in Contemporary Capitalism* (Lexington: Lexington Books, 1975) cited in Adam Przeworski, *State and Economy Under Capitalism* (Chur, Switzerland : Harwood Academic Publishers, 1990), p. 92. (Emphasis added.)

¹⁷ Fred Block, “*The Ruling Class Does Not Rule: Notes on the Marxist. Theory of the State*,” *Socialist Revolution*, Vol. 7, No. 33 (1977) cited in Adam Przeworski and Michael Wallerstein, “Structural Dependence of the State on Capital,” *The American Political Science Review*, Vol. 82, No.1 (March 1988), p. 13.

¹⁸ Volker Schneider and Marc Tenbuecken, “Business and the State: Mapping the Theoretical Landscape,” Paper presented at the *IPSA Business-Government Roundtable* (May 2002), p. 18.

¹⁹ Charles Lindbloom 1984 cited in Haggard et al. “Theories of Business and Business State Relation,” p. 38

authority.”²⁰ Thus, he argues that large companies are in control of government.²¹ In brief, both Marxists and neo-liberalists claim that “under capitalism all governments must respect and protect the essential claims of those who own the productive wealth of society.”²²

In democratic regimes, government ‘responsiveness’ to business interests may work against realization of citizens’ preferences. That is, the interests of the majority might be curbed by those of the capitalists, and, thus, a democratic regime may turn into a ‘bourgeois democracy’. Contrary to this important deficiency of capitalist democratic regimes, it is the claim of this study that in nondemocracies, capital owners may play an indirect role in restraining the unlimited policymaking power of the rulers. The importance of indirect accountability in nondemocratic settings, hence, hinges on the assumption that there might be a link from this kind of accountability to democratic accountability / democratization in the long run. As John Waterbury notes, owners of capital initially bargain to protect or advance their business activities;²³ that is, they do not necessarily promote democratic accountability.²⁴ Accordingly, it is not theoretically reasonable to establish a direct link from responsiveness to capital owners’ *voice* and/or *exit* to democratization. However, scholars highlight two factors which may *indirectly* establish such a link in the long run: *changing power relations* and *transfer of economic power to the private sector* due to economic reforms, and *formalization of habits of interaction between the government and citizens*. Clement Henry, referring to the Middle East, for example, argues that although there is yet no direct evidence that financial reform sets the stage for democratic transitions, it seems plausible to suppose that altering financial flows will alter power relationships.²⁵ John Waterbury, arguing for the second path, holds that “as a kind of by-product of their bargaining for favorable policy responses from the state, [owners of capital] may foster habits of interaction between the

²⁰ Charles Lindbloom, *Politics and Markets: The World’s Political Economic Systems* (New York: Basic Books, 1977), 178 cited in Schneider and Tenbuecken, “Business and the State: Mapping the Theoretical Landscape,” p. 18.

²¹ *Ibid.*, p. 19.

²² Przeworski and Wallerstien, “Structural Dependence of the State on Capital,” p. 11.

²³ John Waterbury, “Fortuitous By-Products,” *Comparative Politics*, Vol. 29 (Transitions to Democracy: A Special Issue in Memory of Dankwart A. Rustow), no.3, (April 1997), p. 395.

²⁴ John Waterbury, “From Social Contracts to Extraction Contracts,” p. 164.

²⁵ Clement M. Henry, “Crises of Money and Power: Transition to Democracy?” in John P. Entelis, ed. *Islam, Democracy, and the State in North Africa* (Bloomington: Indiana University Press, 1997), p. 178.

governments and citizens that can lead to a transition.”²⁶ He even claims that “if democratic practice is to take root in the Middle East, it will be as the result of the formalization of this bargaining process.”²⁷

While these theoretical claims also deserve quantitative evaluations, in this study I test the arguments underlying them. By using time-series cross-sectional data from 42 non-democratic countries over the period of 2001 to 2007, I test whether rulers in nondemocratic countries respond to the interests of the capital owners in the leading economic sector of their countries, due to ‘*credible exit-threat*’ or ‘*exit*’ of the private sector. The results support that controlling for other structural and contextual factors which might bring about responsiveness to the leading sector’s interests in the absence of adequate bargaining-power of the private sector, ‘*credible exit-threat*’ and ‘*exit*’ generates government responsiveness—hence, *indirect accountability*.

Because the sample of the study is composed of only nondemocratic countries, I am unable to make any argument whether the same relationships exists in democratic countries as well. Nevertheless, considering that the reason for focusing on business-state relations is primarily to investigate the prospects of an informal mechanism of accountability—hence possibility of limited government—in nondemocratic regimes, but not to analyze responsiveness to business interests *per se*, a generalization to democratic regimes is not relevant for the present study.

*

In the following chapter (Chapter Two), I present a model of indirect accountability by expanding on the conditions under which we can claim that the observed responsiveness of the rulers to the interests of capital owners can be considered as indirect accountability. I also present a literature overview on the connection of each condition to the notions of limited government and democratization. At the end of Chapter Two, I summarize the main hypotheses of the study, alongside the alternative hypotheses related to responsiveness to capitalist interests in the absence of ‘*exit-threat*’ or ‘*exit*’ of the private sector.

²⁶ John Waterbury, "From Social Contracts to Extraction Contracts," p. 36.

²⁷ John Waterbury and Alan Richardson, A Political Economy of the Middle East. (Colorado: Westview Press, 1998), p. 36.

In Chapter Three, I present the research design and the operationalization of the variables. Specifically, I explain the procedures of sample formation, determining the leading economic sector of each country covered by the sample, specifying the interests of the capitalists in those sectors, and measurement of the dependent and the independent variables.

Chapter Four starts with a brief note on the characteristics and the related problems of time-series-cross-sectional (TSCS) data, and expands on how these problems are addressed in this study. The second part of Chapter Four presents the results of the analyses for both main and alternative hypotheses.

Finally, Chapter Five presents a summary of the arguments and findings, and attempts to establish a connection from the findings to a broader picture of democratization.

CHAPTER II

A MODEL OF INDIRECT ACCOUNTABILITY

In this chapter, I present a model of indirect accountability by explaining the conditions under which responsiveness of nondemocratic rulers to capitalists interests could be considered as a form of accountability. I elaborate on each condition in connection with the notions of limited government and democratization.

As mentioned before, this study argues that, under certain conditions, the autocratic power of a nondemocratic ruler can be restricted by domestic private business—as owners of capital and investment—due to ‘the revenue imperative.’ Rulers need revenue to meet the interests of their winning coalition. Except rentier states, the revenue available for a government is, to a great extent, determined by the health of the domestic economy; that is, whenever the economy grows, the prospects for greater revenue extraction (via taxes) also increases. In a capitalist economy, economic growth is greatly shaped by the investment decisions of capital owners. That is, as capitalists invest more, they stimulate economic growth; and a growing economy will yield not only higher tax revenues for the state due to expanding income base on which taxes can be levied, but also more employment and consumption opportunities for the society. In brief, capitalists invest, create employment, provide goods and services for the whole economy, earn foreign exchange, and directly or indirectly generate taxable revenue. In a capitalist economy, therefore, a strong and active private sector is the main economic ‘supporter’ of the state.

The other side of the coin, however, is a shrinking economy and lesser revenue for the government when capitalists take their money away or halt investment. Because in a capitalist economy investment decisions are *private*, future possibilities of production, employment, and consumption depend on the present investment decisions of the

capitalists. The willingness of capitalists to invest depends on their perception about the profitability of investment at present and in the future. That is, if capital owners anticipate unfavorable conditions they may withhold investment (*investment strike*), or reallocate their money or assets (*capital flight*)—provided that they have the capability to do it—which in turn halts or shrinks the economy. This very *threat* leads rulers, in need of extracting revenue from domestic sources, to be responsive to the interests of domestic capital owners—in the leading economic sector of the country, at least. In other words, “the twin weapons of investment strike and capital flight”²⁸ as Waterbury calls them, are the means which help capitalists to *indirectly* hold a non-democratic government *accountable*. It is *indirect accountability*; because, while capitalists do not (necessarily) directly demand government accountability, but simply act in accordance with their narrow economic interests, the threat of investment strike and capital flight, hence loss of revenue, *obliges* an authoritarian incumbent to *respond to the interests of capitalists*, and hence to restrict its policy-making power.

Not every kind of pro-capitalist policymaking, however, can be considered as indirect accountability. Indirect accountability indicates responsiveness to business reactions *only* when capital owners possesses adequate bargaining-power to extract policy concessions. The reactions of the capitalists to the existing business environment may take the form of Voice (expressing demands by implicitly or explicitly threatening to exit) or Exit (investment strike or capital flight). The crucial part of the argument is it is *only* when the voiced exit-threat is *credible and* when a possible exit (or an actual exit) is likely to inflict some sort of losses on the part of the ruler that we can conclude that the rulers are being accountable to the capital owners. Accordingly, any pro-capitalist policymaking in the absence of one of these conditions is very likely to result either from structural necessities (such as dependence on a single sector) or external factors (such as fiscal crisis, or pressures from an international monetary organization)—hence, cannot be considered as accountability

In the following parts of this chapter, first, I explain the notions of Exit and Voice as a framework to understand capitalist reactions to existing business environment. Then, I

²⁸ Waterbury, “From Social Contracts to Extraction Contracts,” pp. 160-161.

expand on the conditions which confer to capital owners greater bargaining-power vis-à-vis the rulers; and hence, enable them to effective voice and exit, and extract policy concessions.

EXIT AND VOICE

Hirschman contends that “there are two main types of activist reactions to discontent with organizations to which one belongs or with which one does business: either to *voice* one’s complaints, while continuing as a member or customer, in the hope of improving matters; or to *exit* from the organization, to take one’s business elsewhere.”²⁹ In the context of business-state relations, thus, when economic actors are displeased with a policy/situation, they have three options for action:

- 1) Exit: Ceasing to produce in a particular sector and/or country (i.e. reallocating their business or assets in other sectors or abroad)
- 2) Voice: Expressing discontent and demanding changes (by implicitly or explicitly threatening to exit)
- 3) Loyalty: Accepting the situation with no reaction.

Exit is an indirect way of expressing discontent with the economic environment. As a form of exit, capital flight, as Waterbury points out, “involves no formal expression of collective interest and no institutionalized bargaining.”³⁰ Accordingly, government responsiveness to exiting business’s interests involves a *learning process* on the part of the ruler, who initially either could not foresee the business reaction or did not take their voiced discontent seriously. A historic case from the Middle East is a good example for this sort of government responsiveness. Waterbury narrates from Crystal that “in 1909 the Shaykh of Kuwait attempted to impose new levies on merchant wealth. The merchants in turn “exited” to Bahrain. The Shaykh backed away from his exactions, and

²⁹ Albert Hirschman, “Exit, Voice and the State,” *World Politics*, Vol. 31, No.1 (October 1981), p. 90.

³⁰ Waterbury, “Fortuitous By-Products,” p. 394.

the merchants returned.”³¹ As Waterbury notes, attributes of the actors in this example gives us clues regarding the conditions of indirect accountability resulting from exit: The Shaykh did not have access to any external rents (petroleum rents) and merchants possessed mobile capital.

In the light of this example and the related literature, I argue that for Exit to engender a learning affect and thus responsiveness, the government must be financially dependent on the exiting capital. It is also worth noting that, for *Exit* to be *realized* in the first place of course, there must be exit opportunities and independence from state rents/quasi-rents. In other words, actual exit of capital from a country indicates that owners of exiting capital either possess financial assets or that the sector they operate in allows reallocation or easy liquidation of assets.

While exit is a rather private decision of capitalists, *voice* may take individual or collective forms. Business elite may voice their demands or discontents through various channels: such as individual channels (network-like relations), formal corporatist institutions, or organized collective-action (lobbying).³² While the type of voice-channels used by capitalists may be an important factor determining the extent of responsiveness, due to impossibility of gathering organizational data for around forty non-democratic countries, we have to content ourselves with assuming that domestic business use at least one of above mentioned channels to express their discontents or demands.

For Voice, expressed in any form, to result in indirect accountability, certain conditions, which bestow business with bargaining power vis-à-vis autocratic government, must be *jointly* present. These conditions are

- 1) *Financial dependence of the government/ruler on domestic productive forces:* A great portion of government revenue must come from extraction from domestic economic resources. A financially autonomous government would not care what the domestic capital owners want, since their exit would not inflict great loss on the government revenue.

³¹ Jill Crystal, *Oil and Politics in the Gulf: Rulers and Merchants in Kuwait and Qatar*. New York: Cambridge University Press, 1990, pp. 24-25 and 47-48 cited in Waterbury, "From Social Contracts to Extraction Contracts," p. 161.

³² Haggard et al., "Theories of Business and Business-State Relations."

2) *Credibility of Exit-Threat*: Ability to threaten to exit is conceptualized to be determined by two factors:

- a. *Investment strength and independence of the private-sector from government rents or quasi-rents*: The private sector should have the financial capacity to reinvest elsewhere and to survive without major and continuous government support and/or protection. Otherwise, knowing that a weak private-sector has no capacity to exit, and thus would chose to remain loyal, rulers would not entertain their interests.
- b. *Sectorally determined viable exit-opportunities*: The main business should either have moveable assets or the sector they operate in should allow reallocation or easy liquidation of assets. Otherwise, knowing that the leading business cannot easily liquidate their assets or reallocate their business without incurring great costs (in the mining sector, for example), rulers would not respond to their interests.

I posit that while each of these conditions, individually, adds to the bargaining-power of capitalists, it is only when they are *jointly* present that we can assume the private sector has adequate bargaining-power to extract concessions from the incumbent. Thus it is, again, *only when these conditions are jointly present that we can conclude responsiveness to business interests is a case of indirect accountability*. Responsiveness to business interests in the absence of one of these conditions should be read through one of the alternative hypothesis which I present at the end of this chapter.

In the following section I explain how each condition individually adds to the bargaining power of capitalists. In doing this, I also consider each condition in connection with a larger picture of democratization.

CONDITIONS OF INDIRECT ACCOUNTABILITY

A. Financial Dependence of the State on Extraction from Domestic Productive Forces (Tax Revenue)

Joseph Schumpeter argued that “public finances are one of the best starting point for an investigation of society, especially though not exclusively of its political life.”³³ In a similar vein, work done by Hossein Mahdavy on Iran suggested that states dependent or based upon *external sources of income* should be understood as qualitatively different from those that rely on *domestic extraction*.³⁴ While revenue extracted from the domestic economy refers to various forms of taxation, external revenue includes foreign aid (loans and grants), sales of oil and mineral (mining), payments for pipeline crossings, transit fees (e.g. passage through the Suez Canal), and workers remittances.³⁵ This distinction hinges on the fact that while in the first case the revenue is extracted from *domestic productive forces*, and is directly related to efficiency of these forces, in the latter case “the revenue stream that is generated is not directly related to greater efficiency in production or to new investment.”³⁶ That is why this kind of revenue is called as *rent*—“any income not originating from the productive activity of the concerned unit, the flows and dimensions of which are not directly linked to the beneficiary’s activity.”³⁷ Governments enjoy not only economic rents but strategic rents as well. Economic rent is “the difference between the market price of a good or a factor of production and its opportunity cost (the price needed to produce the good or to keep the factor of production in its current use).”³⁸ Waterbury and Richardson note that “owners of certain assets or

³³ Joseph Schumpeter, “The Crisis of the Tax State,” in Alan T. Peacock (ed.), *International Economic Papers*, no.4 (London: Macmillan, 1954), 7 cited in Pete W. Moore, *Doing Business in the Middle East: Politics and Economic Crisis in Jordan and Kuwait* (Cambridge: Cambridge University Press), p.14.

³⁴ Hossein Mahdavy, “The Pattern and Problems of Economic Development in Rentier States: The Case of Iran,” in M. Cook, ed., *Studies in the Economic History of the Middle East* (London: Oxford University Press, 1970), pp.428-67 referred in Laurie A. Brand, “Economic and Political Liberalization in a Rentier Economy: The Case of Hashemite Kingdom of Jordan,” in Iliya Harik and Denis J. Sullivan, ed., *Privatization and Liberalization in the Middle East*, Bloomington: Indiana University Press, 1992), p. 168. (Emphasis added)

³⁵ Michael L. Ross, “Does Oil Hinder Democracy?” *World Politics*, Vol. 53, No.3 (April 2001), p. 329.

³⁶ Waterbury and Richards, *A Political Economy of the Middle East*, p. 17.

³⁷ Michel Chatelus and Y. Schmeil, “Towards a New Political Economy of State Industrialization in the Middle East,” *International Journal of Middle East Studies*, No.2 cited in Brand, “Economic and Political Liberalization in a Rentier Economy: The Case of Hashemite Kingdom of Jordan,” p. 168.

³⁸ Waterbury and Richards, *A Political Economy of the Middle East*, p. 16.

providers of certain services enjoy strategic positions in markets that allow them to set prices well above the opportunity cost for what they are providing.”³⁹ And, strategic rents are loans and grants that certain governments enjoy due to geo-strategic positions of their country in a particular confrontation; “designed quite openly to buy their allegiance to one side or the other.”⁴⁰

In the Middle East regional studies literature, states relying mostly on rents are referred to as *rentier-states*. A neat definition of rentier state is given by Hazem Beblawi, who states that a rentier state is one whose economy relies on substantial *external rents*, where the *government is the principal recipient* of the external rent in the economy, and where *only a few are engaged in the generation of this rent (wealth)*, the majority being only involved in the distribution or utilization of it.⁴¹ Both Beblawi and Luciani stress the direct accrual of external revenue to the state.⁴² As noted in this definition, availability of externally generated revenue—i.e. revenue that is not extracted from domestic productive forces—and its direct transfer to the state *frees the state from its domestic economic base*.⁴³ Thus, I call such states as ‘*relatively autonomous states*’.

On the opposite site of relatively autonomous states stand ‘extractive states’ (or production states⁴⁴) which rely on *taxation* of the domestic productive forces in order to finance their expenses. I call such states ‘*financially dependent states*,’ because *their income depends on the productivity of the domestic business*. Those are the states which, under capitalism, are structurally dependent on capital—as argued in the introduction section of this study. In other words, as is quite obvious, the structural dependence argument makes sense only if the state is financially dependent on its citizens. For only financially dependent states would be harmed by capital flight or investment strike.

³⁹ Ibid., p. 17.

⁴⁰ Ibid.

⁴¹ Hazem Beblawi, “The Rentier State in the Arab World,” in Hazem Bellawi and Giacomo Liciani, eds, *The Rentier State*, (New York: Croom Helm, 1987), pp. 51-2.

⁴² In this sense, they do not consider workers’ remittances as a source of income from the rest of the world “because they belong to the migrant, not to the state... It is only after remittances have entered the domestic economy ... that they can be taxed and become a source of income for the state.” Giacomo Luciani, “Allocation vs. Production States: A Theoretical Framework,” in *The Arab State*, ed. Hazem Beblawi and Giacomo Luciani (Berkeley: University of California Press, 1990), p. 72. Also see Beblawi, “The Rentier State in the Arab World,” p.61.

⁴³ Luciani, “Allocation vs. Production States: A Theoretical Framework,” p.71.

⁴⁴ Ibid.

General Arguments on the Tax-Accountability Relationship

The political economy literature argues that both financial dependence of the state on its citizens and its autonomy from the domestic productive forces have political consequences. Some scholars claim that government extraction from citizens—both the kind and level of it—may significantly affect the kind and level of governmental accountability.⁴⁵ In the background of this argument stands the idea that taxes constitute a kind of contract between citizens and the state; for taxation creates expectations among the taxpayers that they are to receive services in return for their contribution to the keep up of the administration.⁴⁶ Further, as taxes fund such services (public goods) citizens gain the right to hold public officials accountable for the kind, quality, and cost of public goods.⁴⁷

This argument is grounded in the historical studies of the emergence of democratic institutions in Western Europe. Scholars argue that parliaments arose as arenas of bargaining between monarchs and citizens who owned wealth over taxes to finance the cost of warfare.

“The primary function of parliament was usually to grant the ruler a tax for specific purposes, often war. ... The reason why parliaments were called by kings for such purposes, and played the role they did, lie in the social structure of medieval Europe, in the way power and wealth were distributed. Parliaments became important because they were the means by which kings were able to gain entitlements to income from their subjects, both their major vassals and others, over and above what they could acquire through applications of existing feudal contracts and rights.”⁴⁸

In return for tax revenue, kings granted *representation* and *liberties* to certain segment of the society, and were held accountable for the use of the money they collected.

⁴⁵ John Waterbury, “Fortuitous By-Products,” pp. 383-402. Lisa Anderson, “The State in the Middle East and North Africa,” *Comparative Politics*, Vol. 20, No.1 (October 1987), pp. 1-18. Lisa Anderson, “Prospects for Liberalism in North Africa,” in John P. Entelis, ed. *Islam, Democracy, and the State in North Africa* (Bloomington: Indiana University Press, 1997), pp. 127-139.

⁴⁶ Anderson, “The State in the Middle East and North Africa,” p. 10.

⁴⁷ Waterbury, “From Social Contracts to Extraction Contracts,” p. 149.

⁴⁸ Anthony Black, *Political Thoughts in Europe, 1250-1450*, (Cambridge: Cambridge University Press, 1993), pp. 162-163.

“That ‘many’ should be consulted about legislation and war was a commonplace in northern and southern Europe. Kings are called upon, and agree, to recognize the rights and liberties of persons and groups, especially towns, in return for a tax. The reciprocity of the relationship between the king and others is stressed, and forms a basis for action against the king if he is thought to have used the money for illicit (private) ends, or incompletely; hence attempts by barons and parliaments to have a say in the appointment of royal ministers.”⁴⁹

“Historically, states have become beholden to their citizens through reciprocal obligation. Impersonal, formal, arbitrary state extraction—taxes and conscription, for example—was the first sign of government penetration and control in the early modern nation-states. It was soon followed by demands, particularly among property holders, for *protection against such arbitrary government extraction* and for *a role in decision-making about the expenditure of state income*. These developments we now think of as *the expansion of liberal individual rights and democratic participation...*”⁵⁰

Thus as Luciani puts it “whenever the state essentially relies on taxation the question of democracy becomes an unavoidable issue, and a strong current in favor of democracy inevitably arises.”⁵¹

In contrast to such a reciprocal relationship that taxation of domestic economic forces generates, scholars, especially those studying the rentier-state phenomenon, argue that “external revenues impede accountability, and that only when states have to extract their revenues from their own citizens will the *demand for accountability* arise.”⁵² Lisa Anderson notes that in countries like Kuwait and Libya, the state may be virtually completely *autonomous from its society*, winning popular acquiescence through distribution rather than support through taxation and representation.⁵³ As Beblawi notes, governments in the rentier-states—especially in the oil states—provide public goods and services, which are of adequate, sometimes excellent, quality, to their citizens. Further, they are provided free or at very low cost to the beneficiary.⁵⁴ Thus, as Anderson notes,

⁴⁹ Ibid., p. 163.

⁵⁰ Anderson, “Prospects for Liberalism in North Africa,” p.130. (Emphasis added.)

⁵¹ Luciani, “Allocation vs. Production States: A Theoretical Framework,” p.75.

⁵² Waterbury, “From Social Contracts to Extraction Contracts,” pp.149-50.

⁵³ Jacques Delacroix, “The Distributive State in the World System,” *Studies in Comparative International Development*, 15 (1980) and Jill Crystal, “State Formation in Kuwait and Qatar” (PhD. Diss., Harvard University, 1986) referred by Lisa Anderson, “The State in the Middle East and North Africa,” p. 10.

⁵⁴ Beblawi, “The Rentier State in the Arab World,” p. 54.

“distributive regimes emphasize egalitarian current consumption which ensures *present acquiescence*.”⁵⁵

Luciani further claims that even the feeling of unequal distribution of benefits is not a sufficient incentive to coalesce and attempt to change the political institutions; but would simply lead to seeking the solution of maneuvering for personal advantage within the existing setup. He argues that “*there is always little or no objective ground to claim that one should get more of the benefits, since his contribution is generally dispensable anyhow.*”⁵⁶ On the contrary, in extractive states (financially dependent states), as Lisa Anderson nicely puts it, “wealth translates into *capacity to pay taxes to, and extract concessions from, the government—that is, power.*”⁵⁷

Scholars studying the rentier-state phenomenon argue that the post-rentier state (especially after mid-1980s), which does not have as much access to external resource as it used to have, display conditions for greater demand for popular representation and accountability. Lisa Anderson, for example, referring to North African countries, says,

“A clear trend in favor of democracy was discernible, particularly in countries whose access to reliable sources of external funding was declining. With great trepidation, governments were being forced to face the unpleasant prospects of holding themselves accountable to taxpayers... Far more taxing, literally and figuratively, is the construction of the tangible, material means of guaranteeing popular representation and government accountability; this battle has only just been joined.”⁵⁸

Waterbury also joins her by noting that, in the Middle East,

“whereas thirty years ago most social actors were ‘*policy-takers*’ in the face of *autonomous states* that they could not significantly influence, much less hold to account, by the 1990s a *process of bargaining* between the state and social actors had become common,”⁵⁹

⁵⁵ Anderson, “The State in the Middle East and North Africa,” p. 10.

⁵⁶ Luciani, “Allocation vs. Production States,” p. 76.

⁵⁷ Anderson, “The State in the Middle East and North Africa,” p. 130

⁵⁸ Lisa Anderson, “Obligation and Accountability: Islamic Politics in North Africa,” **Daedalus**, Vo.120, No. 3 (Summer 1991), pp. 110-111 cited in Moore, *Doing Business in the Middle East*, p. 21.

⁵⁹ Waterbury & Richardson, *A Political Economy of the Middle East*, p.36. (Emphasis added.)

and he concludes that “*if democratic practice is to take root in the Middle East, it will be as the result of the formalization of this bargaining process.*”⁶⁰

When we consider these arguments in the context of business-state relations, and with respect to pre-conditions of government responsiveness to private-business reactions (Exit or Voice), we reach the following conclusion: Demand for policy changes (Voice) *may or may not* arise in rentier states. But even if Voice is given, it would hit deaf ears of the autonomous government. For a financially autonomous government, which does not need tax revenue to finance its expenses, and thus to politically survive, can function without being responsive to the demands of domestic productive forces, whose efficiency/productivity does not affect the amount of revenue accrues to the government. The same is true for Exit; if some capital flies out of the country or capitalists conclude that further investment is no longer profitable, a financially autonomous government would not care so much as an extractive (financially dependent) one.

In essence, therefore, my argument is *not* that business will demand governmental accountability or establishment of democratic procedures (i.e. representation) as the government levies new taxes or increase tax levels (relative to income), which is a rather widespread argument in the rentier-state literature.⁶¹ Rather, by following the distinction between financially autonomous rentier-states and financially dependent extractive states, my argument *concerns the relationship between the degree of financial dependence of a government on tax revenue relative to its total revenue, and the bargaining power that this dependence bestows upon productive forces of the economy—the private-businesses.* Accordingly, I hold, first, that before demanding political representation, capitalists are more likely to begin with issues that concern their own business. However, existence of external rents directly accruing to the government, that is, lesser dependence of

⁶⁰ Ibid. (Emphasis added)

⁶¹ I consider increase in taxes relative to income (especially corporate taxes) only one of the factors that might lead to a bargaining between the business and the government.

For a test of the hypothesis that higher taxes relative to income lead to a demand for democratization, see Michael Ross, “Does Taxation Lead to Representation?” paper presented at Center for the Future State, IDS Taxation Seminar, (2002)

<http://www.ids.ac.uk/gdr/cfs/activities/Taxation-Seminar.html> (accessed August, 2006). He finds no evidence to support the hypothesis. However, he finds some evidence to support the hypothesis that higher taxes relative to government services tend make states more democratic—a cost benefit model.

government revenue on taxation of domestic economic forces, put the private-business in a position of “*policy-takers*” with no real bargaining power to extract policy changes—even though they may demand it via Voice or Exit. In other words, *as the level of financial dependence of the government on its citizens increases—i.e. as the share of tax revenue in total government revenue increases—the capital owners and investors gain greater bargaining power vis-à-vis the government due to (1) their crucial role in generating economic growth—hence, greater taxable revenue, more jobs, more goods and services, etc—and (2) the accompanying threat about the potential harm that investment strike and capital flight would inflict on the state revenue.*

Practically speaking, when private-business gains greater bargaining power (when tax revenue/total government revenue ratio increases) even an authoritarian government becomes obliged to be more attentive to private-business interests, and thus, to respond to their Voice or Exit. As a result, *capitalists who possess credible exit-threat, can indirectly, that is, simply voicing their economic interests or by actually exiting, restrain policy-making power of a financially dependent autocratic incumbent.*

B. Ability to Threaten to Exit

I prefer to use the term ‘credible exit-threat,’ first, because I am using the ‘Exit, Voice, Loyalty’ framework; and second, the term “exit-threat” is a more direct way to indicate *how* capitalists are able to exert pressure on the government to induce its responsiveness to their concerns. I argue that two factors must be presents so that capitalists can *credibly threaten to exit: (1) Investment strength and independence of the private sector from government rents, (2) Viable exit opportunities which are determined by certain sectoral attributes.*

(1) Investment Strength and Independence of the Private Sector

I have already explained the *revenue generative* role that capital owners play in a capitalist economy, and how this role can turn into a mechanism to hold an autocratic ruler accountable for his/her policies, provided that the capital owners have the capability

to exit, and hence to credibly threaten to exit. In this section, I explain one of the conditions of credible-exit threat: investment strength and independence from government rents.

I maintain that *only those owners of capital who do not need the support and the protection of the state for the survival of their economic activities can exit (reallocate their assets and business), and accordingly, can challenge government policies by implicitly or explicitly threatening to exit.* This condition, in fact, embodies two separate phenomena: existence of a *strong private sector bourgeoisie*, and its *independence from state rents*.

State intervention and development of a large public sector has been a characteristic of late industrialisers. In those countries private entrepreneurs lacked financial capacity (since the start up costs had been enormously expanded by time of later industrialisers) and entrepreneurial skills that would have enabled them to start it all from the very beginning.⁶² The leaders in such states, thus, have seen their tasks “in terms of ‘engineering,’ architecture, blueprints, and the like. They are designing new societies, and the state is that collection of agencies that will enable them for state intervention.”⁶³

Waterbury, referring to Fitzgerald who studies Latin America, points out that there are two fundamental types of state intervention and capitalist accumulation. Both aim at structural transformation of the economy.

“The first is a process whereby the state helps nurture or strengthen a private sector. It does so in various ways. It provides roads, railroad, ports, and electrical power to stimulate economic activity in general. Through basic industries and mines it provides raw material (coal, oil) and semi-manufactured goods (iron, aluminum, chemicals, synthetic fibers) that feed directly into private production. It provides cheap credit and protective legislation. It may take over failing private enterprises. In this process of accumulation, the state transfers surpluses on its own operations, profits if any, and external rents to the private sector and tries to absorb all major risk for that sector. ... The second process of accumulation is one in which the state undertakes all the resource mobilization and infrastructure development functions mentioned above but captures the surplus of its own activities, of a substantial portion of private-sector profits, and of external rents in order to finance its own

⁶² Nazih N. Ayubi, Overstating the Arab State: Politics and Society in the Middle East (New York: I.B.Tauris & Co Ltd., 2006), p. 291.

⁶³ Richards and Waterbury, A Political Economy of the Middle East, p. 174

expansion. Its goal is to dominate all aspects of resource allocation and to seize, once and for all, the commanding heights of the economy.”⁶⁴

While the second path precludes development of a private sector—and usually sees development of an independent bourgeoisie as a threat to political stability⁶⁵— the first path creates a *weak* and *dependent* private-sector which is a ‘client’ of the state—that is, one which needs state protection and aid in order to survive—at least in the early periods of its development. In other words, while the state sets out to create a national bourgeoisie, the interventionist and protectionist development strategy brings about a *patronage* relationship between the state and business. Especially in rentier-states this relationship is so intense that, as Beblawi points out, “the whole economy is arranged as a hierarchy of layers of rentiers with the state or the government at the top of the pyramid, acting as the ultimate support of all other rentiers in the economy.”⁶⁶ Accordingly, private-sector activity centers on securing a piece of state rents in the form of contracts, subsidies, or tax exemption.

Hootan Shambayati, by comparing Iran and Turkey, highlights the relationship between the degree and the nature of dependence of a nascent industrial bourgeoisie on the state rents, and the political outcomes those differences generate. In both countries the state actively fostered emergence of an industrial bourgeoisie, yet Shambayati notes that “whereas the Iranian state was able to finance its activities through external rents, that is, oil revenues, the Turkish state had to rely primarily on domestic sources of capital.”⁶⁷ In Iran, he says, “the government provided a great percent of the capital for the big families that controlled industrial businesses... Many privately owned factories were tax exempt, allowing some of the companies to produce from 50 to 80 percent net profits.”⁶⁸ Accordingly, he concludes, the new capitalist class, was “dependent on the state and had no potential for challenging the state.”⁶⁹ Shambayati states that in Turkey the newly established industries were heavily dependent on imports of capital and intermediate

⁶⁴ Ibid., pp. 201-2.

⁶⁵ Lisa Anderson, “The State in the Middle East and North Africa,” p.11.

⁶⁶ Beblawi, “The Rentier State in the Arab World,” p. 53.

⁶⁷ Hootan Shambayati, “The Rentier State, Interest Groups, and the Paradox of Autonomy: State and Business in Turkey and Iran,” *Comparative Politics*, Vol. 26, no. 3 (April 1994), p. 316.

⁶⁸ Ibid., p.321.

⁶⁹ Ibid., p.320.

goods. As a result, Turkish industrialists were “beneficiaries of rents generated by government policies. They benefited from overvalued exchange rates, protectionist measures, and subsidized credits.”⁷⁰ By the late 1970s, when the state was no longer capable of maintaining overvalued exchange rates, however, he asserts, some segments of the private sector had already achieved the financial and organizational capacity to challenge the state.⁷¹ In this respect, the Turkish Industrialists’ and Businessmen’s Association (TUSIAD), “became the main private sector organization to criticize the government and launched an intense public campaign against the government.”⁷²

Independent Bourgeoisie and Democratization Relationship

The role of an independent bourgeoisie in the democratization process is emphasized by some scholars. The most prominent of such authors is Barrington Moore, who argues that *only* when there is a *strong bourgeoisie*, which emerges as a result of a grass-roots industrialization process, and challenges the economic and political power of the landed aristocracy, is representative democracy likely to emerge—as happened in Britain. On the contrary, he claims, when a strong state initiates the industrialization process by allying with a powerful landed aristocracy and *a weak bourgeoisie that needs protection of the state*—as happened in Germany under Bismarck’s rule—*fascism* is likely to emerge.⁷³ By the same token, Lisa Anderson sees the weakness and subordination of existing bourgeoisie (in the Middle East) as a major cause of continued authoritarianism.⁷⁴ For, as Waterbury notes, “the private-sector bourgeoisie [in those countries] has entered into a pact with the state which has impeded progress toward democracy.” He argues that ‘a tacit understanding’ dominates the relations between the bourgeoisie and the state;

⁷⁰ Ibid., p.316.

⁷¹ Ibid.

⁷² Ibid., p.315

⁷³ Barrington Moore, Social Origins of Dictatorship and Democracy (Boston: Beacon Press, 1966, reprint 1993).

⁷⁴ Lisa Anderson, "Liberalization in the Arab World" discussion paper for the Mellon Seminar, Near East Department, Princeton University (14 February, 1992) cited in Waterbury, "Democracy without Democrats? The Potential for Political Liberalization in the Middle East," in Ghassan Salamé (ed.), Democracy without Democrats (London, New York: I.B. Tauris Publishers, 1994), p.28.

“... The bourgeoisie would renounce any overt political role and that it would follow the broad economic directives of the state, in exchange for which it would be allowed to make significant profits. The state would keep labor docile through a combination of welfare benefits and political repression.”⁷⁵

When other protectionist or financial rents offered by the state are also added to this ‘contract’, it is obvious that *rational* economic actors would prefer *political loyalty* to voice, not only because they benefit from government rents but also because they know that they do not have much bargaining power vis-à-vis a government which guarantees their economic survival. Therefore, as Waterbury puts it, “the importance of the bourgeoisie lies in the resources it controls. If they are significant and beyond the reach of the state, then the mere possibility that the bourgeoisie might confront the state is enough to create political space.”⁷⁶

In case of a strong and independent bourgeoisie, though, we should not mistakenly assume that capitalist interests are always democratic; that is, they would always have a preference for a democratic regime. Waterbury, in this respect, draws attention to the highly inconsistent behavior of entrepreneurial bourgeoisie just about everywhere in the developing countries,⁷⁷ and claims that owners of capital do not innately possess democratic interests⁷⁸ or do not necessarily promote democratic accountability.⁷⁹ Przeworski and Limongi also claim that the business elite cannot have any interest-based preference for democracy.⁸⁰ And, Acemoglu and Robinson, and Boix, articulating the conditions that shape capital owners’ regime preferences—i.e., whether they might oppose a democratic transition—argue that they might not oppose democratization provided that capital is mobile.⁸¹

⁷⁵ Waterbury “Democracy without Democrats,” p. 27.

⁷⁶ Ibid.

⁷⁷ Ibid.

⁷⁸ Waterbury, “Fortuitous By-Products,” p. 395

⁷⁹ Waterbury “From Social Contracts to Extraction Contracts,” p. 164.

⁸⁰ Their reasoning is as follows: “(1) poor people want to consume immediately; (2.1) when workers can organize, they drive wages up, reduce profits, and reduce investment (either by lowering the rate of return or the volume of profit or both) and (2.2) when people can vote, governments distribute incomes away from investment (either they tax and transfer or they undertake less public investment; (3) lowering investment slows down growth.” Adam Przeworski and Fernando Limongi, “Political Regimes and Economic Growth” *Journal of Economic Perspectives*, Vol.7, No.3 (Summer 1993), pp. 54-55.

⁸¹ The reasoning is as follows: As the specificity of capital declines or as capital becomes more mobile, the cost of moving it away from its country of origin diminishes; thus capital owners can easily take their money away from a given country. This makes it more difficult to tax. Thus, mobility of capital

Waterbury, however, looks at capitalists' role in the process of regime transition from a different standpoint and argues that capital owners and investors may have a particularly important role to play in the preparatory phase of democratization: yet this does not necessarily have to be a *conscious* demand for democratic procedures. He claims that while *they initially bargain to protect or advance their business activities*,⁸² “as a kind of *by-product of their bargaining for favorable policy responses from the state*, they may foster *habits of interaction* between the governments and citizens that can lead to a transition.”⁸³ For, he adds, “a kind of public good—the obligation of the government to deal directly with significant economic interest in society—has thus been created. Further, it will be difficult to deny similar rights to other interests except on a purely arbitrary basis.”⁸⁴

To summarize, then, the entrepreneurial bourgeoisie has to be strong (in terms of its investment power) and self-sufficient (independent from government rents) in order to gain greater bargaining power vis-à-vis the government, and hence, to effectively advance and protect their economic interests (by threatening to exit) or to be able to Exit. In other words, a weak and dependent private sector (which has a small share in the overall economy activity, and which needs protection and support of the government) possesses no bargaining power vis-à-vis the government. The reason is that, because it would be too costly for them to operate in ‘unprotected’ environments they can *neither actually exit*, nor *credibly* threaten to exit. Since they cannot exit, there is no use of talking about effective Exit. They may still voice, though. If dependent business elite do voice *anyway*, the ruler—knowing that they have no place to go—may choose to ignore

curbs the redistributive effects of democracy or reduces the extent to which democratic government can pursue populist and highly majoritarian policies. Accordingly, the conflict between the capital owners and non owners is diminished; hence, the elite feel more secure about the redistributive effects of democracy and are discouraged from using repression to prevent a transition from nondemocracy to democracy. On the contrary, “the prevalence of highly immobile types of capital exacerbates the authoritarian solution. Unable to shift assets abroad to escape the threat of high taxes, capital owners grow more resolute in their efforts to block democracy.” Charles Boix, Democracy and Redistribution, (New York, Cambridge: Cambridge University Press, 2003), p.3. and Daron Acemoglu and James A. Robinson, Economic Origins of Dictatorship and Democracy (Cambridge, New York: Cambridge University Press, 2006)

⁸² Waterbury, “Fortuitous By-Products,” p.395.

⁸³ Waterbury, “From Social Contracts to Extraction Contracts,” p.164. Waterbury and Richardson, A Political Economy of the Middle East, p.36.

⁸⁴ Waterbury, “Fortuitous By-Products,” p.396.

their demands, and continue to extract revenue from their surplus. Thus, if business is to act rationally, they would prefer loyalty to voice or exit—which would be less costly for them. In brief, a *dependent bourgeoisie possesses no bargaining power to extract policy concessions via Exit or Voice, and hence, to restrain the policy-making power of an authoritarian incumbent.*

(2) Sectorally Determined Exit-Opportunities

While investment strength and independence from government rents is a necessary condition to credibly threaten to exit, and hence, extract policy concession, it is *not sufficient*. There also must be *viability of exit-opportunities* for the capital owners so that the rulers conjecture that the capitalists may indeed choose to exit in case their interests are not met.

Sectoral analysis provides us with tools to analyze whether capital owners in a particular sector can credibly threaten to exit. Michael Shafer, in this respect, proposes four *covarying* variables which enable us to assess the extent of viability of exit opportunities in a particular sector. He states that sectoral analysis builds on two core variables in sectors' production processes, *capital intensity* and *the extent of economies of scale*, and two composite variables, *production flexibility* and *asset/factor flexibility*, that recombine elements of both.⁸⁵

Capital intensity refers to “the amount of fixed or real capital present in relation to other factors of production, especially labor.” The fixed or real capital includes the capital cost of start-up, production, research and development, inventory, and distribution.⁸⁶ *The extent of economies of scale* is the extent to which efficiency demands large-scale production.⁸⁷ In other words, it refers to the increase in efficiency of production as the number of goods being produced increases. Typically, a company that achieves economies of scale lowers the average cost per unit through increased

⁸⁵ D. Michael Shafer, Winners and Losers. How Sectors Shape the Developmental Prospects of States (Ithaca: Cornell University Press, 1994), pp 1-48.

⁸⁶ Ibid., p.23

⁸⁷ Ibid., p.24.

production since fixed costs are shared over an increased number of goods.⁸⁸ Shafer notes that capital intensity and economies of scale account for the “divisibility” of production (its openness to broad participation), the sector-specificity of capital equipment and other assets, and the *rigidity of barriers to exit*.⁸⁹ *Production flexibility* is the ability to meet short-term market shifts by varying output levels or product mix. *Asset/factor flexibility* refers to the sector-specificity of facilities, supporting infrastructure, and workforce skills. Shafer states that it determines the extent to which assets and factors can be reused elsewhere.⁹⁰ Production and asset/factor flexibility variables are composed of elements reflecting capital intensity and economies of scale.⁹¹

Shafer argues that since these variables *covary* across sectors, “we can imagine a single continuum between two polar ideal types”⁹²—High/High and Low/Low sectors. *High/High (HH) Sectors* (such as oil, mining, industrial plantation crop production) are marked by high capital intensity, high economies of scale, and high production inflexibility and asset/factor inflexibility. In such sectors there are *high barriers to exit*, because, as Shafer says, it requires large sunk investments in sector-specific capital equipment, facilities, infrastructure, management, and skilled labor. Therefore, capital owners and investors in such sectors *cannot credibly threaten to exit*. In other words, when they use voice, they do not possess much bargaining-power vis-à-vis a government who knows that the business in question cannot easily exit (i.e. change sector or reallocate abroad) without incurring a lot of costs or losses. Accordingly, it is *less likely* that policymaking favoring a HH sector interests result from bargaining. Yet we may still observe responsiveness to HH sector interests if the state is highly dependent on a single HH sector, in which case the bargaining power of the policymakers also greatly diminish. Under the latter condition, however, pro-HH sector policy-making is *no longer accountability but just a structural necessity due to sectoral dependence*. I present this argument as an alternative hypothesis at the end of this chapter along with other alternative causal mechanisms of pro-capitalist or pro-leading sector policymaking.

⁸⁸ <http://www.investopedia.com/terms/e/economiesofscale.asp>

⁸⁹ Shafer, p. 24.

⁹⁰ Ibid., pp.10, 24.

⁹¹ Ibid., p. 24

⁹² Ibid, p.10

Low-Low (LL) Sectors (such as light manufacturing, peasant cash crop production) are marked by the opposite characteristics, and thus, have *smaller barriers to exit*.⁹³ Accordingly, capitalists in such sectors can *credibly threaten to exit* if their interests are not met. Thus, it is more likely that the voice of those capital owners and investors in LL sectors will be more effective in generating political responsiveness to their interests.

In the political economy literature, authors who focus on the restraining role of capital movements on autocratic-state power use the terms ‘capital mobility’ or ‘elasticity of the tax base’ to indicate viability of exit opportunities.⁹⁴

Capital Mobility as a Restrain on the Arbitrary Rule

The exit possibility of capital has been seen by many scholars as a check and restraint on the arbitrary power of autocratic governments. Around the 18th century, the absolutist state in Europe actively promoted expansion of commerce and finance. With this expansion, a new form of wealth—movable wealth—appeared. Montesquieu defined it as “money, notes, bills of exchange, stocks of companies, ships, all commodities and merchandise”; and noted that this form of wealth could be moved from one country to another. As Hirschman notes, both Montesquieu and Sir James Steuart perceived capital flight—the possible exit of capital (and of the capitalists)—as a salutary restraint on arbitrary government.⁹⁵ Montesquieu, for example, says

“Since that time, the rulers have been compelled to govern with greater wisdom than they themselves might have intended; for, owing to these events, the great and sudden arbitrary actions of the sovereign (*les grands coups d’authorité*) have been proven to be ineffective and ... only good government brings prosperity [to the prince.]”⁹⁶

⁹³ Shafer, p.10 & 25.

⁹⁴ ‘Capital mobility’ used by Charles Boix, *Democracy and Redistribution*,. ‘Elasticity of the tax base’ used by Robert H. Bates, “The Economics of Transitions to Democracy,” *PS: Political Science & Politics*, March 1991; and Robert Bates and D. H. Lien, “A Note on Taxation, Development and Representative Government.” *Politics and Society*, Vol.14, No.1 (1985).

⁹⁵ Hirschman, “Exit, Voice, and the State,” p. 99.

⁹⁶ Montesquieu, *Esprit des Lois*, XXI, chap. 20, cited in *Ibid.*, p.98

Another prominent 18th century scholar, Adam Smith, looks at the issue from the standpoint of ‘elasticity of the tax base’, and argues that arbitrary/excess state extraction (i.e. a policy that is contrary to capitalist interests) may diminish the state revenue generated by taxation of movable assets, because such assets holders might leave the country. He says,

“...land is a subject which cannot be removed, whereas stock easily may. The proprietor of land is necessarily a citizen of the particular country in which his estate lies. The proprietor of stock is properly a citizen of the world and is not necessarily attached to any particular country. *He would be apt to abandon the country in which he was exposed to a vexatious inquisition, in order to be assessed to a burdensome tax, and would remove his stocks to some other country where he could either carry on his business, or enjoy his fortune more at his ease.* By removing his stock he would put an end to all *the industry which it had maintained in the country he left.* Stock cultivates land; stock employs labor. A tax which tended to drive away stock from any particular country would so far tend to dry up every source of revenue, both to the sovereign and to the society...”⁹⁷

Due to the very threat that Smith explains—that is, the threat of capital flight—Mitchell notes that in England monarchs first convened citizens and bargained with them for revenues when they began to tax movable property—such as “cows, oxen, grain, household goods and other possessions...that could be transferred from place to place.”⁹⁸ *Movable property could be concealed, he states, therefore, its efficient taxation required the cooperation of its owners.* “In order to secure that cooperation, the monarch had to give the owners greater control over the use to which those tax revenues would be put. Increased taxation implied increased representation...”⁹⁹ By the same token, as Bates notes, since commerce is more mobile than mining, “the British monarch, who taxed trade, had to supply more political benefits for a given level of revenues than did that of France, who drew a greater portion of his revenues from taxes on such sources as salt deposits.”¹⁰⁰ Based on similar historical examples, Bates, thus, claims that the nature of the tax base shaped the bargaining between the rulers and asset-owning citizens.

⁹⁷ Adam Smith, *The Wealth of Nations*, Modern Library ed., 800, cited in Ibid. Hirschman, “Exit, Voice, and the State,” *World Politics*, Vol.31, No.1, (Oct. 1978), p.98. (Emphasis added)

⁹⁸ Bates, “The Economics of Transitions to Democracy,” p. 25

⁹⁹ Ibid.

¹⁰⁰ Aristide Zolberg, “Strategic Interactions and the Formation of Modern States: France and England,” *International Social Science Journal*, 32, no.4 (1980) in Ibid.

“In the literature on the origins of parliaments, it becomes clear that the nature of the economy—and in particular the tax base—strongly shaped the terms of the bargain between revenue-seeking monarchs and asset-owning citizens. *The more elastic the tax base, the greater the degree to which the sovereign had to give control over public policy to those whose money he sought to appropriate for public purposes.*”¹⁰¹

In other words, Bates claims that “sovereigns will make greater concessions in the policy domain to those to whom they must in order to secure revenues; i.e. they will make greater concessions to those who control the more elastic portions of the tax base.”¹⁰²

Hirschman also extends the same logic to economies open to capital movements, and stresses the role of “moveable property and its exit” as a restraint on the government’s freedom of maneuver. He notes that although free capital movements can restrain despotic and predatory rule, they can also undermine a government’s ability to make redistributive policies or social reforms.¹⁰³ Haggard et al. argue that Hirschman’s insight is much more important today in a world of financial integration where liquid assets move more freely. Accordingly, they note that, macroeconomic and exchange-rate policies are the most vulnerable areas; that is, there is consensus on the effect of capital mobility on these areas.¹⁰⁴ In order to appeal to foreign investors and creditors and to deter capital flight, they say, policy makers give in to pressures for convergence and abandon of regulatory controls, and greater economic liberalization.

We can now elaborate these arguments within the context of business-state relations, and in the light of the sectoral approach and the ‘Exit, Voice, Loyalty’ framework. First, we consider the decision of capitalists whether to Voice. Hirschman argues that “the decision whether to exit will often be taken in light of the prospects for the effective use of voice. *If customers are convinced that voice will be effective, they may postpone exit.*”¹⁰⁵ As noted before, *effective* Voice requires a threat of inflicting some sort of loss upon the owner of the organization to which one belongs; otherwise the voicing party

¹⁰¹ Bates, “The Economics of Transitions to Democracy,” p. 25 (emphasis added)

¹⁰² Ibid.

¹⁰³ Hirschman, *Exit, Voice, and the State*”.

¹⁰⁴ Haggard et al., “Theories of Business and Business State Relations,” p.39.

¹⁰⁵ Albert O., Hirschman, *Exit, Voice, and Loyalty: Responses to Decline in Firms, Organizations, and States*, (Cambridge, Mass.: Harvard University Press, 1970), p.37 (Emphasis added).

would not have any bargaining-power. In the context of business-state relations, investment strike and capital flight are ‘the twin weapons’ that capitalists can use as threats against a *financially dependent* state. Therefore, if we assume that economic actors act *rationally*—making cost-benefit calculation and choosing the least costly act—we expect that those who would Voice—challenge government policies and bargain with the government to alter certain policies—would be the capital owners operating in sectors endowed with viable exit-opportunities. Those capitalists who know that they have bargaining power vis-à-vis the government—that their exit-threat is credible, that they can reallocate their money and business in another sector or abroad, if necessary, and also that this act would inflict loss of revenue on the part of the dependent state—will engage in voicing their demands, rather than exiting in the first place.

As an alternative argument, Hirschman maintains that voice option can also be used by those with *less or no exit option*. He argues that “the voice option is the only way in which dissatisfied customers or members can react *whenever exit option is unavailable*.”¹⁰⁶ The role of voice, he says, would increase as the opportunities for exit decline, up to the point where, with exit wholly unavailable, voice must carry the entire burden of alerting management to its failings.¹⁰⁷ Accordingly, he claims that wherever options of exit are limited, voice will be activated.

“Capital flight is obviously much less of a weapon in the largest and most powerful countries where the owners of capital feel there is no place else to go. Here it can be expected that voice will be activated by the impossibility of exit. Capitalists will make elaborate attempts to influence public opinion and public policy.”¹⁰⁸

However, Hirschman also comments on the effect of voice of those with no exit option in generating leverage on the part of voice-exposed management, and argues that *exit is the dominant strategy*; that is, “*sales losses and complaints or protests of those who remain members are not easily added to derive an aggregate recuperative effect*.”¹⁰⁹ Therefore, just to reiterate once more, although voice can be used by those capitalists who cannot credibly threaten to exit, that is, owners of assets in HH sectors, it is not very likely to be

¹⁰⁶ Ibid.

¹⁰⁷ Ibid., p.34

¹⁰⁸ Hirschman, “Exit, Voice, and the State,” p. 100.

¹⁰⁹ Hirschman, Exit, Voice, and Loyalty,” p.37 (emphasis added)

effective in bringing about responsiveness to their interests—unless the state is also *highly* dependent on that sector (like the oil sector). In contrast, when business elite in sectors with low capital intensity, low economies of scale, and production and asset factor flexibility use their viable exit opportunities as a weapon, and voice their interests and demands, they are more likely to get a response to their concerns, and thus, restrain the policy-making power of an authoritarian incumbent.

HYPOTHESES

Against this theoretical background, we can now clarify the hypotheses to be tested in this study. To begin with, I question whether and under what conditions autocratic rulers can be held *accountable* by a segment of the society. My main argument is that nondemocratic leaders *who are financially dependent on extraction from domestic productive forces*, may be *indirectly* held accountable by domestic *capital owners* and *investors* who are *able to use the threat of exit* while voicing their demands (i.e. credibly threaten to exit) and/or who can actually perform it (i.e. exit). Hence, the present study posits that *indirect accountability* may result from Voice or Exit. It is important to note that Exit and Voice may occur simultaneously. For, while Exit is private decision of the capitalists, Voice may involve collective action. Hence, it is possible that while the major business association of the leading sector engages in expressing their concerns (to the government), a part of business may decide not to further invest in that country/sector (investment strike) or to invest elsewhere (capital flight). In other words, due to multiplicity of the economic actors (investors) operating in the same sector, Voice and Exit are not mutually exclusive in an economic context. However, I do *not* hypothesize a joint impact of Exit and Voice (i.e. a joint necessity) for government responsiveness. On the contrary, controlling for other factors which might lead to government responsiveness to business (at least the leading sector's) interests, I want to isolate the impact of the *domestic capitalist forces* on government responsiveness through exit and voice separately.

MAIN HYPOTHESES

(1) Indirect Accountability as a result of Voice (Responsiveness due to Credible Exit-Threat)

I posit that leaders may be *indirectly* held accountable by capital owners and investors provided that the latter have adequate bargaining-power vis-à-vis rulers. Bargaining-power of the capitalists is conditional on the *joint* existence of two factors: (1) *Ability of the capitalists to threaten to exit, and (2) the potential to inflict losses on government revenue upon exiting.*

Exit-credibility is a function of *both sectoral attributes and strength and financial independence* of the private sector. Sectoral attributes (the extent of capital specificity and mobility) determines the extent to which the sectoral characteristics allow investors to easily reallocate their business elsewhere or switch to another sector without losing much; and investment strength and independence of the private sector indicates the extent to which the private sector has the financial capacity to reinvest *and* to survive in the absence of government support and protection. The second condition of indirect accountability, ‘the potential to inflict some loss on government revenue upon exiting,’ is a function of the extent of financial dependence of the state on domestic productive forces—i.e. the share of *tax revenue in total government revenue.*

More specifically, therefore, controlling for the factors which might induce pro-capitalist policymaking in the absence of adequate bargaining power of capitalists, we expect to see responsiveness of the authoritarian incumbent to the leading business interests (i.e. indirect accountability) if and only if (1) the state is financially dependent on tax revenue, (2) exit-credibility is present—i.e. (a) the private sector is strong and independent of government rents, and (b) the capital of the leading sector is relatively less specific and more mobile.

(2) Indirect Accountability as a result of Exit (Responsiveness due to Learning from Past Experience)

I maintain that, controlling for other factors, *increase in the level of pro-capitalist or pro-leading sector policies as a result of capital flight and/or investment strike can also be regarded as responsiveness—i.e. as indirect accountability.*

The argument about ‘exit-credibility’ is based on the assumption that rulers are rational and that they would take the necessary policy measures to avoid the twin threats of capital flight and investment strike—provided that they conjecture those to be viable. However, should the incumbents make wrong calculations (or because of some exogenous reasons) and should capital flight or investment strike occur, we expect to see a *learning process* on the part of financially or sectorally dependent rulers. In other words, I argue that those rulers dependent either on a *single sector* or *tax revenue* would step back and make pro-capitalist policies to re-attract capitalists. And I hold that such an attitude can be regarded as a case of indirect accountability.

The reader might have noticed that not just dependence on tax revenue (from the whole economy) but *sectoral dependence* also is cited as a condition of *effective* exit. If sectoral dependence (i.e. high levels of single sector contribution), *by itself*, results in greater levels of pro-capitalist or pro-leading sector policies, we consider it as a case of responsiveness due to ‘structural dependence’—which is explained below as an alternative argument—but *not accountability*. However, capital outflows from a country and investment strike are indications of unwillingness of the capitalists to reinvest or even keep their money in a country; i.e. ‘*reactions*’ to the present business environment (for whatever reasons). If following a *trend* of capital flight or investment strike, *financially or sectorally dependent rulers* step back from the present policy attitudes and make policy concessions to (exiting) capitalists’ interests, then we can assume rulers respond to capitalists’ ‘reactions’—or held accountable by exiting capital owners.

Therefore, controlling for other factors, we expect to see responsiveness to business interests (indirect accountability) as a result of capital flight or investment strike if and only if incumbents are highly dependent on either (1) extraction from domestic productive forces or (2) a single sector.

ALTERNATIVE HYPOTHESES

(Pro-Capitalist Policymaking but NO Accountability)

At the beginning of this chapter, I underlined that *not every kind of pro-capitalist policymaking can be considered as responsiveness or indirect accountability*; and that indirect accountability indicates responding to business reactions *only* when the latter possesses adequate bargaining-power to extract policy concessions (i.e. the ability to punish the ruler by exiting). This argument indicates that there may be cases where policymaking may be in the interest of capitalists, even though either (1) there is no reaction of business (no Exit or Voice), or (2) the bourgeoisie does not possess bargaining-power.

1) Exogenous Factors:

This kind of policy-making is unilateral, because, government makes pro-capitalist or pro-leading sector policies while there is no intensive reaction of the private sector. Such a case might result from (a) a fiscal crisis; hence aims at appealing to domestic and foreign investment; (b) the conditionalities attached to a loan borrowed from an international institution.

(a) Fiscal crisis:

Unilaterally made policies favoring capitalist interests are likely to be implemented following a systemic crisis. The fiscal crisis that most developing countries (especially ME countries) went through during mid-80s, and the following economic liberalization attempts are good examples of this sort of interest realization. As Waterbury notes, governments were no longer able to mobilize or borrow the investment resources needed to stimulate economic growth in the economy. Thus, they had to attract indigenous, regional or foreign capital to undertake the task. A student of state-business relations in the Middle East, Peter Moore explains the process as follows:

“Following the optimism of independence and the soft budget constraints of the 1960s and 1970s, many states witnessed economic near-reversal in the 1980s and 1990s. In Africa and the Middle East, declines in exogenous revenue and persistent low economic growth rates have strained fiscal systems and induced chronic debt. ...In tandem with global market shifts, demographic pressures in every developing country have made acute the need for more productive growth; that is, not merely greater economic expansion (higher output) but longer-term investment and developmentally nutritious private-sector expansion. The policy responses to and political effects of these pressures have not been uniform. Some states have pursued successful reform, some have retrenched, some have undergone regime change, and others continue to struggle with reform implementation. However, in almost every case, state officials have attempted to balance the need for increased domestic revenue with the desire to entice more private-sector investment and employment.”¹¹⁰

In brief, in those countries strained by financial crisis, in order to rid themselves of financial burdens and to mobilize private resources, the policy-makers had to ‘trade policy concessions for investment.’¹¹¹ In Togo, for example, economic shock gave government the impetus needed to start the liberalization process.¹¹² However, as Waterbury underlines, “such economic liberalization process was certainly in the interest of, but not dictated by, the (private) bourgeoisie or its organizations.”¹¹³

(b) External Pressures

Sometimes policy changes may come through the pressures of international financial institutions rather than through the efforts of the investors themselves¹¹⁴ or economic shocks. Alan Richards notes that “in the midst of the financial crisis the region of the Middle East, many economists ... advocated some variant of what has come to be known as the "Washington Consensus" to deal with this problem”¹¹⁵ The term ‘Washington

¹¹⁰ Moore, Doing Business in the Middle East, p. 2.

¹¹¹ Waterbury, "From Social Contracts to Extraction Contracts," p. 160.

¹¹² Hans P. Binswanger & Klaus Deininger, "Explaining Agricultural and Agrarian Policies in Developing Countries," *Journal of Economic Literature*, American Economic Association, vol. 35, no.4 (December 1997), pp. 1958-2005 cited in Takamasa Akiyama et al., Commodity Market Reforms: Two Lessons, World Bank Regional and Sectoral Studies, (Washington D.C.: World Bank, 2001), p. 87-88.

¹¹³ Waterbury, "Fortuitous By-Products," p.395.

¹¹⁴ Waterbury, "From Social Contracts to Extraction Contracts," p.161.

¹¹⁵ Alan Richards, "The Global Financial Crisis and Economic Reform in the Middle East," *Middle East Policy*, no.1 (February 1999).

Consensus' was originally coined by Williamson in 1990 "to refer to the lowest common denominator of policy advice being addressed by the Washington-based institutions to Latin American countries as of 1989."¹¹⁶ These policies were:

- Fiscal discipline
- A redirection of public expenditure priorities toward fields offering both high economic returns and the potential to improve income distribution, such as primary health care, primary education, and infrastructure
- Tax reform (to lower marginal rates and broaden the tax base)
- Interest rate liberalization
- A competitive exchange rate
- Trade liberalization
- Liberalization of inflows of foreign direct investment
- Privatization
- Deregulation (to abolish barriers to entry and exit)
- Secure property rights.¹¹⁷

As Richards states, the international agencies (IMF and World Bank) and the U.S. government actively and persistently promoted such policy changes throughout the world via conditionalities attached to financial assistance they provided.¹¹⁸ In some Sub-Saharan African countries, for example, it is noted that

"the serious fiscal problems resulting from the sharp decline in commodity prices forced many governments to look to international organizations and donor countries for financial assistance. This assistance came with strings attached, in the form of conditionalities requiring market reforms."¹¹⁹

Conditionality is the key term with regard to the concept of "external pressure" that we want to control for. "Conditionality links financial support to the implementation of a program of reforms that are considered critical for the country's economic and social

¹¹⁶ John Williamson. "What Should the World Bank Think About the Washington Consensus?" World Bank Research Observer (Washington, DC: The International Bank for Reconstruction and Development), Vol. 15, No. 2 (August 2000), pp. 251-264 cited in "Washington Consensus," Center for International Development at Harvard University, [Global Trade Negotiations Home Page http://www.cid.harvard.edu/cidtrade/issues/washingtonlink.html# 2](http://www.cid.harvard.edu/cidtrade/issues/washingtonlink.html# 2).

¹¹⁷ Ibid.

¹¹⁸ Richards, "The Global Financial Crisis and Economic Reform in the Middle East".

¹¹⁹ Binswanger and Deininger (1997) cited in Takamasa Akiyama et al., Commodity Market Reforms – Two Lessons, p. 87-88.

development.”¹²⁰ The IMF loans, for example, are “generally conditional on the adoption of appropriate policies to resolve a country's balance of payments difficulties, and to enable the government to repay the Fund,”¹²¹ and conditionality has been regarded as “a salient aspect of the Fund's involvement with its member countries.”¹²² The scope of conditionality has expanded, particularly since the early 1980s.¹²³ In the 1970s, only 26 percent of IMF loan disbursements involved substantial conditionality, but the Latin American debt crisis in the 1980s and the expansion of lending to Africa increased this figure to 66 percent by the end of the 1980s.¹²⁴ Furthermore, *structural conditions* have become a major element of conditionality. While structural measures were rarely an element in Fund-supported programs until the 1980s, by the late 1980s, almost two thirds of Fund-supported programs contained structural conditionality—structural performance criteria, benchmarks or prior actions—and by the mid 1990s, nearly all arrangements included some structural conditions.¹²⁵ It is noted that “a large share of the Fund's

¹²⁰ The World Bank Development Committee “Review of World Bank Conditionality,” The World Bank Operations Policy and Country Service (September, 2005), p.15. <http://siteresources.worldbank.org/DEVCOMMINT/Documentation/20651860/DC2005-0013%28E%29-Conditionality.pdf>. Also see The IMF, Policy Development and Review Department, “Conditionality in Fund-Supported Programs—Overview,” (February 20, 2001) <http://www.imf.org/external/np/pdr/cond/2001/eng/policy/index.htm>

¹²¹ The IMF, “IMF Conditionality,” (September 2009),

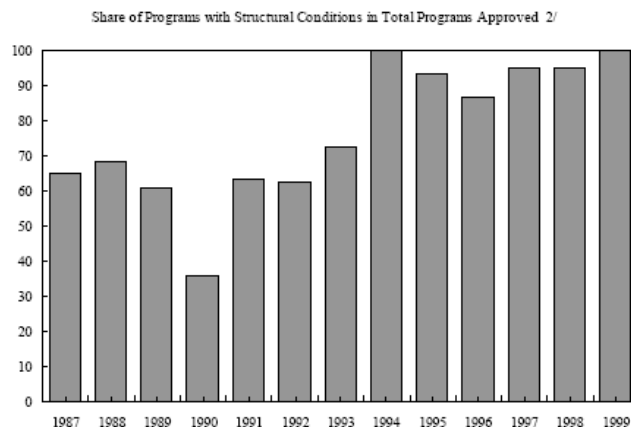
<http://www.imf.org/external/np/exr/facts/conditio.htm>

¹²² IMF, Conditionality in Fund-Supported Programs—Overview.

¹²³ Ibid.

¹²⁴ James M. Boughton, “Silent Revolution: The International Monetary Fund, 1979-1989,” (Washington, D.C.: International Monetary Fund, 2001), p. 561. cited in Randall W. Stone, The Scope of IMF Conditionality, manuscript, January 23, 2008, pp. 5-6.

¹²⁵ The graph below displays the share of programs with structural conditions in total programs approved.



conditionality has been in the core areas of fiscal policy, the financial sector, and the exchange and trade system, and that these areas account for much of the increase in structural conditionality over the past decade.”¹²⁶ Overall, because the conditionalities attached to financial assistance programs are, by definition, of a pro-capitalist nature, we need to control for existence of a ‘relationship’ with an international agency.

2) Dependence on a Single Sector

In some cases, we may see responsiveness of an authoritarian incumbent to the concerns of the leading sector although the businesses in that sector possess *limited* exit-credibility. One *sufficient* condition for the existence of such an interest-realization is the state’s *dependence on a single immobile sector*.

A student of the sectoral approach, Michael Shafer argues that for sectors with high production inflexibility and asset/factor inflexibility barriers to exit are insurmountable. As a result, he claims, owners of assets in those sectors demand for political, market-resisting relief; they pursue strategies aimed at obtaining state protection against the market and change.¹²⁷ From the perspective of the state, he also argues that high production inflexibility means that “market downturns have instantaneous, catastrophic consequences for the state; revenues and foreign exchange.”¹²⁸ In such a case no actor, neither the state nor capitalists, have viable exit options: The state is dependent on a single sector for its revenue; and the leading sector is dependent on the state for its economic survival. As a result, the government *voluntarily* makes policies favoring the sector that generates a great portion of the government revenue.

To account for the impact of sectoral dependence on economic policymaking, thus I control for the contribution of the leading sector of a country to total economic activity.

IMF, “Conditionality in Fund-Supported Programs—Overview.” Also the IMF, Policy Development and Review Department, “Structural Conditionality in Fund-Supported Programs, approved by Jack Boorman, (February 16, 2001), p. 8-9.

¹²⁶ IMF, Conditionality in Fund-Supported Programs—Overview

¹²⁷ Shafer, *Winners and Losers*, pp.33-4.

¹²⁸ Ibid.

CHAPTER III
RESEARCH DESIGN
AND
OPERATIONALIZATION OF THE VARIABLES

I conduct a time-series-cross-sectional (TSCS) analysis to examine the prospects of indirect accountability in non-democratic regimes. The time frame of the analysis is between 2001 and 2007, which is limited due to challenges of gathering data for non-democratic countries.

THE SAMPLE

The sample of the present study is composed of the countries under non-democratic regimes. As explained in Chapter One, non-democratic regimes may take different forms, yet the defining feature of all of these regimes is the *absence of the minimum criteria of electoral democracy: free and fair elections*:¹²⁹ “free and fair, both in the ability of opposition parties and candidates to campaign and in the casting and counting of the votes.”¹³⁰ As Diamond underlines, those regimes (even if they have multiple parties and hold regular elections) lack at least one key requirement: an arena of contestation sufficiently fair that the ruling party can be turned out of power.¹³¹

The sample of the present study was constructed in light of these definitions of electoral democracy. That is, those countries which cannot satisfy even the minimum

¹²⁹ Schedler, “The Menu of Manipulation,” p. 6; Diamond, “Thinking about Hybrid Regimes”, 2002, p.27.

¹³⁰ Diamond, “Thinking about Hybrid Regimes”, p. 27.

¹³¹ Ibid.

criteria of democracy—which are *not even an electoral democracy*—are included in the sample. To determine non-democracies I am using Freedom House’s *Political Rights Index* ratings in combination with the *Electoral Democracies List*.¹³² The Political Rights checklist, which is used to rate countries on the level of political rights, is composed of three subsections: Electoral process, political pluralism and participation, and functioning of government. In accordance with the definition of “electoral democracy,” Freedom House uses only the subcategory on *electoral process* to form a *list of electoral democracies*. In spite of the practicality of the list, it covers a short period of time and does not have numerical data. Because of this, I am also relying on the ratings of the Political Rights Index, which is available starting from 1972, to form a sample of non-democracies.¹³³

Table 1 - Freedom House, Political Rights Index ratings and the corresponding number of electoral democracies.

The Freedom House, Political Rights Rating	Status	Number of Cases* avr. 1972-2007	NOT listed as Electoral Democracy 2000-2007	
			All the time	At least once
1 – 2.5	Free	61	0	0
2.6 – 3.5	Partly Free	30	0	3 (%10)
3.6 – 4.5	Partly Free	25	1 (4%)	10 (%40)
4.6 – 5.5	Partly Free	31	17 (55%)	22 (71%)
5.6 – 7	Not Free	47	42 (89%)	46 (98%)

*Does not include the countries which were no longer present by the end of 2007.

The Political Rights ratings are on a 1 to 7 scale. Countries rated between 3 and 5 (inclusive) have damaging elements that undermine political rights—such as “civil war, military involvement in politics, lingering royal power, unfair elections, and one-party

¹³² The Freedom House, Political Rights Ratings and Checklist, and also their criteria for determining electoral democracies are presented in Appendix I.

¹³³ The other index of the Freedom House, Civil Liberties Index, pertains to the qualifications of liberal democracy, rather than the minimum requirements of electoral democracy. Accordingly, I am *not* using that Civil Liberties Index to determine non-democracies.

dominance.”¹³⁴ Countries rated 6 on political rights “have systems ruled by military juntas, one-party dictatorships, religious hierarchies, or autocrats;” and “for countries and territories with a rating of 7, political rights are absent or virtually nonexistent as a result of the extremely oppressive nature of the regime or severe oppression in combination with civil war.”¹³⁵ We observe that a country which is listed as *electoral democracy* is generally rated 4 or less on the political rights in that particular year, although there are exceptions.¹³⁶ Further, as presented on Table 1, those countries which are not listed as electoral democracies between 2001 and 2006 cluster within the category of 4.6 and above on the Political Rights Index ratings from 1972 to 2005. Based on this observation, I use the following criteria to determine the non-democratic countries to be added into the research sample: “Average Political Rights Index rating between 1972 and 2007 equals or is greater than 4.6 AND is not listed as electoral democracy more than three consecutive years between 2000 and 2007.” The second part of this criterion guarantees that the country in question is *still not* an electoral democracy, and enables us to work with robust non-democratic cases. However, as it might be expected, not all non-democracies of the world are in the sample. Data availability highly constrains case-selection when one works with non-democratic regimes. Thus, among non-democratic countries, only the ones having the necessary data were added into the research sample, which constitutes around 65 percent of the non-democracies in the world. Table 4 presents a list of all the non-democratic countries ranked by the degree of nondemocracy. Those covered by the research are written in bold.¹³⁷

¹³⁴ The Freedom House, Freedom in the World (Methodology), <http://www.freedomhouse.org>

¹³⁵ Ibid.

¹³⁶ There are some countries which score 4 on political rights but are not listed as electoral democracy. For example, based on 2006 scores (2007 edition) Zambia, Kuwait, Bosnia-Herzegovina, Tanzania, Fiji, and Malaysia score 4 on political rights, but are not listed as electoral democracy. However, Comoros, Sierra Leone, Malawi, Nigeria, Guatemala, Bangladesh, Venezuela, score 4 on political rights and are also listed in the Electoral Democracies list.

¹³⁷ Besides data availability issues, Lebanon and Singapore were also excluded from the sample because they are atypical cases relative to the countries in sample. Lebanon is the only country in the sample whose leading sector is the service sector. And Singapore is a city-state which displays highly different economic characteristics relative to the sample-countries. Further Singapore scores very high on all the indicators of the pro-capitalist policy categories; thus, its inclusion in the analysis either boosts or drops the degree of almost all correlations. Hence, although exclusion of Singapore would mean dropping a country with a manufacturing sector (which is already scarce in the sample), after a careful consideration I decided to exclude that country to preserve sample coherence and avoid spurious correlations (especially during the phase of constructing the dependent variable) due to an outlier case.

Table 2 – The list of Nondemocratic Countries
(Those covered by the sample are written in bold)

		Political					Political		
		Non- Elect. Dem	Rights Ratings 1972- 2007	Std. Dev.			Non- Elect. Dem	Rights Ratings 1972- 2007	Std. Dev.
Countries		2001- 2006	Avr	Dev.	Countries		2001- 2006	Avr	Dev.
1	North Korea	1*	7.0	0.0	35	Congo (Brazzaville)	1	5.9	1.2
2	Burma	1	6.9	0.2	36	Ethiopia	1	5.9	1.1
3	Turkmenistan	1	6.9	0.3	37	Azerbaijan	1	5.9	0.4
4	Vietnam	1	6.9	0.3	38	Kazakhstan	1	5.9	0.4
5	Iraq	1	6.9	0.3	39	Tunisia	1	5.8	0.4
6	Uzbekistan	1	6.9	0.4	40	Swaziland	1	5.8	0.7
7	Equatorial Guinea	1	6.8	0.4	41	Bahrain	1	5.7	0.8
8	Somalia	1	6.8	0.4	42	Liberia	0.6	5.7	0.9
9	Cuba	1	6.7	0.5	43	UAE	1	5.7	0.6
10	China	1	6.7	0.5	44	Iran	1	5.7	0.5
11	Laos	1	6.7	0.6	45	Bhutan	1	5.6	1.1
12	Libya	1	6.7	0.5	46	Cnt..African Rep.	0.6	5.6	1.6
13	Afghanistan	1	6.6	0.7	47	Belarus	1	5.6	1.0
14	Congo (Kinshasa)	1	6.5	0.5	48	Yugoslavia	0.6	5.6	0.9
15	Eritrea	1	6.5	0.5	49	Uganda	1	5.5	1.1
16	Guinea	1	6.5	0.5	50	Egypt	1	5.5	0.6
17	Saudi Arabia	1	6.5	0.5	51	Gabon	1	5.5	0.7
18	Angola	1	6.5	0.5	52	Tanzania	1	5.5	0.8
19	Burundi	0.6**	6.5	0.9	53	Zimbabwe	1	5.3	1.0
20	Rwanda	1	6.5	0.5	54	Yemen	1	5.3	0.6
21	Syria	1	6.5	0.7	55	Maldives	1	5.2	1.0
22	Cambodia	1	6.4	0.8	56	Burkina Faso	1	5.1	1.4
23	Chad	1	6.3	0.5	57	Jordan	1	5.1	0.9
24	Brunei	1	6.3	0.5	58	Lebanon	1	5.1	1.2
25	Mauritania	1	6.3	0.6	59	Bosnia-Herzegovina	1	5.0	0.8
26	Togo	1	6.3	0.6	60	Kyrgyzstan	1	5.0	0.8
27	Cameroon	1	6.2	0.4	61	Djibouti	0.8***	4.9	1.1
28	Sudan	1	6.2	1.0	62	Kuwait	1	4.9	0.9
29	Haiti	1	6.2	1.0	63	Comoros	0.5	4.8	0.8
30	Oman	1	6.1	0.3	64	Pakistan	1	4.8	1.5
31	Tajikistan	1	6.1	1.0	65	Tonga	1	4.8	0.6
32	Algeria	1	6.0	0.6	66	Singapore	1	4.6	0.5
33	Qatar	1	5.9	0.8	67	Zambia	1	4.6	1.0
34	Cote d'Ivoire	1	5.9	0.3	68	Morocco	1	4.6	0.7

* 1: Always listed as a non-democracy between 2001 and 2006; **0.6 At least once or twice was listed as an electoral democracy, but then has become a non-democracy again; ***0.8 More than twice listed as an electoral democracy.

THE DEPENDENT VARIABLE

(Government Responsiveness to Business Interests)

Assessing whether a non-democratic incumbent responds to the interests/demands of business due to ‘credible exit-threat’ or ‘exit’ of the private sector (or under the conditions specified by the hypotheses), requires, in the first place, specifying what those interests are. The structural dependence theory, conceptualizes capitalists as a unified body holding similar interests. Although the essence of my arguments is based upon that theory, I partly disagree with its view of capitalists. Instead, relying on the ‘sectoral view of business’, I maintain that while there may be some common capitalist interests such as a secure and free investment environment, for example, capitalists may have divergent interests on particular public policies due to the sectors and market structures they are located in.

One of the contemporary students of the sectoral approach, Michael Shafer, defines sector as a type of economic activity (mining, industrial plantation crop production, peasant cash crop production, or light manufacturing) that constitutes an enduring, coherent whole defined by a distinctive combination of four variables (capital intensity, economies of scale, production flexibility, and asset/factor flexibility), which *covary*.¹³⁸ Shafer argues that sectoral differences in production flexibility and asset/factor flexibility shape the nature and the intensity of the interests of leading-sector capital and labor. Firms in sectors with production inflexibility, for example, cannot take evasive action when demand falters, and face disaster. Thus, their cries for help, Shafer argues, are for political, market-resisting relief.¹³⁹ Those in sectors with production flexibility, however, demand policies which would enable them to compete on an equal footing in the international market.

When there is one dominant sector in a country it is easy to define the nature of the prevailing business interests, and thus to assess the extent to which the rulers respond to those interests. However, in relatively diverse economies “economic policy is a vector of

¹³⁸ Shafer, *Winners and Losers*, p. 10.

¹³⁹ *Ibid.*, p.33.

divergent and contending business interests that are sectorally determined.”¹⁴⁰ In such economies, it is highly challenging to evaluate responsiveness of an autocratic ruler. Accordingly, in this study, I mainly focus on the interests of the *leading sector*; assuming that a government is likely to be more attentive to the reactions, and thus, interests of the leading economic sector(s) of their country. By the leading sector I mean the most indispensable economic sector(s) for a government due to its contributions to revenue-generation (directly, via corporate taxes, or indirectly, through expanding tax base for income and sales taxes) and to export earnings.

The first step of the analysis therefore, is to identify the leading sectors of all the countries in the sample. I use general economic activity categories in that respect —such as agriculture, sub-categories of light or heavy manufacturing, mining, etc. Next we need to specify the policies (policy categories) prioritized by capitalists in those sectors— assuming, based on sectoral approach, that their interests, hence, policy preferences are not the same. In that regard, I rely on the ‘sectoral approach’ which endogenizes interest formation to the degree of presence and absence of certain economic attributes in a particular sector. Finally, the level of those policies (policy categories), which we specify as prioritized by certain sectors, form the dependent variable(s) of the research. By using appropriate time-series-cross-sectional (TSCS) estimation techniques, I analyze the relationship between existence of ‘exit credibility’ or ‘exit’ (controlling for other factors as well) and the level of those sector-specific policies.

A. Identifying of the Leading Economic Sector of a Country

In general parlance, an economic sector is defined as an area of the economy in which businesses share the same or a related product or service. Agriculture, Industry, and Services constitute the broadest classification of sectors in an economy, and can be divided into more detailed categories of economic activities. Most time-series data indices cover the following main and sub-sectors

¹⁴⁰ Haggard et al., “Theories of Business and Business State Relations,” p. 42.

- Agriculture, Hunting, and Forestry
- Industry
 - Mining
 - Manufacturing
 - Light Manufacturing
(Food, Beverages and Tobacco, Leather & Leather Products, Textiles, Clothing & Footwear, Wood Products)
 - Heavy Manufacturing
(Chemicals, Machinery and Equipment, Processing of Rubber & Plastic, Electrical Engineering, Production and preliminary processing of Metals, Non-metallic Minerals; Transportation equipment; and Mineral Oil Refining & Coal)
 - Construction
 - Energy/Utilities (Electricity, Gas, Water)
- Services, etc.
(Transport, Storage and Communication, Wholesale, Retail Trade, Restaurants and Hotels (Tourism), Insurance and Financial services, etc.).

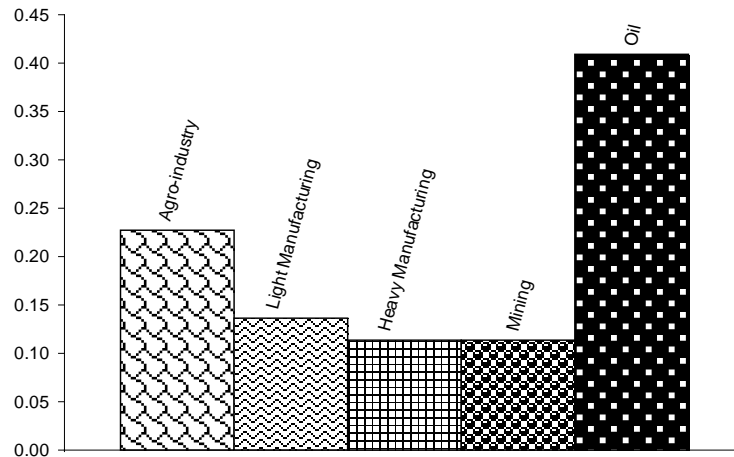
As noted above, in this study, the leading sector is defined as the most indispensable economic sector(s) for a government due to its overall contributions to revenue-generation (directly, via corporate taxes, or indirectly, through expanding the tax-base for income and sales taxes) and export earnings. Accordingly, to identify the leading economic sector of a country I used the *average sectoral shares* in GDP and export earnings during 1999-2007.¹⁴¹ Because sectoral employment data are not available for all countries of the sample, I was unable to include it to the measurement. Quantitative measurement was also supplemented by qualitative information from various sources¹⁴² to confirm and complement the results. Table 3 presents the list of the leading sectors of countries covered in the research. Figure 1 displays the distribution of the sectors in the sample.

¹⁴¹ Data sources for sectoral breakdown of GDP: World Bank, World Development Indicators (WDI) in combination with the United Nations-National Accounts Main Aggregates Database (NAD).

Data sources for sectoral share in export earnings: World Bank -WDI and World Trade Organization (WTO) time-series merchandise trade and commercial services trade databases. All databases are available online.

¹⁴² The main qualitative sources are The Economist Intelligence Unit's Country Profile reports, IMF Article IV Consultation Staff Reports, The country reports of the Turkish Commercial Consular in various countries, Energy Information Administration - Country Analysis Briefs, etc.

Figure 1 – Distribution of the (leading) sectors covered by the sample



After identifying the leading sector for each country in the sample, we now need to specify the interests of the capital owners and investors in those sectors; and accordingly, their likely policy demands from the incumbent policy-makers.

B. Specifying the Interests of the Leading Sector Capitalists

The interests of private-business are centered on maximizing their profit while growing at the same time. To achieve this goal businessmen have to master the nature of both their input and output-markets. Based on the source of their supplies (domestic or international) and also on the nature of the competition they face in the output-markets, capital owners and managers assess the opportunities and risks associated with their input and output-markets, and hence, develop strategies of survival. Besides firm-level survival strategies, they also aim at *extracting favorable policy concessions* from their government which could help them to achieve profit-maximization.

To identify the policy preferences/priorities and demands of the businessmen in the leading sector of a country, I rely on the sectoral approach which basically argues that companies in different sectors have divergent interests shaped by the attributes of the sector they operate in.

Table 3 - The List of the Leading Sectors

The Leading Sector	Product(s)	Countries
Agro-Industry (Agriculture and first stage processing of agricultural materials)	Various (cotton, coffee, tea, timber, tobacco) Coffee, cocoa, Tobacco Cotton	CAR, Tanzania, Togo Burundi, Cote d'Ivoire, Ethiopia, Rwanda, Uganda Zimbabwe Burkina Faso, Chad (before 2004), Uzbekistan
Manufacturing		
Clothing Industry		Haiti
Textile & Clothing Industries		Cambodia, Morocco, Pakistan, Tunisia
Chemicals Industry	Pharmaceuticals Phosphate, Fertilizer	Jordan
Machinery & Equipment	Consumer prod./appliances)	China
Metal processing	Aluminum, etc.	Bosnia-Herzegovina, Tajikistan
Machine Building	Tractor and agricultural machinery	Belarus
Mining	Precious metals-Gold Iron ore, gold Bauxite, Alumina Copper & Cobalt	Kyrgyzstan Mauritania Guinea Zimbabwe
Mining & Quarrying of Energy Producing Materials & Mineral Oil Refining	Petroleum, Natural gas	Algeria, Angola, Azerbaijan, Bahrain, Cameroon, Chad (starting 2004), Rep. of Congo, Egypt, Equatorial Guinea, Gabon, Iran, Kazakhstan, Kuwait, Oman, Saudi Arabia, Syria, UAE, Yemen

Sectoral Approach

Michael Porter claims that “the essence of strategy formulation is coping with competition.”¹⁴³ He argues that that the state of competition in an industry depends on five basic forces. These forces are

1. Threat of new entrants
2. Bargaining power of suppliers
3. Bargaining power of customers
4. Threat of substitute products or services
5. Jockeying for position among current competitors.¹⁴⁴

Porter asserts that “the collective strength of these forces determines the ultimate profit potential of an industry.” He says, “the collective strength of these forces may be painfully apparent to all the antagonists; but to cope with them, the strategist must delve below the surface and analyze the sources of each.”¹⁴⁵ Accordingly, he offers a list of the underlying causes of each force.¹⁴⁶ While it may be feasible for an insider strategist, who has access to firm-based and sectoral data, to analyze the sources of each of these forces, and offer strategies of survival, as an outsider analyst with limited data I need a more

¹⁴³ Michael Porter, “How Competitive Forces Shape Strategy” Harvard Business Review, No. 57 (April-March 1979), p.1

¹⁴⁴ Ibid.

¹⁴⁵ Ibid., p. 2.

¹⁴⁶ The threat of New Entry: Major sources of barriers to entry: economies of scale; product differentiation; capital requirements; cost disadvantages independent of size (learning); access to distribution channels; government policy.

Bargaining Power of Suppliers: A supplier group is powerful if dominated by a few companies and more concentrated than the industry it sells to; its product is unique or at least differentiated, or if it has built up switching costs; it is not obliged to contend with other products for sale to the industry; it possess a credible threat to integrating forward into the industry’s business; the industry is not an important customer of the supplier group.

Bargaining Power of Buyers: A buyer group is powerful if it is concentrated or purchases in large volumes; the product it purchases from the industry is standard or undifferentiated; the product is purchases from the industry form a component of its product and represent a significant fraction of its costs –likely to shop for favorable prices; it earns low profits, which create great incentive to lower its purchasing costs; the industry’s product is unimportant to the quality of the buyers’ products or services; the industry’s product does not save the buyer money; the buyers pose a credible threat of integrating backward to make the industry’s product.

Substitute Products: By placing a ceiling on prices it can charge, substitute products or services limit the potential of an industry. Unless it can upgrade the quality of the product or differentiate it somehow (as via marketing) the industry will suffer in earnings and possibly in growth.

Jockeying for Position: Intense rivalry is related to the presence of a number of factors: Competitors are numerous or are roughly equal in size and power; industry growth is slow, precipitating fights for market share.; the product or service lacks differentiation or switching costs; fixed costs are high or the product is perishable; capacity is normally augmented in large increments; exit barriers are high; the rivals are diverse in strategies, origins, and “personalities”. Ibid.

systematic and aggregate way of assessing the extent of the forces affecting the nature of competition that companies face, and the strategies that they are likely to develop. Michael Shafer's *sectoral approach* offers such a method, which, while assessing the collective strength of the forces Porter enumerates, and hence the nature of competition in a sector, also enables us to define the interests and the policy demands of the capitalists in different economic sectors.

Sectoral Attributes, Market Structure and the Nature of Competition, and Policy Preferences

As noted before, Shafer defines *sector* as a type of economic activity (such as mining, industrial plantation crop production, peasant cash crop production, or light manufacturing) that constitutes an enduring, coherent whole defined by a distinctive combination of four variables—capital intensity, economies of scale, production flexibility, and asset/factor flexibility—which *covary*.¹⁴⁷ Among these variables, *capital intensity* and *economies of scale*, which relate to a sector's production processes, are the *core* variables of sectoral analysis. Shafer defines *capital intensity* very broadly as “the capital costs of start-up, production, research and development, inventory, and distribution.”¹⁴⁸ *The extent of economies of scale* is defined as the extent to which efficiency demands large-scale production.¹⁴⁹ In other words, it refers to the decrease in unit costs—or increase in efficiency of production—as the number of goods being produced increases. The others—*production flexibility*, and *asset/factor flexibility*—are composite variables and combine elements of capital intensity and economies of scale.¹⁵⁰ *Production flexibility* is the ability to meet short-term market shifts by varying output levels or product mix. *Asset/factor flexibility* refers to the sector-specificity of facilities, supporting infrastructure, and workforce skills.¹⁵¹ Since by definition sectoral attributes *covary*, Shafer argues that, it is possible to imagine a single continuum between two polar

¹⁴⁷ Shafer, *Winners and Losers*, p.10.

¹⁴⁸ *Ibid.*, p. 23

¹⁴⁹ *Ibid.*, p. 24.

¹⁵⁰ *Ibid.*, pp 10, 23.

¹⁵¹ *Ibid.*, p.10, 24.

In the following sections, I present detailed definitions and operationalization of these variables.

ideal types: High/High (HH) Sectors, marked by high capital intensity, high economies of scale, and high production inflexibility and asset/factor inflexibility; and, *Low/Low (LL) sectors*, marked by the opposite.¹⁵²

Table 4 presents such a continuum constructed by using contemporary data. Because the process of measuring sectoral attributes is rather long and involves technical details, I present it separately in Appendix II. On the LL-HH Sectoral Attributes continuum displayed in Table 4, higher values indicate ‘LL’ sectors which are marked by low capital intensity and low economies of scale, and production and asset/factor flexibility. The details of the measurement are presented in Appendix.

Table 4 – Low/Low – High/High Sectoral Attributes Continuum

Sectors	LL - HH (0-1)*
Fishery	1
Leather & Leather Products	1
Wood Products	.9
Agriculture, Hunting, Forestry	.9
Retail & Fixing	.8
Footwear & Clothing	.7
Hotels & Restaurants	.7
Processing of Rubber & Plastic	.6
Food, Drink & Tobacco	.6
Textile	.6
Mechanical Engineering	.5
Chemicals	.5
Production and preliminary processing of Metals	.5
Electrical (& Optical) Engineering	.4
Non-metallic Minerals	.4
Mining & Quarrying of Energy Producing Materials	.3
Manufacture & Assembly of Motor Vehicles	.2
Refining of Coal and Mineral Oil	0

**Higher values indicate ‘LL’ sectors which are marked by low capital intensity and low economies of scale, and production and asset/factor flexibility.*¹⁵³ *The details of the measurement are presented in Appendix II.*

¹⁵² Ibid., p.10

¹⁵³ The ranking may seem to be in the ‘wrong’ direction—i.e. those sectors which are low on capital intensity and economies of scale are marked by higher values in this scale. Yet because I use the same scale to measure the extent of exit opportunities that the capital owners in a given sector possess, I mark those sectors with greater capital intensity, larger economies of scale, and production and asset/factor inflexibility, with low values—indicating limited exit opportunities.

Shafer claims that “high/high and low/low sectors exhibit radically different market structures and pose equally different challenges to firms located in them.”¹⁵⁴ Wherever sectors are marked with high capital intensity and high economies of scale, he claims, an oligopolistic market structure arises.¹⁵⁵ And, where capital intensity and economies of scale are low, a competitive market develops.¹⁵⁶ Porter’s five forces operate at different levels in these markets. Accordingly, firms confront different degrees of competition, thus, risks and opportunities in these markets.¹⁵⁷ Consequently, the strategies that they must pursue to survive, and the nature of the help they ask from the state differ considerably. Below I present the characteristics of these markets, the risks and opportunities associated with them, and the likely interests and demands of the companies located in them.

a) Low/Low Sectors: Competitive Markets and Market-Conforming Strategies

Where capital intensity and economies of scale are low, competition prevails.¹⁵⁸ A competitive market is one “with many buyers and sellers trading identical products.”¹⁵⁹ Shafer states that in competitive markets Porter’s five criteria work in full force. Lower capital costs and technical complexity, and also non-sector-specific management and labor force minimize barriers to entry; thus the number of firms in the market is large and their size is small. As a result, “there are no monopoly rents.”¹⁶⁰ In other words, since firms are price-takers and at the mercy of the market, there is “no prospect of managing the market”¹⁶¹ as in the case of oligopoly. Shafer also notes that due to small firm size each firm is a negligible buyer of inputs, reducing the bargaining power with suppliers.

¹⁵⁴ Ibid., p.25.

¹⁵⁵ Ibid.

¹⁵⁶ Ibid.

¹⁵⁷ Ibid., p.23.

¹⁵⁸ Ibid., p. 25.

¹⁵⁹ N. Gregory Mankiw, Principles of Microeconomics, Third Ed. (South-Western/ Thomson, 2003), p. 290.

¹⁶⁰ Shafer, Winners and Losers, p.25.

¹⁶¹ Ibid.

Also “the lack of proprietary technology and of product differentiation limits switching costs, putting customers on top.”¹⁶²

All these forces work against the profitability of companies. Since collective responses and market control are out of the picture in competitive markets, firms must pursue individual *market-conforming strategies*.¹⁶³ That is, “they must *improve their ability to follow the market and adjust quickly to changes* in order to lose less than the competition in downturns and get more in upturns. Unable to shape their environment, firms must adapt themselves to its dictates better than their competitor do, or die.”¹⁶⁴ According to Shafer, the key areas that firms must especially concentrate on to improve their competitiveness, and thus profitability, are price, on-time delivery, and quality.¹⁶⁵

Shafer also points out a “marvelous irony”: He states that “however competitive low/low sectors are, the dominance of market-conforming strategies locates the variables critical for success within the reach of local actors and the state, and ensures that they can compete on an equal footing with any player in the market place.”¹⁶⁶ Thus, “the help firms demand, in keeping up with the requirements of competitiveness in such sectors, can be *economic* (market-conforming), and easily granted by the state.”¹⁶⁷ As an example of such demands we can mention the complaints/demands uttered by the private sector representatives (except for the mining sector) at a roundtable organized by the Guinean government in 2002. The memorandum lists the main obstacles hampering development of the private sector, as follows:

“Administrative harassment, difficult access to loans and foreign currency, taxation, the high cost of inputs, inadequate infrastructure and production equipment, banditry and insecurity, lack of training, lack of support for exports, and the high cost of transport.”¹⁶⁸

¹⁶² Ibid.

¹⁶³ Ibid.

¹⁶⁴ Ibid.

¹⁶⁵ Ibid.

¹⁶⁶ Ibid., p. 30.

¹⁶⁷ Ibid., p. 33.

¹⁶⁸ Guinean Chamber of Commerce, Industry and Handicrafts (CCIAG), Guinean National Chamber of Agriculture (CNAG), Guinean National Employers' Council (CNPGE), "Mémorandum sur les difficultés du secteur privé guinéen adressé au Gouvernement" (May 2000) in World Trade Organization, "Trade Policy Reviews," S153R1-4 (Republic of Guinea), p. 62.

b) High/High Sectors: Oligopolistic Market-Structure and Market-Resisting Relief Strategies

As noted above, *High/High sectors* are marked by high capital intensity, high economies of scale, and high production inflexibility and asset/factor inflexibility. According to Shafer, these attributes, taken together, give rise to oligopoly,¹⁶⁹ which is “a market structure in which only a few sellers offer similar or identical products.”¹⁷⁰ An example of oligopoly is the world market for crude oil: A few countries in the Middle East control much of the world’s oil reserves.¹⁷¹

Shafer states that oligopoly has two faces: one is limited competition and high barriers to entry; and the other is high barriers to exit. The attributes of sectors such as “high capital costs, big economies of scale, technical complexity, and the need for specialized infrastructure, management, and labor pose high barriers to entry.”¹⁷² The same factors, especially specialized infrastructure, management and labor, also create high barriers to exit. For Shafer says, “large sunk investments in sector-specific capital equipment, facilities, infrastructure, management, and skilled labor ... guarantee high barriers to exit.”¹⁷³ While high barriers to entry limit the number of competitors, and thus, insulate firms from profit-diminishing intense rivalry, high exit-barriers work in the opposite direction. Porter argues that “exit barriers ... keep companies competing even though they may be earning low or even negative returns on investment. Excess capacity remains functioning, and the profitability of the healthy companies suffers as the sick ones hang on.”¹⁷⁴ As a group therefore, oligopolists, “...must manage twin threats to profitability—new entrants and price competition...”¹⁷⁵ For this purpose, firms in an oligopolistic market can cooperate and act like a *monopolist*. They might reach an agreement over production and price (collusion), or might act in unison (cartel).¹⁷⁶

¹⁶⁹ Shafer, *Winners and Losers*, p.33.

¹⁷⁰ Mankiw, *Principles of Microeconomics*, p. 346.

¹⁷¹ Ibid.

¹⁷² Shafer, *Winners and Losers*, p.25.

¹⁷³ Ibid.

¹⁷⁴ Porter, “How Competitive Forces Shape Strategy,” p. 7.

¹⁷⁵ Shafer, *Winners and Losers*, p. 25.

¹⁷⁶ Mankiw, *Principles of Microeconomics*, pp. 347-8.

Firms in oligopolistic markets confront a tension between cooperation and self-interest. Although oligopolists would be better off cooperating and reaching the monopoly outcome, each pursues its own self-interest and thus, is tempted to raise production and capture a larger share of the market. As each of

Accordingly, any state policy against monopolistic ‘cooperation’ among oligopolists, that is, any policy that would induce firms in an oligopoly to compete rather than cooperate¹⁷⁷ (such as anti-trust laws) would be undesirable from the standpoint of oligopolists.

Besides price competition and the threat of new entrants, firms in high/high sectors, thus in oligopolistic markets, also face high risks due to *production inflexibility*. Production flexibility refers to ability to meet short-term market shifts by varying output levels or product mix. Shafer argues that the ability or inability to follow the market determines the intensity of sectoral actors’ interests and the nature of their demands.¹⁷⁸ In other words, firms’ (in)ability to respond to market downturns in the short-term shapes their interests. Firms with production inflexibility, he says, cannot take evasive action when demand flattens. That is, they cannot lower production, cut costs or lay off workers. On the contrary, “they must keep producing flat out even when glutted markets force prices below production costs. (...) So, they face disaster.”¹⁷⁹ Against the risks inherent in high fixed cost and unstable markets, thus, Shafer says, “they must pursue *political strategies aimed at obtaining state protection against the market and change*.”¹⁸⁰ In other words, because the state cannot help firms to compete, the help that firms in high/high sectors demand from the state is “*market-resisting relief*.”¹⁸¹ Market-resisting (MR) policies intend to protect firms against market fluctuations (risks) or to cover their losses. As Shafer nicely puts it, firms in high/high sectors are “obsessed with state policy.”¹⁸² “Even in good times,” he says, “they cannot control many variables affecting profitability, and thus devote their energy to controlling those within their reach—such as taxes, tariffs, and transportation and port fees.”¹⁸³ More specifically, for the mining

them tries to do this, total production rises, and the price falls. ... However, despite such incentives to defect, cartels sometimes manage to maintain collusive arrangements. The reason is that “the game” is played many times and as a result the threat of penalty appears. When they make their initial agreement to keep production low, they can also specify what happens if one party defects. They might agree, for example, that if one of them defects and increases production, the other will also do the same, and both of them will produce at the increased amount thereafter, which will in turn lower the price and thus their profit. As long as the players care enough about future profits, they may choose to forgo the one-time gain from defection and may be able to reach cooperation. (Ibid, pp.351, 361-2)

¹⁷⁷ Ibid., p.363.

¹⁷⁸ Shafer, *Winners and Losers*, p.33.

¹⁷⁹ Ibid.

¹⁸⁰ Ibid., p. 34. (Emphasis added)

¹⁸¹ Ibid., p. 33.

¹⁸² Ibid., p. 43-4.

¹⁸³ Ibid.

firms, for example, he states that “the mining firms cannot take evasive action; consequently, they demand cuts in taxes, tariffs, and transportation and utilities rates to survive, exaggerating the pain that price drops inflict on the state.”¹⁸⁴

*

So far I have explained how I identify the leading economic sector of a country and the approach I pursue to determine the interests of the leading sector. In that regard, I summarized the rationale of the sectoral approach: The way sectoral attributes (capital intensity, economies of scale, production and asset/factor flexibility) shape market structures (competitive or oligopolistic) and the required “risk management strategies”¹⁸⁵ (market-conforming or market resisting relief) so that firms overcome the challenges posed by the nature of sectors they are located in. The conclusions we draw from the preceding section is summarized in Table 5.

In the following section, I explain the measurement of sector specific policies; or to state it better, the economic policies we assume (based on sectoral approach) to be *prioritized* by Low/Low and High/High sectors, along with those policies that are of common interests to all capitalists.

¹⁸⁴ Ibid., p. 63

¹⁸⁵ Ibid., p. 31.

Table
5 – A summary of the arguments on sector-specific interest formation, and the items used to measure such interests

Sectoral Attributes	Market Structure	Characteristics	Risk and Opportunities for the Firms	Survival Strategies	Items used to Measure Sector-Specific Interests
<p>High/High Sectors</p> <p>(High Capital Intensity, Big Economies of Scale, Production Inflexibility, Asset Factor Inflexibility)</p>	<p>Oligopolistic</p> <p>(Small number of firms)</p>	<p>1) Limited Competition & High barriers to entry</p> <p>2) High barriers to Exit</p> <p>3) High fixed costs</p> <p>4) Inability to respond to market downturns</p>	<p>1) Limited number of competitors → Monopoly rents</p> <p>2) Operating w/ excess capacity</p> <p>3) Greater risk in times of market downturns</p>	<p>Monopoly Management</p> <p>Market Resisting Relief (State protection against the market and change.)</p>	<p>Tariff protection for the semi/final product(s) of the leading sector</p> <p>Tariff Exemptions for the inputs/supplies of the leading sector</p>
<p>Low/Low Sectors</p> <p>(Low Capital Intensity, Small Economies of Scale, Production Flexibility, Asset Factor Flexibility)</p>	<p>Competitive</p> <p>(High number of firms)</p>	<p>1) Low barriers to entry</p> <p>2) Low switching costs for the customers</p> <p>3) Ability to adopt to market fluctuations</p>	<p>1) No monopoly rents; firms are price-takers</p> <p>2) Greater power of customers ⇒ Low Profitability</p> <p>3) Lower level of risk in times of market downturns</p>	<p>Market Conforming Strategies</p> <p>(They must improve their ability to follow the market and adjust quickly to changes)</p>	<p>Ease of starting/ending and operating business (less time and red-type)</p> <p>Ease of exporting and importing (less time and red-type)</p> <p>Lower tax burden on profit (lower corporate income tax rate)</p> <p>Flexibility of hiring/firing & employing workers.</p>

C. Measurement of the Dependent Variable(s)

In the light of the two different definitions of business—as *capital*, and hence as a unified body with common interests, and also as a *sector* with divergent interests shaped by the attributes of the sectors they invest in—I constructed a set of policy categories to measure the degree of common and sector-specific policies. These policy categories are

- Common pro-Capitalist policies
- Market-Conforming Policies (Policies assumed to be prioritized by capital owners in LL sectors)
- Market-Resisting / Particularistic Policies (Policies assumed to be prioritized by capital owners in HH sectors)

In the following part of this section, under each policy heading, I present an overview of the items used to measure that variable, and also the measurement details of those items.

Common pro-Capitalist Policies

The first policy category is composed of a set of macroeconomic policies which, I assume, address common capitalist interests—regardless of sectoral differences. These policies guarantee a free and secure environment for investment and capital accumulation, and enable a stable and predictable pricing policy for the firms. The following five items, which form a single dimension on the factor analysis, are used to measure the extent of prevalence of pro-capitalist policies in a country:

- Protection of property rights and the rule of law
- Free banking system and ease of accessing competitive bank credits
- Foreign investment freedom and freedom to access to foreign exchange
- Lower inflation (domestic price stability)
- Exchange rate stability.

a. Protection of Property Rights and the Rule of Law

No capital accumulation is possible (or desirable) without a well functioning legal system which protects property rights, enforces contracts, and settles disputes in an impartial manner. Furthermore, in a competitive market structure, where many firms interact, the rule of law guarantees the peaceful functioning of the system.

To measure the extent to which the existing legal environment in a country encourages private investment, an item from the 2008 Index of Economic Freedom (the Heritage Foundation) on ‘Property Rights’ is used.¹⁸⁶ This item “scores the degree to which a country’s laws protect private property rights and the degree to which its government enforces those laws. It also assesses the likelihood that private property will be expropriated and analyzes the independence of the judiciary, the existence of corruption within the judiciary, and the ability of individuals and businesses to enforce contracts.”¹⁸⁷ On a zero-to-one scale, the less certain is the legal protection of property

¹⁸⁶The Heritage Foundation, Index of Economic Freedom (2008 edition) <http://www.heritage.org/Index/> (The data published in the 2008 edition of the IEF refers to 2006-7 period. Hence, the data were recoded accordingly.)

¹⁸⁷ The authors use the following criteria to grade each country on a zero-to-100 scale:

100—Private property is guaranteed by the government. The court system enforces contracts efficiently and quickly. The justice system punishes those who unlawfully confiscate private property. There is no corruption or expropriation.

90—Private property is guaranteed by the government. The court system enforces contracts efficiently. The justice system punishes those who unlawfully confiscate private property. Corruption is nearly nonexistent, and expropriation is highly unlikely.

80—Private property is guaranteed by the government. The court system enforces contracts efficiently but with some delays. Corruption is minimal, and expropriation is highly unlikely.

70—Private property is guaranteed by the government. The court system is subject to delays and is lax in enforcing contracts. Corruption is possible but rare, and expropriation is unlikely.

60—Enforcement of property rights is lax and subject to delays. Corruption is possible but rare, and the judiciary may be influenced by other branches of government. Expropriation is unlikely.

50—The court system is inefficient and subject to delays. Corruption may be present, and the judiciary may be influenced by other branches of government. Expropriation is possible but rare.

40—The court system is highly inefficient, and delays are so long that they deter the use of the court system. Corruption is present, and the judiciary is influenced by other branches of government. Expropriation is possible.

30—Property ownership is weakly protected. The court system is highly inefficient. Corruption is extensive, and the judiciary is strongly influenced by other branches of government. Expropriation is possible.

20—Private property is weakly protected. The court system is so inefficient and corrupt that outside settlement and arbitration is the norm. Property rights are difficult to enforce. Judicial corruption is extensive. Expropriation is common.

10—Private property is rarely protected, and almost all property belongs to the state. The country is in such chaos (for example, because of ongoing war) that protection of property is almost impossible to enforce. The judiciary so corrupt that property is not protected effectively. Expropriation is common.

and the greater are the chances of government expropriation of property, the lower is a country's score.¹⁸⁸

b. Free Banking System and Ease of Accessing Competitive Bank Credits

Banks provide an essential service for the development of private business; they lend money to start business or to finance expenses. Accessing credit is so vital for private business that “firms consistently rate access to credit as among the greatest barriers to their operation and growth.”¹⁸⁹ An efficient financial market system reduces reliance on internal funds and money from informal sources such as family and friends by connecting firms to a broad range of lenders and investors.¹⁹⁰ A major factor that precludes financial-market efficiency is direct control of banks by government. Not only does it impede access to competitive, hence cheaper, financing opportunities, but it also usually involves corruption.

0—Private property is outlawed, and all property belongs to the state. People do not have the right to sue others and do not have access to the courts. Corruption is endemic.

Sources: The authors used the following sources for information on property rights, in order of priority: Economist Intelligence Unit, Country Commerce, 2005–2007; U.S. Department of Commerce, Country Commercial Guide, 2005–2007; U.S. Department of State, Country Reports on Human Rights Practices, 2005–2007; and U.S. Department of State, Investment Climate Statements 2007.

William W. Beach and Tim Kane, “Methodology: Measuring the 10 Economic Freedoms” in The Heritage Foundation, Index of Economic Freedom (2008 edition), pp.51-2. <http://www.heritage.org/Index/>

¹⁸⁸ To convert the raw scores to a zero-to-one scale the following formula was used:
[1- ((V_{max} - V_i) / (V_{max} - V_{min}))]. V_{max} and V_{min} were set to 100 and 0, respectively.

There are also other indices which assess the extent of protection of property rights and the functioning of the legal framework especially regarding private business issues. Global Competitiveness Index refers to two survey questions in this respect:

- “Property rights, including over financial assets are poorly defined and not protected by law (= 1) or are clearly defined and well protected by law (= 7).”
- “The legal framework in your country for private businesses to settle disputes and challenge the legality of government actions and/or regulations is inefficient and subject to manipulation (= 1) or is efficient and follows a clear, neutral process (= 7).”

Because the Index has limited country and time coverage, I am unable to use it for the actual analysis. However, for cross-checking/assessing the reliability of the measure I use, I believe that it is worthwhile to see the correlation between the combination of these survey items and the IEF-Property Rights item. Thus, I convert the survey results to a zero-to-ten scale and combine them. The correlation between the survey questions and the IEF measure is very high (.77).

¹⁸⁹ International Finance Corporation (World Bank Group), Doing Business: Measuring Business Regulations, Report on Algeria, p.28, <http://www.doingbusiness.org/Downloads/>

¹⁹⁰ International Finance Corporation (World Bank Group), Enterprise Surveys, Country Profiles: Burundi (2006), p.6, <http://www.enterprisesurveys.org>

To measure the extent of *deregulation of the private banking system* I employ the ‘Financial Freedom’ component of the Index of Economic Freedom (the Heritage Foundation).¹⁹¹ This item scores “the extent of government regulation of financial services; the extent of state intervention in banks and other financial services; the difficulty of opening and operating financial services firms (for both domestic and foreign individuals); and government influence on the allocation of credit.”¹⁹² On a zero-to-one scale, one indicates negligible government influence and freedom to access competitive credits.¹⁹³

¹⁹¹ The Heritage Foundation, Index of Economic Freedom (2008 edition),

¹⁹² Beach and Kane, “Methodology: Measuring the 10 Economic Freedoms,” pp.49-50.

¹⁹³ The authors use the following criteria to grade each country on a zero-to-100 scale:

100—*Negligible government influence*: Independent central bank supervision and regulation of financial institutions are limited to enforcing contractual obligations and preventing fraud. Credit is allocated on market terms. The government does not own financial institutions. Financial institutions may engage in all types of financial services. Banks are free to issue competitive notes, extend credit and accept deposits, and conduct operations in foreign currencies. Foreign financial institutions operate freely and are treated the same as domestic institutions.

90—*Minimal government influence*. Same as above with the following exceptions: Independent central bank supervision and regulation of financial institutions are minimal but may extend beyond enforcing contractual obligations and preventing fraud.

80—*Nominal government influence*. Same as above with the following exceptions: Independent central bank supervision and regulation are straightforward and transparent but extend beyond enforcing contractual obligations and preventing fraud. Government ownership of financial institutions is a small share of overall sector assets. Financial institutions face almost no restrictions on their ability to offer financial services.

70—*Limited government influence*. Same as above with the following exceptions: Credit allocation is slightly influenced by the government, and private allocation of credit faces almost no restrictions. Foreign financial institutions are subject to few restrictions.

60—*Significant government influence*. Same as above with the following exceptions: The central bank is not fully independent, its supervision and regulation of financial institutions are somewhat burdensome, and its ability to enforce contracts and prevent fraud is insufficient. The government exercises active ownership and control of financial institutions with a significant share of overall sector assets. The ability of financial institutions to offer financial services is subject to some restrictions.

50—*Considerable government influence*. Same as above with the following exceptions: Credit allocation is significantly influenced by the government, and private allocation of credit faces significant barriers. The ability of financial institutions to offer financial services is subject to significant restrictions. Foreign financial institutions are subject to some restrictions.

40—*Strong government influence*. Same as above with the following exceptions: The central bank is subject to government influence, its supervision and regulation of financial institutions are heavy, and its ability to enforce contracts and prevent fraud is weak. The government exercises active ownership and control of financial institutions with a large minority share of overall sector assets.

30—*Extensive government influence*. Same as above with the following exceptions: Credit allocation is extensively influenced by the government. The government owns or controls a majority of financial institutions or is in a dominant position. Financial institutions are heavily restricted, and bank formation faces significant barriers. Foreign financial institutions are subject to significant restrictions.

20—*Heavy government influence*. Same as above with the following exceptions: The central bank is not independent, and its supervision and regulation of financial institutions are repressive. Foreign financial institutions are discouraged or highly constrained.

c. Investment Freedom and Access to Foreign Exchange

The ‘Investment Freedom’ item from the Index of Economic Freedom (the Heritage Institute) is used to measure the extent of restrictions on foreign direct investment and also on access to foreign exchange internally. Questions used to examine and rate countries include

“whether there is a foreign investment code that defines the country’s investment laws and procedures; whether the government encourages foreign investment through fair and equitable treatment of investors; whether there are restrictions on access to foreign exchange; whether foreign firms are treated the same as domestic firms under the law; whether the government imposes restrictions on payments, transfers, and capital transactions; and whether specific industries are closed to foreign investment.”¹⁹⁴

10—*Near repressive*. Same as above with the following exceptions: Credit allocation is controlled by the government. Bank formation is restricted. Foreign financial institutions are prohibited.

0—*Repressive*. Same as above with the following exceptions: Supervision and regulation are designed to prevent private financial institutions. Private financial institutions are prohibited.

Sources. Unless otherwise noted, the authors used the following sources for data on banking and finance, in order of priority: The Financial Sector Reform and Strengthening (FIRST) Initiative jointly undertaken by the Department for International Development of the United Kingdom (DFID), the International Development Agency of Canada, the State Secretariat for Economic Affairs of Switzerland, the Ministry of Foreign Affairs of the Netherlands, the International Bank for Reconstruction and Development (IBRD or World Bank), and the International Monetary Fund; Economist Intelligence Unit, Country Commerce, Country Profile, and Country Report, 2005 and 2006; official government publications of each country; U.S. Department of Commerce, Country Commercial Guide, 2005 and 2006; Office of the U.S. Trade Representative, 2006 National Trade Estimate Report on Foreign Trade Barriers; and World Bank, World Development Indicators 2006. (Ibid., pp.49-51.)

For Angola and Burundi, for which data start in 2005, 2005 values were imputed for the period of 2001-2004.

¹⁹⁴ The authors use the following criteria to grade each country on a zero-to-100 scale:

100—Foreign investment (FI) is encouraged and treated the same as domestic investment, with a simple and transparent FI code and a professional, efficient bureaucracy. There are no restrictions in sectors related to national security or real estate. No expropriation is allowed. Both residents and non-residents have access to foreign exchange and may conduct international payments. Transfers or capital transactions face no restrictions.

90—Same as above with the following exceptions: There are very few restrictions on FI in sectors related to national security. There are legal guarantees against expropriation of property. Transfers or capital transactions are subject to virtually no restrictions.

80—Same as above with the following exceptions: A transparent FI code is subject to minimal bureaucratic or other informal impediments. There are very few restrictions on foreign exchange. Transfers or capital transactions are subject to very few restrictions.

70—Same as above with the following exceptions: There are some restrictions on FI through general rules or in a few sectors such as utilities, natural resources, or national security. There are a few restrictions on access to foreign exchange or the ability to conduct international payments.

60—Same as above with the following exceptions: FI is generally encouraged but may not receive equal treatment in a few sectors. The FI code is somewhat non-transparent, and/or FI faces bureaucratic impediments. Expropriation of property is highly unlikely, and the government guarantees compensation. Transfers or capital transactions are subject to some restrictions.

50—Same as above with the following exceptions: Foreign investors face restrictions on their ability to purchase real estate. All investors face bureaucratic impediments and corruption. Residents and/or non-

d. Domestic Price Stability (Lower inflation and price controls)

Price stability (lower and less volatile inflation) is largely controlled by a country's monetary policy. A monetary policy that endeavors to maintain stability provides investors and producers a less risky business environment where people can rely on market prices for the foreseeable future. Under conditions of stability, investment, savings, and other longer-term plans are easier to make, and individuals enjoy greater economic freedom. Inflation not only confiscates wealth like an invisible tax, but also distorts pricing, misallocates resources, and raises the cost of doing business.¹⁹⁵

To measure the extent to which a country's monetary policy provides price stability, I employ the 'Monetary Freedom' component of the Index of Economic Freedom. Monetary freedom combines a measure of price stability with an assessment of price controls.

The score for the monetary freedom factor is based on two factors:

- The weighted average inflation rate for the most recent three years and
- Price controls.¹⁹⁶

residents face some restrictions on access to foreign exchange or their ability to conduct international payments. Transfers or capital transactions are subject to obvious restrictions.

40—Same as above with the following exceptions: FI is somewhat restricted, the FI code is somewhat discriminatory, and FI is restricted outright in some sectors. Expropriation of property is rare. Transfers and capital transactions are subject to significant restrictions.

30—Same as above with the following exceptions: FI is significantly restricted, the FI code is discriminatory, and foreign investors may purchase real estate only in limited circumstances. All investors face significant bureaucratic impediments and corruption. Residents and non-residents face strict restrictions on access to foreign exchange, and the government imposes many controls on international payments.

20—Same as above with the following exceptions: FI is discouraged and prohibited in many sectors, the FI code is discriminatory, and the approval process is opaque and subject to widespread corruption. Few sectors are open to FI. Expropriation of property is common. The government imposes extensive controls on international payments, transfers, and capital transactions.

10—Same as above with the following exceptions: Foreign investors may not purchase real estate. The government controls or prohibits most international payments, transfers, and capital transactions.

0—Same as above with the following exceptions: FI is prohibited, foreigners may not own real estate, and the government prohibits international payments, transfers, and capital transactions.

Sources: Unless otherwise noted, the authors used the following sources for data on capital flows and foreign investment, in order of priority: International Monetary Fund, Annual Report on Exchange Arrangements and Exchange Restrictions, 2006 and 2007; official government publications of each country; Economist Intelligence Unit, Country Commerce, Country Profile, and Country Report, 2005–2007; Office of the U.S. Trade Representative, 2007 National Trade Estimate Report on Foreign Trade Barriers; and U.S. Department of Commerce, Country Commercial Guide, 2005–2007. (Ibid., pp.48-49.)

¹⁹⁵ Ibid., p.46.

¹⁹⁶ IEF uses the following methodology to obtain a measure of Price stability and extent of price controls:

The component was recoded on a zero-to-one scale. Countries with higher inflation rate and price controls, thus receive lower ratings.

e. Nominal Exchange Rate Stability

Analyses of the political economy of exchange rate policy posit that firms and individuals in different sectors of the economy have distinct policy attitudes toward the *stability* and the *level* the exchange rate.¹⁹⁷ Broz et al. argue that “capturing an industry’s (or an entire nation’s) sensitivity to exchange rate changes involves measuring the extent to which it sells products to foreign markets, uses foreign-made inputs, and, more indirectly, competes with foreign manufacturers on the basis of price.”¹⁹⁸ They find systematic patterns linking sector of economic activity to exchange rate policy positions. With respect to the *nominal exchange rate regime*, they note that firms with substantial cross-border exposure are particularly sensitive to currency volatility, and thus, are likely to be more satisfied with a *fixed exchange rate*. In an open economy, they state,

“the main advantage of a fixed-rate regime is to lower exchange rate risk and transactions costs that can impede international trade and investment. Volatile

The weighted average inflation rate for the most recent three years serves as the primary input into an equation that generates the base score for monetary freedom. The extent of price controls is then assessed as a penalty of up to 20 points subtracted from the base score. The two equations used to convert inflation rates into the monetary freedom score are:

$$\text{Weighted Avg. Inflation}_i = \theta_1 \times \text{Inflation}_{it} + \theta_2 \times \text{Inflation}_{it-1} + \theta_3 \times \text{Inflation}_{it-2}$$

$$\text{Monetary Freedom}_i = 100 - \alpha \times \sqrt{\text{Weighted Avg. Inflation}_i} - \text{PC penalty}_i$$

where θ_1 through θ_3 (thetas 1–3) represent three numbers that sum to 1 and are exponentially smaller in sequence (in this case, values of 0.665, 0.245, and 0.090, respectively); Inflation_{it} is the absolute value of the annual inflation rate in country i during year t as measured by the consumer price index; α represents a coefficient that stabilizes the variance of scores; and the price control (PC) penalty is an assigned value of 0–20 points based on the extent of price controls. The convex (square root) functional form was chosen to create separation among countries with low inflation rates. A concave functional form would essentially treat all hyperinflations as equally bad, whether they were 100 percent price increases annually or 100,000 percent, whereas the square root provides much more gradation. The α coefficient is set to equal 6.333, which converts a 10 percent inflation rate into a freedom score of 80.0 and a 2 percent inflation rate into a score of 91.0.”

Sources: International Monetary Fund, International Financial Statistics Online; International Monetary Fund, 2008 World Economic Outlook; and Economist Intelligence Unit, Country Report, 1999–2008, and Country Profile, 2004–2008. (Ibid. pp.47-48.)

¹⁹⁷ J Lawrence Broz, Jaffrey Frieden, and Stephen Weymouth, Exchange Rate Policy Attitudes: Direct Evidence from Survey Data, IMF Staff Papers Vol. 55, No. 3 (2008), p. 419.

¹⁹⁸ Ibid.

exchange rates create uncertainty about international transactions, adding a risk premium to the costs of goods and assets traded across borders.”¹⁹⁹

And in their empirical analysis, Broz et al. conclude that “in countries with a floating currency, manufacturers are more likely to report that the exchange rate causes problems for their business than are producers of nontraded goods and services, who typically do not require foreign exchange.”²⁰⁰

Because in this study the leading economic sector of a country is defined as the largest contributor to export earnings, I assume that investors in those sectors would prefer greater currency stability. To assess the extent of *currency stability*, I employ one of the widely used classifications of *de facto* (or natural) exchange rate regimes, that of Reinhart and Rogoff (R&R). They assess the probability of exchange rate changes staying within a band (a one, two, and five percent-wide band) over a rolling five-year period.²⁰¹ Some countries are partly or totally missing in the R&R dataset. If the missing years are between 2000 and 2004, the values were estimated based on another widely used classification of *de facto* exchange rate regime—by Levy-Yeyati and Sturzenegger.²⁰² If a country is totally missing on the R&R dataset, then the IMF’s *de*

¹⁹⁹ Ibid., p. 420

²⁰⁰ Broz et al. test the expectation about the exchange rate regime by using the World Bank’s World Business Environment Survey (WBES). As they explain it, “the survey tells us only the extent to which corporate respondents regarded the exchange rate as “a problem,” which in itself is of limited use. However, we also know the currency regime prevailing in the country at the time of the survey, the level of the real exchange rate, and many things about the firms in question. By relating the prevailing exchange rate policy and the firm’s economic characteristics to how “problematic” the currency is perceived to be, we can draw inferences about the sources of attitudes toward the exchange rate.” Ibid. pp. 418-9.

²⁰¹ Carmen M. Reinhart, Kenneth S. Rogoff, “The Modern History of Exchange Rate Arrangements: A Reinterpretation,” *Quarterly Journal of Economics*, Vol. 119, No. 1 (February 2004), pp. 1-48.

Reinhart and Rogoff’s methodology differ from the previous classification methodologies in that while all the prior approaches to exchange rate regime classification, whether or not they accept the country’s declared regime, are solely based on official exchange rates, they also take into consideration parallel (black) market rates. More specifically, in cases where dual or multiple rates are present or parallel markets are active, they focus on the market-determined rates instead of the official exchange rates in determining whether a regime continues from one year to the next.

The following databases are accessible at <http://terpconnect.umd.edu/~creinhar/Papers.html>: Annual coarse classification (1946-2007), Annual fine classification (1946-2007), IMF official classification (1970-2007).

²⁰² Eduardo Levy-Yeyati and Federico Sturzenegger, *De Facto Classification of Exchange Rate Regimes* (December 2005), <http://profesores.utdt.edu/~ely/papers.html>.

Levy-Yeyati and Sturzenegger’s dataset ends in 2004. The methodology used is discussed in detail in the following two documents:

Levy-Yeyati and Sturzenegger, “A *de facto* Classification of Exchange Rate Regimes: A Methodological Note,” *American Economic Review*, Vol. 93, No. 4 (September 2003).

jure exchange rate classification was used.²⁰³ The correlation between the R&R and the IMF *de jure* classification is .59.²⁰⁴ On a zero-to-one scale, high values represent greater exchange rate regime stability.²⁰⁵

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The five items explained above form a single dimension on the factor analysis. The Cronbach's Alpha reliability score also indicates that they can be combined to construct a new variable ($\alpha = .70$). Inter-item correlations and the rotated factor analysis results are presented in Table 6 and 7. These items were combined by simple averaging. On a zero to one scale higher values indicate higher degrees of pro-Capitalist policies. Figure 2 displays the distribution of the variable measuring the level of 'Common pro-Capitalist Policies'

Levy-Yeyati and Sturzenegger, "Classifying Exchange Rate Regimes: Deeds vs. Words," European Economic Review, Volume 49, Issue 6 (August 2005) Pages 1603-1635.

²⁰³ Available at <http://terpconnect.umd.edu/~creinhar/Papers.html>.

²⁰⁴ The countries totally or partly missing on R&R dataset are Angola (2001), Cambodia (2001), Iran (2002-2007), Oman (2002-2007), Rwanda (2001-3), Uzbekistan (no data), Yemen (no data), Zimbabwe (2002-7).

²⁰⁵ Classification used in the R&R and the IMF datasets is as follows:

- 1) No separate legal tender, Pre announced peg or currency board arrangement, Pre announced horizontal band that is narrower than or equal to +/-2%, De facto peg
- 2) Pre announced crawling peg, Pre announced crawling band that is narrower than or equal to +/-2%, De facto crawling peg, De facto crawling band that is narrower than or equal to +/-2%
- 3) Pre announced crawling band that is wider than or equal to +/-2%, De facto crawling band that is narrower than or equal to +/-5%, Moving band that is narrower than or equal to +/-2% (i.e., allows for both appreciation and depreciation over time, Managed floating
- 4) Freely floating
- 5) Freely falling (For situations, almost invariably due to high inflation, in which there are mega-depreciations in the exchange rate on a routine sustained basis, they argue that it is inappropriate and misleading to lump these cases in with other floating rate regimes – which is mostly what all previous classifications (IMF or otherwise) done. Hence, they label those episodes as *freely falling*.)
- 6) Dual market in which parallel market data is missing.

Reinhart and Rogoff, "The Modern History of Exchange Rate Arrangements: A Reinterpretation," Appendix I, pp. 30, 37.

To reverse the order and to convert the original fine classification to zero-to-ten scale the following formula was used: $[(V_{\max} - V_i) / (V_{\max} - V_{\min})]$. The values for V_{\max} and V_{\min} were set at 5 and 1, respectively. Items #6 (parallel market data is missing data) was recoded as missing.

Table 6 - The correlations between the items used to measure the Common pro-Capitalist Policies

	Property Rights & Rule of Law	Free Banking System & Access to Competitive Credits	Foreign Investment & Foreign Exchange Access Freedom	Domestic Price Stability	Exchange Rate Stability
Property Rights & Rule of Law					
Free Banking System & Access to Competitive Credits	0.37***				
Foreign Investment & Foreign Exchange Access Freedom	0.41***	0.52***			
Domestic Price Stability	0.36***	0.37***	0.45***		
Exchange Rate Stability	0.19***	0.25***	0.13*	0.50***	

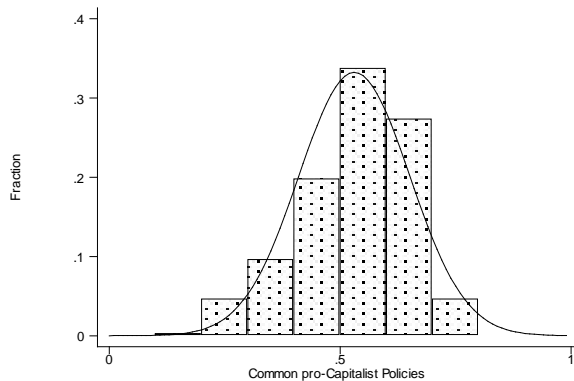
*** Statistically significant at .00 level of significance.

* Statistically significant at .05 level of significance.

Table 7 - Rotated factor analysis (varimax rotation) results of the items used to measure the Common pro-Capitalist Policies

Variable	Rotated Factor Loadings	Uniqueness
Property Rights & Rule of Law	0.66	0.56
Free Banking System	0.72	0.48
Foreign Investment & Foreign Exchange Access Freedom	0.74	0.45
Domestic Price Stability	0.80	0.37
Exchange Rate Stability	0.57	0.68
Eigenvalue		2.47
Proportion		0.49

Figure 2 – Distribution of the variable measuring the level of ‘Common pro-Capitalist Policies’



Market-Conforming (pro-LL sector) Policies

In the Section B of the present Chapter, I explained how the sectoral approach endogenizes the nature and the intensity of the interests to the certain sectoral characteristics (a summary of the arguments is presented in Table 5). In the light of these arguments we assume that investors in LL sectors (e.g. textile & clothing, footwear and leather products, food processing (agro-industry), peasant cash crop agriculture, etc.) *prioritize* ‘market conforming’ economic policies, which would enable them to compete in the international market on an equal footing and also enhance their adaptability to market fluctuations. In this study, I use the following indicators, which form a single dimension on the factor analysis, to measure the degree of market-conforming or pro-LL sector policies.

- Ease of starting/ending and operating business (less time and red-tape)
- Ease of exporting and importing (less time and red-tape)
- Lower tax burden on profit (lower corporate income tax rate-CTR)
- Flexibility of hiring/firing & employing workers.

a. Ease of Starting, Operating and Ending Business (less time & procedures)

Economies differ greatly in how they regulate the starting and closing of business. In some the process is straightforward and affordable. In others the procedures are so burdensome that entrepreneurs may have to bribe officials to speed the process—or may decide to run their business informally.²⁰⁶

To assess the extent of ease of starting, operating and closing business (a standard small to medium-size company) in a country, I use the ‘Business Freedom’ component of the Index of Economic Freedom, which is based on the Doing Business Dataset. The ‘Business Freedom’ component covers the following 10 indicators:

- Starting a business—procedures (number);
- Starting a business—time (days);
- Starting a business—cost (% of income per capita);
- Starting a business—minimum capital (% of income per capita);

²⁰⁶ Doing Business 2007, Report on Algeria, p.8

- Obtaining a license—procedures (number);
- Obtaining a license—time (days);
- Obtaining a license—cost (% of income per capita);
- Closing a business—time (years)
- Closing a business—cost (% of estate); and
- Closing a business—recovery rate (cents on the dollar).²⁰⁷

The 0-100 scale was converted to a zero-to-one scale, on which higher values indicate ease of starting, operating and closing business in a country.

b. Ease of Exporting and Importing (less time & procedures)

Firms operating in countries with efficient customs, good transport networks and fewer document requirements for exports are likely to be more competitive in the international market due to less time and money costs. While export taxes or transport fees directly affect the price of the traded goods, delay in clearing customs may also incur costs for the firms by negatively affecting the sales or damaging the merchandise.²⁰⁸ According to a recent study “the cost of import delays exceeds tariff costs in every region, while the cost of export delays exceeds tariff costs in every region but East Asia and Western Europe.”²⁰⁹ The same study also notes that in Africa the cost of delays is four times the tariff payments that African exporters face.²¹⁰ The relationship between time to export and volume of exports is also striking: “Each additional day that an export product is delayed reduces exports by more than 1%. For time-sensitive agricultural products, reducing delays by 10% increases exports by more than 30%.”²¹¹ As noted in the Doing Business 2008 Report, just a few days less in exporting formalities can bring one into the

²⁰⁷ Beach and Kane, “Methodology: Measuring the 10 Economic Freedoms” in Index of Economic Freedom, pp.441-2. (In Doing Business Dataset, the data for ‘Starting and Closing business’ dates back to 2002, and for ‘Obtaining a License’ only to 2004. For the missing years, IEF uses a subjective assessment with a score of 1 to 5—later converted to 0-100 scale.)

²⁰⁸ Doing Business 2007, Report on Algeria, p.40.

²⁰⁹ David Hummels, “Calculating Tariff Equivalents for Time in Trade.” Purdue University, Department of Economics, West Lafayette, Ind. (2007) cited in the World Bank and the International Finance Corporation, Doing Business 2008: Comparing Regulations in 178 Countries, (Washington: Office of the Publisher, The World Bank, 2008), p.47.

²¹⁰ Ibid.

²¹¹ Simeon Djankov, Caroline Freund and Cong Pham, “Trading on Time.” Policy Research Working Paper 3909 (Washington, D.C: World Bank, 2007) cited in Ibid., pp. 44-45.

market.²¹² Further, a need to file many documents is associated with more corruption in international trade.²¹³

Against this background, the following items from the Doing Business Dataset are used to measure the extent of ease of trading across borders:

- Documents for export and import (number)
- Time for export and import (days).²¹⁴

The correlation between the two items is .58. The time coverage of the Doing Business dataset starts in 2004 for these items. Because the number of documents and the days to export seem pretty stable across time in each country, for the years 2001-2003 the values of the earliest available year (2004) were imputed. On a zero-to-one scale higher values indicate less burdensome export and import processes.²¹⁵

c. Flexibility and ease of hiring, employing, and firing workers

Labor market deregulation or flexibility provides businessmen with greater control of hiring and firing practices and also of wage determination. Especially for LL sectors, which are mostly labor-intensive, such flexibility is of crucial importance for an easy adaptation to market fluctuations—by increasing working hours or laying off workers, for example.

One item from the Doing Business dataset is employed to measure the degree of labor market deregulation/flexibility: '*Rigidity of Employment Index*'. The rigidity of employment *index* is the average of three sub-indices: *difficulty of hiring*, *rigidity of hours* and *difficulty of firing* indices.²¹⁶ The order of the index was reversed so that on a

²¹² Ibid., p.45

²¹³ Doing Business 2007, Country Report on Algeria, p.40.

²¹⁴ Documents for export and import: Documents recorded include port filing documents, customs declaration and clearance documents, and official documents exchanged between the concerned parties. Time to export and import: Time is recorded in calendar days, from start to finish of each procedure.

²¹⁵ To reverse the order and to convert the raw data to zero-to-one scale the following formula was used: $[(V_{max} - V_i) / (V_{max} - V_{min})]$. The values for V_{max} and V_{min} were set at 17 documents and 92 days, and 4 documents and 4 days (the average sample-maximum and minimum values for exports and imports together).

²¹⁶ Doing Business 2008, Methodology-Employing Workers (online version), <http://www.doingbusiness.org/MethodologySurveys/EmployingWorkers.aspx>

zero-to-one scale higher values indicate ease of employing workers—i.e. flexibility of contracts, less restriction on weekend and night work and annual leave, and also less regulation for dismissal of workers.

d. Lower Tax Burden on Profit

Because tax rates directly affect the profit collectable, they are of major concern for capital owners and investors. I use ‘*Highest Marginal Corporate Tax Rate*’ (CTR) to measure the extent of tax burden on companies. Although there are other forms of taxes levied on businesses, CTR is the most obvious (and an easily accessible) indicator of the tax burden on companies.²¹⁷ The data were compiled from various data sources.²¹⁸ On a

All the sub-indices have several components:

The difficulty of hiring index measures (i) whether fixed term contracts are prohibited for permanent tasks; (ii) the maximum cumulative duration of fixed term contracts; and (iii) the ratio of the minimum wage for a trainee or first time employee to the average value added per worker.

The rigidity of hours index has 5 components: (i) whether night work is unrestricted; (ii) whether weekend work is unrestricted; (iii) whether the work week can consist of 5.5 days; (iv) whether the workweek can extend to 50 hours or more (including overtime) for 2 months a year to respond to a seasonal increase in production; and (v) whether paid annual vacation is 21 working days or fewer.

The difficulty of firing index has 8 components: (i) whether redundancy is disallowed as a basis for terminating workers; (ii) whether the employer needs to notify a third party (such as a government agency) to terminate 1 redundant worker; (iii) whether the employer needs to notify a third party to terminate a group of 25 redundant workers; (iv) whether the employer needs approval from a third party to terminate 1 redundant worker; (v) whether the employer needs approval from a third party to terminate a group of 25 redundant workers; (vi) whether the law requires the employer to reassign or retrain a worker before making the worker redundant; (vii) whether priority rules apply for redundancies; and (viii) whether priority rules apply for reemployment.

The original scale is zero-to-100, with higher values indicating more rigid regulation. To better reflect flexibility or deregulation of labor market, the order was reversed along with reducing the scale to zero-to-one by using the following formula: $[(V_{max} - V_i) / (V_{max} - V_{min})]$. V_{max} and V_{min} were set to 100 and 0, respectively. The time coverage starts from 2002. For the missing year 2001, the 2002 scores were assigned.

²¹⁷ Among other taxes levied on companies are social contributions, labor taxes, property taxes, etc. The Doing Business Data set includes a more comprehensive measure of the extent of tax burden on the private sector: *total tax rate as percent of profit*. Total tax rate (TTR) measures the amount of all taxes and mandatory contributions borne by the business in the second year of operation, expressed as a percentage of commercial profits. The taxes included can be divided into 5 categories: profit or corporate income tax, social contributions and labor taxes paid by the employer, property taxes, turnover taxes and other small taxes. In spite of the comprehensiveness of TTR indicator, the limited time coverage of the data (starts from 2004), precludes us from using it in this research.

²¹⁸ Word Development Indicators (The World Bank), Doing Business Database (The World Bank and The International Finance Corporation), Index of Economic Freedom (The Heritage Institute), Paying Taxes Reports (The World Bank and PricewaterhouseCoopers), Worldwide Corporate Tax Guide (issues 2002 and 2005, Ernst & Young Global Limited), KPMG’s Corporate Tax Rate Survey (issues 2006 and

zero-to-one scale, one indicates minimum highest marginal corporate tax rate found in the sample.²¹⁹

*

The four items explained above form a single dimension on the factor analysis. The Cronbach's Alpha reliability score also indicates that they can be combined to construct a new variable ($\alpha = .69$). Inter-item correlations and the rotated factor analysis results are presented in Table 8 and 9. These items were combined by simple averaging. On a zero-to-one scale higher values indicate higher degrees of Market-Conforming (i.e. pro-LL sector) policies. Figure 3 displays the distribution of the variable measuring the level of Market-Conforming policies.

Table 8 - The correlations between the items used to measure the Market-Conforming Policies (pro-LL sector policies)

	Ease of Starting/Ending & Operating Business	Ease of Exporting & Importing	Lower Tax Burden
Ease of Exporting & Importing	0.34***		
Lower Tax Burden	0.42***	0.29***	
Flexibility of Hiring/Firing & Employing Workers	0.26***	0.15**	0.48***

*** Statistically significant at .00 level of significance.

** Statistically significant at .01 level of significance.

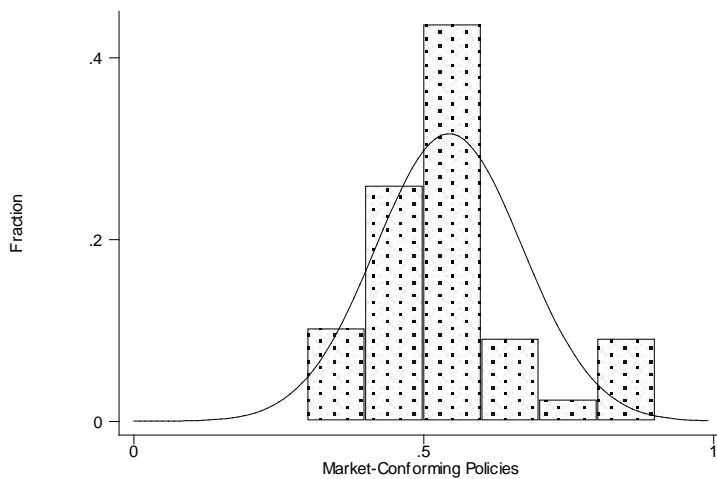
2008, KPMG's International Tax Center), PKF's Worldwide Tax Guide 2007 (PKF The International Taxation Committee).

²¹⁹ To reverse the order and to convert the raw corporate tax rates to zero-to-one scale the following formula was used: $[(V_{max} - V_i) / (V_{max} - V_{min})]$. V_{max} and V_{min} were set to 54% and zero (sample max and min values), respectively.

Table 9 - Rotated factor analysis (varimax rotation) results of the items used to measure the Market-Conforming Policies (pro-LL sector policies)

Variable	Rotated Factor Loadings	Uniqueness
Starting/ Ending & Operating Business	0.73	0.47
Ease of Exporting & Importing	0.59	0.66
Lower Tax Burden	0.81	0.34
Flexibility of Hiring/Firing & Employing Workers	0.67	0.55
Eigenvalue		1.98
Proportion		0.50

Figure 3 – Distribution of the variable measuring the level of ‘Common pro-Capitalist Policies’ Market-conforming (pro-LL sector) Policies’



Market-Resisting / Particularistic (pro-HH sector) Policies

It is important to underline that specifying the above listed policies as LL-sector interests, does *not mean that capitalists in other sectors (i.e. HH sectors) would not want such policies be in effect.* They may, as well; yet because firms in high/high sectors, which are marked by production and asset/factor inflexibility and high capital intensity and economies of scale, cannot adapt to market changes easily by adjusting production levels

or the number of employees, I assume that they are more preoccupied with policies that would provide them protection against market fluctuations and/or relief from such changes—such as protection, exemption from tariffs or taxes, or subsidies. Further, these sectors display oligopolistic market structures, and hence, are concerned with the threat of new entrants who might interfere with their profitability.

Due to difficulty of collecting data on sector specific and/or particularistic policies in all non-democratic countries covered by the sample, I employ only two indicators as proxies for *particularistic* (i.e. targeting only the leading sector) market-resisting policies. These policies are

- Tariff protection for the semi/final product(s) of the leading sector
- Tariff Exemptions for the inputs/supplies of the leading sector.²²⁰

It has to be underlined, again, that, I do *not* claim that capitalists in LL sectors would not want protection or import tariff concessions. But for the businesses operating in highly capital intensive (i.e. HH sectors), it is crucial, for example, to secure tariff exemptions for their highly expensive machinery and equipment. Also due to inflexibility of production in HH sectors, securing a domestic market protected by high tariffs (hence insulated from competition) could be a haven especially in times of international-market downturns.

²²⁰ These two particularistic policies do not correlate with each other, indicating that the causal mechanism behind them might be different.

Another good indicator for market-resisting policies could be ‘tax exemptions’ granted for the leading sector firms. However, due to the special character of the fiscal regimes applied in the extractive sectors* (hydrocarbons and mining), neither the extent of tax burden, nor special incentives guaranteed to companies in those sectors can be easily assessed. One of the publicly available measures of the tax burden in extractive sectors, ‘Government Take’ data are not available for all the countries covered by the present study. Further, as pointed out in a briefing note by African Development Bank Group, on revenue and tax levels in Africa, “no current literature convincingly has captured (by actual empirical evidence) exactly what level of taxation African governments (the government take) are in fact able to achieve. A challenge is that the vast majority of contracts between governments and the extractive industry are not available for public scrutinization. At present, evidence is mainly “anecdotal” in nature, in the sense that it is based on statements by government officials or others, but not based on statistical data or other verifiable documentation.” (African Development Bank Group, Development Research Department, “Briefing Note on Revenue and Tax Levels, Mineral Taxation in Africa, March 2008, p.2.)

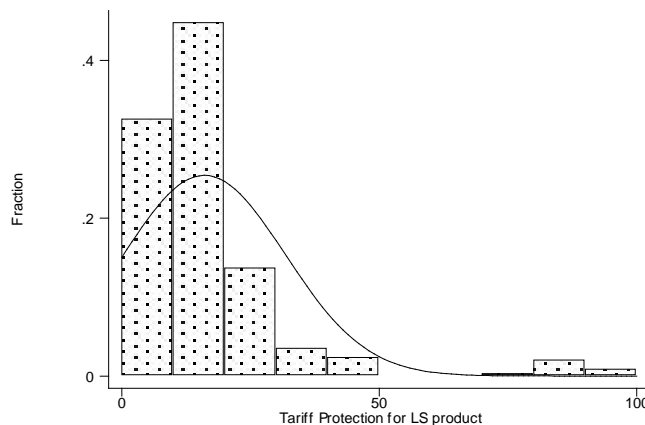
*The special character of the tax regimes applied in the extractive sectors is explained in Appendix III.

Tariff Protection for the Semi or Final Product of the Leading Sector

Protection indicates insulation of a particular sector (or certain products) from international competitors by high import tariff walls set for the products or substitute of products of that sector. In that sense, it is a very specific form of market-resisting policies.

To measure the degree of protection, the Most Favored Nation (MFN) simple average applied tariff rate²²¹ for the product / product group of the leading sector is used. Data were gathered from various sources.²²² It turned out to be almost impossible to gather complete tariff data for the whole period of the study. Thus, some years had to be imputed based on the last available year's tariff rate.²²³ On a zero-to-hundred scale higher values indicate higher protection for the leading sector's final products. Figure 4 displays the distribution of this variable.

Figure 4 – Distribution of the variable measuring the level of 'Tariff Protection for the Semi or Final Product of the Leading Sector'



²²¹ MFN Applied Tariff Rate (Simple Average): This indicator is calculated as the simple average of the MFN applied tariff rates (includes ad valorem and ad valorem equivalents of specific tariffs) that a country applies to its trading partners. The World Bank, World Trade Indicators 2008 (online version)

²²² The World Bank-World Trade Indicators, UNCTAD Handbook of Statistics, WTO Comprehensive Tariff Data (WTO data includes MFN Historical Applied Tariff documents and Tariff Profiles for individual countries. Tariff profiles are available only for 2006 and 2007 in most cases. For the earlier years, WTO's MFN Historical Applied Tariff documents were analyzed individually for each country.)

²²³ The method of using the last available year's tariff rate is also employed in the Economic Freedom of the World (Frazer Institute) and Index of Economic Freedom (Heritage Institute) Datasets.

Import Tariff Exemptions for the Inputs and Supplies of the Leading Sector

In developing countries, firms in HH sectors are in need of importing high cost machinery and equipment especially during the initial phases of their business. The costs, and hence the import taxes on these supplies are so high that, as Sunley et al. state (specifically for the hydrocarbons sector) “if there were no special treatment for import duties, these would be an attractive way for the government to secure an up-front revenue stream.”²²⁴ Thus, due to high start-up costs, import tariff exemptions are highly attractive to investors. As a result, especially in the HH sectors, in which production inflexibility precludes cost-reducing adjustments, such as lowering the production levels or laying off workers, tariff policy is very likely to be a prominent area of lobbying.

To determine whether the governments respond to tariff exemption/reduction demands of such sectors I rely on qualitative data on the tax system. In the Algerian tax regime, for example, it is clearly indicated that “investment goods and products directly used in hydrocarbon exploration and production”²²⁵ are exempt from import tax. Similarly, in Angola’s tax system it reads that “purchases of oil companies” are exempt from tariffs.²²⁶ Thus, relying mostly on the World Trade Organization’s ‘Trade Policy Review-Secretariat Reports’ and the IMF’s ‘Article IV Staff Reports’ and ‘Statistical Appendices’, I examined the extent of import tariff exemptions granted for the leading sector (or other sectors) in each country. The coding of the variable is as follows:

- (1) Tariff concessions for qualifying firms ONLY in the leading sector (comprises all or selective raw materials and machinery & equipment)
- (.7) Tariff concessions for qualifying firms mainly in the leading sector AND in a few OTHER sectors (comprises all or selective raw materials and machinery & equipment)
- (.5) Tariff concessions (in general) for raw materials/machinery & equipment for all qualifying firms in ALL sectors
- (.3) Tariff exemption for SELECTIVE projects, investments, goods, geographical location (free zones or goods originating from a specific location), etc.
- (0) Tariff exemptions for sectors OTHER than the leading sector OR NO concession

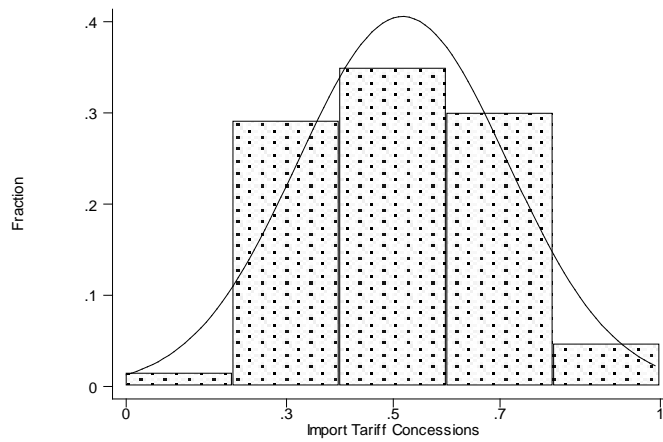
²²⁴ Emil M. Sunley, Thomas Baunsgaard and Dominique Simard, “Revenue from the Oil and Gas Sector: Issues and Country Experience,” Background Paper prepared for the IMF conference on fiscal policy formulation and implementation in oil producing countries (June 5-6, 2002), pp. 10-11.

²²⁵ IMF Country Report No. 05/51, p. 47, Report No. 06/102, p. 46.

²²⁶ IMF Country Report No. 06/120, p.46.

On zero-to-one scale, thus, higher values indicate more favorable (particularistic) treatment of the leading sector with respect to import tariff policy. Figure 5 displays the distribution of this variable.

Figure 5 – Distribution of the Variable Measuring the level of ‘Tariff Exemptions granted for the Inputs and Supplies of the Leading Sector



THE INDEPENDENT VARIABLES

Table 10 presents the list of the independent variables used to test the main and alternative hypotheses outlined at the end of Chapter Two. The details of the measurement are explained in the following part of this section.

Table 10 - The list of the independent variables used to test the main and alternative hypotheses

Responsiveness to Common pro-Capitalist or Sector-Specific Interests due to ...	The Independent Variables*
‘Credible Exit-Threat’ (Indirect Accountability)	FINDEP – Financial Dependence of the Government on Tax Revenue (Tax Revenue / Total Government Revenue) PRVSECT – Strength and Independence of the Private Sector (Private Gross Fixed Capital Formation (GFCF) / Total GFCF & Subsidies (% GDP)) MOBILITY – Sectorally determined Exit opportunities (LL-HH sectoral attributes continuum based on Capital Intensity & Economies of Scale measures – Low values indicate less exit opportunities)
‘Exit’ (Indirect Accountability)	CAPTFLWS – Capital In + out Flows (% GDP) (Capital Flight is indicated by the negative range of CAPTFLWS) PRVINVSTM – Annual percent change in Private GFCF (Investment Strike is indicated by the negative range of PRVINVSTM)
Fiscal Crisis	FISCAL – Budget Balance and Public Debt (% GDP) (Fiscal Crisis is indicated by the negative values = Budget deficit > 3 % GDP & Public Debt > 60% GDP)
External Pressures (Conditionalities Attached to a Loan)	LOAN – IMF loan (%GDP)
Dependence on a Single Sector (Also to accounts for the impact of the ‘size’ of the leading sector)	LEADSECT – The Leading Sector's Contribution to Economy (Sectoral share in total export earnings)
(Controlling for the impact of similar or different <i>sectoral</i> interests that exist in the economy)	HHDOMN – The share of High/High Sectors in total export earnings SERVDOMN – The share of commercial service exports in total export earnings
Existence of similar interest in public and private sectors	PUBLIC – Extent of public dominance in the leading sector
The Level of Authoritarianism	NONDEMOCR – The Freedom House Political Rights index

**All the independent variables measured as lagged three-year average*

Voice

The idea of extracting policy concessions by ‘credibly threatening to exit’ assumes existence of voice channels to translate business preferences / complaints to the rulers. Yet it is beyond the scope of this research to assess whether businesses in the major sector(s) of each country have voiced their demands on specific policy issues. Even my endeavor to review the availability of channels through which voice can be expressed (as a proxy measure) turned out to be futile to cover all countries in the sample. Nevertheless, there are reasons to assume that in each country there is at least one type of voice channel to translate business interests/demands to the ruler. For a preliminary research on business associations showed that in most countries there is at least one Chamber of Industry or Commerce. And, out of 27 countries for which I was able to confirm existence of a Chamber of Industry/Commerce, in 23 of them the leading sector was represented in the Chamber. In most agro-industry countries, there are formal ‘boards’ (corporatist structures) to mediate between farmers, first stage processors and the government—who, in most cases, controls export channels. Further, for the hydrocarbons sector, it is not unreasonable to assume that investors, from the very beginning, have channels to voice their demands. Because the oil sector is structured in the form of joint-ventures or product-sharing agreements with national or multinational companies, from the very first day the investors and the government officials sit at the same table and bargain for various policies. Therefore in the context of this study, I assume that there is *at least* one form of channel to *translate* (not necessarily lobby for) the leading sector’s preferences to the government.

Financial Dependence of the State on Extraction from Domestic Productive Forces (FINDEP)

To measure the degree of financial dependence of the state on the domestic economy, I use the share of *tax revenue* (including social contributions and excluding extractive sector revenue) within the *total government revenue* (including grants). The greater is the share of tax revenue in total government revenue, the higher is the dependence of the state on the overall economy.

Not including extractive-sector tax revenue (or counting only non-extractive sector tax revenue) enables us to assess the extent of dependence of policymakers on the domestic economy as a whole. For, the actors of the mining or oil sector constitute a very small minority within the total economy, but their contribution to the total government revenue is immense. However in most cases it is not distinguishable which part of extractive sector revenue is due to taxes and which part due to share of profit or direct sales revenue. As a result, extractive sector revenue is measured as a distinct category, under the title of ‘dependence on a single sector’.

The government finances data are generally based on “consolidated central-government budgets, which include budgetary and extra-budgetary accounts. In some cases, however, data are available only for “general government budget,” which also includes local government budgets as well.²²⁷

The IMF’s Government Finance Statistics Manual (GFSM) 2001, defines *Total Revenue* as composed of Tax Revenue, Social Contributions, Grants, and Other Revenue.²²⁸ To measure the degree of dependence of the state upon domestic forces as a whole, I use the share of both tax revenue and social contributions within the total revenue—considering that social security contributions are also revenue collected from the citizens so that the government can provide social benefits.²²⁹

Tax Revenue is composed of taxes on (1) income, profits, and capital gains; (2) payroll and workforce; (3) property; (4) goods and services; (5) international trade and transactions; and (6) other taxes. *Social Security Contributions* are defined as receipts either from employers on behalf of their employees or from employees, self-employed, or non-employed persons on their own behalf that secure entitlement to social benefits for the contributions, their dependents, or their survivors.²³⁰

It is highly challenging to obtain reliable data on government revenue and its components especially for developing countries. Data available through the most widely used databases (such as IMF Government Financial Statistics or World Bank-World

²²⁷ Countries for which General Government Budget is used are Ethiopia, Kazakhstan, Uzbekistan, and Yemen.

²²⁸ The IMF, *Government Finance Statistics Manual (GFSM) 2001, Companion Material*, p.3. (<http://www.imf.org/external/pubs/ft/gfs/manual/comp.htm>)

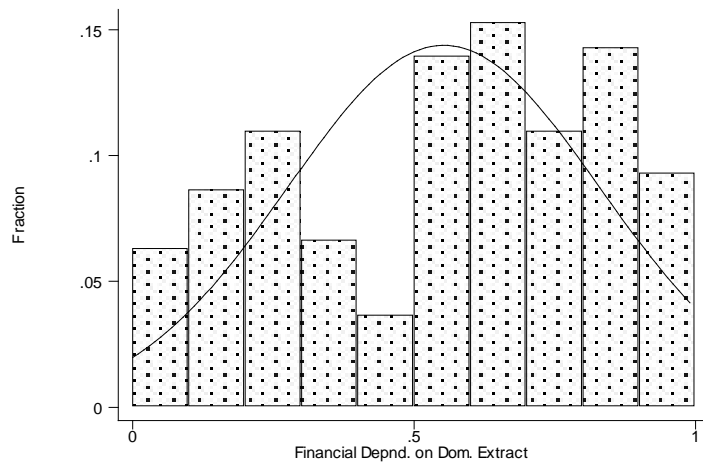
²²⁹ In GFSM 1986 version, social contributions were counted within tax revenue; in the 2001 version, this item is listed separately.

²³⁰ *GFSM 2001*, Revenue (Chapter V), pp. 56-7.

Development Indicators) do not contain data on some of the countries included in this study. Thus, a variety of databases and reports were used to gather data on government finances.²³¹

The raw ‘tax revenue / total revenue’ ratios were rescaled on a zero-to-one scale by simply dividing by 100, so that high values indicate higher dependence on tax revenue—and hence, on domestic productive forces as whole. Figure 6 displays the distribution of the variable measuring the share of tax revenue within total government revenue.

Figure 6 – Distribution of the Variable Measuring Financial Dependence of the Government on Tax Revenue (Tax Revenue as a share of Total Government Revenue)



²³¹ The data sources are as follows (in the order used): World Bank World Development Indicators (based on IMF Government Finance Statistics 2001 Manuel), IMF Statistical Appendices, IMF Article IV Consultation -Staff Reports, OECD-African Economic Outlook (various issues), The Economist Intelligent Unit Country Profiles.

Strength and Independence of the Private Sector (PRVSECT)

As noted before, the bargaining power of the private sector is partly shaped by their investment strength and capacity to operate on their own—i.e. without continuous support and protection of the state. Two items are used to measure the extent of the strength and independence of the private sector:

- The ratio of private gross fixed capital formation (GFCF) to total GFCF
- The ratio of Subsidies to GDP

The GFCF “comprises all additions to the stocks of fixed assets (purchases and own-account capital formation), less any sales of second-hand and scrapped fixed assets.”²³² When a direct measure of private GFCF value was not available I employed ‘Government Capital Expenditures’ as a proxy measure of public GFCF. And, private GFCF was obtained by subtracting this amount from the total GFCF.

The ratio of private GFCF to total GFCF (rather than to GDP) provides a proxy measure for the investment strength the private sector in a country—investment strength defined as the dominance of the private sector investment (as opposed to public investment) within an economy. I acknowledge that there may be an *endogeneity* problem with the use of private-sector GFCF share as an indicator of the investment strength of the private sector *in the model I construct*. GFCF is physical investment. Greater private GFCF in an economy increases the bargaining-power of private sector vis-à-vis the government, and thus its ability to shape the policies in their own favor. But, it is also directly affected by the government’s economic policies already in effect. In other words, because the dependent variable is composed of the kind of economic policies that directly affect the private sector’s willingness to invest, a circular causality emerges.

Given that there is no better measure (with the data available) to assess the investment strength of the private-sector in an economy, I try to overcome the endogeneity problem by using lagged three-years average private-sector GFCF share (e.g. 2001 value is the average of 1998 to 2000). By doing this, I partly eliminate the possible

²³² The World Bank, World Development Indicators (WDI) Database, Notes (online version)

causality running from the dependent variable to the independent variable; i.e. the possibility that the policies that are in effect at time t (the ones that constitute the dependent variable) might have shaped the present degree of private-sector GFCF. On a zero-to-ten scale higher values indicate greater private-sector GFCF share within total GFCF, hence a stronger private sector.

To measure the degree of *(in)dependence* of the domestic businesses from the government, I used one current-costs related indicator: the ratio of subsidies to GDP. This ratio measures the percent of total output value subsidized by the government. “Subsidies are current unrequited payments that government units make to enterprises on the basis of the levels of their production activities or the quantities or values of the goods or services they produce, sell, export, or import. Subsidies may be designed to influence levels of production, the prices at which outputs are sold, or the remuneration of the enterprises.”²³³

Unfortunately, there are no adequate cross-country data on subsidies transferred specifically to *private enterprises*. Instead, a general category of subsidies appear in time-series databases and state-budgets; which includes subsidies made to public or quasi-public enterprises as well. In spite of this lack of precision, the data in hand can still be a proxy for the dependence of the bourgeoisie. Large amounts of subsidies to public enterprises indicate a large public sector, and hence existence of a small, and most probably, a weak/dependent capitalist strata. However, for some countries even the general “subsidies” category is not available. For such countries a more general category of ‘subsidies and other transfers’ was used.²³⁴ Most countries for which only the latter

²³³ GFS Manual 2001, pp.70-1.

Only ‘explicit subsidies’ which appear on state budgets are used in this study; since it is almost impossible to reach adequate data on ‘implicit subsidies’ (which operate via price controls) for all the countries.

²³⁴ Subsidies and other transfers: “Subsidies, grants, and other social benefits include all unrequited, nonrepayable transfers on current account to private and public enterprises; grants to foreign governments, international organizations, and other government units; and social security, social assistance benefits, and employer social benefits in cash and in kind.” (The World Bank, WDI Database, Notes (online version))

For the following eight countries ‘subsidies and other transfers’ item was used instead of subsidies: Burkina Faso, Cameroon, Central African Republic, Republic of Congo, Guinea, Haiti, Rwanda, Togo. For these countries the converted zero-to-one scale scores on ‘transfers and subsidies/GDP’ (not the raw ratios) were used.

Data sources for both subsidies and subsidies & transfers are IMF Statistical Appendices and Article IV Consultation-Staff Reports, World Bank Public Expenditure Reviews, IMF Government Finance Statistics, World Bank-World Development Indicators, the Economist Intelligence Unit’s Country Profile Reports.

variable is available score lower on the ratio of ‘subsidies and other transfers / GDP’ (below 5 per cent). This guarantees a lower margin of error on the overall measurement of subsidies.²³⁵

The relationship between ‘Private GFCF / Total GFCF’ and ‘Subsidies / GDP’ changes depending on the leading sector of the countries in question. Table 11 presents the degree and the direction of correlations for within three country groups defined by a broad classification of their leading sectors. Except for the countries where manufacturing (both light and heavy manufacturing) is the leading sector, the correlation is negative; that is, as the share of private sector investment within total investment increases, subsidies (as % of GDP) decrease.

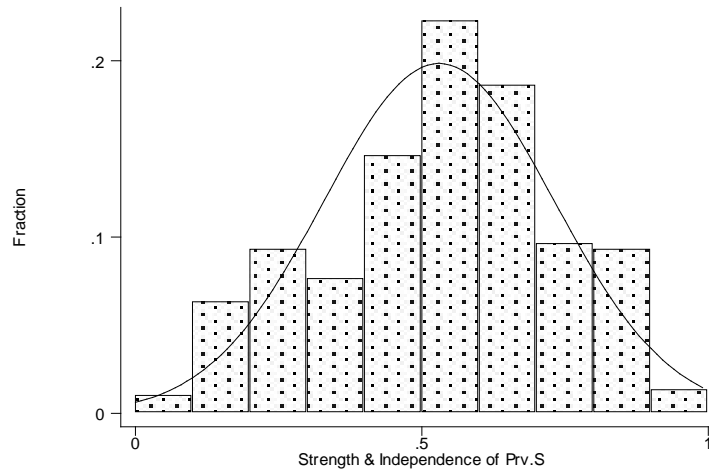
The two items (already on a zero-to-one scale) were combined by simple averaging. On zero-to-one scale one indicates highest share of GFCF in total GFCF and lowest level of subsidies, hence, a strong and independent private sector. Figure 7 displays the distribution of the combined variable.

Table 11 – Correlations between Private GFCF (% Total GFCF) & Subsidies (% GDP) within country groups classified by their leading sectors.

The Leading Sector	Correlation Coefficient
Agro-Industry	-0.34
Oil & Mining Industries	-0.40
Manufacturing	0.44

²³⁵ To fill in the missing values on Subsidies, various methods were used. Where there was a high correlation (above .90) between ‘transfers and subsidies’ and the few available ‘subsidies’ values for a country, the missing values were predicted based on the former. If a value between two years was missing, the average of the previous and following years was imputed. And, for the missing beginning and end years, the last available year’s score was used. To convert the raw ratio scores to zero-to-one scale the following formula was used: $(V_{min} - V_i) / (V_{min} - V_{max})$. The values for V_{max} was set at 9.6 % of GDP for subsidies and 25 % for subsidies and other transfers, V_{min} was set to zero % of GDP.

Figure 7 – Distribution of the Variable Measuring Strength and Independence of the Private Sector (Private GFCF / Total GFCF & Subsidies (% GDP) (PRVSECT)



Sectorally Determined Exit Opportunities of the Leading Sector (MOBILITY)

Exit, in the context of this study, means ceasing to invest in a particular sector or country. As noted before, sectoral analysis provides us with tools to analyze whether capitalists in a particular sector have viable exit opportunities. The four economic variables, proposed by Michael Shafer, help us to determine the degree of exit-viability for a sector.

Shafer states that sectoral analysis builds on two core variables in sectors' production processes, *capital intensity* and *the extent of economies of scale*, and two composite variables, *production flexibility* and *asset/factor flexibility*, that recombine elements of capital intensity and economies of scale.²³⁶ Because these economic variables *covary* across sectors, it is possible to think about them along a single continuum between two polar ideal types: *High/high (HH) sectors* (which are marked by high capital intensity, high economies of scale, and high production inflexibility and asset/factor inflexibility); and *low/low (LL) sectors*, marked by the opposite.²³⁷

Shafer argues that the core variables, *capital intensity* and the extent of *economies of scale* account for "...the sector-specificity of capital equipment and other assets, and the

²³⁶ Shafer, *Winners and Losers*, pp. 1- 48.

²³⁷ *Ibid.* p.10.

rigidity of barriers to exit from the sector.”²³⁸ In HH sectors, he states, “high capital costs, big economies of scale, technical complexity, and the need for specialized infrastructure, management, and labor pose high barriers to entry.”²³⁹ The same factors, especially specialized infrastructure, management and labor, also create high barriers to exit. For Shafer says, “large sunk investments in sector-specific capital equipment, facilities, infrastructure, management, and skilled labor ... guarantee high barriers to exit.”²⁴⁰ LL sectors are marked by the opposite characteristics—lower capital costs and technical complexity, and also non-sector-specific management and labor force. Thus, both barrier to entry and exit is low in LL sectors. Therefore, the lower are capital intensity and economies of scale (and hence, asset/factor inflexibility) the lower the barriers to exit are.

To determine the extent of exit viability of the leading sector of a particular country, we need to locate that sector on the LL-HH sectoral attributes continuum, presented in Table 12. As noted before, measurement details of the LL-HH continuum is explained in Appendix II. On the LL-HH continuum higher values indicate lower levels of capital intensity and economies of scale, hence greater opportunities for exit.

It is important to note that in some countries the leading sector is composed of a chain with up-stream and down-stream production processes. For example, where cotton production is the main agricultural activity, first stage cotton processing (and sometimes textile industries) are the down stream production processes; or for oil producing countries, while oil exploration and exploitation constitute the up stream production, oil refining is the down stream production process. Hence, wherever both up and down stream production processes of an economic activity are available in a country, I use the average sectoral attributes scores of both up and down steam industries to measure overall exit-viability of a sector. Figure 7 displays the distribution of the variable.

²³⁸ Ibid., p.24.

²³⁹ Ibid., p.25.

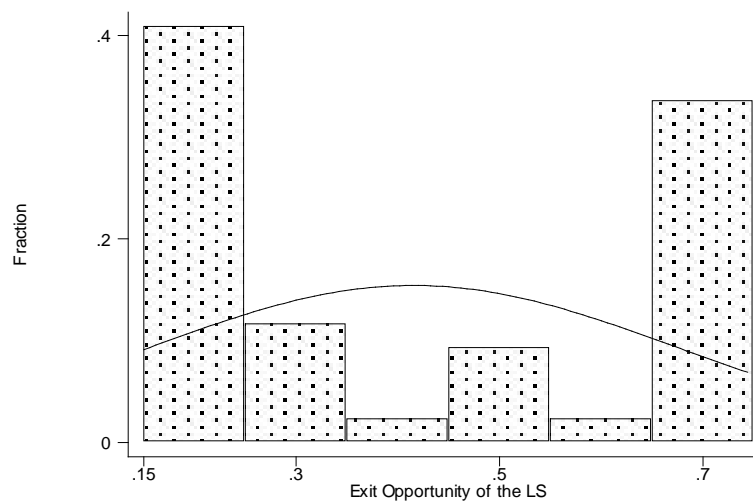
²⁴⁰ Ibid.

Table 12 – Low/Low-High/High Sectoral Attributes Continuum indicating the extent of viable ‘Exit-Opportunities’ (Mobility) of the selected economic activities

Sectors	LL - HH (0-1)*
Fishery	1
Leather & Leather Products	1
Wood Products	.9
Agriculture, Hunting, Forestry	.9
Retail & Fixing	.8
Footwear & Clothing	.7
Hotels & Restaurants	.7
Processing of Rubber & Plastic	.6
Food, Drink & Tobacco	.6
Textile	.6
Mechanical Engineering	.5
Chemicals	.5
Production and preliminary processing of Metals	.5
Electrical (& Optical) Engineering	.4
Non-metallic Minerals	.4
Mining & Quarrying of Energy Producing Materials	.3
Manufacture & Assembly of Motor Vehicles	.2
Refining of Coal and Mineral Oil	0

**Higher values indicate ‘LL’ sectors which are marked by low capital intensity and low economies of scale, and production and asset/factor flexibility. The details of the measurement are presented in Appendix II.*

Figure 8 – Distribution of the Variable Measuring Existence of Viable Exit Opportunities (MOBILITY)



Capital In/Out Movements (CAPTFLWS)

Capital flight denotes private capital outflows from a country. Various methodologies have been used for measuring capital flight.²⁴¹ One standard methodology is the ‘Residual Method’:

“This measures the ‘residual’ of the ‘sources of funds’ over the ‘uses of funds’. Sources of funds include all net official inflows (increases in net external indebtedness of the public sector) and the net flow of foreign direct investment. Uses of funds include the current-account deficit and additions to reserves. Outward capital flight exists when sources of funds exceed uses of funds, and vice-versa for inward capital flight.”²⁴²

In other words, economists

“subtract foreign currency payments for imports, debt service, and additions to official reserves from total sources of foreign exchange (exports, borrowing, investment by multinationals, etc.). The difference—unaccounted-for dollars—is called capital flight.”²⁴³

In this study, I rely on the estimates of capital in/out flows measured by the Economist Intelligence Unit (EIU).²⁴⁴ However, the EIU database does not cover all the countries of the sample. Hence, I adopted their methodology and replicated the measurement for the countries covered by the EIU database, and also *estimated* capital movements (capital flight) for other countries.²⁴⁵

EIU departs from the relationship between the capital and the current accounts components of the Balance of Payments, which is defined as:

$$\begin{aligned} \text{Current account} &= - \text{Capital account} \\ \text{cur a/c} &= -(\Delta \text{res} + \text{fdi} + \Delta \text{debt} + \text{capital flight}) \end{aligned}$$

²⁴¹ For an overview of various methodologies used for measuring capital flight see Stijn Claessens and David Naude, “Recent Estimates of Capital Flight,” The World Bank Working Papers, No.1186, International Economics Department (September 1993).

²⁴² Ibid. p.4.

²⁴³ Darryl McLeod, Capital Flight, The Concise Encyclopedia of Economics.
<http://www.econlib.org/library/Enc1/CapitalFlight.html>.

²⁴⁴ The Economist Intelligence Unit Data Services (<http://www.eiu.com/>)

²⁴⁵ The correlation between the EIU estimates and my replication of their estimates is .99.

where *cur a/c* is the current account balance (positive is in surplus), Δres is the change in international reserves (positive is an decrease in reserves, as running down reserves is an equivalent to obtaining a capital inflow), *fdi* is net FDI inflows (positive is an inflow), $\Delta debt$ is the change in the external debt stock (positive is an increase in debt). Capital flight is all other capital flows (positive is an inflow, negative is capital flight). To define capital flight, we rearrange the equation to give:

$$\text{Capital Flight} = - \text{cur a/c} - \Delta res - fdi - \Delta debt$$

This implies that *capital flight is all the flows on the capital account not accounted for by changing foreign exchange reserves, net FDI and changes in external debt.*

One important point in this measurement is the way the change in the debt stock is calculated. EIU data service notes that it should be calculated by adding up each individual type of *net* debt inflow (rather than looking at the change in the aggregate debt stock).²⁴⁶

I use the following indicators to replicate (and estimate) capital flight measures:

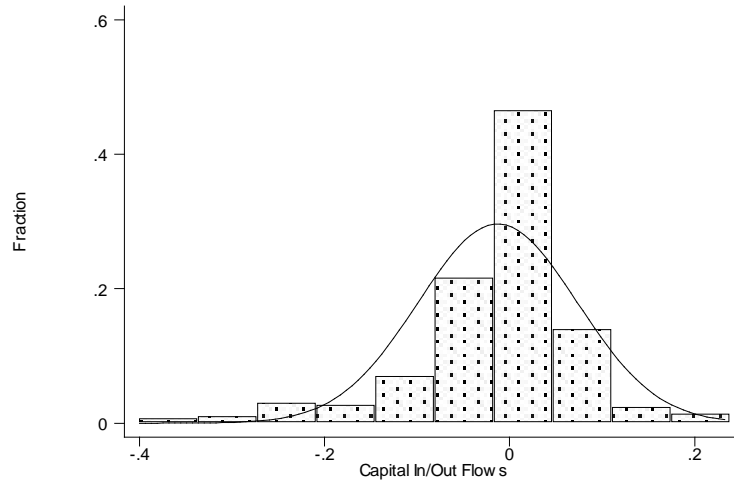
- Current account balance (BoP, current US\$)
- Change in Total reserves (includes gold, current US\$)
- Foreign direct investment, net (BoP, current US\$)
- Net flows on debt, total long-term (NFL, US\$)
- Short-term debt net flows (NFL, US\$)
- Net financial flows, IMF concessional & non-concessional (current US\$).²⁴⁷

To assess the impact of capital flight on government responsiveness I calculated average ‘capital in/out flow / GDP’ ratio for the last three years preceding the year dependent variable is measured. Figure 9 displays the distribution of capital movements as a percent of the GDP. Capital flight is indicated by the negative range of the variable.

²⁴⁶ Hence, the change in the external debt stock is composed of
 Net medium and long term debt inflows (inflows less repayments) + Net IMF credits + Net short term debt inflows (short term debt stock at t - short term debt stock at $t-1$)

²⁴⁷ Data sources: The World Bank World Development Indicators and Global Development Finance databases, The EIU database (which relies on the IMF International Financial Statistics, UN Development Reports, individual central bank reports), the IMF World Economic Outlook database, and IMF staff reports and statistical appendices.

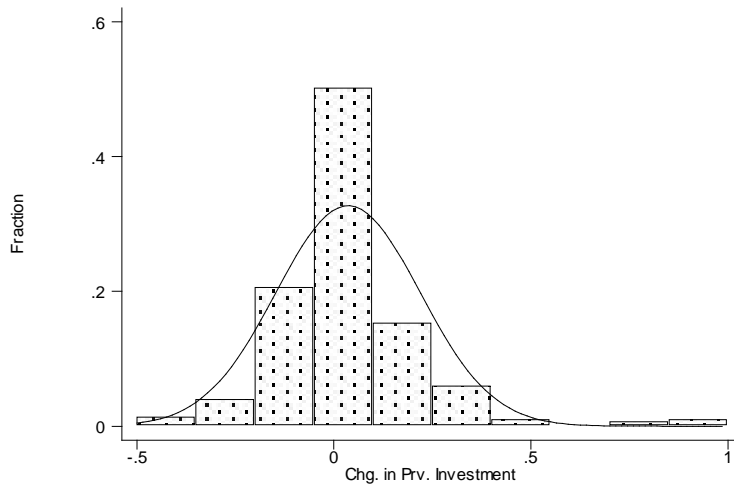
Figure 9 – Distribution of the Variable Measuring In and Out Capital Flows as a percent of GDP (CAPTFLWS)



Changes in Private Sector Investment (PRVINVSTM)

Investment strike denotes that the domestic investors abstain from investing in a particular country. To measure the investment trend in a country, I first calculate the annual percent change in private gross fixed capital formation (GFCF) / GDP ratio. To account for a possible policy-changing impact of drop in the level of private investment (i.e. investment strike), I employ lagged three-year average annual percent change in private GFCF/GDP. Figure 10 displays the distribution of the variable. Negative values indicate investment strike.

Figure 10 – Distribution of the Variable Measuring Annual Percent Change in Private Investment (PRVINVSTM)



Dependence on a Single Sector / The Leading Sector's Contribution to the Economy (LDSEC-CONTB)

The best measure to assess the degree of the state's dependence on an economic sector would be the share of the revenue generated by that sector within overall government revenue. Yet those kinds of data are only available for the hydrocarbons exporting and partly mining sector-dominant countries. Hence I resort to a proxy measure, which is the sectoral share in the total export earnings. The correlation between the share of export earnings and sectoral contribution to revenue is .71 (measured for 17 hydrocarbons and 1 mining-sector dominant countries for which data were available between 1998 and 2007). The correlation increases to .81 when UAE is excluded.

To measure the degree of dependence on a single sector, thus, I use three-years lagged average share of the leading sector in total export earnings.²⁴⁸ On a zero-to-one scale, higher values indicate, greater dependence on a sector. Figure 11 displays the distribution of the variable.

²⁴⁸ Data sources: World Bank-WDI, UN-Handbook of Statistics, World Trade Organization-Merchandise and Commercial Services Export databases.

Figure 11 – Distribution of the Variable Measuring the Leading Sector’s Contribution to economy (share in total export earnings) (LDSEC-CONTB)

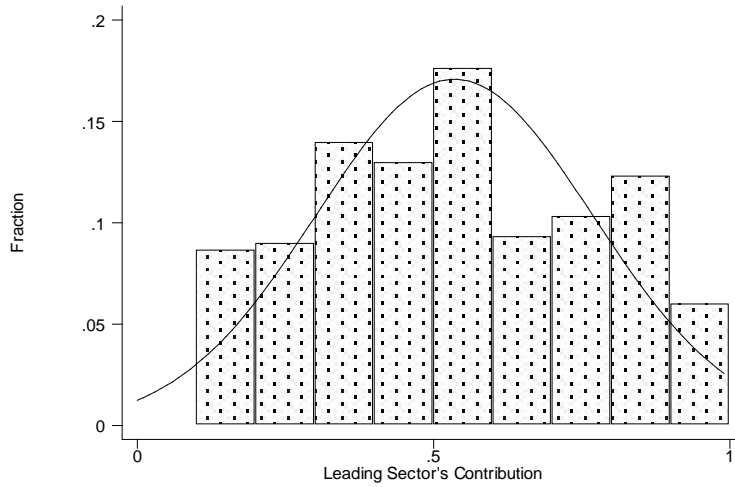
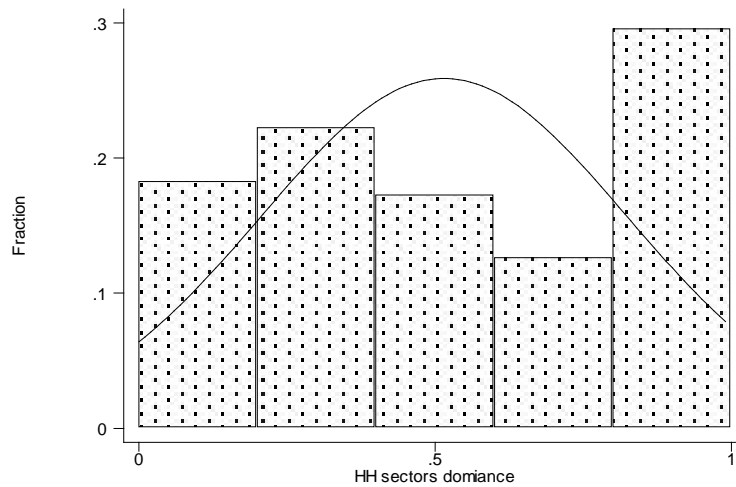


Figure 12 – Distribution of the Variable Measuring the Dominance of HH sectors in an economy (HHDOMN)



The Extent of Similar or Divergent Interests in an Economy (HHDOMN)

As noted in Chapter Two, when the economy of a country is not dominated by a single sector (i.e. a relatively diverse economy) prevalence of similar or divergent interests may contribute (or preclude) responsiveness of the rulers to the leading sector's interests. Thus, to control for the effect of similar or divergent interest (depending on the dependent variable used) I include into the model a variable measuring the share of HH sectors in total export earnings. HH sectors include oil, mining, chemicals, machinery & equipment, and metal processing-mainly iron & steel industries.²⁴⁹ On a zero-to-one scale higher values indicate greater share of HH sectors in the economy.

Fiscal Crisis

As noted in Chapter Two, following the fiscal crisis of the 1980s and 90s, some of governments who were deprived of extensive exogenous revenue, and thus, strained by fiscal crisis, had to implement certain economic reforms to mobilize private resources for investment. Those reforms were “in the interests of, but not dictated by, the (private) bourgeoisie or its organizations.”²⁵⁰ Therefore, to account for this kind of a correspondence between economic policies and capitalists' interest (which *cannot* be considered as indirect accountability), we need to control for the effect of financial crisis upon responsiveness to capitalists interests.

Fiscal crisis is defined here in its literal meaning (in budgetary terms) as drop in budget revenues and chronic debt. To measure the extent of fiscal constraints I rely on the criteria specified by the European Commission in the Protocol on the excessive deficit procedure. The reference values (cut points) referred to in Article 104 (c) of this Treaty are:

- 3 percent for the ratio of the planned or actual government deficit to gross domestic product at market prices, and
- 60 percent for the ratio of government debt to gross domestic product at market prices²⁵¹

²⁴⁹ Data source: UN-Handbook of Statistics (online version)

²⁵⁰ Waterbury, “Fortuitous By-Products” p,359.

²⁵¹ <http://www.eel.nl/documents/ectreaty/maasprot.html>

The most comprehensive data for both *budget balance* and *public debt* are available in the Economist Intelligence Unit (EIU) database. Budget balance is defined as “central government receipts minus central government outlays, as a percentage of GDP.”²⁵² The data available via EIU were crosschecked by using IMF statistical appendices and country reports to verify that the data indeed refer to the budget deficit/surplus *after grants*. For not taking into consideration the grants would overstate the extent of budget debt, and thus, budgetary constraints on rulers.

Total debt (in EIU database, again) refers to “total debt (both local and foreign currency) owed by government to domestic residents, foreign nationals and multilateral institutions such as the IMF, expressed as a percentage of GDP.”²⁵³ There are no government or public debt data available for 14 of the countries covered by the sample.²⁵⁴ However, another debt indicator, ‘long-term external debt of the public sector (Public sector LDOD - US\$),’²⁵⁵ is available for all the countries. The correlation between government debt and external debt of the public sector is high (.89). Hence, based on the latter, I predicted ‘government debt (percent GDP) ratios for the missing countries.

To control for the effect of fiscal constraints on economic policymaking, first I rescaled the items separately to a ‘-1 to 1’ scale, where the negative values indicate that government debt is greater than 60 percent of GDP and budget deficit is greater than 3 percent of GDP. To account for the combined effect of budget deficit and public debt, I averaged the rescaled items to obtain a measure of *fiscal status*, where negative values indicate fiscal crisis. And finally, to allow for fiscal crisis to take effect on policymaking, I use the average fiscal crisis score over the three years preceding the year that the dependent variable is measured—considering that a crisis should endure for a period of time so that it could inflict a constraining effect on policymakers. On the ‘-1 to 1’ scale,

²⁵² EIU data are based on various databases and reports (such as IMF International Financial Statistics, IMF staff reports and statistical appendices, World Bank Global Development Finance and World Development Indicators, official country data, etc).

²⁵³ The Economist Intelligence Unit Data Services (<http://www.eiu.com/>)

²⁵⁴ The countries for which public sector LDOD/GDP ratio was used are as follows: Belarus, Burkina Faso, Burundi, Cambodia, Central African Republic, Chad, Republic of Congo, Guinea, Haiti, Kyrgyz Republic, Mauritania, Rwanda, Tajikistan, Togo.

²⁵⁵ Public sector LDOD is the long-term debt of public sector borrowers (central government, state and local government, and central bank). Long-term debt outstanding and disbursed (LDOD) is the total outstanding long-term debt at year end. Long-term external debt is defined as debt that has an original or extended maturity of more than one year and that is owed to nonresidents and repayable in foreign currency, goods, or services. The World Bank, Global Development Finance database, Notes.

hence, -1 indicates the greatest fiscal constraint on an incumbent. Figure 13 displays the distribution of the fiscal status variable—negative values indicate fiscal crisis.

Figure 13 – Distribution of the Variable Measuring the Fiscal Status (Fiscal crisis indicated by the negative range) (FISCAL)

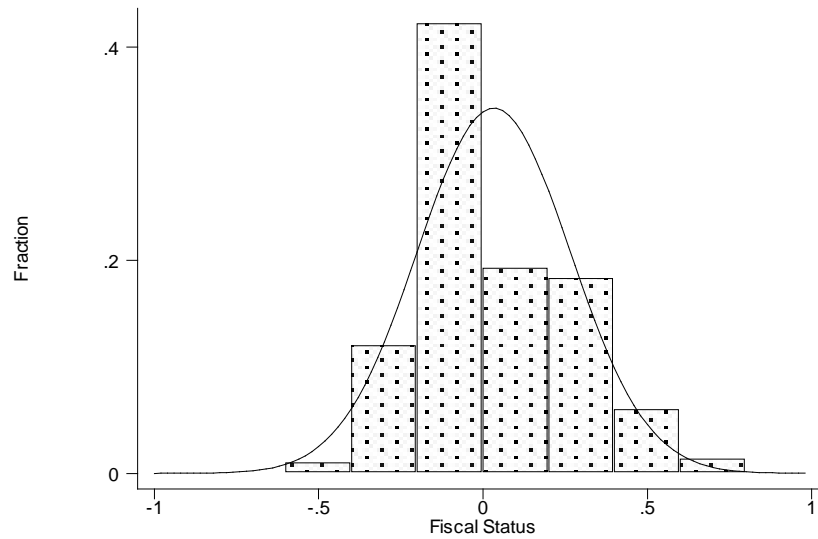
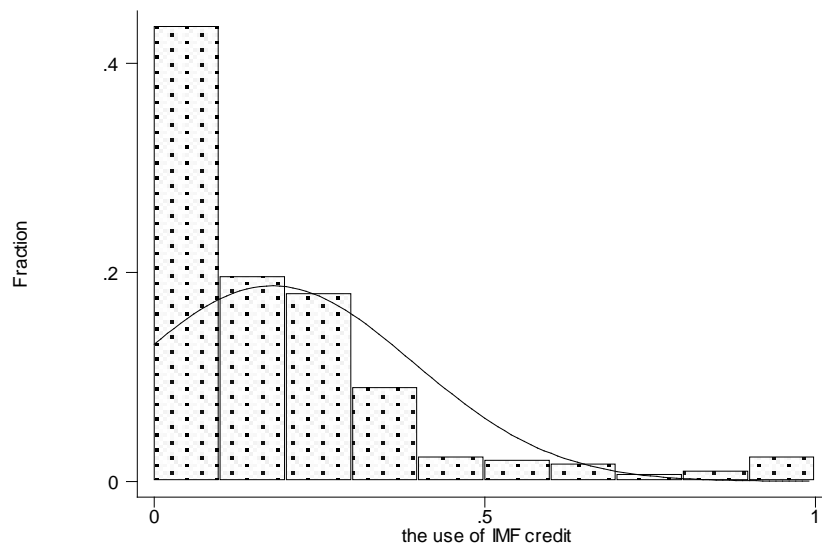


Figure 14 – Distribution of the Variable Measuring the External Pressures (The Use of IMF Credit as percent of GDP) (IMF-LOAN)



External Pressures

As noted in Chapter Two, the international agencies (such as IMF and World Bank) have actively and persistently promoted pro free-market oriented policy changes by attaching policy conditionalities to the financial assistance they have been providing. Because such policies are, by definition, of pro-capitalist nature (i.e. result in responsiveness to capitalist interests in the absence of—in most cases—bargaining power of the private sector—we need to control for the existence of a relationship with an international agency as well.

As has been pointed out in the previous chapter, by the mid 1990s nearly all IMF-supported programs contained some structural conditions.²⁵⁶ Accordingly, I employ the ratio of IMF loans to the GDP of a country as an indicator of existence and extent of external pressures for economic adjustments.²⁵⁷ To account for the ‘policy-changing’ effect of loans, I employ the average use of IMF credit (% GDP) over the three years preceding the year that the dependent variable is measured. The data were obtained from the World Bank Global Development Finance, World Development Indicators and Joint External Debt Hub databases.²⁵⁸ On a zero-to one scale higher values indicate greater external pressure. Figure 14 displays the distribution of the variable on external pressure.

²⁵⁶ The IMF Policy Development and Review Department, “Structural Conditionality in Fund-Supported Programs,” (February 16, 2001), p. 46.

²⁵⁷ The use of IMF credit (% GDP) - current US\$: The item covers total outstanding IMF credit and loans as of the end of the reference period. Outstanding IMF credit and loans outstanding—representing the sum of (1) the use of IMF credit within the General Resources Account and (2) outstanding loans under the Structural Adjustment Facility (SAF), the Poverty Reduction and Growth Facility (PRGF) and the Trust Fund—are denominated in Special Drawing Rights (SDRs) and are converted to US dollars using the end-period exchange rate. The data are sourced from IMF records. Data on total IMF credit and loans are also disseminated in the IMF’s statistical publication, International Financial Statistics. (World Bank, Global Development Finance (online version))

Conditionalities may be attached to loans borrowed from other international and intergovernmental agencies as well. World Bank, Global Development Finances database provides data on ‘public and publicly guaranteed multilateral loans (PPG, multilateral (DOD, US\$)’, which include loans and credits from the World Bank, regional development banks, and other multilateral and intergovernmental agencies. However, not all the countries are covered by the database.

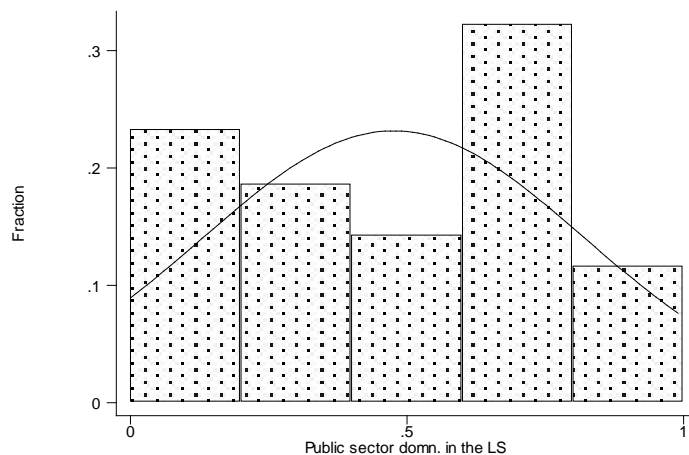
²⁵⁸ The Joint External Debt Hub (JEDH)—jointly developed by the Bank for International Settlements, the International Monetary Fund (IMF), the Organization for Economic Cooperation and Development (OECD) and the World Bank (WB)—brings together external debt data and selected foreign assets from international creditor/market and national debtor sources. (http://www.jedh.org/jedh_home.html).

Public Sector Dominance in the Leading Sector:

Based on qualitative data on the organizational structure of the leading sector, I construct an ordinal variable. On zero-to-one scale, higher values indicate greater public sector dominance in the leading economic sector of a country. Figure 15 displays the distribution of the variable measuring public sector dominance in the leading sector.

- (1) Nationalized (for the oil sector: only buy-back contracts are allowed)
- (.75) Mostly dominated by the public sector with some private sector involvement (e.g. in the oil sector: joint ventures/Product Sharing Agreement (PSA); in agro-industry: small scale agriculture with central planning or monopsony)
- (.50) Dominated both by the public and private sectors (joint ventures / PSA with almost equal shares)
- (.25) Dominated mostly by the private sector with some state involvement (in the form of shares in some companies)
- (0) Dominated totally by the private sector and is open to foreign direct investment

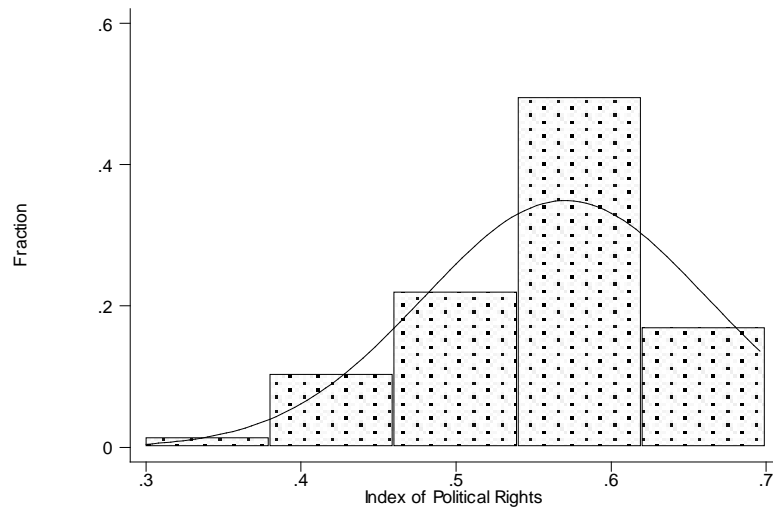
Figure 15 – Distribution of the Variable Measuring the Public Dominance in the Leading Sector (PUBLIC-LS)



The Degree of Nondemocracy

Working with a sample of non-democracies does not guarantee that the country in question has had the same level of *authoritarianism* over time. In other words, not only do the cases in the sample not display the same regime type, but also they do not have the same degree of authoritarianism over time. To account for such differences, an independent variable measuring the level of authoritarianism of a country—the Political Rights Index rating—is also used in the model. On a zero to one scale, higher values indicate greater *authoritarianism*.

Figure 16 – Distribution of the Variable Measuring the degree of Nondemocracy (Freedom House - Index of Political Rights) (NONDEMOCR)



CHAPTER IV

ANALYSIS AND RESULTS

CHARACTERISTICS OF THE DATA & ESTIMATION CHALLENGES

The data structure of the present study is time-series-cross-sectional (TSCS). Due to repeated observations for multiple countries, TSCS data display interesting cross-sectional and dynamic characteristics, which usually cause violation of the OLS assumptions, and hence, estimation challenges. Main cross-sectional issues are *cross-sectional heterogeneity* (e.g. country specific effects), *cross-sectional/spatial dependence*;²⁵⁹ and the main dynamic issue is *temporal (within-unit time-serial) dependence* of observations. Such characteristics, if unaccounted by model specification and/or specific estimation techniques, may result in violation of the Gauss-Markov assumptions, which show up in the error process as non-zero mean errors for some subsamples (heterogeneity), panel heteroskedasticity, contemporaneous correlation of the errors, and/or serially correlated errors.²⁶⁰ As a result, the OLS estimation produces

²⁵⁹ “*Unit heterogeneity* means that units (countries, states, etc.) differ in ways not explained by observed independent variables. In other words, potentially important local factors are unobservable to the researcher... In the context of the RCM [Random Coefficient Model] heterogeneity could also exist in terms of the effects of observed variables on the dependent variables (i.e., the slope coefficients vary across units.” Sven E. Wilson, Daniel M. Butler, “A Lot More to Do: The Sensitivity of Time-Series Cross-Section Analyses to Simple Alternative Specifications,” *Political Analysis* (2007) 15, p. 104

Spatial dependence refers to “relationships between the various units. [W]e would expect the observations of the various countries in a TSCS study to be interrelated.” Nathaniel Beck, “Time-Series-Cross-Section Data: What Have We Learned in the Past Few Years?” *Annual Review of Political Science*, 2001- 4, p. 280.

²⁶⁰ *Panel heteroskedasticity* (A type of inter-unit heterogeneity): “Each country may have its own error variance. ... If nations vary so that the error variance varies from nation to nation, we expect to observe panel heteroskedasticity; alternatively, we may observe panel heteroskedasticity because one or two units do not fit the basic specification well.”

Contemporaneous correlation of the errors: “The error for one country may be correlated with the errors for other countries in the same year. ... We will observe contemporaneously correlated errors if

inefficient coefficient estimates and incorrect standard errors. Especially, if country-specific effects and intra-country similarities are not accounted for by model specifications, the coefficient estimates are likely to be inconsistent due to omitted variable bias (OVB).

An approach is to treat such OLS violations as a nuisance and correct for them using some feasible generalized least squares (FGLS) estimation technique. However, as Beck notes typical FGLS estimates has bad properties for *small T* samples, and may underestimate the standard errors. He says,

“We have shown (Beck &Katz 1995) that the properties of the Parks estimator for typical TSCS *T*s are very bad, and that, in particular, the estimated standard errors could be underestimating variability by from 50% to 200%, depending on *T*. The FGLS standard errors underestimate sampling variability because FGLS assumes that ‘sigma’ is known, not estimated. Our conclusion is that the Parks-Kmenta estimator simply should not be used.”²⁶¹

Rob Franzese also notes, for example, that whether FGLS enhances efficiency and improves standard-error estimation truly, and not merely apparently, depends on how many parameters (relative to observations) one must estimate in [the first] step, which degrees-of-freedom consumption FGLS will ignore in its next step.”²⁶² Given that FGLS is inappropriate for my dataset, which is a small *T* dataset, I resort to both the ‘*Model it!*’²⁶³ approach and the *OLS technique with panel corrected standard errors* suggested by Beck and Katz (1995, 1996).²⁶⁴ Regarding the use of FGLS and OLS estimation techniques with TSCS data, Beck notes that

unobserved features of some countries are related to unobserved features in other countries. (Although we use the term errors, these are only errors of the observer, i.e. omitted variables.) Thus, if the Dutch and German economies are linked, then we would expect omitted variables for each country also to be linked.”

Serially correlated errors: “The errors for a given country are correlated with previous errors for that country.”

Beck, “Time-Series-Cross-Section Data: What Have We Learned in the Past Few Years?,” p. 275.

²⁶¹ Ibid., p. 276

²⁶² Robert J. Franzese, Jr., “Empirical Strategies for Various Manifestations of Multilevel Data,” *Political Analysis*, Vol. 13, No. 4 (2005), p. 436

²⁶³ TM Robert J. Franzese, Jr., “Empirical Models for Time-Series-Cross-Section Data,” *Lecture Notes*, (2009), <http://www-personal.umich.edu/~franzese/SyllabiEtc.html>

²⁶⁴ Nathaniel Beck, Jonathan N. Katz, “What to do (and not to do) with Time-Series Cross-Section Data,” *The American Political Science Review*, Vol.89, No.3 (September 1995), pp. 634-647.

“... the FGLS correction for panel heteroskedasticity is, in my view, inherently flawed. This does not mean, however, that OLS is a good estimator for TSCS data; the errors are likely, after all, to show both panel heteroskedasticity and contemporaneous correlation of the errors. Under these conditions, OLS is still consistent, though inefficient, and the OLS standard errors maybe wrong. Although inefficiency may be an important issue, it is easy to at least compute panel correct standard errors (PCSEs), which correctly measure the sampling variability of the OLS estimates.”²⁶⁵

Addressing Dynamic Issues

Because TSCS data are annual it shows dynamic issues; e.g. serially correlated errors. One way to address this issue is, as noted before, to treat it as a *nuisance* and estimate with FGLS. As Beck notes, however, we can think about the serial correlation as part of the model specification, and address it by adding a lagged dependent variable into the model.²⁶⁶ Economic policies are generally put in practice in an incremental (step by step) way to alleviate likely reactions of the affected parties. For the economic structure of a country comprises many conflicting interests (some are based on sectoral characteristics, as noted before). Hence, it is not unreasonable to think that policies at time t are correlated with the policies in effect during the previous years. Adding a lagged dependent variable into the model specification allows us, therefore, to control for (i.e. to model) dynamic effects. Beck notes that “in typical situations the inclusion of a lagged dependent variable in the specification will eliminate almost all serial correlation of the errors (since the lagged dependent variable implicitly includes lagged error terms into the specification).”²⁶⁷ Still, we can test if any serial correlation remains via “the TSCS analogue of the standard Lagrange multiplier test.”²⁶⁸ Further, “modeling of dynamics via

²⁶⁵ Beck, “Time-Series-Cross-Section Data: What Have We Learned in the Past Few Years,” p. 278. Also see Franzese, “Empirical Strategies for Various Manifestations of Multilevel Data”.

²⁶⁶ Beck, “Time-Series-Cross-Section Data: What Have We Learned in the Past Few Years,” pp. 279-280.

²⁶⁷ Nathaniel Beck, “Time-Series Cross-Section Methods,” The Oxford Handbook of Political Methodology, Janet M. Box-Steffensmeier, Henry E. Brady, David Collier (ed.), Oxford University Press (2008). (I used the draft version of this article available at <http://as.nyu.edu/docs/IO/2576/beck.pdf>, p.3.)

²⁶⁸ “We can test for serially correlated errors (with or without a lagged dependent variable) via the TSCS analogue of the standard Lagrange multiplier test. Just run OLS, capture the residuals, and regress the residuals on all the independent variables (including the lagged dependent variable if present) and the lagged residual. If the coefficient on the lagged residual is significant (with the usual t-test), we can reject

a lagged dependent variable allows researchers to estimate their specification using ... OLS with PCSEs”²⁶⁹

Addressing Cross-Sectional Issues

As noted before, cross-sectional complications of TSCS data, and hence, violations of the Gauss-Markov, assumptions, may display themselves as *panel heteroskedasticity* (i.e. the errors for the different units may have differing variances) and *contemporaneous correlation of the errors* (i.e. the errors for the different units may be correlated across units).²⁷⁰

Again, it is possible to treat panel heteroskedasticity and contemporaneous correlation of errors as a nuisance and deal with them via special estimation techniques. Beck stresses that “researchers worried about correcting standard errors due to contemporaneously correlated and panel heteroskedastic errors can use ‘panel corrected standard errors’ (PCSEs) in place of the OLS standard errors.”²⁷¹ Franzese also notes that

“in pooled samples, incorporating correlation information to enhance efficiency and improve standard-error estimation is just another application of FGLS (e.g., Parks procedure if degrees of freedom suffice, or some more-limited parameterization thereof if not) and/or consistent Standard errors. Beck and Katz (1995, 1996) panel-corrected standard errors (PCSE) would suffice to render standard errors consistent to one common form of cross-subsample correlation (contemporaneous correlation in a TSCS context).”²⁷²

However, it is substantively more appealing to see cross-sectional issues as interesting properties of TSCS data to be modeled. Starting with panel heteroskedasticity, we should keep in mind that apparent panel heteroskedasticity may result from cross-sub-sample heterogeneity—e.g. omitted interaction terms. While the theory and our specific

the null of independent errors.” (Beck, “Longitudinal Data - Summer, 2001 - Day 1,” Lecture Notes, p. 7. <http://weber.ucsd.edu/~nbeck>.) Also see Beck, “Time-Series Cross-Section Methods,” Draft, pp.3-4.

²⁶⁹ Beck, “Time-Series-Cross-Section Data: What Have We Learned in the Past Few Years,” p. 280.

²⁷⁰ Beck, “Time-Series Cross-Section Methods,” Draft,” p.5.

²⁷¹ Ibid. FGLS techniques can also be used to address such cross-sectional issues. But as noted before, “Beck and Katz (1995) showed that this procedure has extremely poor statistical properties unless $T \gg N$, which is rare. Thus this method is seldom used any more.” Ibid.

²⁷² Franzese, “Empirical Strategies for Various Manifestations of Multilevel Data,” p. 440.

hypotheses tell us whether we need interaction terms, in case we detect heteroskedasticity via tests or graphs, we should inquire whether all units are governed by the same regression equation—i.e. whether the effect of a specific variable varies across a subgroup of countries.

When it comes to contemporaneous correlation of errors, modeling is, again, a *necessity*. Beck mentions two kinds of correlation:

“We would expect contemporaneous correlation of the errors to be likely in studies of political economy in open economies; shocks that affect one nation can also be expected to affect its trading partners (either as a *common shock* or through the *unexpected impact on trade*.”²⁷³

Franzese and Hays also emphasize that we should distinguish between *interdependence* and *common shocks*.

“*Interdependence* refers to processes by which outcomes in some units, y_j , affect outcomes in others, y_i . We distinguish such interdependence process, which will induces spatial correlation, from responses to spatially correlated outside influences—call these *exogenous-external conditions* or *common shocks*—and/or to spatially correlated unit level factors, both of which will also induce spatial correlation across units can arise through any of these components of our generic model. For example, a country might respond to spatially correlated internal or exogenous-external political economic shocks by lowering its capital tax rate (the unit-level or contextual terms,...), and its response to the external or internal shocks may depend on contextual or domestic conditions (the term reflecting context conditionality...), but the magnitude of its response may further depend on how its competitors respond and, conversely, its own response may affect the tax rates that policy makers in other countries choose (the term reflecting spatial interdependence, $\rho \sum_{j \neq i} w_{ij} y_{jt}$.”²⁷⁴

They also underline that spatial interdependence is a substantively meaningful property of TSCS data, not just a nuisance to correct.

“Relegating spatial interdependence to nuisance is often problematic on econometric grounds and, more often and importantly still, on substantive grounds because many political science contexts imply substantively meaningful and interesting

²⁷³ Beck, “Time-Series Cross-Section Methods,” Draft,” p.5. (Emphasis added)

²⁷⁴ Robert J. Franzese, Jr., Jude C. Hays, “Spatial Econometric Models of Cross-Sectional Interdependence in Political Science Panel and Time-Series-Cross-Section Data,” Political Analysis, Vol.15 (2007), p.142.

interdependence across units of observation. The frequently ignored spatial relationships in TSCS data are an important part of the politics that political scientists aim to study. In comparative politics, for example, likelihoods and outcomes of demonstrations, riots, coups, and/or revolutions in one country almost certainly depend in substantively crucial ways on such occurrences in other countries (e.g., through demonstration effects or snowballing).²⁷⁵

When it comes to how to model spatial interdependence, we first assume an a priori specified weighting matrix which ties units. As Beck notes, “the spatial methods are only superior if the specified weights are close to being correct” and notes that “Beck, Gleditsch and Beardsley (2006) argued that for studies of political economy it is often better to assume that nations are tied together by their level of trade (in proportion to GDP).”²⁷⁶ I follow the same logic and use *trade relationships* to construct a weights matrix. I also assume that the spatial effect operates with a temporal lag. Accordingly, I add into the model a term $\rho W y_{t-1}$ ($\rho \sum_{j \neq i} w_{ij,t-1} y_{j,t-1}$) which is the weighted average of the time lagged dependent variable for all the units except unit i . The weight ($w_{ij,t-1}$) represents the relative influence of j on i during time $t-1$. In other words, for each observation on y_{it} , the corresponding element of $W y_{t-1}$ gives a weighted average of the $y_{j,t-1}$ (lagged y in the other units), with weights given by the relative connectivity from j to i during $t-1$.²⁷⁷ And, ρ is the spatial autoregressive coefficient, which estimates the overall interdependence strength.²⁷⁸

Finally to account for *common shocks* I include in the model a set of *dummies for each year* but one, and test the joint significance of these time-effects by the standard F test.²⁷⁹

²⁷⁵ Ibid., p.141.

²⁷⁶ Beck, “Time-Series Cross-Section Methods,” Draft,” p.3.

²⁷⁷ To obtain the weight (w_{ij}), I first ordered the data as N observations at t_0 and then N observations at t_1 then the N at t_2 and so on through the N at t_T . To obtain a $N \times N$ W matrix for each time period, I calculated (imports from j to i plus exports from i to j) / GDP of i . (I gathered trade data from UNCOMTRADE database.) Hence, I obtained a $N \times N$ W matrix for each time period which has zeros on the diagonal. This weights matrix (W) represents the relative influence of j on i . I ‘row-normalized’ this weights matrix, by dividing each element of each row of W by the sum of that row. The spatial lag (Wy) is matrix W times vector y . Finally, to get time lagged Wy , I simply used Wy with one year time lag; i.e., for each observation on y_{it} , the corresponding element of $W y_{t-1}$ gives a weighted average of the $y_{j,t-1}$ (lagged y in the other units), with weights given by the relative connectivity from j to i during $t-1$.

²⁷⁸ Franzese and Hays, “Spatial Econometric Models of Cross-Sectional Interdependence in Political Science Panel and Time-Series-Cross-Section Data,” p. 144. Also see Beck, “Time-Series Cross-Section Methods,” pp. 5-7.

²⁷⁹ Franzese, “Empirical Models for Time-Series-Cross-Section Data,” Lecture Notes.

Addressing Unit-Heterogeneity

Lastly, I also want to mention how I address unit-heterogeneity. The sample of the present study is compiles the *nondemocracies* of the world, to the extent data allows. These countries differ in many ways, many of which not observable to the researcher. Wilson and Butler warn us against possible bias which may result from the use of OLS on *pooled* data, and graphically present likely estimation mistakes (Figure 17). They argue “when researchers use OLS on data pooled from different units, they implicitly assume that unobserved local factors do not exist (meaning that α_i is constant across countries: $\alpha_i = \alpha_j = \alpha$).”²⁸⁰ They provide four graphs which clearly illustrate “the severe consequences that can result from using OLS inappropriately on pooled data.”²⁸¹ Beck also, referring to (Green, Kim and Yoon, 2001), emphasizes that “if the fixed effects are omitted there will be omitted variable bias if the fixed effects both explain y and are correlated with x .”²⁸²

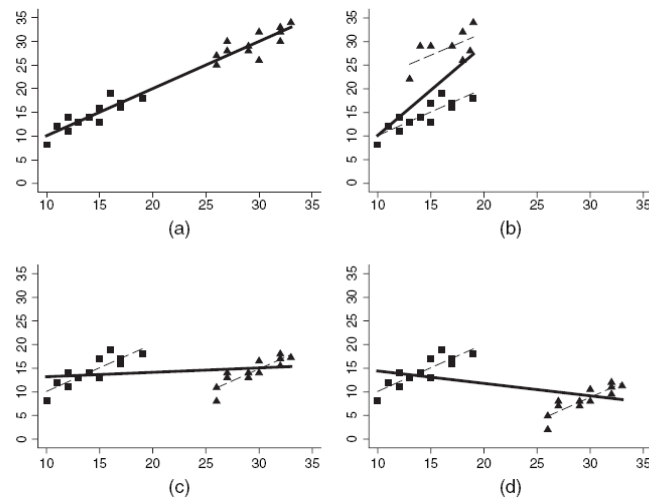


Figure 17 – The severe consequences that can result from using OLS inappropriately on pooled TSCS data. The thick line in each panel is the estimated slope from the pooled regression. (a) Pooled regression correctly estimates slope; (b) pooled regression overestimates slope; (c) pooled regression underestimates slope; and (d) pooled regression estimates incorrect sign for slope.

The F-Test is conducted by using the following formula:

$$F(N-1, NT-N-K) = \frac{(R_{UR}^2 - R_R^2)/(N-1)}{(1 - R_{UR}^2)/(NT-N-K)}$$

²⁸⁰ Wilson and Butler, “A Lot More to Do: The Sensitivity of Time-Series Cross-Section Analyses to Simple Alternative Specifications,” p. 104.

²⁸¹ Ibid.

²⁸² Beck, “Time-Series Cross-Section Methods,” p.3.

The simplest way to address unit-heterogeneity is “to allow the intercepts to vary by unit, the ‘fixed effects’ model [FEM]”²⁸³ This is equivalent to including a set of country dummies into the model. Fixed effects (or Least Square Dummy Variables-LSDV) model is also called ‘within-group estimator’, because, it uses only the variation in y_{it} and x_{it} within each group (country) to estimate the β coefficients. Any variation between countries is assumed to spring from the unobserved fixed effects.²⁸⁴ As a result, time-invariant variables cannot be included in the model, and slowly moving variables will have high standard errors because they will be highly correlated with the fixed effects and the fixed effects will soak up most of the explanatory power of those slowly changing variables.²⁸⁵ In the literature, there is a divergence about whether one should include fixed effects in the presence of slowly changing variables when the F-test marginally indicates their inclusion. Beck argues that “it may be better to decide not to include fixed effects if the test of the null of no fixed effects only marginally rejects that null. But where fixed effects are needed in the model, failure to include them can lead to omitted variable bias.”²⁸⁶ Wilson and Butler’s stance, however, is for the inclusion of fixed effects even when one ‘loses’ explanatory power of the time-invariant and slowly changing variables. They say,

“... some might argue that when theory suggests a certain set of explanatory variables, those variables should be included instead of unit effects. After all, should not our models be parsimonious and theoretically motivated? Of course. But to use theory as an argument against the diagnostic value of FEM is to fundamentally misunderstand the role of statistical analysis in theory evaluation. If we knew the true model (not that a model is ever really “true”) and had all the appropriately measured data, then this would be a valid argument. But absent divination of the true specification, we first use regression analysis to test our theories against plausible alternatives. Unit heterogeneity represents the alternative explanation (almost always a plausible one) that unobserved local factors drive, at least in part, the cross-country variation in the dependent variable. In most cases, researchers are painfully aware of

²⁸³ Beck, “Time-Series Cross-Section Methods,” p.7

²⁸⁴ Franzese, “Empirical Models for Time-Series-Cross-Section Data,” [Lecture Notes](#)

²⁸⁵ Wilson and Butler, “A Lot More to Do: The Sensitivity of Time-Series Cross-Section Analyses to Simple Alternative Specifications,” p. 106 and Beck, “Time-Series-Cross-Section Data: What Have We Learned in the Past Few Years,” p. 285.

²⁸⁶ Beck, “Time-Series Cross-Section Methods,” p.3

potentially important variables that are missing from the analysis. Accounting for these missing variables is not atheoretical; it is simply careful science.”²⁸⁷

They also add that the FEM can also be a simple diagnostic tool;

“... by comparing the pooled OLS and FEM coefficient estimates, a researcher can tell whether unit effects influence the parameters of interest and they can identify which panels (or groups of panels) differ most significantly from the mean. Standard F tests can determine the statistical significance of the unit effects individually, in subsets, or globally.”²⁸⁸

Because most variables used in the present research are slowly changing indicators, I followed Wilson and Butler’s steps and used FEM as a diagnostic tool. Thus, for each analysis I checked the possibility of fixed effects by estimating the model with and without a full set of country dummies but one; and tested, via standard F-test, the null hypothesis that all the fixed effects are jointly insignificant.²⁸⁹ Whenever I detected unit effects, rather than estimating the model with fixed effects, and relying on within unit variation—which is not very reasonable with the small T data that I have—I looked for statistically significant subsets.

²⁸⁷ Wilson and Butler, “A Lot More to Do: The Sensitivity of Time-Series Cross-Section Analyses to Simple Alternative Specifications,” p. 106.

²⁸⁸ Ibid., p. 105.

²⁸⁹ Beck, “Time-Series Cross-Section Methods,” p.3

An alternative to FEM is the random-effects model (REM), which *can be estimated with GLS or maximum likelihood estimation*. Hsiao shows that fixed effects are appropriate if one wants to make inferences to the observed units, whereas the random effects model (which assumes that the effects are drawn from some distribution) is appropriate if one thinks of the observed units as a sample from a larger population and if one wants to make inferences about the larger population. (Referred to in Beck, “What Have We Learned in the Past Few Years” p. 284) While the random effects model better suits the ‘sample’ character of my dataset, it *requires that the unit effects are uncorrelated with the regressors*—which is not the case in my dataset. (Wilson and Butler, “A Lot More to Do: The Sensitivity of Time-Series Cross-Section Analyses to Simple Alternative Specifications,” p. 104)

**TESTING INDIRECT ACCOUNTABILITY:
GOVERNMENT RESPONSIVENESS TO CAPITALIST INTERESTS
DUE TO ‘EXIT-THREAT’ OR ‘EXIT’**

Let us begin by recalling the main argument of this study. In essence, I question the possibility and the conditions under which the unlimited power of nondemocratic rulers can be constrained by a segment of the society. My main argument is that those nondemocratic leaders who are financially dependent on extraction from domestic productive forces can be indirectly held accountable by capital owners and investors who are able to use the threat of exit and/or who can actually perform it. In other words, if an autocratic ruler is *financially dependent on extraction from domestic productive forces*, and if those *productive forces are strong and independent enough to ‘punish’ the ruler by exiting in case their interests are not met*, government responsiveness to capitalists’ interests to avoid their exit can be regarded as a form of accountability, and hence restriction, on the policymaking power of the ruler. I underline once more that *not every kind of pro-capitalist policymaking can be considered as indirect accountability*. Indirect accountability implies responsiveness to business reactions *only* when capital owners possess adequate bargaining-power to extract policy concessions—i.e. *only* when the private sector can *credible threaten to exit* (or actual *exit*), *and* when the (potential) exit is likely to inflict some sort of loss on the part of the ruler. Accordingly, any pro-capitalist policymaking in the absence of one of these conditions should be considered as a function of a different causal mechanism (structural or contextual reasons—such as dependence on a single sector; fiscal crisis, or conditionalities attached to a loan, etc.), which cannot be considered as accountability.

Table 13 presents the Model which I use to test the presence of responsiveness as a result of exit-threat or exit, controlling for other causal mechanism which may generate rulers’ responsiveness to the interests of capitalists in the leading sector of their country. In order to clearly present all the terms related to a particular hypothesis, the model is displayed in parts—as a result of which some terms appear more than once (written in italic), although they are obviously used only once in the estimation. A list of the

independent variables is also presented again in Table 14 to facilitate the reading of the model.

Responsiveness (the dependent variable) in this model indicates an increase in the level of the variables measuring (1) Common pro-Capitalist policies, (2) Market-conforming (MC) or pro-LL sector policies, and (3) Market-resisting (MR) or particularistic pro-HH sector policies. The items used to measure each variable are as follows—details of have been previously presented in Chapter Three.

Common pro-Capitalist Policies:

- Protection of property rights and the rule of law
- Foreign investment freedom and freedom to access to foreign exchange
- Free banking system and ease of accessing competitive bank credits
- Lower inflation (domestic price stability)
- Exchange rate stability

Market-Conforming (pro-LL sector) Policies

- Ease of starting/ending and operating business (less time and red-tape)
- Ease of exporting and importing (less time and red-tape)
- Lower tax burden on profit (lower corporate income tax rate)
- Flexibility of hiring/firing & employing workers

Market-Resisting Particularistic (pro-HH sector) Policies (two separate items used)

- Import tariff concession (exemptions or reductions) for the leading sector input, supplies and machinery and equipment
- Tariff protection for the leading sector's final products

I have estimated the model by OLS with panel corrected standard errors (PCSE). The model includes a time lagged dependent variable to account for autocorrelation, and also time-lagged spatial lag dependent variable to control for cross-unit interdependence. Wherever F-test indicates that time effects are necessary, I include a full set of year dummies but one into the model. However, because most of the variables are slowly changing within the time period of the study, wherever units-effects were found to be necessary, I followed Wilson and Butler's advice and used fixed-effects results only as a diagnostic tool to determine country or country groups which differ from the mean. Accordingly, I estimated pooled models with statistically significant country and group effects. Table 15 presents the results of four analyses. All the analyses apply the *same*

model presented previously in Table 13. The F-test results for time and unit effects, and for fixed vs. pooled models (with controls) are provided in Table 16.

Table 13 – A Model of Responsiveness to the Interests of Capital Owners

Responsiveness* =

$$\begin{aligned}
 & \text{(Credible Exit-Threat)} \quad \beta_0 + \beta_1 (\text{FINDEP}) + \beta_2 (\text{PRVSECT}) + \beta_3 (\text{MOBILITY}) \\
 & \quad + \beta_4 (\text{FINDEP} * \text{PRVSECT}) + \beta_5 (\text{FINDEP} * \text{MOBILITY}) + \beta_6 (\text{PRVSECT} * \text{MOBILITY}) \\
 & \quad + \beta_7 (\text{FINDEP} * \text{PRVSECT} * \text{MOBILITY}) \\
 & \text{(Capital Flight)} \quad + \beta_8 (\text{CAPTFLWS}) + \beta_1 (\text{FINDEP})^{**} + \beta_{19} (\text{LDSEC-CONTB}) + \beta_3 (\text{MOBILITY}) \\
 & \quad + \beta_9 (\text{CAPTFLWS} * \text{FINDEP}) \\
 & \quad + \beta_{10} (\text{CAPTFLWS} * \text{LDSEC-CONTB}) + \beta_{11} (\text{CAPTFLWS} * \text{MOBILITY}) + \beta_{19} (\text{LDSEC-CONTB} * \text{MOBILITY}) \\
 & \quad + \beta_{12} (\text{CAPTFLWS} * \text{LDSEC-CONTB} * \text{MOBILITY}) \\
 & \text{(Investment Strike)} \quad + \beta_{13} (\text{PRVINVSTM}) + \beta_1 (\text{FINDEP}) + \beta_{18} (\text{LDSEC-CONTB}) + \beta_3 (\text{MOBILITY}) \\
 & \quad + \beta_{14} (\text{PRVINVSTM} * \text{FINDEP}) \\
 & \quad + \beta_{15} (\text{PRVINVSTM} * \text{LDSEC-CONTB}) + \beta_{16} (\text{PRVINVSTM} * \text{MOBILITY}) + \beta_{19} (\text{LDSEC-CONTB} * \text{MOBILITY}) \\
 & \quad + \beta_{17} (\text{PRVINVSTM} * \text{LDSEC-CONTB} * \text{MOBILITY}) \\
 & \text{(Single Sector Dependence)} \quad + \beta_{18} (\text{LDSEC-CONTB}) + \beta_1 (\text{FINDEP}) + \beta_3 (\text{MOBILITY}) \\
 & \quad + \beta_{19} (\text{LDSEC-CONTB} * \text{MOBILITY}) + \beta_{20} (\text{LDSEC-CONTB} * \text{FINDEP}) + \beta_5 (\text{FINDEP} * \text{MOBILITY}) \\
 & \quad + \beta_{21} (\text{LDSEC-CONTB} * \text{MOBILITY} * \text{FINDEP}) \\
 & \text{(Fiscal Crisis)} \quad + \beta_{23} (\text{FISCAL}) + \beta_1 (\text{FINDEP}) + \beta_{24} (\text{FISCAL} * \text{FINDEP}) \\
 & \text{(Other Alternative Arguments \& Control Variables)} \quad + \beta_{25} (\text{IMF-LOAN}) + \beta_{26} (\text{PUBLIC-LS}) + \beta_{27} (\text{HHDOMN}) + \beta_{28} (\text{SRVSDOMN}) + \beta_{29} (\text{NONDEMOCR}) \\
 & \quad + \beta_{30} (\text{lnGNIpc}) + \beta_{30} (\text{Lagged Dependent Variable}) + \beta_{31} (\text{Spatial Interdependence - Wy}_{t-1}) \\
 & \quad + \beta (\text{time dummies}) + \beta (\text{country dummies}) + e
 \end{aligned}$$

*The Dependent Variable(s) measures the level of three distinct policy categories in four separate analyses: (1) Common pro-Capitalist policies, (2) Market-conforming (MC) or pro-LL sector policies, and (3) Market-resisting (MR) or particularistic pro-HH sector policies. An increase in the level of these variables is considered as responsiveness to the interests of capital owners.

**The terms written in italic appear more once in this model only to clearly present all the terms related to a particular hypotheses.

Table 14 - The list of the Independent Variables used to test the main and alternative hypotheses.

Responsiveness to the Interests of Capital Owners due to	The Independent Variables (3 year lagged average)
<p><i>'Credible Exit-Threat'</i> (Indirect Accountability)</p>	<p>FINDEP – Financial Dependence of the Government on Tax Revenue (Tax Revenue / Total Government Revenue) PRVSECT – Strength and Independence of the Private Sector (Private Gross Fixed Capital Formation (GFCF) / Total GFCF & Subsidies (% GDP) MOBILITY – Sectorally determined Exit opportunities (LL-HH sectoral attributes continuum based on Capital Intensity & Economies of Scale measures – Low values indicate less exit opportunities / mobility)</p>
<p><i>'Exit'</i> (Indirect Accountability)</p>	<p>CAPTFLWS – Capital In + out Flows (% GDP) (Capital Flight is indicated by the negative range of CAPTFLWS) PRVINVSTM – Annual percent change in Private GFCF (Investment Strike is indicated by the negative range of PRVINVSTM)</p>
<p>Fiscal Crisis</p>	<p>FISCAL – Budget Balance and Public Debt (% GDP) (Fiscal Crisis is indicated by the negative values = Budget deficit > 3 % GDP & Public Debt > 60% GDP)</p>
<p>External Pressures (Conditionalities Attached to a Loan)</p>	<p>IMF-LOAN – IMF loan (%GDP)</p>
<p>Dependence on a Single Sector (Also to accounts for the impact of the 'size' of the leading sector)</p> <p>(Controlling for the impact of similar or different <i>sectoral</i> interests that exist in the economy)</p>	<p>LDSEC-CONTB – The Leading Sector's Contribution to Economy (Sectoral share in total export earnings) HHDOMN – The share of High/High Sectors in total export earnings SRVSDOMN – The share of commercial service exports in total export earnings</p>
<p>Existence of similar interest in public and private sectors</p>	<p>PUBLIC-LS – Extent of public sector dominance in the leading sector</p>
<p>The Degree of Authoritarianism</p>	<p>NONDEMOCR – The Freedom House Political Rights index</p>

TABLE 15 - REGRESSION ANALYSIS RESULTS

Linear regression, correlated panels corrected standard errors (PCSEs)

	Common Pro-Capitalist Policies			Market Conforming Policies			Protection for the Leading Sector			Import Tariff Concessions for the Leading Sector		
	Coef.	SE	P> z	Coef.	SE	P> z	Coef.	SE	P> z	Coef.	SE	P> z
FINDEP	.50	(.24)	.04	.42	.09	.00	8.25	12.60	.51	-.16	.14	.25
PRVSECT	.11	.11)	.33	.15	.04	.00	-5.88	6.74	.38	.28	.07	.00
MOBILITY	.57	.28)	.05	.52	.13	.00	39.62	35.52	.27	-.79	.18	.00
FINDEP*MOBILITY	-1.34	.48)	.01	-1.01	.21	.00	-40.43	51.57	.43	.68	.23	.00
FINDEP*PRVSECT	-.15	.25)	.55	-.36	.08	.00	20.73	12.66	.10	-.36	.12	.00
PRVSECT*MOBILITY	-.83	.38)	.03	-.47	.17	.01	44.07	34.04	.20	-1.02	.30	.00
FINDEP*PRVSECT*MOBILITY	1.08	.53	.04	1.03	.25	.00	-85.30	52.36	.10	1.36	.42	.00
LDSEC-CONTB	.12	.10	.24	.15	.05	.00	31.62	11.65	.01	-.40	.12	.00
LDSEC-CONTB*MOBILITY	.29	.38	.45	-.21	.14	.13	-141.20	54.29	.01	1.62	.55	.00
LDSEC-CONTB* FINDEP	.09	.22	.69	-.24	.10	.02	-54.96	19.84	.01	.53	.29	.07
LDSEC-CONTB*MOBILITY*FINDEP	-.50	.56	.37	.31	.22	.16	219.76	81.71	.01	-2.18	.81	.01
CAPTFLWS	.40	.22	.07	-.15	.10	.13	-30.19	14.25	.03	1.57	.28	.00
CAPTFLWS *FINDEP	.17	.34	.61	.44	.15	.00	7.92	12.67	.53	.66	.27	.01
CAPTFLWS* LDSEC-CONTB	-.57	.31	.07	.27	.12	.02	53.89	18.60	.00	-2.24	.37	.00
CAPTFLWS *MOBILITY	-.57	.53	.28	-.53	.27	.05	79.11	44.78	.08	-3.79	.55	.00
CAPTFLWS* LDSEC-CONTB*MOBILITY	.72	.74	.33	-.12	.40	.76	-232.83	72.07	.00	4.79	.97	.00
PRVINVSTM	-.24	.09	.01	-.24	.07	.00	-0.44	7.43	.95	.19	.13	.14
PRVINVSTM *FINDEP	.07	.07	.31	.24	.06	.00	9.92	10.19	.33	.13	.11	.25
PRVINVSTM* LDSEC-CONTB	.32	.11	.01	.25	.09	.01	-5.54	8.98	.54	-.24	.17	.16
PRVINVSTM *MOBILITY	.44	.15	.00	-.09	.09	.33	-33.28	22.56	.14	-.51	.20	.01
PRVINVSTM* LDSEC-CONTB* MOBILITY	-.62	.21	.00	-.03	.12	.83	57.37	27.27	.04	.41	.32	.20

Continued on the next page

TABLE 15 - REGRESSION ANALYSIS RESULTS – continued
 Linear regression, correlated panels corrected standard errors (PCSEs)

	Common Pro-Capitalist Policies			Market Conforming Policies			Protection for the Leading Sector			Import Tariff Concessions for the Leading Sector		
	Coef.	SE	P> z	Coef.	SE	P> z	Coef.	SE	P> z	Coef.	SE	P> z
FISCAL	.11	.04	.01	-.04	.01	.00	-3.35	1.80	.06	-0.05	.03	0.06
FISCAL *FINDEP	-.11	.05	.03	-.05	.02	.04	-0.06	3.08	.99	-0.03	.04	0.45
PUBLIC-LS	.25	.06	.00	.01	.01	.33	4.63	1.22	.00	-0.13	.02	0.00
IMF-LOAN	.03	.03	.23	.00	.01	.77	-4.95	(2.53)	.05	-.09	.03	.00
NONDEMOCR	.08	.04	.06	-.05	.02	.06	5.24	3.67	.15	.07	.06	.26
HHDOMN	-.19	.06	.00	-.07	.02	.00	-5.13	3.48	.14	.03	.04	.34
SRVSDOMN	.08	.06	.13	-.12	.03	.00	-3.44	5.08	.50	-.13	.04	.00
lnGNlpc	.14	.08	.06	.09	.03	.00	-10.07	3.84	.01	-.08	.04	.02
lagged Dependent Variable	.49	.11	.00	.80	.04	.00	.57	.12	.00	.59	.08	.00
Spatial Interdependence	.28	.07	.00	-.07	.05	.49	-.03	.06	.54	-.27	.19	.16
Time Effects												
Country Effects												
Constant	-.20	.18	.26	-.03	.05	.85	-2.86	5.82	.62	.65	.12	.00
Number of obs		301			301			301			301	
N. of groups		43			43			43			43	
Obs per group:		7			7			7			7	
R-squared		0.95			0.97			0.96			0.95	
Wald chi2(37)		30974			23568222			10257			10427658	
Prob > chi2		0.00			0.00			0.00			0.00	

Table 16- F-test Results for Time and Unit Effects

Dependent Variable	Time Effects			Unit Effects			Fixed effects vs. Pooled Model with country/country group controls		
	F-stat	F-Critical df(6, 263)	Result	F-stat	F-Critical df(42, 226)	Result	F-stat	F-Critical	Country Groups or Countries Controlled for ²⁹⁰
Common Pro-Capitalist Policies	1.60	1.77 (.10)*	No	3.03	1.59 (.01)	Yes			All countries
Market-Conforming Policies:	5.95	2.80 (.01)	Yes	2.12	1.59 (.01)	Yes	1.05	1.16 df(29, 220) (.25)	EAC, EMCCA, EAEC, Ex-Communist, North Africa, Middle East Bahrain, Bosnia-Herzegovina, Ethiopia, Kazakhstan, Pakistan, Tunisia, Zimbabwe.
Tariff Protection for the Leading Sector's Final Product	.88	1.31 (.25)	No	2.18	1.59 (.01)	Yes	.84	1.16 df(30, 226) (.25)	EMCCA Algeria, CAR, Gabon, Haiti, Jordan, Morocco, Tunisia, Saudi Arabia, Tajikistan, Zambia, Zimbabwe
Import Tariff Concessions for the Leading Sector	.24	1.31 (.25)	No	4.36	1.59 (.01)	Yes	1.35	1.38 df(23, 226) (.10)	EAC, WAEMU, EAEC Algeria, Azerbaijan, Bosnia-Herzegovina, Central African Republic, Jordan, Kyrgyzstan, Mauritania, Saudi Arabia, Syria, Tunisia, Uganda, Yemen, Zimbabwe.

* The level of significance for the F-Critical

²⁹⁰ **Country Groups:**

East African Community (EAC): Burundi, Rwanda, Tanzania, Uganda

West African Economic & Monetary Union (WAEMU): Burkina Faso, Cote d'Ivoire, Togo

Economic and Monetary Community of Central Africa (EMCCA): Cameroon, Central African Republic, Chad, Republic of Congo, Equatorial Guinea, Gabon

Eurasian Economic Community (EAEC): Belarus, Kazakhstan, Kyrgyzstan, Tajikistan, Uzbekistan (after 2005)

Ex-Communist Countries (Ex-Com): Azerbaijan, Belarus, Bosnia-Herzegovina, China, Kazakhstan, Kyrgyzstan, Tajikistan Uzbekistan

North Africa: Algeria, Morocco, Tunisia

Middle East: Bahrain, Egypt, Iran, Jordan, Kuwait, Oman, Pakistan, Saudi Arabia, Syria, United Arab Emirates, Yemen

TESTING ALTERNATIVE HYPOTHESES

External Pressures – Conditionalities attached to IMF loans

One of the factors which may bring about common pro-capitalist or market-conforming policies, in the absence of bargaining-power of the private sector, is external pressures from a money lending institution, mainly the IMF. For in most cases IMF loans are conditional on adopting economic liberalization policies. Therefore, *we expect to see an increase in the level of pro-capitalist or market-conforming policies and a decrease in the level of particularistic policies when a government borrows from the IMF.*

For pro-capitalist and market conforming policies we expect that

$$H: d R / d \text{ IMF-Loan} = \beta_{\text{IMF-loan}} > 0 \quad (H_0: \beta_{\text{IMF-loan}} \leq 0)$$

and, for particularistic policies

$$H: d R / d \text{ IMF-Loan} = \beta_{\text{IMF-loan}} < 0 \quad (H_0: \beta_{\text{IMF-loan}} \geq 0)$$

Table 17– Hypothesis Test of whether *Borrowing from IMF* affects the level of *Pro-Capitalist* and *Market-Conforming Policies*

	$d R / d \text{ IMF}$	<i>s.e.</i> $(d R / d \text{ IMF})$	<i>t</i> -Statistic	One-tailed p-Value $H_0: \beta_{\text{IMF-loan}} \leq 0$	One-tailed p- Value $H_0: \beta_{\text{IMF-loan}} \geq 0$	95 percent Confidence Interval
Pro-Capitalist	0.032	0.026	1.206	0.115	0.885	[-0.021, 0.084]
Market Conform.	-0.003	0.009	-0.291	0.386	0.614	[-0.020, 0.015]

Table 18 – Hypothesis Test of whether *Borrowing from IMF* affects the level of *Protection for the Leading Sector* and the *Degree of Import Tariff Concessions*

	$d R / d \text{ IMF}$	<i>s.e.</i> $(d R / d \text{ IMF})$	<i>t</i> -Statistic	One-tailed p- Value $H_0: \beta_{\text{IMF-loan}} \leq 0$	One-tailed p-Value $H_0: \beta_{\text{IMF-loan}} \geq 0$	95 percent Confidence Interval
Protection Tariff	-4.950	2.534	-1.953	0.974	0.026	[-9.918, 0.018]
Concessions	-0.094	0.032	-2.900	0.998	0.002	[-0.157, -0.030]

Table 18 shows that borrowing from the IMF has no statistically significant effect on the level of common pro-Capitalist or market-conforming policies (we can reject neither of the directional hypothesis). However, Table 17 shows that we can reject the null hypothesis that borrowing from the IMF increase the level of market conforming policies. In conformity with our hypothesis, borrowing from the IMF decreases both the level of protectionism guaranteed for the products of the leading sector and also the sector-specificity (directed at the leading sector) of import tariff concessions.

Fiscal Crisis

Fiscal crisis may also lead policy-makers to make pro-leading-sector (both market-conforming and market-resisting) or pro-capitalist policies in order to attract greater private investment. Fiscal status variable is based on both the level of budget balance and government debt (as percent of GDP). The negative values on that variable indicate fiscal crisis. Specifically, *we expect to see an increase in the level of all policies of interest when governments go through a fiscal crisis. We expect that effect to be more robust at high levels of financial dependence.*

The part of the model that accounts for the effect of fiscal crisis is as follows:

$$R = \dots + \beta_{FS} (Fiscal\ Status) + \beta_{FD} (Financial\ Dependence) \\ + \beta_{FS_FD} (Fiscal\ Status * Financial\ Dependence) + \dots$$

And, the marginal effect of fiscal status on the level of the policies of interest is given by

$$dR / d Fiscal\ Status = \beta_{FS} + \beta_{FS_FD} (Financial\ Dependence)$$

Accordingly, I hypothesize that

$$H: \beta_{FS} + \beta_{FS_FD} (Financial\ Dependence) < 0^{291}$$

$$H_0: \beta_{FS} + \beta_{FS_FD} (Financial\ Dependence) \geq 0$$

²⁹¹ Because *Fiscal Crisis* is indicated by the *negative* range of the *Fiscal Status* variable, we expect to see a negative marginal effect indicating an *increase* in the level of the policies of interest.

Table 19 – Hypothesis Test of whether *Fiscal Status* affects the level of *pro-Capitalist Policies*

	dR/dFS	<i>s.e.</i> (dR/dFS)	<i>t</i> -Statistic	One-tailed p-Value $\beta_{FS} + \beta_{FS_FD}$ (<i>Financial Dependence</i>) ≥ 0	One-tailed p-Value $\beta_{FS} + \beta_{FS_FD}$ (<i>Financial Dependence</i>) ≤ 0	95 percent Confidence Interval
Financial Dependence= .25	0.081	0.046	1.768	0.960	0.039	[0.170, -0.009]
Financial Dependence= .55	0.048	0.053	0.908	0.817	0.182	[0.152, -0.056]
Financial Dependence= .97	0.002	0.067	0.034	0.513	0.486	[0.134, -0.129]

Table 20 – Hypothesis Test of whether *Fiscal Status* affects the level of *Market-Conforming Policies*

	dR/dFS	<i>s.e.</i> (dR/dFS)	<i>t</i> -Statistic	One-tailed p-Value $\beta_{FS} + \beta_{FS_FD}$ (<i>Financial Dependence</i>) ≥ 0	One-tailed p-Value $\beta_{FS} + \beta_{FS_FD}$ (<i>Financial Dependence</i>) ≤ 0	95 percent Confidence Interval
Financial Dependence= .25	-0.05	0.02	-3.30	0.001	0.999	[-0.02, -0.08]
Financial Dependence= .55	-0.06	0.02	-3.22	0.001	0.999	[-0.03, -0.10]
Financial Dependence= .97	-0.08	0.03	-2.98	0.002	0.998	[-0.03, -0.14]

Table 21 – Hypothesis Test of whether *Fiscal Status* affects the level of *Protection for the Leading Sector*

	dR/dFS	<i>s.e.</i> (dR/dFS)	<i>t</i> -Statistic	One-tailed p-Value $\beta_{FS} + \beta_{FS_FD}$ (<i>Financial Dependence</i>) ≥ 0	One-tailed p-Value $\beta_{FS} + \beta_{FS_FD}$ (<i>Financial Dependence</i>) ≤ 0	95 percent Confidence Interval
Financial Dependence= .25	-3.36	1.68	-2.01	0.0228	0.977	[-0.61, -6.11]
Financial Dependence= .55	-3.38	1.96	-1.72	0.0434	0.957	[0.29, -7.06]
Financial Dependence= .97	-3.40	2.86	-1.19	0.1176	0.882	[1.30, -8.10]

Table 22 – Hypothesis Test of whether *Fiscal Status* affects the degree of *Import Tariff Concessions*

	dR/dFS	<i>s.e.</i> (dR/dFS)	<i>t</i> -Statistic	One-tailed p-Value $\beta_{FS} + \beta_{FS_FD}$ (<i>Financial Dependence</i>) ≥ 0	One-tailed p-Value $\beta_{FS} + \beta_{FS_FD}$ (<i>Financial Dependence</i>) ≤ 0	95 percent Confidence Interval
Financial Dependence= .25	-0.06	0.03	-1.80	0.036	0.963	[0.00, -0.12]
Financial Dependence= .55	-0.07	0.04	-1.66	0.049	0.951	[0.01, -0.14]
Financial Dependence= .97	-0.08	0.05	-1.47	0.072	0.929	[0.03, -0.18]

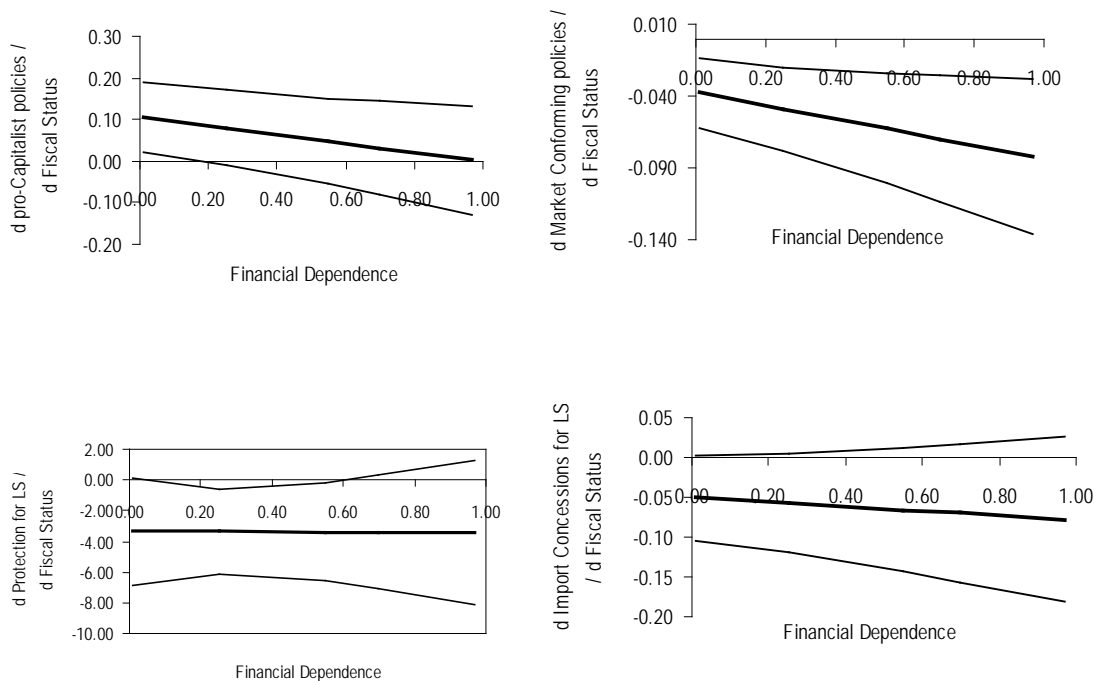


Figure 18 - Marginal effect of *Fiscal Status* on various policy categories, conditional on financial dependence, with 95 percent confidence intervals.²⁹² (Fiscal crisis is indicated by the negative range of the *Fiscal Status* variable.)

Tables 19 through 22 present the hypothesis testing for the effect of fiscal status on the four policy categories, conditional on three levels of financial dependence. And, Figure 19 displays the marginal effect of fiscal status the same policy categories conditional on a continuous range of financial dependence. Because fiscal crisis is indicated by negative values on the scale of fiscal status, the part of the graph below zero should be read as an increase in the level of the policy of concern.

When the dependent variable measure pro-Capitalist policies, we fail to reject the null hypothesis that financial crisis has no or negative effect on the level of pro-capitalist policies at all levels of financial dependence. In other words, financial crisis, does not

²⁹² We can *reject* a null hypothesis of no effect only when *both* upper and lower levels of the confidence interval are below or above zero, otherwise we fail to reject the null hypothesis.

For a comprehensive discussion of interaction effects see Cindy D. Kam & Robert J. Franzese, Jr., *Modeling and Interpreting Interactive Hypotheses in Regression Analysis* (Ann Arbor: The University of Michigan Press, 2007) and William Roberts Clark et al., "Understanding Interaction Models: Improving Empirical Analyses," *Political Analysis*, Vol. 14 (2006):63–82.

seem to positively affect the on the level of common pro-capitalists policies. On the contrary, at low levels of financial dependence (i.e. in rentier-economies), we reject the null hypothesis that good fiscal status has no or negative effect on the same policies. That is, *good fiscal status* positively (or fiscal crisis negatively) affects the level of pro-capitalist policies.

For the market-resisting particularistic policies, at low level of financial dependence (in rentier economies, again), we reject the null hypothesis that fiscal crisis has no or negative effect on the level of the protection and import tariff concessions granted to the leading sector. In such countries, fiscal crisis positively affects the level of particularistic policies.

And, for market-conforming policies, we observe that at all levels of financial dependence, we can reject the null hypothesis that fiscal crisis has no effect on the level of pro-LL sector (or market-conforming) policies. Fiscal crisis emerges as a factor which brings about an increase in the level of market-conforming policies. In conformity with our hypothesis, this effect is positively mediated by the level of financial dependence.

Dependence on a Single HH Sector

The sectoral dependence hypothesis, informed by Shafer's arguments, is specifically about dependence on a HH sector. As Shafer notes, in countries where the ruler is dependent on a single HH sector (oil or mining sector) "market downturns have instantaneous, catastrophic consequences for the state; revenues and foreign exchange."²⁹³ Accordingly, we expect that those rulers whose revenue depends on the wellbeing of a single sector, responds to the interests of investors in those sectors, even if sectoral attributes highly constrain the opportunities of exit them.

In a similar vein, one may also wonder if dependence on a LL sector, or even the leading sector's contribution *per se* (in diverse economies), matters in generating pro-capitalist or sector specific policies. The data reveals we can distinguish three different scenarios in which we can evaluate the role that the leading sector plays in policymaking.

²⁹³ Shafer, Winners and Losers.

Single Sector Dominant Rentier Economies: These economies are marked by low financial dependence of the rulers on domestic productive forces and high single sector contribution. In all cases the dominant sector is a HH sector (oil sector).

Single Sector Dominant non-Rentier Economies: These economies are marked by high financial dependence of the government on domestic productive forces and high single sector contribution. The dominant sector may be a LL or a HH sector—other than oil sector.

Sectorally Diverse non-Rentier Economies: These economies also are characterized by high financial dependence of the government on domestic productive forces, yet there is no single sector that dominates the economy of the country. The leading sector, hence, may be a LL or a HH sector—other than the oil sector.

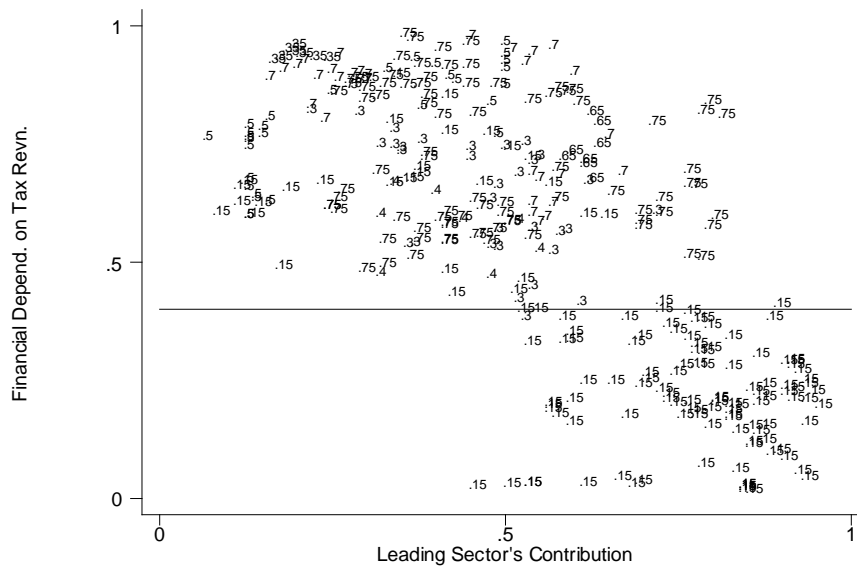


Figure 19- Distribution of the cases across ‘the leading sector’s contribution to economy’ and ‘financial dependence of the government on tax revenue. Case numbers indicate sectoral characteristics—lower scores indicate sectors higher on capital intensity and economies of scale measures.

Figure 19 displays the distribution of the cases across ‘financial dependence on tax revenue’ and ‘leading sector’s contribution to economy’. Below 40 percent of tax revenue share in total government revenue (which is considered by Luciani as a cut point to indicate rentier economies) we observe *only* the countries with a HH leading sector (oil sector) whose contribution to economy is greater than 50 percent. Above the 40 percent threshold, we also observe a few cases where the leading sector’s contribution to economy is relatively high. In all these cases, the leading sector is agro-industry.

Returning back to the hypothesis, therefore, *we expect to see a positive relationship between the leading sector’s contribution to the economy and the related sector-specific policies. We expect this positive relationship to be higher in rentier economies where both leading sector and the state have no or very limited exit opportunities.*

To account for the each of the above mentioned scenarios, we need to include interaction of three variables: the level of leading sector’s contribution to economy (LDSEC-CONTB), an indicator of sectoral characteristics (the score on the LL-HH sectoral attributes continuum –MOBILITY), and the level of financial dependence of the government on tax revenue.

The following part of the model allows us to test (1) the impact of the ‘size’ of the leading sector *per se* on the four policy categories, and (2) its impact conditional on sectoral attributes and the level of financial dependence of the government.

$$\begin{aligned}
 R = & \dots + \beta_{LDS} (L.Sect.Contribution) + \beta_{FD} (Financial\ Dependence) + \beta_{MOB} (Mobility) \\
 & + \beta_{LD_MOB} (L.Sect.Contb.*Mobility) + \beta_{LD_FD} (L.Sect.Contb.*Financial\ Dependence) \\
 & + \beta_{FD_MOB} (Financial\ Dependence * Mobility) \\
 & + \beta_{LDS_MOB_FD} (L.Sect.Contribution * Mobility * Financial\ Dependence) + \dots
 \end{aligned}$$

The marginal effect of the leading sector’s contribution on the level of the policies of interest is given by

$$\begin{aligned}
 d R / d LSC = & \beta_{LDS} + \beta_{LDS_MOB} (Mobility) + \beta_{LDS_FD} (Financial\ Dependence) \\
 & + \beta_{LDS_MOB_FD} (Mobility*Financial\ Dependence)
 \end{aligned}$$

Po-capitalist policies:

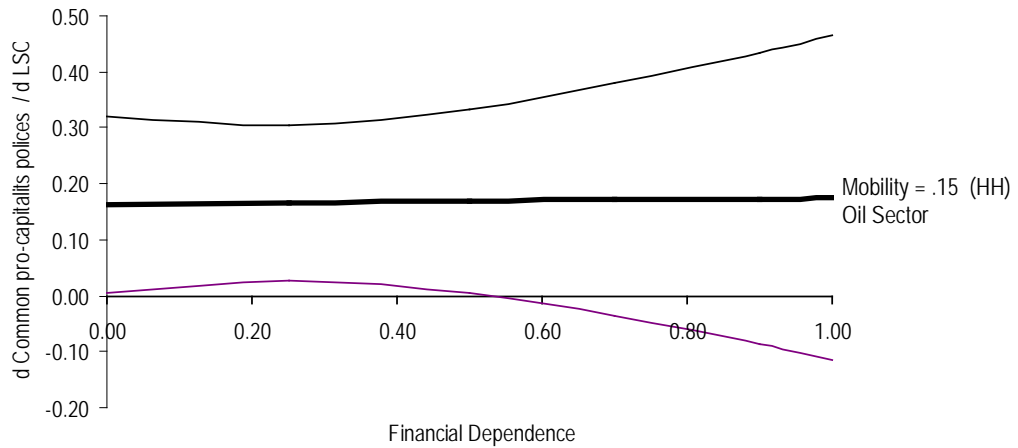
H: $(d R / d L.Sect.Contribution) > 0$ (H₀: $d R / d L.Sect.Contribution \leq 0$)

if *Financial Dependence* > .4 (non-rentier economies) or

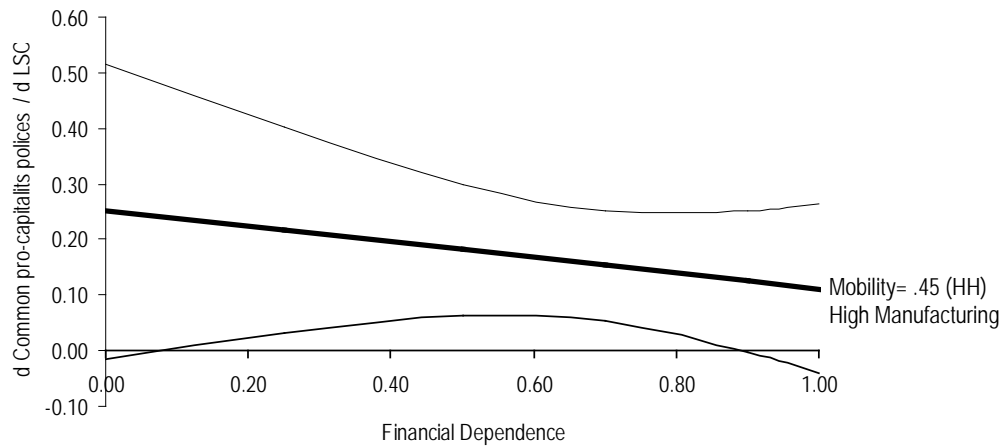
if *Mobility* ≤ .3 (HH sectors)

The graphs in Figure 20 display the marginal effect of the leading sector's contribution to economy on the level of general pro-capitalists policies, conditional on sectoral attributes of the leading sector (mobility) and financial dependence of the government on domestic taxation. As noted before, these policies guarantee a free and secure environment for investment and capital accumulation, and enable a stable and predictable pricing policy for the firms. We observe that *at around the mean financial dependence range for each sectoral category, there is a statistically significant positive relationship between the level of leading sector's contribution and the level of pro-capitalist policies*. In other words, within the ranges, where both the upper and lower levels of confidence intervals are above zero, we reject the null hypothesis that increase in the size of a sector is no or negative effect on the level of pro-capitalist policies. In conformity with our hypothesis, among rentier economies, also, where the leading sector is a HH sector (Figure 20 – a), increase in sectoral contribution (hence, sectoral dependence) is positively correlated with the level of common pro-capitalist policies.

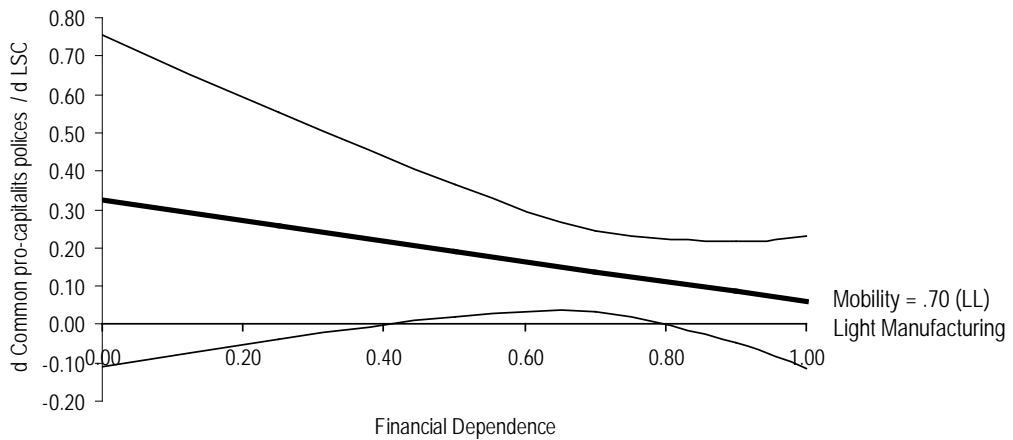
In the sample, 34 percent of the cases fall into the statistically significant category of a HH leading sector (Mobility=.15) and zero to 55 percent financial dependence range' (Figure 20-a). 19 percent of the cases are in the category of an upper HH leading sector (Mobility score between .3 - .5) and 10 to 90 percent tax revenue range (Figure 20-b). And, 20 percent of the cases fall into the category of a LL leading sector (Mobility above .6) and 40 to 80 percent range of financial dependence (Figure 20-c)



a)



b)



c)

Figure 20 - Marginal effect of the leading sector's contribution to economy on common pro-capitalist policies, conditional on the sectoral attributes of the leading sector and financial dependence of the government on tax revenue, with 95 percent confidence intervals. A *fixed* effects model estimated by OLS with PCSEs.

Market-conforming policies:

$$H: (dR / dL.Sect.Contribution) > 0 \quad (H_0: dR / dL.Sect.Contribution \leq 0)$$

if *Mobility* > .5 (relatively LL sectors) and
Financial Dependence > .4 (non-rentier economies)

The graphs in Figure 21 display the marginal effect of the leading sector's contribution on the level of pro-LL sector policies (market-conforming policies), conditional on sectoral attributes and financial dependence of the government on tax revenue. When the leading sector is LL sector (*Mobility*=.70) increase in sectoral contribution has no statistically significant effect on the level of market-conforming policies (we fail to reject the null hypothesis that dependence on a LL sector has no effect on the level of pro-LL sector policies). When the leading sector is a relatively upper HH sector (*Mobility* score between .3 and .5), increase in those sectors' contribution to economy *seems* to have a *negative* effect on the level of market conforming policies when the level of financial dependence is above around 75 percent (statistically significant only at .05 (one-tail) level). In the sample, 14 percent of the cases fall into this sectoral attributes category within the level of financial dependence greater than 70 percent.

The striking part of the graph is the statistically significant positive relationship between sectoral contribution of very HH sectors (i.e. oil sector) and the level of market-conforming policies when the degree of financial dependence is below around 35 percent—i.e. *in rentier economies*. The lower is the level of financial dependence (implicitly meaning, the greater is the degree of sector's contribution to government revenue), the greater is the magnitude of the marginal effect of sectoral contribution on the level of market-conforming policies. In the sample, 29 percent of the cases are in this category within 1 to 34 percent financial dependence range.

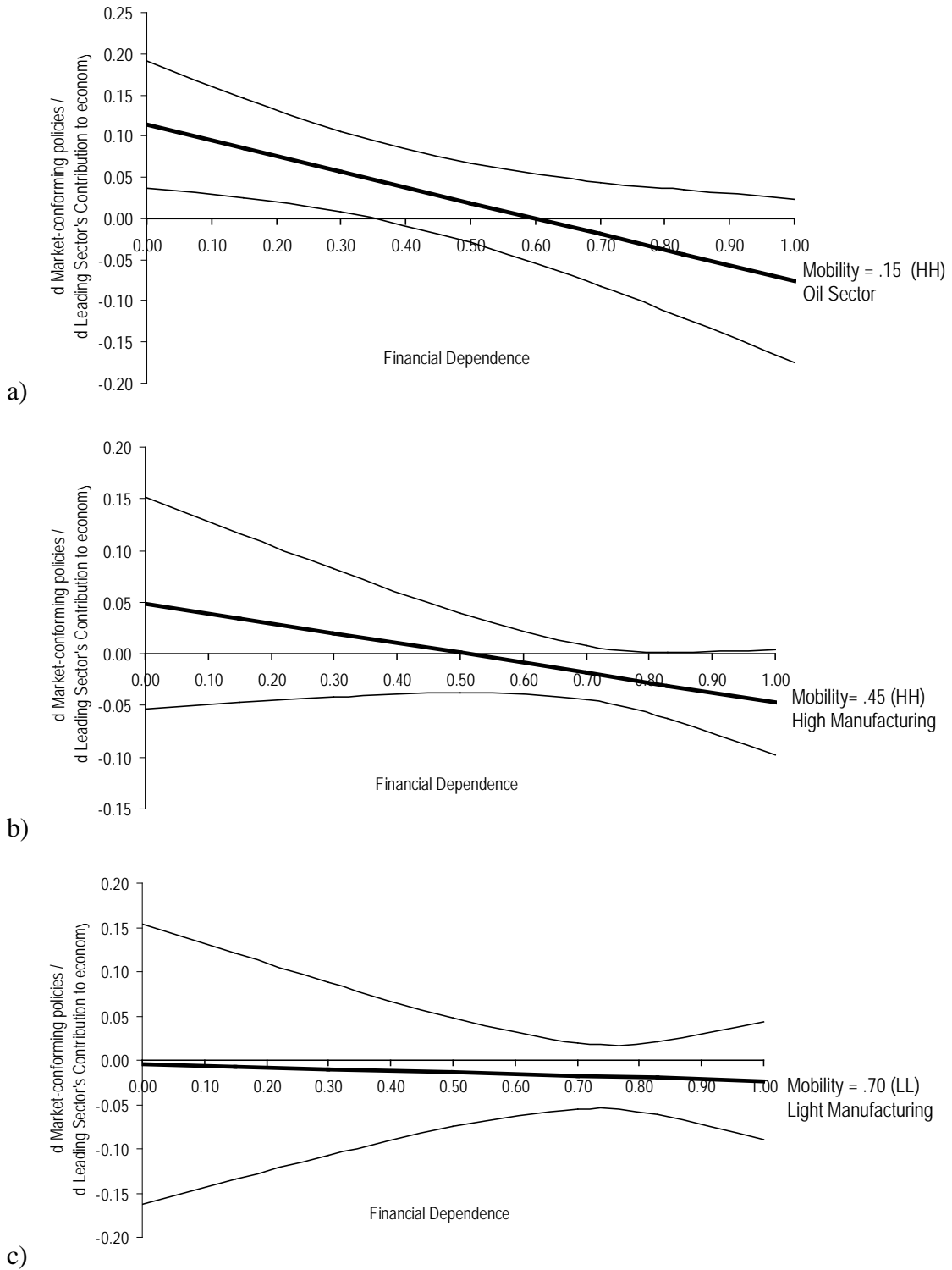


Figure 21 - Marginal effect of the leading sector's contribution to economy on the level of pro-LL sector (market-conforming) policies, conditional on sectoral attributes and financial dependence of the government on tax revenue, with 95 percent confidence intervals. (A pooled regression controlling for statistically significant country and country group effects, estimated by OLS with PCSEs.)

BOX I - Main Sectoral Attributes Categories (Mobility) present in the sample

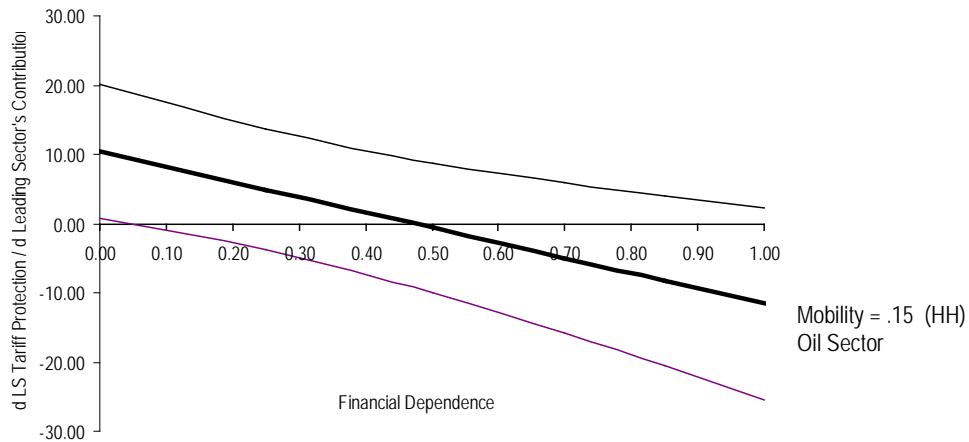
- .15 = Hydrocarbons (Extraction and Refining)
- .30 - .40 = Mining of non-energy producing materials
- .35 - .5 = Heavy manufacturing (Machinery and Transport Equipment, Chemicals, Metal Processing)
- .65 - .70 = Light Manufacturing (Textile & Clothing; Clothing)
- .75 = Agro-industry (Peasant cash crop agriculture and first stage processing of agricultural products).

Market-resisting particularistic policies: (Protection and Tariff Concessions for the Leading Sector)

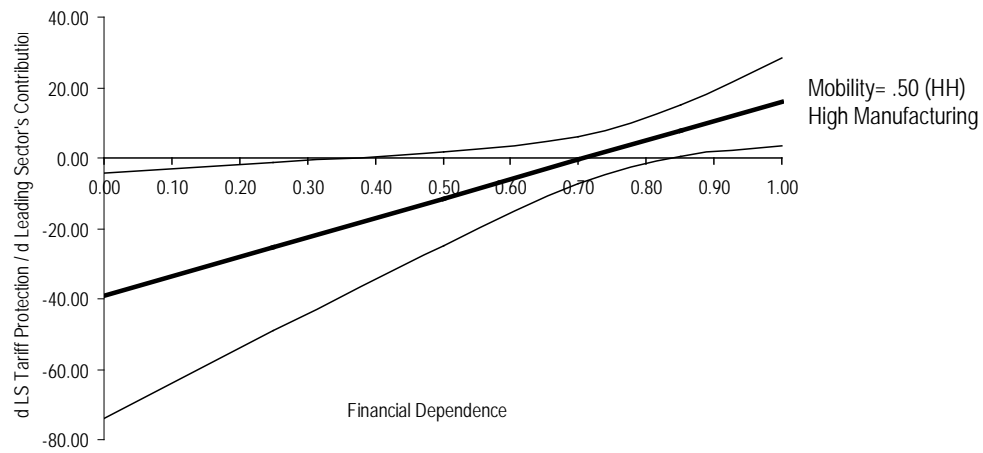
$$H: (dR / dL.Sect.Contribution) > 0 \quad (H_0: dR / dL.Sect.Contribution \leq 0)$$

if *Mobility* $\leq .5$ (relatively HH sectors) and
Financial Dependence $\leq .4$ (rentier economies)

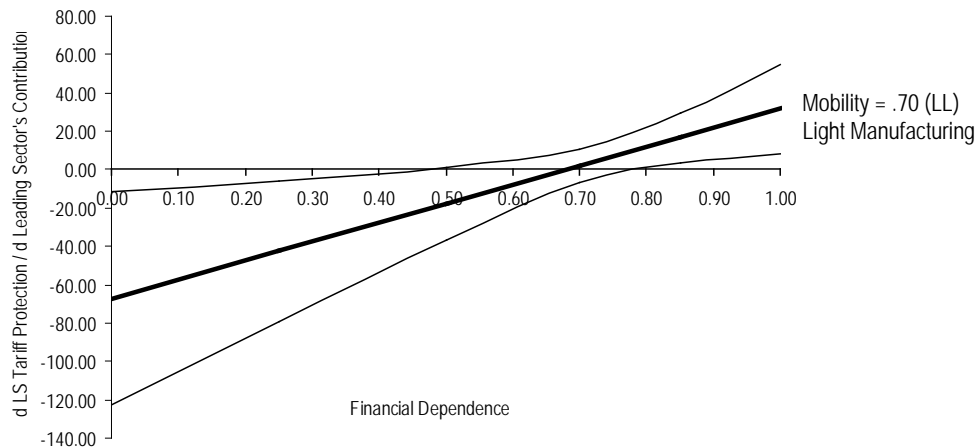
In Figure 22, the graphs display the marginal effect of the leading sector's contribution on the level of protection granted for the leading sector's final product(s). Our first finding is that, sectoral contribution (sectoral dependence) has a weak positive effect (statistically significant only at .05 one-tail level) on protection of oil sector products (a HH leading sector) only in the *absence of financial dependence*—i.e. in *pure* rentier states. Only 6 percent of the cases fall into this category. When the leading sector scores higher than .40 on the HH-LL continuum (i.e. heavy manufacturing and up), at the upper levels of financial dependence (above around 80 percent), however, we observe a *positive* relationship between dependence on upper HH and LL leading sectors and the level of protection these sectors receive. The higher is the level of financial dependence and the degree of LL sector attributes, the greater is the magnitude of this positive effect. In the sample, 21 percent of the cases fall into the statistically significant region. (Although there seems to be a negative effect below 50 percent tax revenue share, this finding is substantively meaningless, since there are only a few cases in this seemingly very large range.)



a)



b)



c)

Figure 22 - Marginal effect of the leading sector's contribution to economy on the level of protection for the leading sector's final product(s), conditional on the sectoral attributes of the leading sector and financial dependence of the government, with 95 percent confidence intervals (90 percent for the graph where the leading sector Mobility=.15). A *pooled regression* controlling for statistically significant country and country group effects, estimated by OLS with PCSEs.

Finally, when the dependent variable measures a very particularistic policy—import tariff concessions / exemptions—we observe that contrary to our expectations, at very low levels of financial dependence (i.e. in rentier states) the leading HH sector’s contribution (oil sector) has a negative effect on the degree of import tariff concession. Yet this negative effect is statistically significant only at .05 one-tail level of significance. In the sample 23 percent of the cases fall into the category of a HH leading sector and a financial dependence level below 25 percent. We see a similar *negative* effect at the other side of the HH-LL continuum with greater precision. When the leading sector is a LL sector and the state is highly financially dependent on tax revenue, increase in sectoral contribution is negatively related with the extent of leading sector-specific import tariff concession; and the higher is the level of financial dependence, the greater is the magnitude of this negative effect. (Again, the seemingly positive relationship at lower levels of financial dependence—for upper HH and LL sectors—is substantively meaningless since there are very few cases in those ranges.)

In sum, we find evidence for the *sectoral dependence hypothesis* for *the common pro-capitalist policies* and *market-resisting protectionist policies* for almost all types of leading sectors within their observable ranges of financial dependence. The interesting part of the findings is that, in conformity conforming Shafer’ argument, the sectoral dependence thesis holds for *market-conforming policies* in rentier states (HH leading sectors)), but not for those financially dependent states with LL leading sectors. Further, the level of particularistic policies (which we assumed to be prioritized especially by HH sector actors, is either weakly (protection) or negatively (leading-sector-specific import concessions) related with dependence on a HH sector.

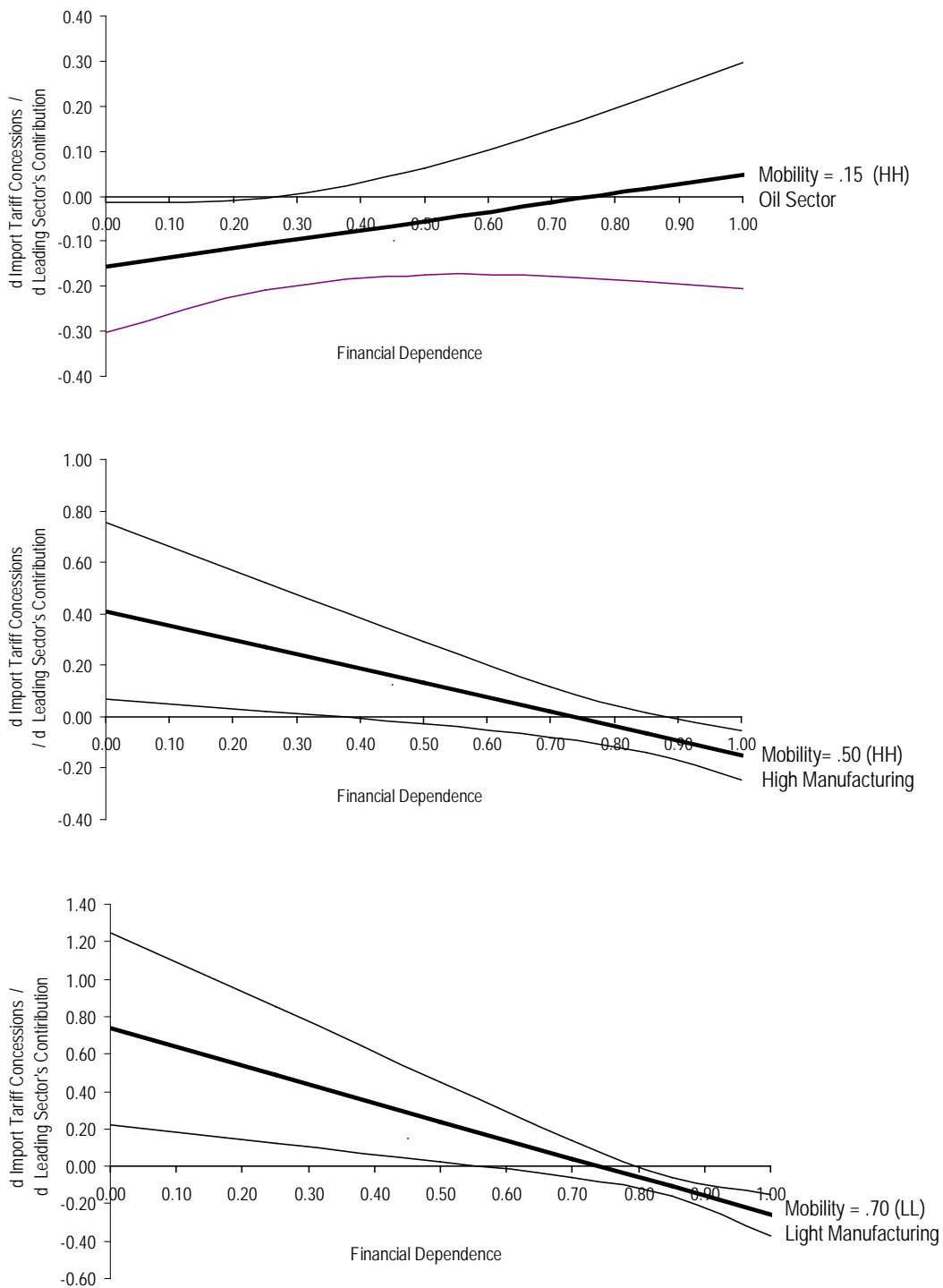


Figure 23 - Marginal effect of the leading sector's contribution to economy on the level of Import Tariff Concessions for the leading sector, conditional on the sectoral attributes of the leading sector and financial dependence of the government on tax revenue, with 95 percent confidence intervals (90 percent for EXTOPT=.15). A pooled regression controlling for statistically significant country and country group effects, estimated by OLS with PCSEs.

TESTING THE MAIN HYPOTHESES

Indirect Accountability as a result of Voice

(Responsiveness due to Credible Exit-Threat of the Leading Sector)

Having examined the alternative ‘sectoral dependence’ hypothesis, we can now return to the main argument of the study—responsiveness to business interests due to exit-credibility. I posit that autocratic leaders may be indirectly held accountable by capital owners and investors provided that the latter have considerable bargaining power vis-à-vis the rulers. The extent of the leading sector’s bargaining power is conceptualized as a function of two factors: Ability to *threaten to exit* and *potential to inflict losses on government revenue upon exiting*. Exit-credibility is a function of *both sectoral attributes and strength and independence of the private sector*. Sectoral attributes (whether a HH or a LL sector) determine the extent to which the sectoral characteristics allow investors to easily reallocate their business elsewhere or switch to another sector without incurring too much cost; and investment strength and independence of the private sector indicates the extent to which the private sector has the financial capacity to reinvest *and* to survive in the absence of government support and protection. Finally, ‘the potential to inflict some loss on government revenue upon exiting’ is measured by the share of *tax revenue in total government revenue*, indicating financial dependence of the government on domestic productive forces.

We assume that indirect accountability exists *only* when the autocratic ruler responds to pro-LL sector interests due to a *threat or a potential future loss—i.e. exit-credibility*; since we assume that in case one of the conditions mentioned above is absent (or even lower than the hypothesized high level), the ruler would conjecture either that the actors in the leading sector *cannot* go anywhere without having to incur too much cost, and that they will necessarily choose to stay and be loyal under any policy environment; or that even if they exit, this would not inflict much loss on the government revenue. Hence s/he would not respond to business interests due to the bargaining-power of the capitalists or a future threat (no indirect accountability)—but maybe due to some other factors if responsiveness exist at all.

Holding constant other factors—which may bring about pro-leading sector policies in the absence of adequate bargaining power of the leading sector—we expect to see an increase in the level of general pro-capitalist or sector specific policies (i.e. in responsiveness to LS interests) if and only if (1) the state is financially dependent on tax revenue, and (2) exit-credibility is present—i.e. (a) the private sector is strong and independent of government rents, and (b) the leading sector possesses viable exit-opportunities.

More specifically, because Exit-Credibility is composed of two variables, we expect that increase in the level of strength and independence of the private sector, for example, will have a positive impact on the level of above mentioned policies if and only if the other component of Exit-Credibility, that is, viable exit-opportunities and also financial dependence on tax revenue are high.

Let us recall the part of the model relevant for this hypothesis:

$$\begin{aligned}
 R = & \dots + \beta_{FD} (\text{Financial Dependence}) + \beta_{PRSEC} (\text{Str. \& Indep. Priv. Sect}) + \beta_{MOB} (\text{Mobility}) \\
 & + \beta_{FD_PRSEC} (\text{Financial Dependence} * \text{Str. \& Indep. Priv. Sect}) \\
 & + \beta_{FD_MOB} (\text{Financial Dependence} * \text{Mobility}) \\
 & + \beta_{PRSEC_MOB} (\text{Str. \& Indep. Priv. Sect} * \text{Mobility}) \\
 & + \beta_{FD_PRVSECT_MOB} (\text{Financial Dependence} * \text{Str. \& Indep. Priv. Sect} * \text{Mobility})
 \end{aligned}$$

First, I test an implicit proposition of the hypothesis. The hypothesis posits that the effect of ‘credible exit-threat’ (*Str. & Indep. Priv. Sect * Mobility*) on common or sector-specific policies increases in financial dependence.²⁹⁴ Substantively speaking, the greater the degree of financial dependence, the greater is the effect of a *joint* increase in strength and independence of the private sector and the exit-opportunities of the leading sector. Therefore, we expect that the *joint* effect of ‘*Strength and Independence of the Private Sector and Mobility*’ be smaller or equal to zero when *Financial Dependence* is zero:

²⁹⁴ This is implicitly stated in the hypothesis. Otherwise, we cannot see a positive relationship when the level of financial dependence is high.

$$d R / d \text{ Str. \& Indep. Priv. Sect} = \beta_{\text{PRSEC}} + \beta_{\text{PRSEC_MOB}}(\text{Mobility}) \\ + \beta_{\text{PRSEC_FD}}(\text{Financial Dependence}) \\ + \beta_{\text{PRSEC_MOB_FD}}(\text{Mobility*Financial Dependence})$$

$$d (d R / d \text{ Str. \& Indep. Priv. Sect}) / d \text{ Mobility} = \\ \beta_{\text{PRSEC_MOB}} + \beta_{\text{FD_PRVSECT_MOB}} (\text{Financial Dependence})$$

$$H: \beta_{\text{PRSEC_MOB}} \leq 0 \quad (H_0: \beta_{\text{PRSEC_MOB}} > 0) \quad \text{if } \text{Financial Dependence} = 0$$

As seen in Table 15 (regression output), except for the protectionist policies, in all the analyses the coefficient measuring the joint effect of *Strength and Independence of the Private Sector* and *Mobility* in the absence of *Financial Dependence* ($\beta_{\text{PRSEC_MOB}}$) is smaller than zero at statistically significant level. Therefore we *reject* the null hypothesis that in the absence of a financial dependence of government on tax revenue, exit-credibility has a positive effect on pro-capitalist, market conforming or import-concession policies.

Figure 24 presents a series of graphs displaying the joint marginal effect of *Strength and Independence of the Private Sector* and *Mobility* (Credible Exit-Threat) on the relevant policy categories conditional on *Financial Dependence*. We observe that, except again the protectionist measures and also common pro-capitalist macroeconomic policies, *at high levels of financial dependence*, a joint increase in the strength and independence of the private sector *and* mobility of the leading sector has positive effect on the level of market-conforming and (even) leading-sector-specific tariff concession policies. For pro-capitalists macroeconomic policies, however, while the marginal effect of credible exit-threat increases as the level of financial dependence increases, this effect is not *sufficient* to bring about a positive impact on the level of pro-capitalist policies. And for protectionist measures, a joint increase in the strength and independence of the private sector and mobility of the leading sector has a negative effect on the level of protection granted for the leading sector's products.²⁹⁵ We have seen in the previous analysis that increase in the level of sectoral dependence was *sufficient* to bring about pro-capitalists and protectionist policies.

²⁹⁵ This effect is statistically significant only at .05 (one-tail) level of significance.

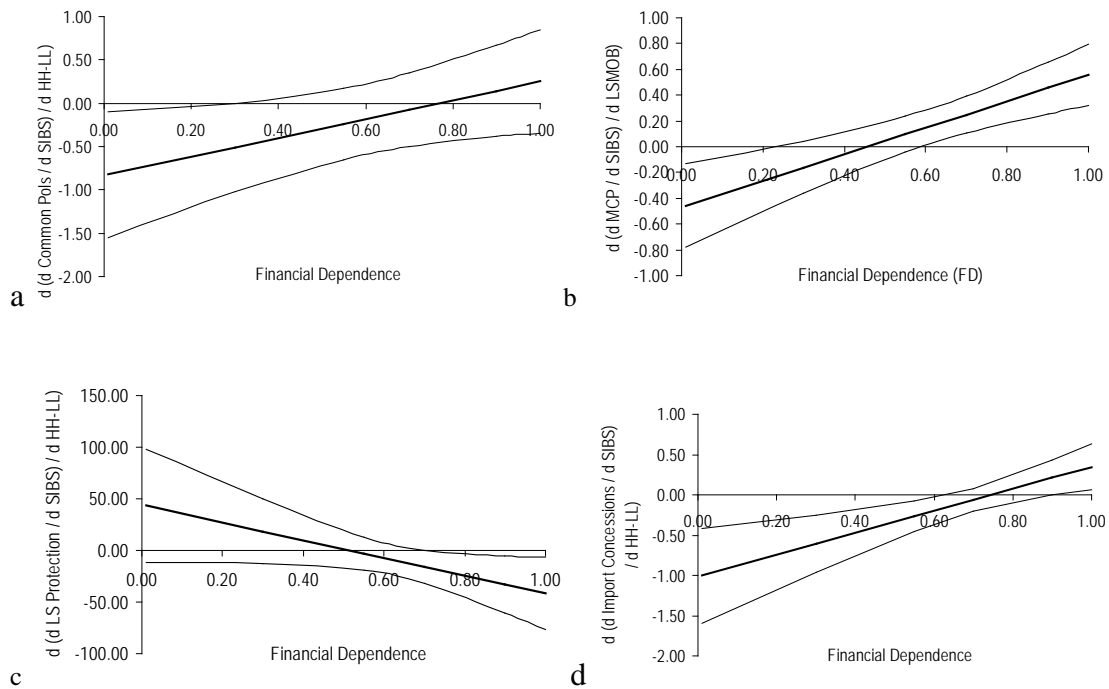


Figure 24 – The joint effect of *Strength and Independence of the Private Sector* and the *Leading Sector's Mobility* on the relevant policy categories conditional on Financial Dependence, with 95 percent confidence intervals. (a) Pro-capitalists macroeconomic policies; (b) Market-conforming (pro-LL sector) policies; (c) Protection for the leading sector's final product (90 percent confidence interval); (d) Import tariff concessions (exemptions) for the leading sector.

Having tested the strict version of the hypothesis, we conclude that in conformity with the ‘indirect accountability resulting from credible exit-threat’ hypothesis, we observe a statistically significant positive relationship between the level of market-conforming and import-concession categories, and the joint presence of a strong and independent private sector and existence of sectorally determined viable exit-opportunities, and also a highly financially dependent government

The fact that we find evidence for responsiveness to market-conforming policies *not* due to (high) sectoral contribution of LL sectors, but when, we assume, the private sector has bargaining power vis-à-vis the government, enables us to conclude that rulers respond to such kind of policies due to ‘credible exit-threat’. Furthermore, given that we observe a joint positive marginal effect of the conditions of indirect accountability not just for market-conforming policies (which we assume to be prioritized by the LL

sectors) but also for highly particularistic import concession policies as well, strengthens our conclusion on the empirical power of the hypothesis of ‘exit-credibility’. For, we find that the conditions specified by that hypothesis—which we assume to result in responsiveness due to bargaining power of the private sector, hence accountability—bring about even the kind of policies not highly prioritized by those sectors. Further, the fact that in the case of import tariff concessions, the positive effect is valid only at very high levels of financial dependence, strengthens our conclusion that this effect is in evidence for indirect accountability.

*

A closer look at the regression output reveals in the absence of *Strength and Independence of the Private Sector*, the magnitude of the *negative* effect of ‘*Financial Dependence and Mobility of the Leading Sector*’ on *common pro-capitalist and market-conforming policies* is substantively greater than the other partial interaction coefficients. And similarly, in the absence of *Financial Dependence*, the magnitude of the *negative* effect of ‘*Strength and Independence of the Private Sector and a Mobile Leading Sector*’ on *import concessions for the leading sector* is also significantly greater than the other partial interaction coefficients. This preliminary observation on the components of the interaction term warns us that although we observe a positive relationship between the level of certain sector specific policies and the joint existence of the components of credible exit-threat and financial dependence of the government at their high levels, under other conditions, *Strength and Independence of the Private Sector* or *Financial Dependence* might be *sufficient* to bring about *responsiveness* to business interests. If so, we face the question of whether this kind of ‘responsiveness’ can be considered as *accountability* or simply a *different version of ‘sectoral dependence’*. To shed some light on these questions, in the following section, I present the marginal effects of the components of the ‘joint-effect’ hypothesis on a policy-category basis.

Common pro-Capitalist Policies

In the previous section, we have seen that increase in the level of the leading sector's contribution was sufficient to bring about an increase on the level of common pro-capitalist policies. Also we have seen in Figure 24 that while the marginal effect of exit-credibility on pro-capitalist policies increases as the level of financial dependence increases (though *not* a positive effect), this effect becomes statistically insignificant as we step in the category of *non-rentier* states. Hence, to further investigate the marginal effects of the three variables on pro-capitalist policies, separately, we analyze the effect of one variable at substantively meaningful values of the other two variables.

The graphs in Figure 25 display the marginal effect of the *Strength and Independence of the Private Sector* on pro-capitalist policies, conditional on *Sectoral Attributes* (viability of exit-opportunities) and *Financial Dependence*. We expect to see a positive relationship between *Strength and Independence of the Private Sector* and pro-capitalist policies, when *the leading sector possesses exit opportunities (mobility)* and *when the ruler is financially dependent on tax revenue*.

$$\begin{aligned} dR / d \text{ Str. \& Indep. Priv. Sect} = & \beta_{\text{PRSEC}} + \beta_{\text{PRSEC_MOB}}(\text{Mobility}) \\ & + \beta_{\text{PRSEC_FD}}(\text{Financial Dependence}) \\ & + \beta_{\text{PRSEC_MOB_FD}}(\text{Mobility*Financial Dependence}) \end{aligned}$$

$$H: (dR / d \text{ Str. \& Indep. Priv. Sect}) > 0$$

$$(H_0: (dR / d \text{ Str. \& Indep. Priv. Sect}) \leq 0)$$

if *Financial Dependence* > .4 & *Mobility* > .5

We find that increase in the level of *Strength and Independence of the Private Sector* has no effect (substantively or statistically) on the level of common pro-capitalist policies. At higher levels of *Financial Dependence* and *leading sector mobility*, we *fail to reject the null hypothesis* that increase in the level of strength and independence of the private sector has no or negative effect on pro-capitalist policymaking. Also, at lower ranges of financial dependence, the seemingly negative marginal effect is substantively meaningless, since at low financial dependence levels (< 50 percent) there are only a few cases with a upper HH or LL leading sector.

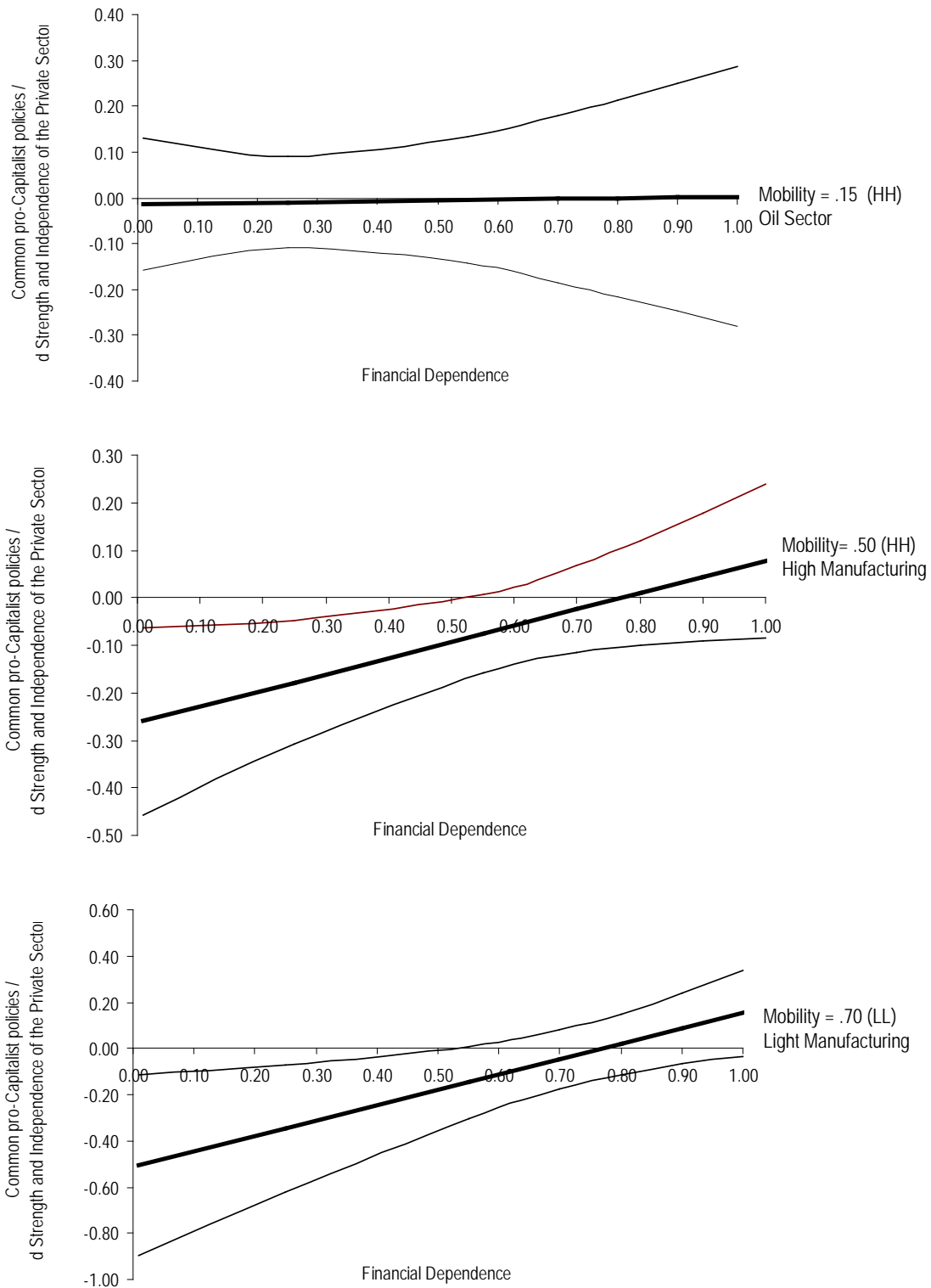


Figure 25 - Marginal effect of the *Strength and Independence of the Private Sector* on Common pro-capitalists policies, conditional on exit-opportunities (mobility) of the leading sector and the level of financial dependence of the rulers, with 95 percent confidence intervals.

I also analyze the marginal effect of *Financial Dependence* on the same policy category. The marginal effect is given by the following equation.

$$\begin{aligned}
 dR / d \text{ Financial Dependence} = & + \beta_{FD} + \beta_{FD_PRSEC} (\text{Str. \& Indep. Priv. Sect}) \\
 & + \beta_{FD_MOB} (\text{Mobility}) \\
 & + \beta_{FD_PRVSECT_MOB} (\text{Str. \& Indep. Priv. Sect} * \text{Mobility})
 \end{aligned}$$

$$H: (dR / d \text{ Financial Dependence}) > 0$$

$$(H_0: (dR / d \text{ Financial Dependence}) \leq 0)$$

if *Str. & Indep. Priv. Sect* > .5 & *Mobility* > .5

As seen in Figure 26, increase in the level of financial dependence does have a strong positive effect when the leading sector is a HH sector with limited exit-opportunities (oil sector or mining) and when there is *at least* some private sector contribution in the economy (for mining-like sectors, a relatively stronger private sector is necessary for this effect to be significant—not presented on the graph). However, this effect is not mediated by the level of strength and independence of the private sector—contrary to expectation.

Only one of the variables of the ‘joint-effect’, *Financial Dependence*, and only in countries with a HH leading sector has a statistically significant effect on pro-capitalist policies. It is obvious that this kind of a policy-making cannot be considered as ‘responsiveness’ or accountability, because above all, the effect is not mediated by the degree of strength and independence of the private sector. Therefore, increase in the level of pro-capitalist policies in countries where the leading sector is a HH (with limited exit-opportunities), regardless of the status of the private sector, could simply be considered as some kind of maneuver of the rulers to attract greater capital/investment to the country faced with financial dependence.

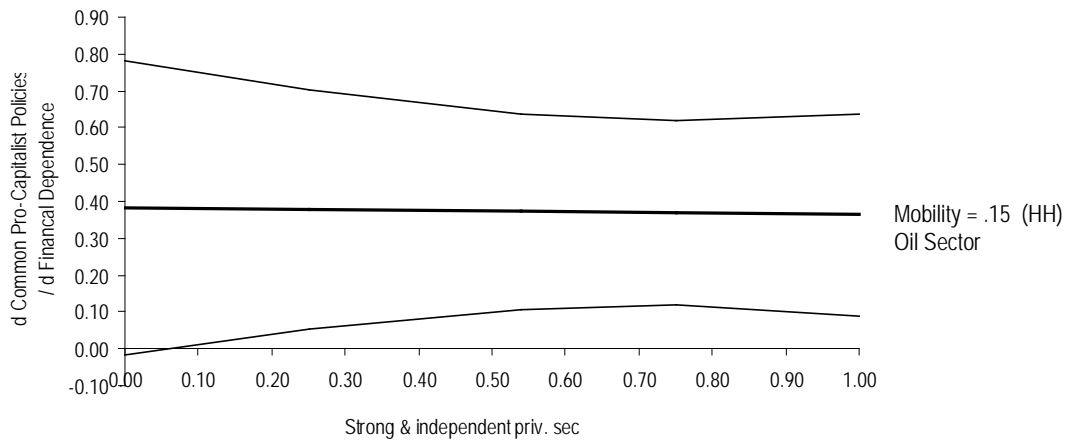
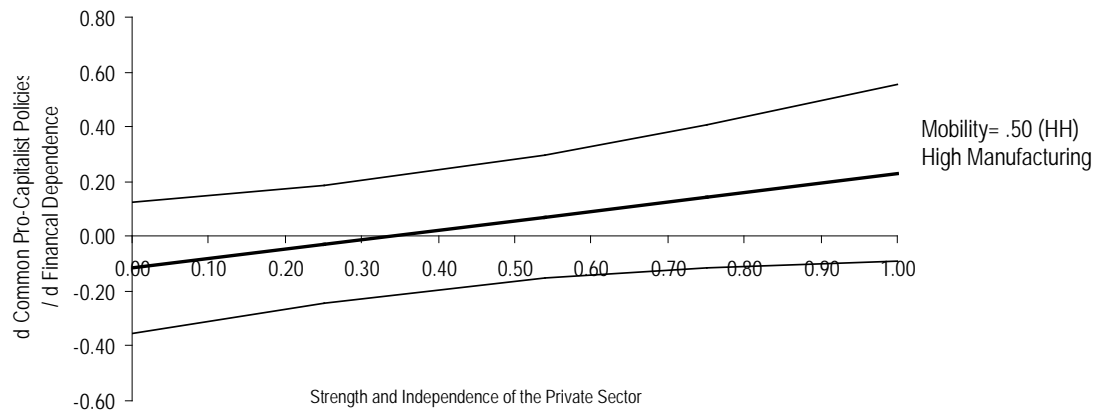


Figure 26 - Marginal effect of the *Financial Dependence* on pro-capitalists policies, conditional on *exit-opportunities* (mobility) of the leading sector and the level of *financial dependence* of the rulers, with 95 percent confidence intervals.

Market-Conforming (pro-LL sector Policies)

The market conforming policies—measured in this research by the degree of business bureaucracy, ease of trade, flexibility of hiring/firing and employing workers, and corporate tax rate—enhance adaptation to market changes and competition in the international market. As a result, we assume that they are of crucial importance for the firms operating in relatively LL sectors, and hence, within competitive markets. Still, we have found that *dependence on a single HH sector* is one of the factors which bring about increase in the level of the market-conforming policies. It may seem counterintuitive to not observe a similar positive relationship for dependence on a LL sector. Yet as the following examination will reveal, we witness a different causal mechanism in countries with relatively LL leading sectors—indirect accountability.

Initially we have seen that a joint increase in the level of sectorally determined exit opportunities (less capital intensity and lower economies of scale, mainly) *and* strength and independence of the private sector is sufficient to generate an increase in the level of market conforming policies (Figure 24 – b)—provided that the government is financially dependent on tax revenue (above 60 percent). Because we find all the components of indirect accountability are at work in that context, we can argue that the policy changes result from an increase in the bargaining-power of the private sector.

When we also examine the marginal effect of strength and independence of the private sector. We expect to see an increase in the level of market-conforming policies when the leading sector is a LL sector and when the government is dependent on tax revenue.

$$\begin{aligned} d R / d \text{ Str. \& Indep. Priv. Sect} = & \beta_{\text{PRSEC}} + \beta_{\text{PRSEC_MOB}}(\text{Mobility}) \\ & + \beta_{\text{PRSEC_FD}}(\text{Financial Dependence}) \\ & + \beta_{\text{PRSEC_MOB_FD}}(\text{Mobility*Financial Dependence}) \end{aligned}$$

$$\begin{aligned} \text{H: } & (d R / d \text{ Str. \& Indep. Priv. Sect}) > 0 \\ \text{(H}_0\text{: } & (d R / d \text{ Str. \& Indep. Priv. Sect}) \leq 0) \\ \text{if } & \text{Financial Dependence} > .4 \ \& \ \text{Mobility} > .5 \end{aligned}$$

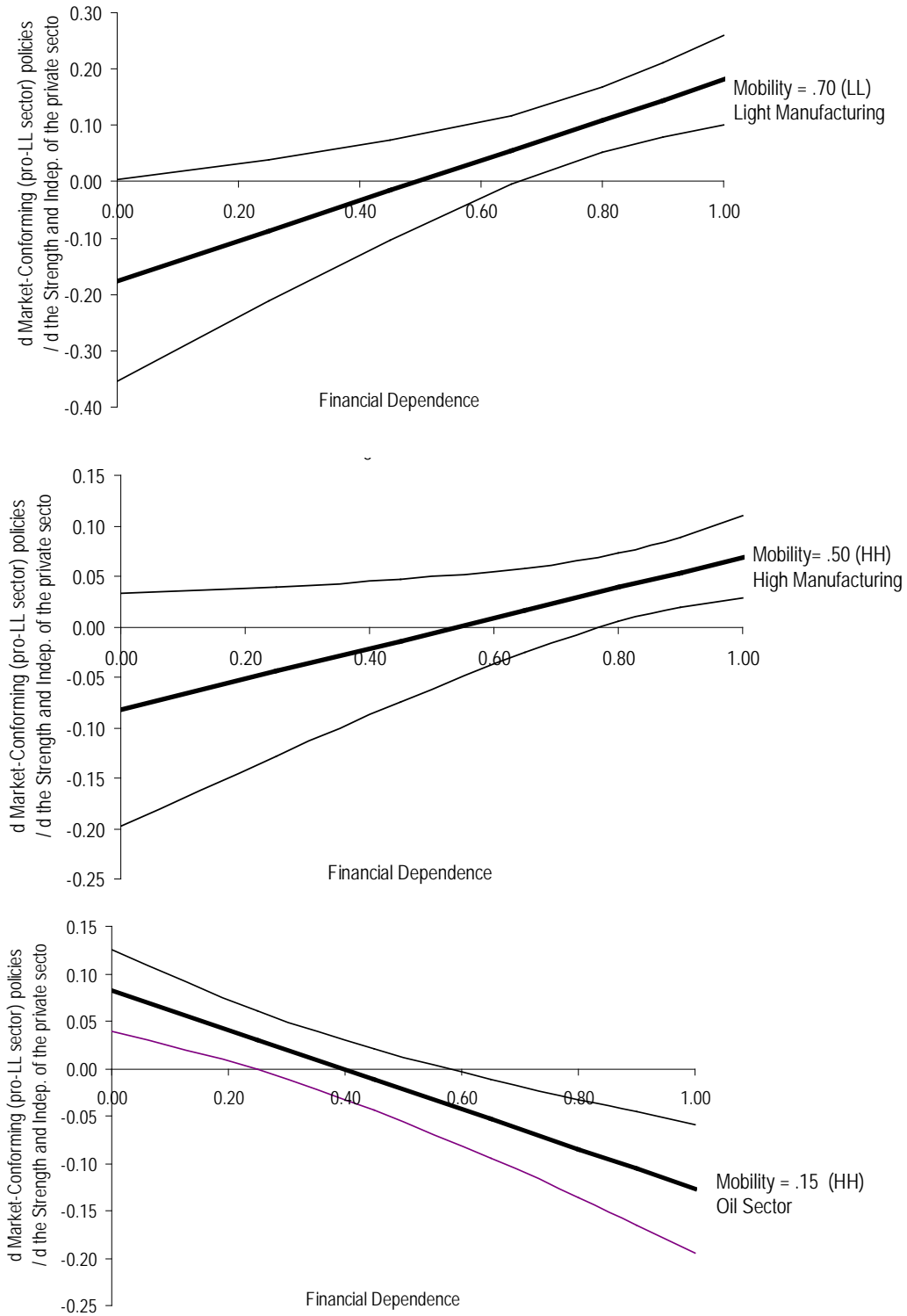


Figure 27 - Marginal effect of the *Strength and Independence of the Private Sector* on Market-Conforming (pro-LL sector) policies, conditional on sectoral attributes and the level of financial dependence, with 95 percent confidence intervals.

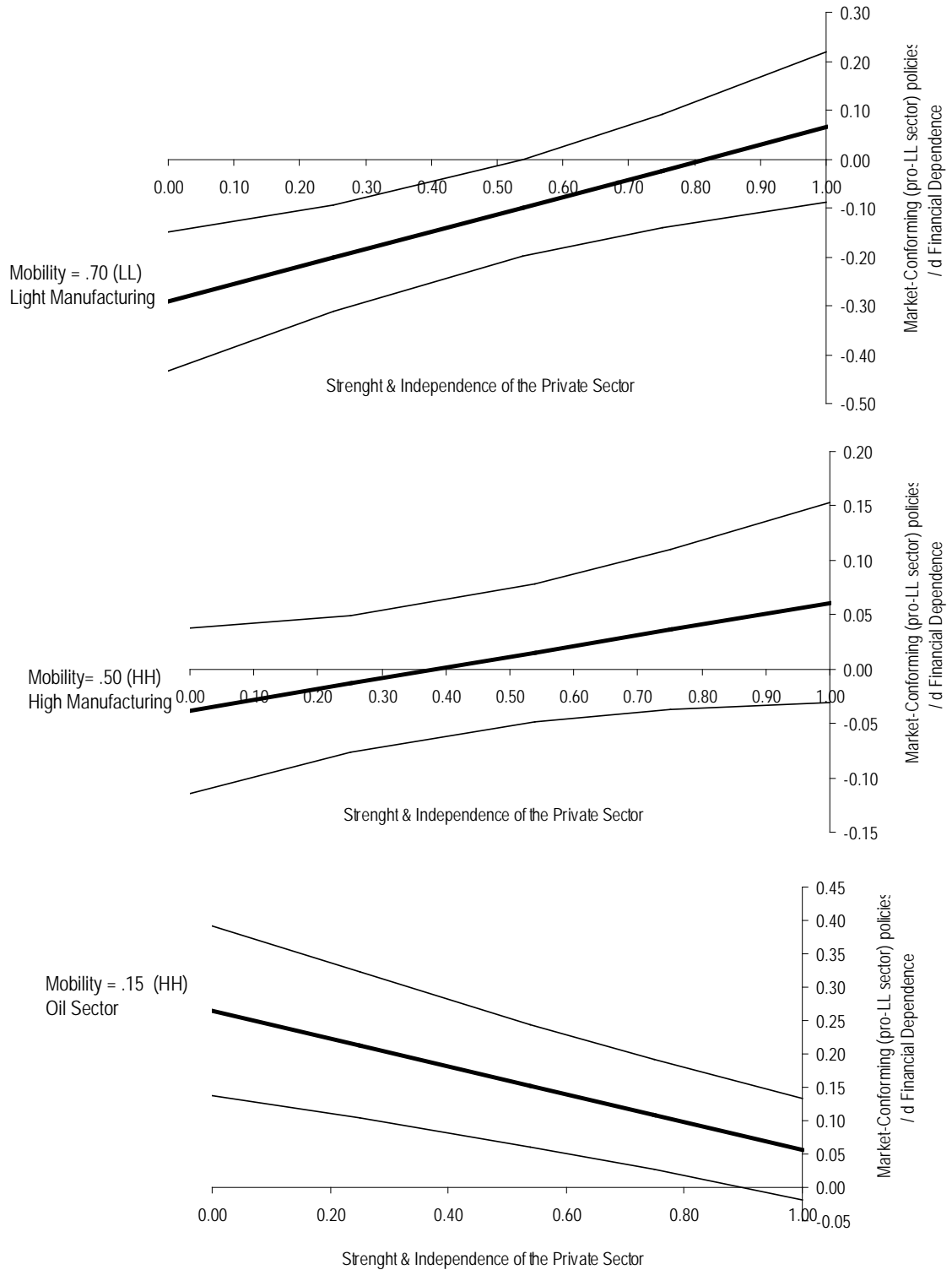


Figure 28– Marginal effect of the *Financial Dependence* on *Market-Conforming (pro-LL sector) Policies*, conditional on sectoral attributes and Strength and Independence of the Private Sector, with 95 percent confidence intervals.

Figure 27 display a set of graphs depicting the marginal effect of strength and independence of the private sector conditional on financial dependence at within different sectoral groups. We see that, in accordance with our hypothesis, when the leading sector is an upper HH or LL sector (with relatively feasible exit-opportunities) *and* when tax revenues constitute more than 65 percent of the government revenue, increase in the private sector's investment strength and independence from government rents results in a positive change in the level of market-conforming policies. As the level of financial dependence increases, the magnitude of the positive marginal effect of strength and independence of the private sector on responsiveness also increases.

In the sample, around 30 percent of the cases fall into this range. As we move downward on the HH-LL continuum, towards sectors high on capital intensity and economies of scale—and thus, with limited exit-opportunities—in accordance with our hypothesis, we see that the effect of strength and independence of the private sector on market-conforming policies diminishes, and for very HH sectors (in *non-rentier* economies), it turns to *negative*. In the sample 10 percent of the cases are in this 'negative relationship' range.

When we consider the marginal effect of *financial dependence* on market-conforming policies, again, we find supporting results for the 'exit-threat' hypothesis (Figure 28). For, when there is a LL leading sector with a *weak* bourgeoisie, increase in financial dependence of the government leads to a *negative* effect on the level of market-conforming policies. In other words, holding constant other factors, among countries with a LL leading sector and a *weak private sector*, financially dependent governments are *less* responsive the interests of the LL leading sectors. Because, according to the 'exit-credibility' hypothesis, the rulers would conjecture that although the sectoral attributes of the leading sector may allow capitalists to reallocate their business when their interests are not met, because their investment capabilities are weak and they depend partly on government support, 'loyalty' would be the 'dominant strategy' for them. Hence, there is *no need* for the rulers to restrict their authority on the economic issues by cutting taxes, lowering bureaucratic burden or allowing firms to decide on hiring, firing or employment policies—all of which would diminish the an autocrat's direct control of the economy. (In the sample, 10 percent of the cases are in this range).

When the private sector is relatively strong in LL sectors, increase in financial dependence has no statistically significant effect on the level of MC policies. The same is valid for the effect of sectoral attributes. When there is a strong private sector, change in sectoral attributes of the leading sector has no statistically significant effect on the level of market-conforming policies, either.

The ‘unexpected’ part of Figure 27 is the very low financial dependence range (below 25 percent tax revenue share) where we only find cases with a very HH leading sector—i.e. *the rentier, hydrocarbon-sector-dependent economies*. Surprisingly, where we expect to see either an insignificant or a negative marginal effect of SIPS on MC policies, we observe a statistically significant *positive* relationship. In the sample, 23 percent of the cases fall into this range.

This finding supports both the ‘sectorally determined interests’ assumption and the ‘exit-credibility’ hypothesis—with the help of ‘sectoral dependence’ argument. In rentier economies the average level of the leading sector’s (oil sector’s) contribution to economy (share in total export earnings) is around 80 percent. Hence the rulers are ‘sectorally dependent’ for revenue.²⁹⁶ We can argue, thus, that ‘sectoral dependence’ works as ‘financial dependence’ and yields *responsiveness to increasing strength and independence of the private sector*. In other words, although the capital owners in the oil sector do *not possess viable exit-opportunities* due to the sectoral attributes of that industry, because the state is *dependent* on a single *HH* sector, as the private sector gains greater leverage in a rentier economy, their ‘voice’ becomes stronger and more effective. As Hirschman argues

“the voice option is the only way in which dissatisfied customers or members can react *whenever exit option is unavailable*..... [I]t can be expected that voice will be activated by the impossibility of exit. Capitalists will make elaborate attempts to influence public opinion and public policy.”²⁹⁷

Because the state has no exit option in this case—due to structural dependence on a single HH sector—as Shafer argues, the ruler responds to capitalist interests by putting in effect even the kind of policies which are not so greatly prioritized by the HH sectors—

²⁹⁶ There is high correlation between the oil sector’s share in export earnings, and the share of oil revenue within total government revenue.

²⁹⁷ Hirschman, *Exit, Voice, and Loyalty*, p.33 (emphasis added), and Hirschman, “Exit, Voice, and the State,” *World Politics*, p.100.

yet still in the interest of capitalists in general. As we will see in the following parts, the same mechanism works for a highly particularistic policy, import tariff concessions. Nevertheless, we should also recall what Hirschman says about the *effect* of voice under an exit option: “*sales losses and complaints or protests of those who remain members are not easily added to derive an aggregate recuperative effect.*”²⁹⁸ By the same token, we notice that the magnitude of the positive effect between *Strength and Independence of the Private Sector* and MC policies in HH sector *dependent* countries is almost the same as the one we see in the category of cases with ‘a financially dependent government and an upper HH leading sector (heavy manufacturing). However, increase in the level of *exit-viability* positively mediates the effect of SIPS on MC policies; and the magnitude of the positive effect of SIPS on MC policies among the countries with a LL sector is almost twice as big as the one we observe in those with an upper HH or very HH sector. Furthermore, when we *take out the sectoral dependence component* from this equation, i.e. when we consider the non-rentier oil producing countries (like Egypt, Cameroon, Kazakhstan—with mean sectoral contribution around 35 percent) we observe a negative relationship between increase in strength and independence of the private sector and market-conforming policies.

Another finding which supports the idea that the positive relationship between *Strength and Independence of the Private Sector* and pro-LL sector policies does not a result of bargaining power of the private sector is that, in countries where the oil sector is the leading one, while increase in the level of *financial dependence* is *positively* correlated with the level of MC policies (Figure 28), the private sector’s strength and independence mediates this relationship. More specifically, the magnitude of this positive relationship is *greatest* when there is a *very weak private sector*, and it *decreases* as the level of SIPS increases. We also recall that in the same group of countries increase, in the level of financial dependence is positively correlated with the level of common pro-capitalist policies yet that effect is *not* mediated by the level of *Strength and Independence of the Private Sector*.

Taken together, these findings lead us to conclude that the kind of ‘responsiveness’ to capitalist interests (in general) is just an attempt *to attract private*

²⁹⁸ Ibid.

sector investment when faced with greater fiscal needs. When there is already a strong private sector (i.e. the HH sector is run by the private sector), increase in the level of financial dependence is less effective in generating market conforming policies—since we would expect rulers to care less for market conforming kind of policies and prefer (or be content with) satisfying particularistic interests.

Leading Sector-specific Import Tariff Concessions

Next we examine the policy category of ‘sector specific import tariff concession.’ The level of concessions is measured on an ordinal scale where highest values indicate greatest coverage and particularity of the policy (i.e. all supplies and raw material covered and only for the leading sector). As we go down on the scale, import concessions take more general form.²⁹⁹ This particularistic (*but not necessarily market-resisting*) policy, one may assume, is desired by all investors, but as Shafer also notes, for investors in HH sectors, it is of crucial importance due to the necessity of importing very high cost specialized machinery and equipment.

We recall from Figure 24–c that *only* at a very high level of financial dependence, increase in the level of viable exit-opportunities and of strength and independence of a private sector, jointly, increases the extent of import concessions.

The marginal effect of *Strength and Independence of the Private Sector*, conditional on financial dependence and sectoral attributes (Figure 29) also suggests that in the context of a LL sector and a highly financially dependent government ($FD > 80$), increase in the level of strength and independence of the private sector is *positively* correlated with the extent of leading sector specific concessions (16 percent of the cases are in this category). The same relationship, within the same financial dependence range, is valid for

²⁹⁹ (1) Tariff concessions for qualifying firms ONLY in the leading sector (comprises all or selective raw materials and machinery & equipment)

(.7) Tariff concessions for qualifying firms mainly in the leading sector AND in a few OTHER sectors (comprises all or selective raw materials and machinery & equipment)

(.5) Tariff concessions (in general) for raw materials/machinery & equipment for all qualifying firms in ALL sectors

(.3) Tariff exemption for SELECTIVE projects, investments, goods, geographical location (free zones or goods originating from a specific location), etc

(0) Tariff exemptions for sectors OTHER than the LS OR NO concession

upper HH sectors (heavy manufacturing); yet there are only 5 percent of the cases in that category. When we evaluate the marginal effect of financial dependence on the level of concessions (Figure 30), in the contexts of both LL and upper HH leading sectors, again, increase in the level of financial dependence is *positively* related with greater import concessions granted for the leading sector. This relationship is positively mediated by *Strength and Independence of the Private Sector* and *LL sector attributes*. That is, the stronger is the private sector and the greater is viable exit-opportunities of the leading sector, the greater is the impact of increasing financial dependence on the extent of import concessions. Taken together, therefore, *we conclude that although ‘import concessions’ is a particularistic policy desired mostly by the HH sector actors, joint presence of a financially dependent government, strong and independent private sector and a leading sector processing viable exit-opportunities’ is sufficient to increase the level of leading-sector-specific concession.*

We should also note that there is another mechanism at work in the context of countries with both LL and upper HH leading sectors (with relative exit-opportunities). We observe a positive relationship between increase in financial dependence and sector specific concessions *even* when the private sector is very weak (Figure 30). Considering that the magnitude of the effect is low, we can simply argue that these are rather general and selective import concessions *granted* to support a nascent private sector in countries dependent on domestic extraction.

The marginal effect of *Strength and Independence of the Private Sector*, conditional on *Financial Dependence* and *sectoral attributes*, also reveals that there is more to add to this picture. We also observe a *positive* relationship between increase in the level of *Strength and Independence of the Private Sector* and the extent of import concessions at low levels of financial dependence (FD < 50 percent) when the leading sector is a very HH sector (oil sector).³⁰⁰ We already know that in the context of very HH sectors, low levels of financial dependence indicate greater sectoral dependence. However, we have found out earlier that sectoral dependence (the degree of the leading sector’s contribution to economy) has no statistically significant effect (or even a

³⁰⁰ The relationship is substantively and statistically insignificant for a relatively higher category of HH sectors—the mining industry.

negative effect in pure rentier economies) on the extent of leading-sector specific concession. Furthermore increase in financial dependence has no statistically significant effect on the level of import concession within the context of HH leading sectors. Accordingly, we can conclude that it is only an increase in the strength and independence of the private sector that leads to an increase the sector specificity and extent of concession for HH leading sector. I hold that we should treat this situation as a special case of responsiveness to capitalist interests; for increase in the level of responsiveness to a particularistic pro-HH sector policy does not stem from structural factors, but, we assume, of *voice* of the oil sector investors. Still, considering (1) that oil sector investors constitute a very small minority within the totality of an economy (and in almost all cases composed of multinational companies—if not the public sector alone), and (2) that ‘bargaining’ between that minority of capitalists and the government takes place within ‘network-like’ relations, around a table and behind closed doors, it is highly difficult to consider ‘responsiveness’ to their interests as a case of accountability to a segment of the society.

Protection for the Leading Sector’s Product

Finally we examine a particularistic *and market-resisting* (MR) policy: ‘protection for the leading sector’s final product(s)’. The level of protection is measured by raw import tariff rate. In the previous section, we have seen that ‘sectoral contribution / dependence’ is *suffice* to generate an increase in the level of protection both in rentier and non-rentier economies. When we consider the joint marginal effect ‘exit-credibility’, we see that at higher levels of financial dependence, existence of a LL sector accompanied by a strong bourgeoisies, has a *negative* effect of on the level of protection that sector receives.

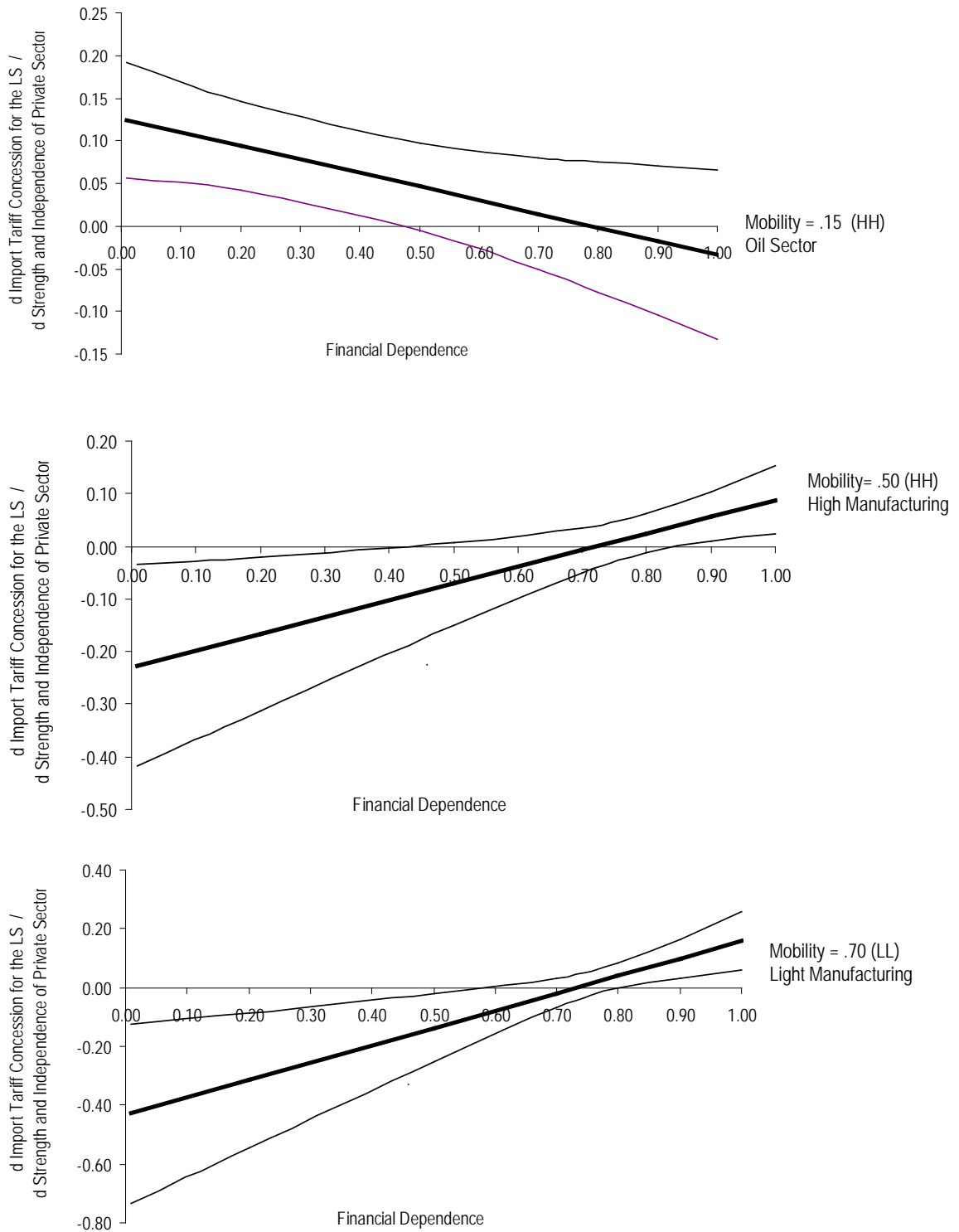


Figure 29 – Marginal effect of the *strength and independence of the private sector* on *Import Tariff Concessions*, conditional on sectoral attributes and the level of financial dependence, with 95 percent confidence intervals.

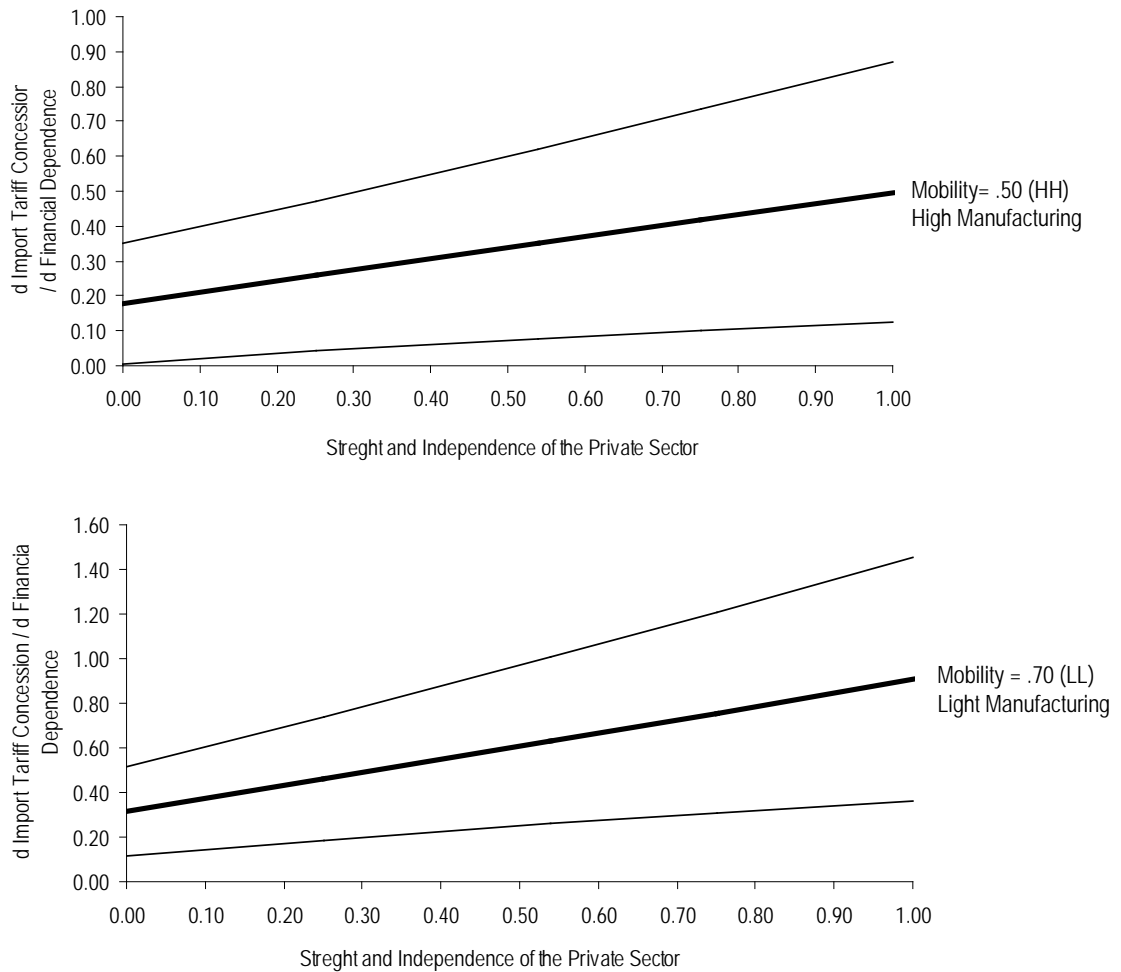


Figure 30 – Marginal effect of the *financial dependence* on *import tariff concession*, conditional on sectoral attributes and SIPS, with 95 percent confidence intervals.

The marginal effect of increase in the level of strength and independence of the private sector display different characteristics even among countries with HH leading sectors (Figure 31). Where the leading sector is the oil industry (a HH sector), above 25 percent level of financial dependence, increase in strength and independence of the private sector is *positively* related with the level of protection for oil products. The effect of Strength and Independence of the Private Sector is not statistically significant in pure rentier economies (FD < 25 percent); outside the context of rentier states, however, the magnitude of the positive effect augments as the level of financial dependence increases (16 percent of the cases fall into this range.). Also, in the same type of economies, when

there is a relatively strong private sector, increase in the level of financial dependence leads to an increase in the level of protection for oil products (16 percent of the cases) (Figure 31). In other words, when the level of sectoral dependence is lower (indicated by $FD > .25$ –i.e. outside the context of *pure* rentier economies) existence of a strong private sector is *sufficient* to secure a particularistic policy–increase in the level of protection. In that context it is not unreasonable to think that oil producers want their products to be protected against the products of stronger rentier economy industries. The question at this point is, of course, whether we should consider the increase in the level of protectionism as a response to increasing bargaining power of the private sector or simply response to a *necessity* (i.e. sectoral dependence). The fact that the bulk of the cases in this category are within 25 to 50 percent range of ‘tax / total revenue’ ratio (12 percent of the total cases) with an average oil sector’s contribution level as 73 percent, leads us to lean towards the ‘sectoral dependence’ argument. Increase in the level of Strength and Independence of the private sector could be read simply as greater private sector contribution in the oil industry (vs. public sector dominance) and hence greater *need/demand* on the part of the private sector to be protected (as noted above) against stronger oil industries of the world (i.e. oil industries in *pure* rentier Gulf countries).³⁰¹ The other side of the coin, illustrated in Figure 17 is that when there is a relatively strong private sector (in oil producing countries), increase in the level of financial dependence leads to an increase in protection. In this category, where there are 15 percent of the cases, the fact that the average sectoral contribution level is around .68, leads us to draw the same conclusion about sectoral dependence.

Within the other HH leading sector category—the mining sector—increase in SIPS is also *positively* related with the level of protection, and the degree of financial dependence of the government on tax revenue has a slightly decreasing impact on the effect of *Strength and Independence of the Private Sector*. In the sample only 8 percent of the cases fall into this category.

Initially we assumed that *market-resisting* policies are on the top of the list of HH sectors. In accordance with this assumption, and contrary to previous policy categories,

³⁰¹ The countries in this category are Algeria, Angola, Azerbaijan, Republic of Congo, Gabon, Iran, Syria and Yemen.

the results are inconclusive for the contexts where the leading sector is a LL sector. As a general idea, we can say that at lower ranges of financial dependence, increase in SIPS *seems* to be positively related to protection. But the confidence interval is too large—only a few poor agro-industry countries (such as Cambodia, Rwanda, Uganda, Ethiopia, etc. lie within the lower ranges of financial dependence. In most cases, protection is granted to industries during the early phases of economic development—simply to allow the domestic industries to survive and accumulate capital without facing harsh competition of the imported (cheaper) substitutes. Hence, it *seems* that policy-makers in poor countries (which rely on grants or loans for revenue) protect their LL leading sectors as the private sector takes a greater role in the economy— but still statistically we cannot rely on these results. At the high end of the financial dependence spectrum, increase in the level of SIPS seems to be negatively correlated with the level of protection—the results are inconclusive.

Overall, we find evidence for indirect accountability—i.e. responsiveness of autocratic governments to business interests as a result of ‘exit-credibility’ or bargaining-power of the leading sector—for two sector-specific policy categories: market-conforming and import tariff concession policies. We assume that while market conforming policies are prioritized by capitalists in LL sectors, particularistic policies are at the top of the agenda of capitalists in HH sectors. We have observed that when the three conditions (financial dependence of the ruler on domestic productive force, and exit-credibility of capitalists—i.e. strong and independent private sector and a leading sector possessing viable exit-opportunities) are jointly present, we see an increase in the level of market conforming and import concession policies. Due to the ‘existence of viable exit-opportunities’ component of the joint effect, we necessarily observe indirect accountability *only* in the context of countries with a LL leading sector. The fact that, we find evidence for a positive relationship between the ‘joint effect’ of the three variables of interest and a very particularistic policy—import concessions—enables us to appreciate the ‘strength’ of the joint effect in extracting concession even in a context where we do not expect to see.³⁰²

³⁰² The average import concessions level in the context of countries with HH leading sectors is .58. For countries with LL leading sectors, however, it is ‘.41’

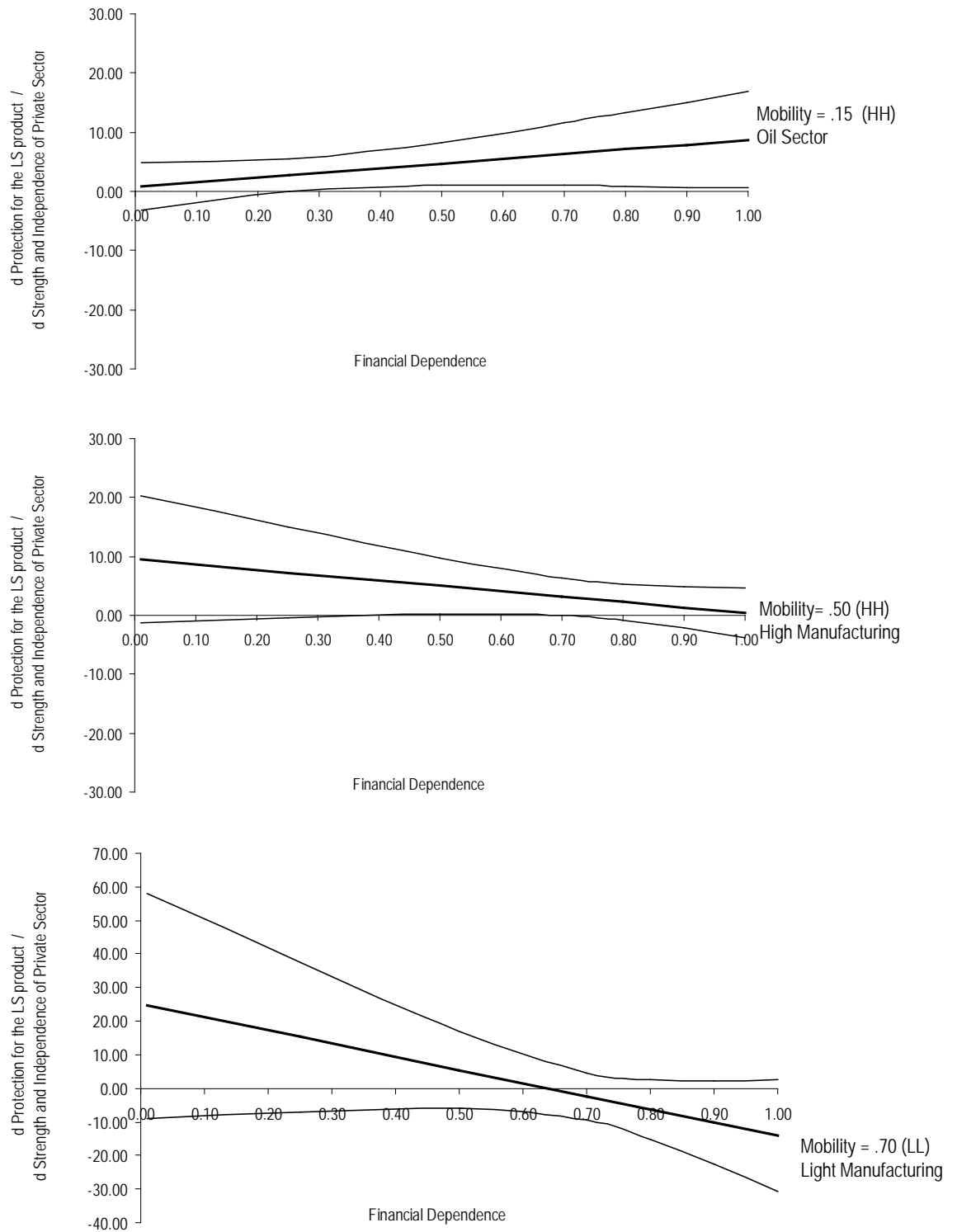


Figure 31– Marginal effect of the *strength and independence of the private sector* on *Protection* for the leading sector’s product, conditional on sectoral attributes and the level of financial dependence, with 95 percent confidence intervals.

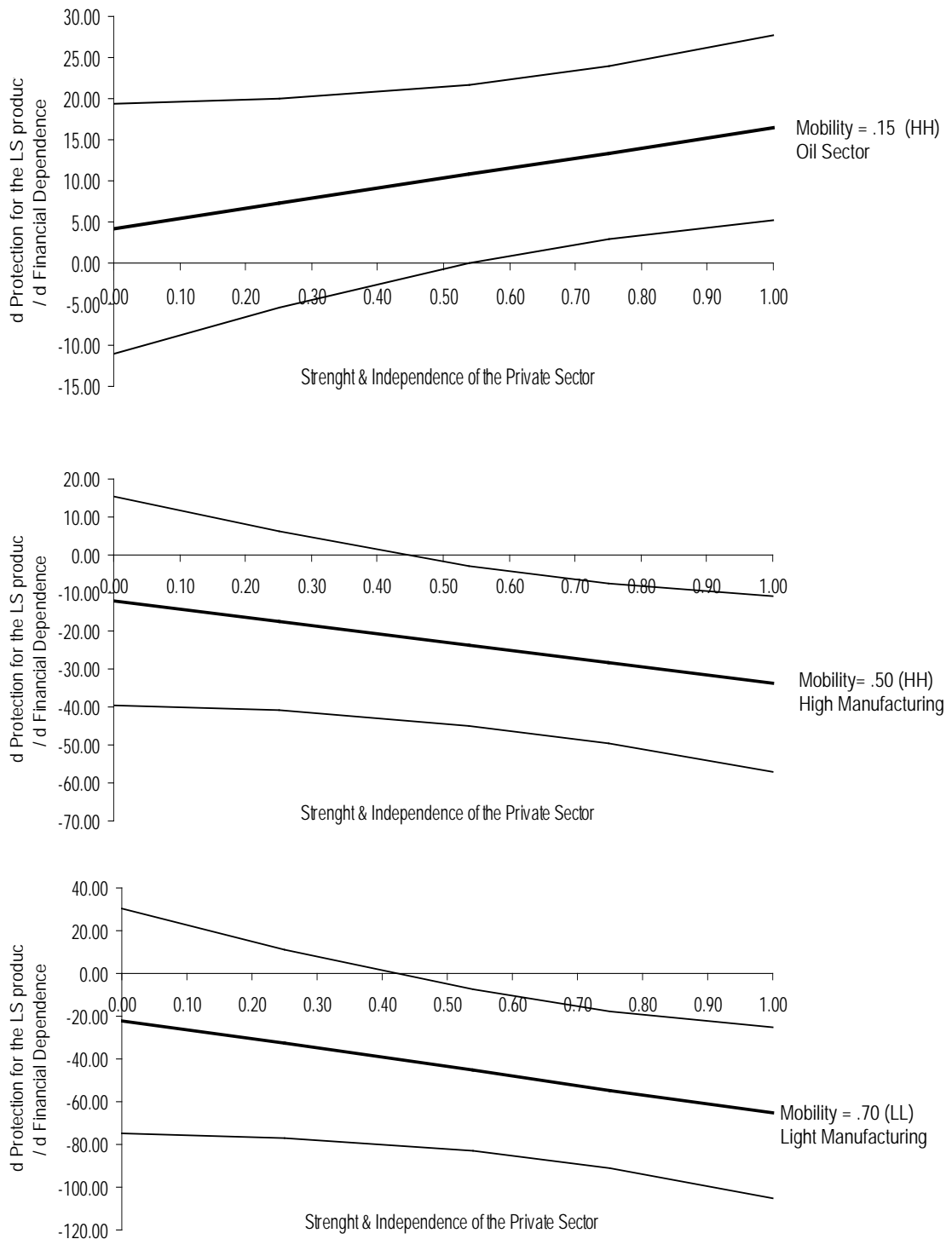


Figure 32 – Marginal effect of the *Financial Dependence* on the level of *Tariff Protection* guaranteed to the leading Sector’s final product, conditional on sectoral attributes and SIPS, with 95 percent confidence intervals.

In the context of countries dependent on the oil sector (a HH sector), we observed some evidence for responsiveness of the rulers to the particularistic import concession demands of capitalists (only) due to increasing strength of the private sector. However, the network-like and ‘behind the door’ type of relationships between oil sector investors and the policy-makers in those sectors, preclude one from considering that kind of responsiveness as *a type of accountability*.

(2) Indirect Accountability as a result of Exit (Responsiveness due to Learning)

Controlling for other factors which may lead policy-makers in non-democratic countries to make economic pro-capitalist or pro-leading sector policies, I hold that *increase in the level of pro-capitalist or pro-leading sector policies as a result of capital flight and/or investment strike can also be regarded as responsiveness—i.e. as indirect accountability*. The argument about ‘exit-credibility’ is based on the assumption that rulers are rational and that they would take the necessary policy measures to avoid the twin threats of capitalists—capital flight and investment strike. However, should the incumbents make wrong calculations (or due to some exogenous reasons) and should capital flight or investment strike occur, I argue that *those rulers who are financially dependent either on rents from a single sector or on tax revenue from the whole economy* would step back and make pro-capitalist or pro-leading sector policies—which we can regard as a case of indirect accountability.

Controlling for other factors, we expect to see indirect accountability as a result of exit (i.e. an increase in the level of the above mentioned policies as a result of capital flight or investment) if and only if incumbents are highly dependent on (1) extraction from domestic productive forces or (2) a single sector.

Let us begin by recalling the part of the model dealing with capital movements (CM) and annual change in private investment (CPI).

$$\begin{aligned}
R = & \dots + \beta_{CF}(\text{Capital Flows}) + \beta_{FD}(\text{Financial Dependence}) \\
& + \beta_{CF_FD}(\text{Capital Flows*Financial Dependence}) \\
& + \beta_{LDS}(\text{L.Sect.Cont.}) + \beta_{MOB}(\text{Mobility}) + \beta_{CF_LDS}(\text{Capital Flows*L.Sect.Cont}) \\
& + \beta_{CF_MOB}(\text{Capital Flows*Mobility}) + \beta_{LDS_MOB}(\text{L.Sect.Cont*Mobility}) \\
& + \beta_{CF_LDS_MOB}(\text{Capital Flows*L.Sect.Cont.*Mobility})
\end{aligned}$$

The three-way interaction is used to account for the effect of capital movements in the sectorally dependent economies with a HH or a LL leading sector. The marginal effects of capital movements (in/out flows) is given by

$$\begin{aligned}
dR / d \text{Capital Flows} = & \beta_{CF} + \beta_{CF_FD}(\text{Financial Dependence}) \\
& + \beta_{CF_LDS}(\text{L.Sect.Cont}) + \beta_{CF_MOB}(\text{Mobility}) \\
& + \beta_{CF_LDS_MOB}(\text{L.Sect.Cont.*Mobility})
\end{aligned}$$

Capital Flight is indicated by the negative range of *Capital Flows* variable. Accordingly, we expect a *negative* marginal effect of *Capital Flows* indicating a positive relationship (or an increase in the level of pro-capitalist or pro-leading sector policies).

The effect of Capital Flight on Common pro-Capitalist policies

Capital flight has no effect on the level of pro-capitalist policies. However in countries with a relatively diverse economy (leading sector's contribution below 60 percent) with a HH leading sector, *incoming capital* is positively related with the level of common pro-capitalist policies (Figure 33). In the sample 34 percent of the cases fall into the category of a HH leading sector ($Mobility \leq .5$) whose contribution to economy is below 60 percent.

The effect of Capital Flight on Market-Conforming Policies

Contrary to our expectations, high levels of financial dependence and HH-leading sector contribution reduces the effect of capital on market-conforming policies. As we see on the second graph in Figure 34, when the leading sector is a LL sector at a middle level

financially dependent economy, only at low levels of sectoral contribution does capital flight have a positive effect on the level of market-conforming policies. However, there are only 8 percent of the total cases within this category—which are very poor agro-industry countries. At higher levels of financial dependence –i.e. slightly more developed economies with a LL leading sector—CF has no effect on MC policies (Figure 34-c)

Because the ‘capital flows’ variable also measures the extent of incoming capital (% GDP), we can also assess the marginal effect of incoming capital on market-conforming policies. In countries with a very HH-leading sector (oil sector), we observe a positive relationship between *incoming* capital and the level of MC policies, when sectoral contribution is above 40 percent. In other settings CF does not have a statistically significant effect on market-conforming policies.

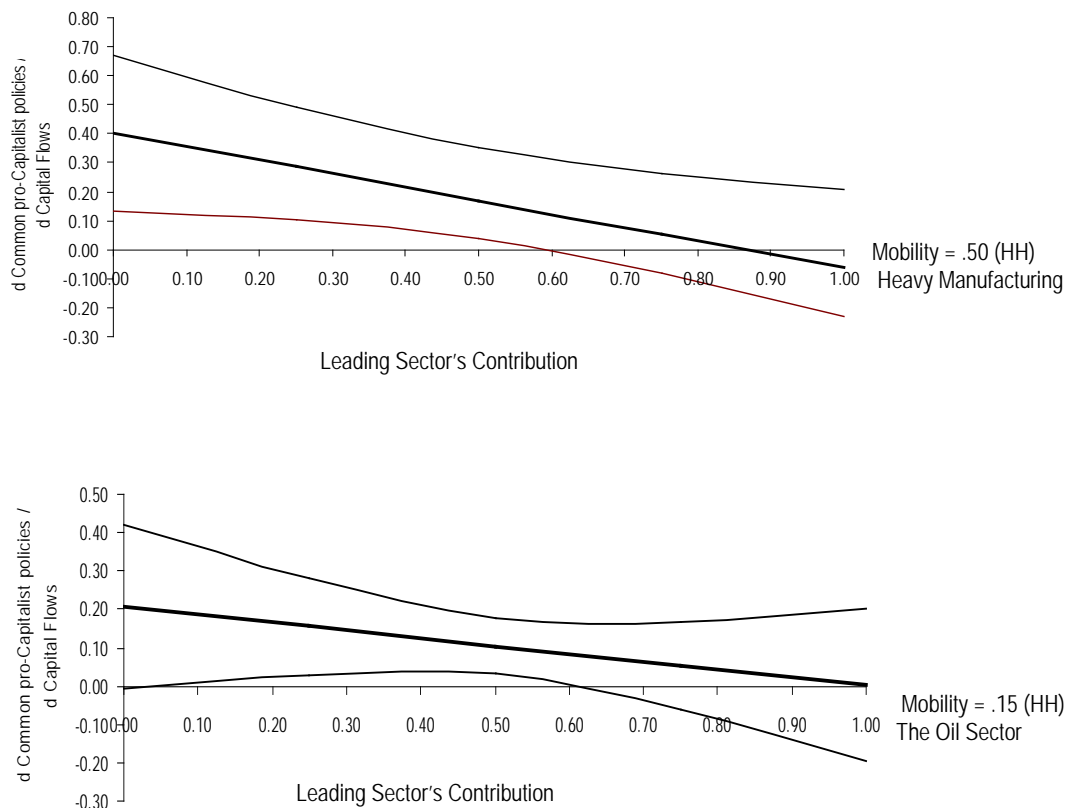


Figure 33 – Marginal effect of *In and Out Capital Flows* on *Common pro-Capitalist Policies*, conditional on sectoral attributes and the leading sector’s contribution to economy, with 95 percent confidence intervals.

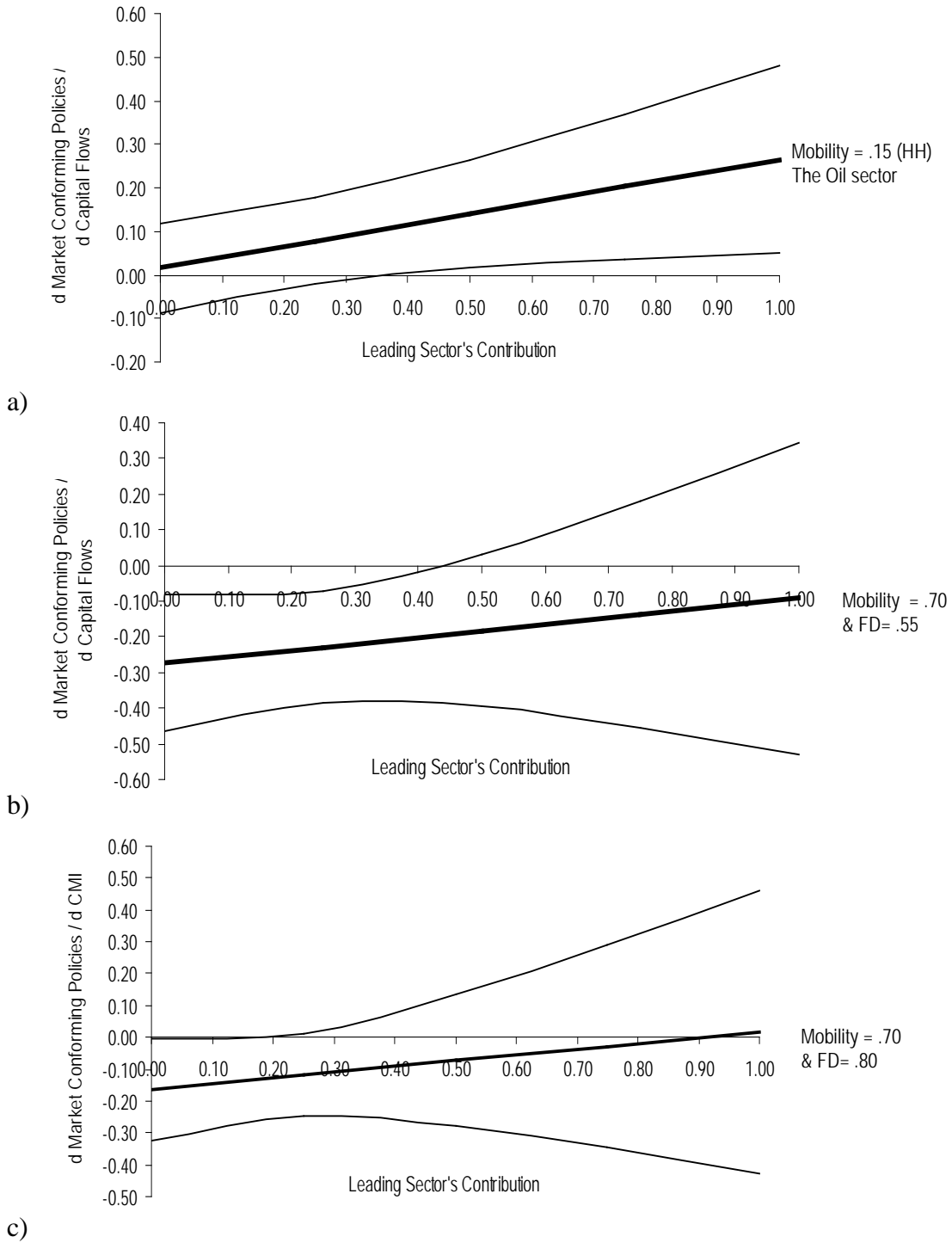


Figure 34 – Marginal effect of *In and Out Capital Flows* on *Market-Conforming Policies*, conditional on sectoral attributes, the leading sector's contribution to economy, and financial dependence on tax revenue, with 95 percent confidence intervals.

Protectionist Policies

The graphs in Figure 35 depict the marginal effect of capital movement on the level of protection guaranteed for the leading sector's final product(s). Because the level of financial dependence does not mediate the effect of capital flight, the level of FD is set at 55 percent.

We noted that dependence on a single LL sector increases the effect of CF on the level of protection. As seen on Figure 20 when the leading sector is a LL sector and when its contribution to economy is above around 40 percent, increase in capital flight leads to an increase in the level of protection. The greater is sectoral contribution, the higher is the impact of CF on the level of protection granted for the leading sector. In the sample 21 percent of the cases (58 percent of countries with a LL leading sector) fall into this category. The same positive effect is also valid at *lower* ranges of the HH-LL sector continuum. In countries with a very HH leading sector (oil sector), capital flight *seems* to have a positive effect on protection when the leading sector's contribution is below 70 percent –i.e. relatively diverse economies with a major oil sector (statistically significant only at .05 one-tail level). 16 percent of the all cases and 40 percent of the oil countries are in this range.

Import Tariff Concessions

Figure 36 presents the marginal effect of CF on import concession in countries with a very HH leading sector—i.e. the oil sector—conditional on that sector's contribution to economy. We observe that when financial dependence is very low (an indication of a rentier state) *and* when the oil sector's contribution to economy is above around .80 percent, capital flight is positively correlated with the extent of concession guaranteed for the leading sector. In the sample, 14 percent of the all cases, and 33 percent of the oil producing countries are within this range of financial dependence and sectoral contribution. From another perspective, we find that in oil sector *dependent* (rentier) economies, *incoming* capital reduces the extent of sector specific concessions. One explanation for this effect may be that since there are already high levels of capital investment (in oil sector) in such countries, extra capital inflows may lead rulers to lift

‘oil-sector-specific’ concessions either totally, or to *enlarge/generalize* these concessions to include non-oil sectors as well.

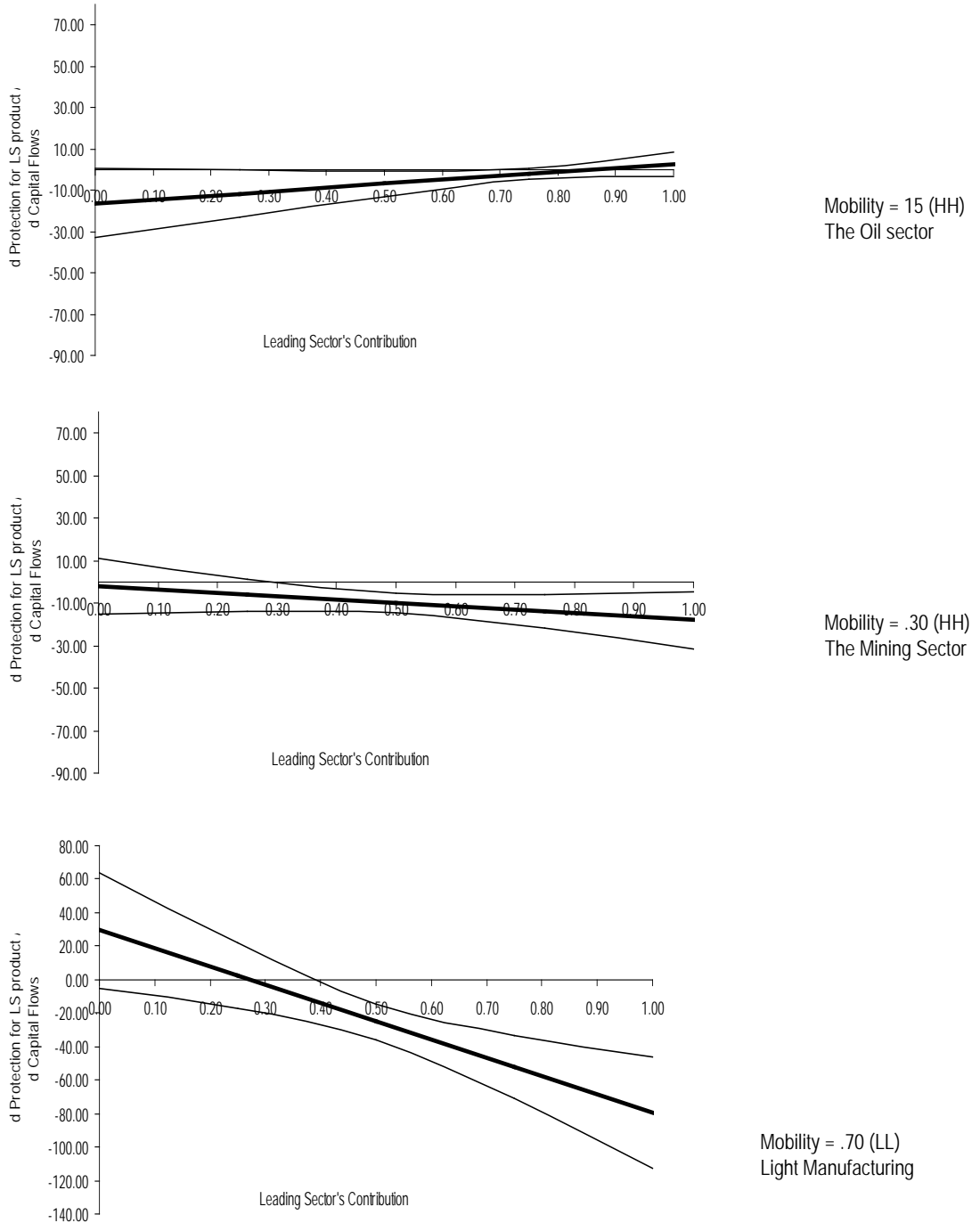


Figure 35 – Marginal effect of *In and Out Capital Flows* on the level of *protection for the leading sector's product*, conditional on sectoral attributes and the leading sector's contribution to economy, with 95 percent confidence intervals (90 percent for Mobility=.15)

We observe that at lower ranges of HH leading-sector contribution (i.e. relatively diverse economies with a HH leading sector—oil, mining and heavy manufacturing), policy-makers positively respond to ‘*incoming capital*’ with respect to providing greater concession for the leading sector. Only the effect of CF in the context of mining countries is presented in Figure 20, yet the effect is statistically significant within the context of upper HH leading sector economies—though with a smaller magnitude (Figure 21). Finally, we find that in countries with a LL leading sector, at lower levels of sectoral contribution (relatively diverse economy) capital flight is positively related with the level of import concessions. In the sample 15 percent of the cases (42 percent of the countries with a LL leading sector) fall into this range.

Overall capital flight seems to have positive effects only on the level of particularistic policies but in exactly opposite economic settings. In countries with a LL leading sector, at relatively higher levels of sectoral contribution (above .40), capital flight is positively correlated with protectionist measures. However, at lower levels of a single sector contribution (in relatively diverse economies with a LL leading sector) capital flight increases the level of import tariff concessions. In the context of LL sectors, where import concessions in general are scarce, increase in the level of concessions should be understood as extending the coverage of tariff exemptions from no exemption to selective projects or supplies and then exemptions for all the sectors in general—rather than very particularistic leading-sector-only exemptions.

In contrast, in countries with a HH leading sector, at high levels of sectoral contribution, capital flight has a positive effect on import concessions, and at lower levels of HH sector contribution, capital flight is positively related with the level of protection for the leading sector.

In the former context, high single-LL sector contribution indicates a poor economy and a weak private sector—since mostly in agro-industry dominant countries of Africa we observe *dependence* on a single LL sector. Given that protectionist measures are positively correlated with LL sector dependence (i.e. high single LL sector contribution), and negatively correlated with the strength and independence of the private sector, the observed positive marginal effect of capital flight on the level of protection of the leading

sector at high levels of LL sector contribution can simply be interpreted as an *extension of the dominant strategy* of the rulers. In a similar vein, in non-rentier oil producing countries (defined by lower level of sectoral contribution and higher level of financial dependence on tax revenue) increase in the level of strength and independence of the private sector is positively correlated with the level of protection granted for those sectors—probably, as I argued before, against more powerful oil industries of the rentier oil producing countries. Thus, observing that capital flight is positively correlated with the level of protection in those countries can again be interpreted as an extension of the policy that pleases the private sector.

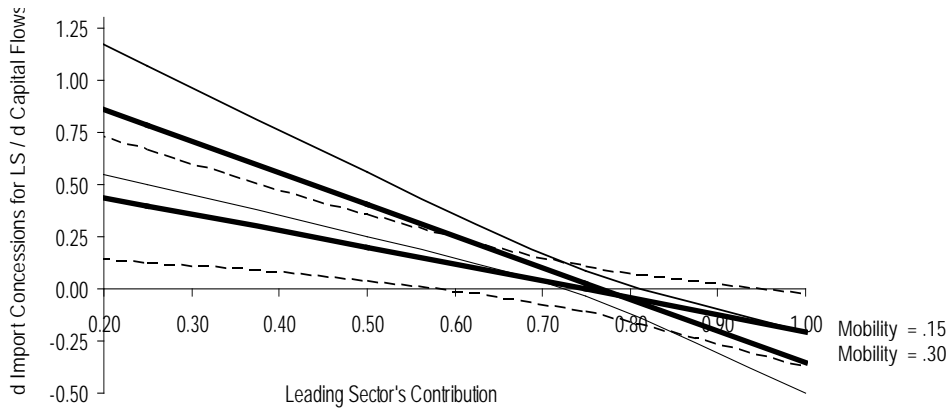


Figure 36 – Marginal effect of *In and Out Capital Flows* on *Import Tariff Concession policies*, in countries with a HH leading sector (FD = 25 percent), conditional on the leading sector’s contribution to economy and financial dependence, with 95 percent confidence intervals

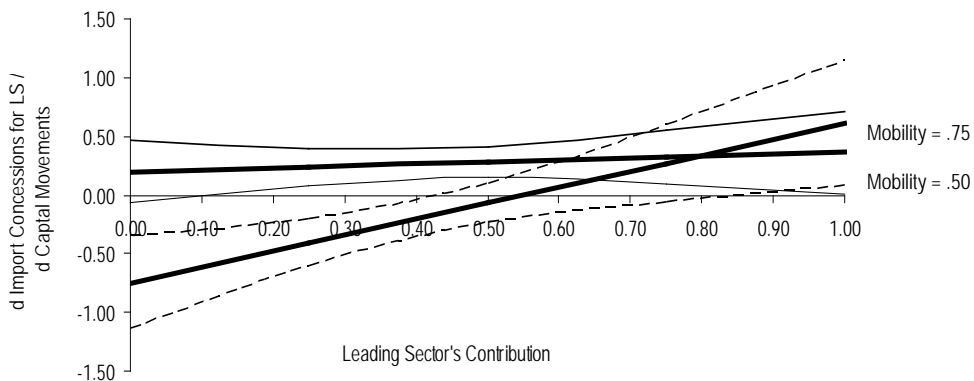


Figure 37 – Marginal effect of *In and Out Capital Flows* on *Import Tariff Concession*, in countries with a LL leading sector (FD = 80 percent), conditional on the leading sector’s contribution to economy and financial dependence, with 95 percent confidence intervals

CHAPTER V

**LINKING FINDINGS TO
A GREATER PICTURE OF DEMOCRATIZATION
AND
CONCLUSION**

The present study intends to look for seeds of accountability in non-democratic regimes. Given the absence of a formal (or effectively functioning) mechanism in non-democracies to hold autocratic rulers accountable for their deeds, I investigate the presence of some kind of informal mechanism which *de facto* shapes, and hence, ‘restricts’ the policy-making power of rulers. In that regard, I examine business-state relations, and quantitatively test the factors shaping responsiveness of rulers to business interests.

I argue that in capitalist economies, wherever the government is financially dependent on extraction from domestic productive sources, owners of capital may influence policy-making. While in democratic regimes, capitalists’ influence on policy-making overshadows the preferences/interests of the citizens, and hence, damage democratic accountability, in non-democratic regimes, responsiveness of policymakers to domestic business interests may sow the seeds of democratic accountability in the long run. Accordingly, it is the claim of this study that in nondemocracies, capital owners may play an indirect role in restraining the unlimited policymaking power of the rulers. This does not mean that capitalists actively promote democratization. As John Waterbury

notes, owners of capital initially bargain to protect or advance their business activities;³⁰³ they do not necessarily promote democratic accountability.³⁰⁴ However, scholars highlight two intertwined processes which may indirectly establish such a link in the long run. One is ‘changing power relations’ as a result of economic reform. Greater responsiveness to capitalist interests involves, at some point, divesting from direct control of the economy and transfer of economic power to the private sector; hence, changing power relations between the private sector and the state in favor of the former. And the second one is ‘formalization of habits of interaction between the government and citizens.’ Waterbury claims that “as a kind of by-product of their bargaining for favorable policy responses from the state, [owners of capital] may foster habits of interaction between the governments and citizens that can lead to a transition.”³⁰⁵

Against this theoretical background, I hypothesized certain *conditions* under which we expect autocratic rulers to be responsive to business interests due bargaining-power of the capitalists—but not because of some structural or contextual reasons. For I hold that only this kind of responsiveness can be regarded as having the potential to establish a formal interaction process between government and citizens in the long run. Specifically, I argue that *those rulers who are financially dependent on domestic economic forces may be indirectly held accountable by domestic capital owners and investors who are able to credibly threaten to exit while voicing their demands and/or who can actually perform exit*. I argue that *responsiveness of government to business interests under the conditions of ‘credible exit-threat’ and/ or ‘exit’ can be regarded as a form of accountability—indirect accountability*. This form of accountability is indirect, because capital owners cannot directly remove the rulers from the office in case of mal-performance. Still, because they control the main revenue generation mechanism, they can influence economic policies to some extent. In other words, we expect that rational rulers respond to capitalists’ *voice or exit* by making policies in their interests just to avoid a potential capital flight and investment strike or to re-attract outgoing capital.

I specified bargaining power of the private sector as a function of investment strength and independence from government rents—capacity to profitably survive in the

³⁰³ Waterbury, “Fortuitous By-Products,” p.395.

³⁰⁴ Waterbury, “From Social Contracts to Extraction Contracts,” p.164.

³⁰⁵ Ibid. and Waterbury and Richardson, A Political Economy of the Middle East, p.36.

absence of government protection and support—and existence of sectorally determined viable exit-opportunities; and also potential to inflict some loss on the government revenue upon exiting—which is measured by financial dependence of the government on tax revenue.

I also specified three policy categories to form the dependent variable(s). One the dependent variables measures *Common pro-Capitalist Policies* which guarantee a free and secure investment environment for capital owners. The following items were used to measure the degree of such policies: Protection of property rights and the rule of law, Foreign investment freedom and freedom to access to foreign exchange, Free banking system and ease of accessing competitive bank credits, Lower inflation (domestic price stability, and Exchange rate stability. The other dependent variables measure sector-specific policies—because, I hold that capitalist interests are not unique, but shaped to a great extent by the attributes of the sectors they operate in. Accordingly, I assume that capital owners in LL sectors (marked by low capital intensity, small economies of scale, and production and assets/factor flexibility) prioritize policies which enhance their competitiveness and adaptability to market changes—*Market-Conforming Polices*. Four items were used to measure the level of such policies: Ease of starting/ending and operating business, Ease of exporting and importing, Lower tax burden on profit, and Flexibility of hiring/firing & employing workers. I also assumed that investors in HH sectors (marked by the opposite sectoral characteristics) prioritize policies which would protect them against market and changes and cover their losses. Accordingly two separate items were used to measure the degree of particularistic *Market-Resisting Policies*: Import tariff concession (exemptions or reductions) for the leading sector’s inputs and supplies, and Tariff protection for the leading sector’s final products.

The model which is constructed to test the presence of government responsiveness to the above mentioned policies (i.e. an increase in the level of those policies) under the conditions of indirect accountability also controls for alternative factors which may bring about government responsiveness to the same policies in the absence of adequate bargaining-power of the private sector—such as ‘dependence on a single HH sector,’ ‘fiscal crisis’, ‘conditionalities attached to a loan,’ etc.

Overall, we find evidence for indirect accountability—i.e. responsiveness of autocratic rulers as a result of ‘exit-credibility’ (or bargaining-power of the leading sector) for two sector-specific policy categories: *Market-Conforming Policies* and *Import Tariff Concessions guaranteed to the leading sectors inputs and supplies*. We have observed that when the three conditions (financial dependence of the ruler on domestic productive forces, a strong and independent private sector and a leading sector possessing viable exit-opportunities) are jointly present, there is increase in the level of *market conforming policies* and the specificity of *import tariff concessions*.

Because one of the conditions of *credible exit-threat* is ‘existence of viable exit-opportunities,’ we necessarily observe indirect accountability *only* in the context of countries with a LL leading sectors. Still, in the context of countries with a HH leading sector (specifically the oil sector) we have observed a positive relationship between *strength and independence of the private sector* and *Import Tariff Exemptions*. However, the network-like and ‘behind the door’ type of relationships between the investors in the oil sector and the policymakers refrain us from considering this kind of responsiveness as *a type of accountability*. In the same settings, we also observe that increase in the level of strength and independence of the private sector *or* the degree of financial dependence of the government on tax revenue is positively correlated with the level of *Market-Conforming Policies*. In other words, the increase in the level of market conforming policies results *either* from an increase in the level of financial dependence *or* strength and independence of the private sector—but not from their joint presence. More specifically, increase in strength and independence of the private sector raises the level of market-conforming policies *only* in rentier economies (but not in financially dependent oil producing countries). Furthermore, the magnitude of the marginal effect of financial dependence on *market conforming policies* is greatest when the private sector is *weak*; and diminishes as the private sector gains strength. Therefore, the causal mechanism behind responsiveness to market conforming policies in the context of oil producing countries is not ‘the bargaining-power’ of the private sector. Accordingly, it cannot be considered as a form of accountability.

While the joint presence of the conditions of indirect accountability seems to positively affect the level of general *pro-capitalist macroeconomic policies* as well, the

analysis reveals that these kind of policies result from the factors not accounted for by the model or from ‘snowballing’ effect. For the variable measuring spatial interdependence between the units has a statistically and substantively significant effect *only* on general pro-capitalist policies; and there are also very powerful unit-specific effects in this analysis.

The *Protectionist Policies* are *negatively* related to the joint presence of the conditions of indirect accountability—and determined, to a great extent, by *dependence* on LL sectors. Rather than reading this finding as a weakness of the ‘exit-threat’ hypothesis, we can claim that the conditions of indirect accountability—financial dependence of the state on tax revenue, existence of a strong and independence private sector, and prevalence of greater sectoral mobility—are also indicator of economic development. We know that there is a vast literature on the connection between economic development and democratization.³⁰⁶ While the scope of the present research does not allow us to establish a direct link between the joint presence of the conditions indirect accountability and democratization through the mechanism of economic development, nevertheless we can mention a few studies which draw our attention to such a possibility by highlighting the restraining role of certain aspects of economic development.

Barrington Moore, for example, examines the paths to various political regimes and highlights the nature of the industrialization process and the role of bourgeoisie. He argues that the *elite* that dominate the industrialization process determine the type of regime. He claims that only when there is a *strong bourgeoisie*, which emerges as a result of a grass-roots industrialization process, and challenges the economic and political power of the landed aristocracy, is representative democracy likely to emerge—as happened in Britain. However, when a strong state initiates the industrialization process by allying with a powerful landed aristocracy and a weak bourgeoisie that needs

³⁰⁶ A few of the influential names and studies can be listed as S. Martin Lipset, *Political Man: The Social Bases of Politics* (Garden City, N.Y.: Doubleday, 1960). Robert Barro, *Determinants of Economic Growth: A Cross-Country Empirical Study* (Cambridge, London: The MIT Press, 1998), Deutsch, Karl, “Social Mobilization and Political Development,” *The American Political Science Review*, Vol. 55, No. 3. (Sep.1961), 493-514. Adam Przeworski and Fernando Limongi, “Political Regimes and Economic Growth” *Journal of Economic Perspectives*, Vol.7, No.3 (Summer 1993). Adam Przeworski et al., *Democracy and Development* (Cambridge: Cambridge University Press, 2000). Ronald Inglehart. *Modernization and Postmodernization*. (Princeton: Princeton, 1997).

protection of the state—as happened in Germany under Bismarck’s rule—he argues that fascism is likely to emerge.³⁰⁷

A recent body of literature stresses on the changing nature of economic assets with economic development, and its implications for regime transformation. Charles Boix notes, for example, that “economic modernization implies ... a shift from an economy based on fixed assets, such as land, to an economic system based on a highly mobile capital.”³⁰⁸ The ideas about the political implications of capital mobility date back to Montesquieu who salutes capital mobility as a restraint on arbitrary power of tyrants.³⁰⁹ Among the contemporary scholars who underline the political “power” of capital mobility and also its role in the emergence of democracy are Robert Bates (1991), Charles Boix (2003) and Daron Acemoglu and James Robinson (2006). It can be argued that these authors attempt to provide causal grounding for the correlation between economic development and democracy observed by the early modernization theorists.³¹⁰ Bates, from a game-theoretic perspective, sees capital mobility as a factor determining bargaining power of citizens vis-à-vis their governments. He states that historical evidence on the origins of parliaments reveals that it was the desire of the revenue-seeking monarchs to tax “moveable” property for the costs of warfare that promoted the conferral of representation to the property owners. He argues, thus, that the *nature of economy*, and particularly *the tax base*, shaped the terms of bargain between revenue-seeking monarchs and asset-owning citizens. Specifically, he claims, “the more elastic the tax base, the greater the degree to which the sovereign had to give control over public policy to those whose money he sought to appropriate for public purposes.”³¹¹ Bates and Lien argue that the significance of these claims lie primarily in the light they cast upon the *origins* and limitation of democratic institutions.³¹²

³⁰⁷ Barrington Moore, Social Origins of Dictatorship and Democracy (Boston: Beacon Press, 1966, reprint 1993)

³⁰⁸ Charles Boix. Democracy and Redistribution, New York, Cambridge: Cambridge University Press, 2003, p.13.

³⁰⁹ Noted in Ibid, p. 12.

³¹⁰ Robert H. Bates, “The Economics of Transitions to Democracy,” PS: Political Science & Politics, March 1991, p.72. Robert Bates and D.-H. Lien, "A Note on Taxation, Development and Representative Government." Politics and Society, Vol.14, No.1 (1985), p.54. Boix, Democracy and Redistribution, pp.12-13.

³¹¹ Bates, “The Economics of Transitions to Democracy,” p.25.

³¹² Bates and Lien, "A Note on Taxation, Development and Representative Government."

From a different standpoint, recent works by Charles Boix, and Daron Acemoglu and James Robinson define the conditions under which capitalists would *prefer* democratization.³¹³ The authors assume that every individual builds a *preference for the regime that looks after her interests and maximizes her welfare*.³¹⁴ In that regard, they see capital mobility as one of the factors shaping the regime preference of the elite/capital owners. They argue that as the *specificity of capital* declines or as capital becomes more mobile (especially when accompanied with international financial integration) the cost of moving it away from its country of origin diminishes; thus capital owners can easily take their money away from a given country. This makes it more difficult to tax. Thus, *mobility of capital curbs the redistributive effects of democracy or reduces the extent to which democratic government can pursue populist and highly majoritarian policies*. Accordingly, since the likelihood of conflict between the capital owners and non owners is diminished, the elite feel more secure about the redistributive effects of democracy and are discouraged from using repression to prevent a transition from nondemocracy to democracy. In contrast, “the prevalence of highly immobile types of capital exacerbates the authoritarian solution. Unable to shift assets abroad to escape the threat of high taxes, capital owners grow more resolute in their efforts to block democracy.”³¹⁵

A more *indirect* causal link between the condition of indirect accountability and democratization is posited by students of the Middle East. John Waterbury argues, for example, that “we may hypothesize that institutional forms of accountability and representation emerge from tacit or explicit bargaining between the government and various interests it seeks to tax.”³¹⁶ He adds that the hypothesized process does *not necessarily have to be a conscious demand for democratic procedures*; it may also be *initiated in a nondemocratic setting in which the protagonists are oblivious to the democratic implications of their bargaining*.³¹⁷ In that regard he looks at capitalists’ role in the process of regime transition and argues that capital owners and investors may have

³¹³ Boix. Democracy and Redistribution. Daron Acemoglu and James A. Robinson. Economic Origins of Dictatorship and Democracy. Cambridge, New York: Cambridge University Press, 2006.

³¹⁴ Boix, p.10. Acemoglu and Robinson, p.22.

³¹⁵ Boix, p.3. Also for a general overview of their arguments: Boix , pp.1-18 & 36-45 and Acemoglu & Robinson, pp. 15-47.

³¹⁶ Waterbury, “Fortuitous By-Products,” p. 393 (Emphasis added)

³¹⁷ Ibid.

a particularly important role to play in the preparatory phase of democratization (yet this does not necessarily have to be a *conscious* demand for democratic procedures.)³¹⁸ He claims that while *they initially bargain to protect or advance their business activities*,³¹⁹ “as a kind of *by-product of their bargaining for favorable policy responses from the state*, they may foster *habits of interaction* between the governments and citizens that can lead to a transition.”³²⁰

Waterbury and Richardson, state that due to fiscal crisis and hence to greater need to appeal to private capital to stimulate economic growth, a bargaining between the state and the social actors has been established. In the Middle East, they says, “whereas thirty years ago most social actors were ‘policy-takers’ in the face of autonomous states that they could not significantly influence, much less hold to account, by the 1990s a process of *bargaining* between the state and social actors had become common,” and they concludes that “*if democratic practice is to take root in the Middle East, it will be as the result of the formalization of this bargaining process.*”³²¹

According to Waterbury, the obligation of the government to deal directly with significant economic interest in society is a public good, and has been created in the Middle East due to economic constraints. He claims further that “it will be difficult to deny similar rights to other interests except on a purely arbitrary basis.”³²² Thus, he explains a possible transition process as follows:

“The alliance for profits can work for a time, but not all private interest will prosper, and sooner or later the fact that the regime unilaterally determines all parameters of economic life – interest rates, discretionary credit, tariffs, prices, etc – will be intolerable for some private actors. Groups will begin to lobby to protect themselves. *If concessions made by the government involve the transfer or creation of real private wealth, real power will be transferred as well.* Private interests may move from lobbying for their specific advantage to trespass into foreign affairs (we need good relations with ‘X’ to protect or open markets) or into the affairs of state (the government must do something about inflation; the central bank should be autonomous). *The expansion of the private sector agenda requires no explicit*

³¹⁸ Waterbury, “From Social Contracts to Extraction Contracts,” p.164.

³¹⁹ Waterbury, “Fortuitous By-Products,” p.395.

³²⁰ Waterbury, “From Social Contracts to Extraction Contracts,” p.164. Waterbury and Richardson, A Political Economy of the Middle East, p.36.

³²¹ Ibid. (Emphasis added)

³²² Waterbury, “Fortuitous By-Products,” p.396.

demand for democracy, but it is rooted in a demand for accountability on the part of those who own wealth and capital. Accountability is a public good, and once it is available to some, it may be hard to deny to others."³²³

Therefore, in the words of Waterbury again, "the importance of the bourgeoisie lies in the resources it controls. If they are significant and beyond the reach of the state, then *the mere possibility that the bourgeoisie might confront the state* is enough to create political space."³²⁴ In the context of the present research, the "possibility to confront the state" is formulated as 'credible exit-threat', and we have seen indeed that it creates a political space for capitalists to influence the autocratic rulers' policy-making. Taken together with Boix, and Acemoglu and Robinson's argument about the determinants of capitalists' regime preference (capital mobility), therefore, we can argue that under the joint existence of the conditions of financial dependence of the ruler on extraction from domestic economy and a strong and independent private sector possessing greater capital mobility, prospects of greater accountability *not* bleak in nondemocratic regimes.

³²³ Waterbury, "Democracy without Democracrats," p.28-9. (emphasis added)

³²⁴ Ibid. (emphasis added)

APPENDIX I

THE FREEDOM HOUSE POLITICAL RIGHTS INDEX

Freedom House, Political Rights Ratings

Rating of 1 – Countries and territories that receive a rating of 1 for political rights come closest to ensuring the freedoms embodied in the checklist questions, beginning with free and fair elections. Those who are elected rule, there are competitive parties or other political groupings, and the opposition plays an important role and has actual power. Minority groups have reasonable self-government or can participate in the government through informal consensus.

Rating of 2 – Countries and territories rated 2 in political rights are less free than those rated 1. Such factors as political corruption, violence, political discrimination against minorities, and foreign or military influence on politics may be present and weaken the quality of freedom.

Ratings of 3, 4, 5 – The same conditions that undermine freedom in countries and territories with a rating of 2 may also weaken political rights in those with a rating of 3, 4, or 5. Other damaging elements can include civil war, heavy military involvement in politics, lingering royal power, unfair elections, and one-party dominance. However, states and territories in these categories may still enjoy some elements of political rights, including the freedom to organize quasi-political groups, reasonably free referenda, or other significant means of popular influence on government.

Rating of 6 – Countries and territories with political rights rated 6 have systems ruled by military juntas, one-party dictatorships, religious hierarchies, or autocrats. These regimes may allow only a minimal manifestation of political rights, such as some degree of representation or autonomy for minorities. A few states are traditional monarchies that

mitigate their relative lack of political rights through the use of consultation with their subjects, tolerance of political discussion, and acceptance of public petitions.

Rating of 7 – For countries and territories with a rating of 7, political rights are absent or virtually nonexistent as a result of the extremely oppressive nature of the regime or severe oppression in combination with civil war. States and territories in this group may also be marked by extreme violence or warlord rule that dominates political power in the absence of an authoritative, functioning central government.

<http://www.freedomhouse.org>

Freedom House, Political Rights Checklist

A. Electoral Process

1. Is the head of state and/or head of government or other chief authority elected through free and fair elections?
2. Are the legislative representatives elected through free and fair elections?
3. Are there fair electoral laws, equal campaigning opportunities, fair polling, and honest tabulation of ballots?

B. Political Pluralism and Participation

1. Do the people have the right to organize in different political parties or other competitive political groupings of their choice, and is the system open to the rise and fall of these competing parties or groupings?
2. Is there a significant opposition vote, de facto opposition power, and a realistic possibility for the opposition to increase its support or gain power through elections?
3. Are the people's political choices free from domination by the military, foreign powers, totalitarian parties, religious hierarchies, economic oligarchies, or any other powerful group?

4. Do cultural, ethnic, religious, and other minority groups have reasonable self-determination, self-government, autonomy, or participation through informal consensus in the decision-making process?

C. Functioning of Government

1. Do freely elected representatives determine the policies of the government?
2. Is the government free from pervasive corruption?
3. Is the government accountable to the electorate between elections, and does it operate with openness and transparency?

Additional discretionary Political Rights questions:

- A) For traditional monarchies that have no parties or electoral process, does the system provide for consultation with the people, encourage discussion of policy, and allow the right to petition the ruler?
- B) Is the government or occupying power deliberately changing the ethnic composition of a country or territory so as to destroy a culture or tip the political balance in favor of another group?

NOTE: For each political rights and civil liberties checklist question, 0 to 4 points are added, depending on the comparative rights and liberties present (0 represents the least, 4 represents the most). However, for additional discretionary question B only, 1 to 4 points are subtracted, when necessary.

<http://www.freedomhouse.org>

Freedom House ‘Electoral Democracy’ Criteria:

The survey assigns the designation “electoral democracy” to countries that have met certain minimum standards. In determining whether a country is an electoral democracy, Freedom House examines several key factors concerning the last major national election or elections.

To qualify as an electoral democracy, a state must have satisfied the following criteria:

- A competitive, multiparty political system;
- Universal adult suffrage for all citizens (with exceptions for restrictions that states may legitimately place on citizens as sanctions for criminal offenses);
- Regularly contested elections conducted in conditions of ballot secrecy, reasonable ballot security, and in the absence of massive voter fraud, and that yield results that are representative of the public will;
- Significant public access of major political parties to the electorate through the media and through generally open political campaigning.

The numerical benchmark for a country to be listed as an electoral democracy is a sub-total score of 7 or better (out of a total possible 12) for the political rights checklist sub-category A (the three questions on Electoral Process). In the case of presidential/parliamentary systems, both elections must have been free and fair on the basis of the above criteria; in parliamentary systems, the last nationwide elections for the national legislature must have been free and fair. The presence of certain irregularities during the electoral process does not automatically disqualify a country from being designated an electoral democracy. A country cannot be an electoral democracy if significant authority for national decisions resides in the hands of an unelected power, whether a monarch or a foreign international authority. A country is removed from the ranks of electoral democracies if its last national election failed to meet the criteria listed above, or if changes in law significantly eroded the public’s possibility for electoral choice.

<http://www.freedomhouse.org>

APPENDIX II

MEASURING SECTORAL ATTRIBUTES

A HIGH/HIGH & LOW/LOW SECTORAL ATTRIBUTES CONTINUUM

Sectoral analysis is based on two *core* variables—capital intensity (CI) and the extent of economies of scale (EOS)—and two *composite* variables—production flexibility (PF) and asset/factor flexibility (AFF)—which recombine elements of the two core variables.³²⁵ Because these economic variables *covary* across sectors, it is possible to think about them along a single continuum between two polar ideal types: *High/high sectors* (which are marked by high capital intensity, high economies of scale, and high production inflexibility and asset/factor inflexibility); and *low/low sectors*, marked by the opposite.³²⁶

It is highly challenging to precisely measure the above mentioned four variables for each economic sector. This is both due to existence of various measurement techniques discussed in the literature and also to difficulty of collecting firm-level data or obtaining sectoral-level data for every sector. As a result, in this study, I rely on the measurement of *the two core variables* of the sectoral analysis (*capital intensity* and *the extent of economies of scale*) to classify sectors along the high/high and low/low sectoral attributes continuum.³²⁷

Capital Intensity:

As a scholar of sectoral analysis, Shafer defines capital intensity very broadly: Capital intensity, he says, refers to “the capital costs of start-up, production, research and development, inventory, and distribution...”³²⁸ He regards capital intensity as a proxy for

³²⁵ Shafer, *Winners and Losers*, p. 23.

³²⁶ *Ibid.*, p.10.

³²⁷ Because all the variables *covary* (according to Shafer’s definition of sectoral attributes), using only capital intensity and economies of scale, for the measurement of low/low and high/high sectors continuum, would not pose a major problem.

³²⁸ *Ibid.*, p.23

other critical characteristics such as fixed costs, technical complexity, management professionalism, and work-force skill-levels.³²⁹

Because the sectoral analysis part of this study is to a great extent based on Shafer's arguments, I follow his definition of capital intensity for the measurement as well—which I explain below. Nevertheless, it is also worth mentioning some other definitions and measurement techniques of capital intensity that find a place in the literature.

Traditionally, from the perspective of factors of production, capital intensity is defined as “the amount of fixed or real capital present in relation to other factors of production, especially labor;”³³⁰ that is, the ratio of capital to labor. However, as Nicholas Kaldor states, the meaning of this ratio is not so immediately obvious, because capital—real capital—consists of “heterogeneous ... objects, which themselves embody labor and which periodically have to be renewed or replaced.”³³¹ As a result, he claims, there is no absolute or unique measure of this ratio. Still, he says, “one can conceive several ‘indices’ which give an ‘ordinal’ measure of it—i.e. which enable us to say whether the ratio has increased or diminished, even if the exact quantitative magnitude of the change registered by a particular index may have no special significance.”³³² Accordingly, he suggests an index as “the ratio between “initial cost” and “annual cost” involved in the production of a certain stream of output.”³³³

Later, attention has been focused on “capital: output” ratio,³³⁴ which is defined as “an increase in the amount of capital employed for each unit of output.”³³⁵ A similar formulation is also made from the perspective of capital expenditures-revenue relationship. For example, Hassan Elmasry, in a study made for Morgan Stanley

³²⁹ Ibid., p.23-4

³³⁰ Find the reference

³³¹ Nicholas Kaldor, “Capital Intensity and the Trade Cycle,” Economica, New Series, Vol.6, No.21 (Feb.,1939), p. 42

³³² Ibid., pp.42-3.

³³³ Ibid., p.43.

He defines “initial cost” as is the replacement cost at current prices of an equipment incurred in the past. And “annual costs” he says “ could be either (a) its actual rate of expenditure in connection with the output which it is actually producing; or (b) its “normal” rate of expenditure, associated with the rate of output which corresponds to the normal capacity of the equipment.... The former can vary with variations in the amount of labor and raw materials employed in connection with a given equipment, but the latter can only be varied by changing the type of equipment in use.” pp.43-4.

³³⁴ Maurice Dobb, “Second Thoughts on Capital Intensity of Investment,” The Review of Economic Studies, Vol.24, N.1 (1956-57), p.33.

³³⁵ Ibid.

Investment Management, defines capital intensity as “the amount of plant, property, equipment, inventory and other tangible or physical assets required to generate a unit of sales revenue,” and quantifies it as “the ratio of a company’s annual capital expenditure divided by revenues.”³³⁶

Shafer’s broad definition of capital intensity is similar to Elmasry’s formulation, except that besides the costs/value of tangible assets, he also includes the costs of research and development (R&D) and distribution. As I indicated above, because the sectoral analysis part of this study is mainly based on Shafer’s arguments, I follow his broad definition and use the following items to measure capital intensity: *Replacement cost of Tangible Fixed Assets*³³⁷ (as a measure of the capital costs of start-up), *General Operating Costs* (as a proxy for fixed costs), and costs for *Research and Development, Marketing and Distribution*.³³⁸

As we discuss sectoral attributes, we refer to certain characteristics of economic sectors that are unchanging across countries. In other words, if a particular sector (e.g. mining) is high on capital intensity and economies of scale in one country, it should have the similar characteristic in country B as well, provided that the same product group is extracted or processed. Thus, given the generalizability of sectoral attributes, and also the difficulty of gathering sectoral data from various countries, I used the most available data source for me to rank-order sectors based on sectoral attributes, and then to generalize that order to other countries in the sample. Hence, I gathered data for the above mentioned items from the sectoral-level aggregate balance-sheet and income-statement

³³⁶ Hassan Elmasry, “Capital Intensity and Stock Returns,” *Issues of Interest*, Morgan Stanley Investment Management, p.1

³³⁷ Tangible fixed assets are composed of the following sub-items: *Land, Land Improvements, Buildings, Machinery and Equipment, Motor Vehicles, Furniture and Fitting, Other Tangible Fixed Assets, Accumulated Depreciation (-), Construction in Progress, and Advances Given*. To obtain replacement cost of tangible fixed assets, I added the value of accumulated depreciation to total tangible fixed assets value. The values were adjusted for inflation by using the general wholesale price index.

³³⁸ Although Shafer mentions ‘capital costs of production’ too as an element of capital intensity, I am unable to use this item due to lack of adequate data. The income-statements, from which I gather data, list only one item related to production costs: “Cost of Sales”. However, beside general production costs, this item includes both raw material costs and labor costs. And it is impossible to differentiate the share of general production costs from other items. As a result, I am unable to use any indicator for production costs within the measurement of capital intensity.

datasets published by The Central Bank of the Turkish Republic.³³⁹ The time coverage is from 1996 to 2003.³⁴⁰

To obtain a measure of capital intensity, the values of *Replacement Cost of Tangible Fixed Assets*, *General Operating Costs*, *Research and Development Costs*, and *Marketing and Distribution Costs* were first adjusted for inflation by using the general wholesale price index, and then were divided by the number of firms surveyed in each year. Hence I obtained the ‘per firm’ value for each indicator cited above. By adding up these values I constructed a measure of ‘capital costs per firm’ for every year between 1996 and 2003. Finally, by averaging the values across time within each sector, I obtained a proxy measure of capital intensity for different economic sectors.³⁴¹ The raw values were converted to zero-to-ten scale.³⁴² Ten indicates highest capital intensity.

The Extent of Economies of Scale:

The economies of scale (EOS) relates to the relationship between costs and output, and indicates the extent to which efficiency demands large-scale production.³⁴³ It is defined

³³⁹ Since Turkey is my home country, it happened to be much easier for me to obtain and analyze sectoral level data. Additionally, Turkey is politically and economically a mid-level case between liberal democracies and non-democracies, and also between advanced economies and emerging economies. This characteristic adds to the generalizability of the results obtained from Turkey.

³⁴⁰ There are five series of Central Bank datasets, of which each covers a three-year period from 1996 to 2006. Because in 2004 the entries were adjusted for inflation, in order to preserve data consistency, I employ only 1996-2003 period data.

³⁴¹ Given the discussion of capital intensity in the literature, using raw capital cost values, but not “capital intensity per unit of production” or “labor/capital ratio,” may not seem to be a reliable measure of capital intensity. A better measure of ‘capital intensity per unit of production’ could have been constructed only if the ‘production index’ were available for the very firms surveyed for their balance sheets and income statements by the Central Bank. Using some other proxies for production, such as the combination of Gross Sales (GS) and Inventory values, creates insensible results. I also tried a ‘capital / labor ratio’ measure (replacement cost of TFA/GS index over number of employees/ GS index), and the resulting ranking was not much different from that of the raw capital cost values. But, again, because I had to use ‘Gross Sales’ values but not the actual production index, I find the measurement less reliable than a measure using raw values. Further, what makes my measurement more reliable is the high correlation between the ranking of sectors according to capital intensity and economies of scale. Based on the sectoral approach, we know that capital intensity and economies of scale values covary. The correlation between the capital intensity ranking I created and the economies of scale ranking I constructed based on a study of a prominent scholar of the field, Cliff Pratten, is .91 (if only Mineral Oil Refining Sector is excluded—which seems to have very high capital intensity in my index but pretty low economies of scale according to Pratten.)

³⁴² To convert the raw capital intensity scores to zero-to-10 scale the following formula was used: $(V_{min} - V_i) / (V_{min} - V_{max})$ multiplied by 10. V_i represents the average raw capital cost value for each sector. The values for V_{min} and V_{max} were set at 17.7 and 10,834, respectively.

³⁴³ Shafer, *Winners and Losers*, p.24.

as “reductions in average unit costs attributable to increase in the scale of output. As output increases from x_1 to x_2 , unit costs fall from y_1 to y_2 .”³⁴⁴ Typically, a company that achieves EOS lowers the average cost per unit through increased production since fixed costs are shared over an increased quantity of goods;³⁴⁵ though there might be other source of economies of scale, too. A prominent student of the field, Cliff Pratten, enumerates the following forces making for EOS: indivisibilities, economies of increased dimensions, economies of specialization, economies of mass resources, superior techniques for organizing production, the learning effect, and economies through control of markets.³⁴⁶

³⁴⁴ C. Pratten, “A Survey of the Economies of Scale,” in Commission of the European Communities: Research on the cost of non-Europe, Vol. 2: Studies on the economics of integration (1988), p. 18.

³⁴⁵ <http://www.investopedia.com/terms/e/economiesofscale.asp>

³⁴⁶ Indivisibilities: Costs which are at least partly independent of scale over certain ranges of output. For example, the initial development and design costs of new car are indivisible with respect to the output of the car; items of capital equipment are indivisible with respect to the total output for which the equipment is required, etc. “As the relevant dimensions of scale are increased, indivisible costs can be spread over a larger throughput and the cost per unit is therefore reduced.”

Economies of increased dimensions: Occurs when initial and operating costs increase less rapidly than capacity. One reason for large units being relatively less costly is that there are proportionately fewer parts to make and fabricate. Also, the total direct labor costs of operating units of equipment are not much affected by their size, and maintenance costs are usually assumed to be proportional to the capital costs of equipment.

Economies of specialization: The larger the output of a product, plant or firm, the greater will be opportunities for, and advantages of, specialization of both the labor force and the capital equipment.

Economies of mass resources: A firm using several identical machines will have to stock proportionately fewer spare parts than a firm with only one machine, because the firm with several machines can assume that its machines are unlikely to develop the same faults at the same time. There may be similar economies for stock of raw materials, and intermediate and final products.

Superior techniques for organizing production: As scale is increased automatic machinery may be used instead of manually operated machinery, or it may be possible to substitute methods of flow production for batch production. These usually result in faster rate of production, and this should reduce unit costs for stocks and works in progress.

The learning effect: Relates to movements along some dimensions of scale, particularly the cumulative output of products and the length of production runs. Effects of learning can be divided between the invention and introduction of new techniques during production run, and other cost-reducing effects of sustained production of a good—such as greater manual dexterity brought about by experience of production and machining successive batches of components more exactly as experience of assembly is obtained.

Economies through control of markets: Can be attributable to a monopoly situation where the supplier controls the customer. Control of a market by a manufacturer may reduce the uncertainty he faces—he will know that customers cannot switch their custom to competitors—and also enable him to invest more heavily in capital intensive methods of production. There are also other economies which are attributable to the control of suppliers—such as reduction in buying and selling costs, reduced need for checking the quality of consignments and control of the timing of deliveries as quality.

Pratten, “A survey of the economies of scale” 1988, p. 21-26. Aubrey Silberston, “Economies of Scale in Theory and Practice, The Economic Journal, Vol. 82, No. 325, Special Issue: In Honour of E.A.G. Robinson. (March, 1972), pp. 374-5.

Shafer notes that EOS “may affect production, research and development, marketing, distribution and financing, and is also a proxy for the size and geographical concentration of facilities; the size, concentration, and stability of the work force; and the extent of specialized infrastructure required.”³⁴⁷

The literature comprises various techniques for measuring EOS. MacPhee and Peterson provide a comparison of the three main methods of EOS measurement: *accounting*, *engineering*, and *survivor* approaches.³⁴⁸ In the accounting approach average costs are estimated from accounting data on existing plants and firms. The survival approach, first used by Stigler in 1958, classifies “the firms in an industry by size, and calculate(s) the share of industry output coming from each class over time. If the share of a given class falls, it is relatively inefficient, and in general is more inefficient the more rapidly the share falls.”³⁴⁹ And the engineering technique uses expert knowledge of best practice technology—that is, engineer’s cost estimates—to construct average production costs for various sizes of plants or firms.³⁵⁰ Although each method has its own technical complexities and drawbacks,³⁵¹ still all are used by various researchers.

³⁴⁷ Shafer, *Winners and Losers*, p.24.

³⁴⁸ MacPhee, Craig R., and Rodney D. Peterson. “The Economies of Scale Revisited: Comparing Census Costs, Engineering Estimates, and the Survivor Technique,” Quarterly Journal of Business and Economics, Vol. 29. no.2, (Spring 1990): 43(25).

³⁴⁹ George J. Stigler, “The Economies of Scale,” Journal of Law and Economics, Vol. 1. (Oct., 1958), pp. 54-71.

³⁵⁰ MacPhee et. al, “The Economies of Scale Revisited.”

³⁵¹ The drawbacks of the main measurement techniques of EOS:

Accounting approach: Proprietary secrecy makes data on individual firms difficult to obtain. Different accounting conventions limit comparability. They often lead to arbitrary asset valuations and variable methods of allocating the costs of administration, planning, sales promotion, and research and development. Interfirm differences in product mix, technology, input prices, and lengths of product runs add to the distortions. Furthermore, when sample size is small, managerial errors and the vagaries of the market cause observed costs and quantities of output to depart from the long-run equilibrium values. (MacPhee & Peterson) Also, “observed cost variation between two plants in an industry can result not only from differences in size but also from (1) unstable demand, so that existing capacity is used differently; (2) non-homogeneous output; (3) age differences, with the newer plant embodying technological improvement unrelated to scale and unavailable to the older plant; (4) different locations, with the cost of preparing the construction site having little relationship to scale; and (5) other factors, such as different technology induced by differences in relative factor prices.” (Haldi & Whitcomb, p.374)

Engineering Approach: “Information-gathering varies from sample questionnaires to detailed analysis of each machine or process in actual and/or model plants. The question-and-answer method has the disadvantages of misinterpretation, oversimplification, and subjectivity on both sides. Even detailed models usually assume a lack of substitutability among factors and techniques; such models may ignore less costly alternatives to engineering ideals. These models may neglect certain aspects of labor or management organization that would alter efficiency. Some economists believe that expert opinion has relatively low value in comparison to the decisions of managers or owners who have their economic fortunes at stake.

Measuring EOS of an industry/sector requires extensive data collection and expert knowledge of the field. Because of this, I adopt the index created by a prominent student of the area, Cliff Pratten. However, Pratten's index covers only manufacturing and some service sectors. For the other sectors (mainly Agriculture, Hunting & Forestry (AHF), Fishing, Mining) I estimate an approximate ranking / classification based on the correlations between Pratten's EOS estimates and the two other indices I created based on data from the sectoral-level aggregate income-statements and balance-sheets published by the Central Bank of Turkey. These are the capital intensity index and the net sales share of big firms (> 500 employees) in a sector.³⁵² I explain the rationale behind the selection of these indices below.

In the literature, not much work compares EOS of different industries/sectors. The most comprehensive index of EOS is constructed by Cliff Pratten first in 1971 and then in 1988. Pratten uses the engineering technique and focuses on the manufacturing industries and some service sectors.³⁵³ As noted before, the engineering approach assembles estimates from managers, engineers, economists, and accountants of the costs of operating at different scales of production, where full adaptation to the scales of production is allowed for.³⁵⁴ Pratten explains the engineering approach as follows:

“Their estimates are based on operating experience for plants of varying size, the experience of planning and building new plants and expanding plant capacity and general experience of their industry. Estimates of the components of costs, capital and operating costs for processes and-or for groups of processes, development, first copy or initial costs for production, etc. are assembled for each industry, and are used

Finally, this approach is expensive and yields results applicable only to the year of study and the particular plant sizes considered.” (MacPhee & Peterson)

Survival Technique: “This method fails to measure the amount of size economies, and therefore cannot answer important questions about the height of the entry barriers and the benefits of industrial concentration. Survivor technique computations only yield the optimum quantity of shipments and do not provide any further information on the shape of the long-run average cost function. Even when confined to plants, the survivor estimates may be distorted by firm-specific economies, because the technique does not distinguish plants operated by one plant or multiplant firms. There is some ambiguity over the relevant time period for measuring changes in market shares, over the interpretation of stable shares, and over the relevance of relative or absolute shares.” (MacPhee & Peterson)

³⁵² Due to lack of sectoral-level production data for the firms surveyed by the Central Bank of Turkey, I am unable to construct a proxy measure based on the accounting technique.

³⁵³ C. F. Pratten, *Economies of Scale in Manufacturing Industries*, Department of Applied Economics Occasional Papers, No. 28 (Cambridge University Press, 1971). Also Pratten, “A Survey of the Economies of Scale”

³⁵⁴ Pratten, “A Survey of the Economies of Scale,” p. 2.28.

to estimate the relationships between unit costs and the various dimensions of scale.”³⁵⁵

Pratten, in the revised version of his work (1988) presents a survey of the engineering estimates of EOS by various authors.³⁵⁶ This survey concentrates on the EOS for production and the spreading of development costs, but not EOS for marketing and distribution. There are both national and international-level studies in the survey. All estimates of EOS are based on the *percent increase in costs of production per unit at different levels (1/3, 1/2, or 2/3) of minimum efficient scale (MES)*. Pratten notes that *the scale at which unit costs cease to fall* is labeled MES. *In practice*, he says, the MES is usually defined in terms of *the scale above which costs cease to fall rapidly, rather than the level at which they cease to fall at all*.³⁵⁷

Pratten presents a highly detailed list for the sub-branches (products) of the manufacturing sector. Table 25, at the end of this Appendix, presents Pratten’s estimates. To be able to combine them with the capital intensity values (which are available only for the main sectors), first, I converted all the available ‘increase in cost per unit’ percent-values, at different levels of MES, to zero-to-ten scale. This conversion was made for each level of MES (1/3, 1/2 or 2/3 MES) separately.³⁵⁸ Then, I averaged all the EOS values (now standardized across all the levels of MES) available for a sector. Thus, I obtained *an average EOS estimate* for each main branch of the manufacturing sector. Table 24 presents these results along with the capital intensity index.

³⁵⁵ Pratten, “A Survey of the Economies of Scale,” p.2.28. Pratten also adds that “the reliability of estimates depends upon the experience of those making the estimates. Managers familiar with construction and operation of giant steel Works in Japan or cigarette factories in the USA are in a strong position to make estimates for those sizes of plant.” P.2.28.

³⁵⁶F. Pratten, Economies of Scale in Manufacturing Industries. The main sources of information for the survey are the studies made by Pratten based on UK firms (1971), Scherer (1975, 1980). Müller and Owen (1983), Müller et al. (1985), Weiss (1976), and Connor et al. (1984).

³⁵⁷ Pratten, “A Survey of the Economies of Scale,” p.18

³⁵⁸ The raw EOS values (i.e. the percent increase in cost per unit at 1/3, 1/2 or 2/3 MES) are presented at the end of this Appendix. To convert the raw EOS estimates to zero-to-10 scale, the following formula was used: $(V_{min} - V_i) / (V_{min} - V_{max})$ mult iplied by 10. V_i represents the EOS for each branch of the manufacturing sector. The values for V_{min} and V_{max} were set at 1.5, 1, and 2 (minimum values) and 14.3, 16.9, and 13.2 (mean plus one standard deviation), for 1/3, 1/2 and 2/3 MES, respectively. This conversion also enables me to verify that where there are more than one EOS estimates for a sector at different MES, the converted scores are approximately the same at zero-to-10 scale.

As noted above, Pratten's survey does not cover sectors other than Manufacturing. Hence, to estimate EOS for the other sectors (and also to obtain a final ranking of sectors along the High/High and Low/Low continuum of sectoral attributes) I added another indicator: 'the net sales share of big firms (> 500 employees)'³⁵⁹ The justification for the use of this item is two arguments made by Shafer. The first one is his argument that the sectoral variables (i.e. capital intensity, economies of scale, asset/factor (in)flexibility, and production (in)flexibility) *covary* across sectors.³⁶⁰ And the second one is again Shafer's argument that when sectoral variables score high, oligopolistic market structure—defined as small number of firms—prevails. Hence the net sales share of big firms (i.e. market dominance of big firms) is a good indicator of high capital intensity, big economies of scale, and asset/factor and production inflexibility.³⁶¹ The correlations we obtain from the data available (from Turkey) also confirm these arguments. The correlation between EOS and capital intensity is .91 when Mineral Oil Refining sector (which is very high on capital intensity but low on Praten's EOS index) is excluded from the list. Both capital intensity and EOS strongly correlate with the net sales share of big firms (.77 and .65).

Accordingly, based on the available values of capital intensity and net sales share of small firms *corresponding to Pratten's classification of EOS (small, moderate, substantial, very substantial EOS)*, I created a table of ranges (Table 23).³⁶² Finally, for sectors, which were not covered by Pratten, I assigned a *qualitative classification* on EOS according to where they fit in Table 22. All the estimates of EOS are presented in Table 24.

³⁵⁹ The net sales shares for all sectors are presented in Table 24. The data are obtained from the sectoral level data collected by the Central Bank of the Turkish Republic.

³⁶⁰ Shafer, *Winners and Losers*, pp.10.

³⁶¹ From the other angle, Shafer states that "the prevalence of small firms also indicates limited economies of scale. In 1970, for example, Third World firms employing forty-nine workers or less generated 37-38 percent of value added and accounted for 46-53 percent of light manufacturing jobs...." Ibid. p. 107.

³⁶² This table only includes the actual values, but not a fully complete range; and there are some overlaps. (CI and EOS values are on zero-to-10 scale.)

Table 23 - A Classification of *Economies of Scale* and the corresponding value ranges for *Capital Intensity* and *Net Sales Share of Big Firms* variables. .

Economies of Scale Classification (Praten 1988)	Economies of Scale Estimates (0-10 scale) (Praten 1988)	Capital Intensity (0-10 scale)	Net Sales Share of Big Firms (%) (> 500 employees)
NO – SMALL	n.a. (only his remarks)	.2 – .8	4 – 6
SMALL – MODERATE	1.2 – 4.4	1– 2.8	29 – 58
MODR. – SUBSTANTIAL	3.5	2.4	69
SUBSTANTIAL	4.7 – 7.6	3.1 – 5.7	45 – 72
VERY SUBSTANTIAL	8.3	6.6	78

As noted at the beginning of this section, due to difficulty of measuring all the variables of sectoral analysis, in this study I only rely on the two core variables. According to Shafer, the other two variables of sectoral analysis—production flexibility and asset/factor flexibility—are the composite variables and combine elements of capital intensity and economies of scale. In other words, if a sector scores high on these two core variable, we also expect them to be high on production and asset/factor *inflexibility*.³⁶³

³⁶³ **Production flexibility:** Production flexibility is the ability to meet short-term market shifts by varying factor intensity, output/production levels or product mix. Shafer notes that it is composed of three elements reflecting the extent of capital intensity and economies of scale: (1) The size of fixed costs, which determines whether production decisions respond to current market conditions (when fixed costs are low) or are driven by debt service requirements (when they are high). (2) The size of firms’ investment in the work force, or rather their interest in retaining workers so as not to lose that investment. (3) The sensitivity of firms’ physical plant to shutdown. As a rule, he says, the greater the capital intensity and extent of economies of scale, the more likely facilities will suffer from being shut down.

Asset/factor flexibility: Asset/factor flexibility determines the long-term difficulty of reallocating resources, that is, the extent to which assets and factors can be reused elsewhere. Its indicators are sector-specificity of facilities/buildings, machinery, supporting infrastructure, and workforce skills, and production technology. Shafer notes that, the greater a sector’s capital intensity and extent of economies of scale, (1) the larger, more geographically concentrated, and more specialized are its facilities and equipment; (2) the more concentrated and sector-specific are the necessary infrastructures (power grids, railroads, pipelines, ports); (3) the more specialized the production technology is; (4) the greater the concentration of skilled workers in stable and homogeneous communities that owe their existence and identity to the sector they serve; and (5) the more specialized management is, reflecting the greater need for specialized services within the firm, specialized management organizations, training systems, and corporate cultures.

Shafer, *Winners and Losers*, p. 24. and Peter MacKay, “Real Flexibility and Financial Structure: An Empirical Analysis,” *The Review of Financial Studies*, Vol. 16, No. 4. (Winter, 2003), p. 1131, 1134.)

To obtain a low-high sectoral attributes continuum for the main economic sectors, I first averaged the scores of capital intensity, economies of scale and net sales share of big firms (which are already on zero-to-one scale). Because we *do not have very precise measures* of these variables, instead of strictly using the exact results obtained from the calculation, I rounded the results to upper or lower values and hence obtained scale of sectoral attributes. Finally to better indicate absence/existence of exit-opportunities I reversed the scale. On zero-to-one scale, therefore, zero indicates the highest capital intensity and economies scale, and absence of exit-opportunities. The final scale presented in the last column of Table 23.

I excluded “Mining & Quarrying of non-energy producing materials” sector from the ranking. Because, the characteristics of this sector is to a great extent dependent on the commodities extracted. In Turkey, where the data used in this part of the study belong to, mining sector is dominated by salt, various stone quarrying, and iron ore and chromium mining. Therefore, it cannot be considered as representing the characteristics of the whole mining sector. Classification of this sector on the low/low and high/high sectoral attributes continuum is done, thus, based on the dominant product(s) of each country, and qualitative information about the production process of that product.

Table 24 – A ranking of the major sectors along the High/High and Low/Low Sectoral Attributes Continuum. (Zero indicates lowest exit – opportunities)

Sector	Remarks & Estimates on EOS*	Cost incrs. at 1/2 MES' %	EOS ¹ 0-1	CI ² 0-1	Sales - Big Firms (% raw)	Sales - Big Firms 0-1	Sect. Attrb. ³ 0-1	L/L & H/H Sects. 0-1)
Fishery	<i>No</i>			.0	0	.00	.00	1
Leather & Leather Products	Small EOS	n.a		.02	4	.05	.04	1
Wood Products	No EOS for plants. Possible EOS from specialization and the length of production runs.	n.a		.08	6	.08	.08	.9
Agriculture, Hunting, Forestry	<i>Small</i>			.03	17	.22	.12	.9
Retail & Fixing	<i>Small</i>			.07	28	.35	.21	.8
Footwear & Clothing	Small (slight) EOS at plant level but possible EOS from specialization and longer production runs	1.0	.12	.10	42	.54	.25	.7
Hotels & Restaurants	<i>Small - moderate</i>			.22	29	.37	.30	.7
Processing of Rubber & Plastic	Moderate EOS in tire manufacture. Small (Slight) EOS for general rubber goods or moulded plastic products.	3, 6	.25	.28	41	.53	.35	.6
Food, Drink & Tobacco	For food sector, principal EOS is the individual plant. Possible EOS from specialization and distribution level. Moderate ES for large breweries, slight ES for cigarette factories	3.5, 21	.44	.19	46	.59	.41	.6
Textile Industry	EOS are more limited than in most other sectors, but there are economies of specialization for long production runs	10.0	.29	.26	58	.75	.43	.6
Mechanical Engineering	Limited EOS at firm level but substantial production	3, 10	.35	.24	69	.89	.49	.5
Chemical Industry	Substantial EOS in production processes. In some segments of the industry (pharmaceuticals) R&D is an important source of EOS.	2.5, 15	.51	.44	51	.66	.54	.5
Prod. and preliminary processing of Metals	Substantial (large) EOS in general for production processes.	> 6	.47	.51	53	.68	.55	.5
Electrical (& Optical) Engineering	Substantial EOS at production level and for development costs.	5, 15	.49	.31	72	.92	.57	.4
Non-metallic Minerals	Substantial EOS in cement and flat glass production processes. In other branches optimum plant size is small compared with the optimum size of the industry	> 6	.76	.57	45	.58	.63	.4
Mining & Quarrying of Energy Prod. Materials	<i>Substantial</i>			.50	71	.91	.71	.3
Manufacture & Assembly of Motor Vehicles	Very substantial EOS in production and in development costs.	6, 9	.83	.66	78	1.00	.83	.2
Mineral Oil Refining (& Coal)		5	.22	1.00	78	1.00	1.00	0

¹Economies of Scale, ²Capital Intensity, ³Sectoral Attributes: Simple Average of CI, EOS, and Sales Share *Remarks: Pratten (1988) cited in Karsten Junius, "A Survey of the Empirical Literature," Kiel Institute of World Economics, Working Paper, n. 813 (1997), p 23-4. *Italics are my estimates based on the correlations.*

Table 25 – Estimates of Economics of Scale (by Pratten, 1988)

Product, etc.	% increase in costs per unit (over costs at MES)			increase in costs per unit (over costs at MES) (0-10 scale)		
	at 1/3 MES	at 1/2 MES	at 2/3 MES	at 1/3 MES	at 1/2 MES	at 2/3 MES
11 <u>Oil, general purpose refinery</u>	4.0	5.0		2.0	2.5	
22 <u>Production and preliminary processing of Metals</u>	<i>Generally large eco of scale for production processes</i>					
221 <u>Iron and Steel Industry</u>						
Steel	11.0			7.4		
(a) steel production - blast furnace and L.D. Route		5-10			2.5-5.6	
(b) works making wide strips and other rolled products		8.0			4.4	
Iron foundary						
(a) making cylinder blocks		10.0			5.6	
(b) making small engineering castings		5.0			2.5	
24 <u>Non-metalic</u>						
241 <u>Manufacture of Clay products for Construction Purposes</u>	> 10			> 6.7		
Bricks		25.0			15.1	
242 <u>Manufacture of Concrete or Plaster for Construction</u>						
Cement	26.0	9.0		19.2	5.0	
	>10			> 6.7		
247 <u>Manufacture of Glass and Glasware</u>	11.0			7.4		
Glass Bottles						
25 <u>Chemical Industry</u>	<i>generally large for production processes...R&G is a source of large scale economies</i>					
251 <u>Manufacture of basic Industrial Chemicals</u>						
Dyes		22.0			13.2	
Petro-chemicals	19.0			13.7		
sulphuric acid	5-10	1.0			0.0	
titanium bioxide		8-16			4.4-9.4	
syntetic rubber		15.0			8.8	
ethylene plant		9.0			5.0	

Product, etc.	% increase in costs per unit (over costs at MES)			increase in costs per unit (over costs at MES) (0-10 scale)		
	at 1/3 MES	at 1/2 MES	at 2/3 MES	at 1/3 MES	at 1/2 MES	at 2/3 MES
255 <u>Manufacture of Paint</u> Paint	4.4			2.3		
258 <u>Manufacture of Soap and Synthetic Detergent</u>		2.0			0.6	
6 Detergents - plant		2-5			0.6-2.5	
26 <u>Man-made Fibres</u> Nylon, acrylic, and polyester fibres polymer plant plant for filament yarn extrusion	<i>generally large ES</i>					
		5.0			2.5	
		7.0			3.8	
<u>Foundries</u> Iron castings, cylinder bricks Small engineering castings		10.0			5.6	
		5.0			2.5	
32 <u>Mechanical Engineering</u>						
321 <u>Manufacture of Agricultural Machinery and Tools</u> Tractors .. Harvestors		6.0			3.1	
		7.7			4.2	
322 <u>Manufacture of Machine Tools</u>		3-5			1.3-2.5	
14 Machine tools		5.0			2.5	
14.1 (a) one type		5.0			2.5	
14.2 (b) factories		varies w/ range				
<u>Manufacture of Transmission Equipment for Power</u>	8-10			5.1-6.7		
325 <u>Manf. Of other Machinery and Equipment</u> Diesel engines Diesel engines - models in range 1 - 100 h.p.		10.0			5.6	
		> 4			> 1.9	

Product, etc.	% increase in costs per unit (over costs at MES)			increase in costs per unit (over costs at MES) (0-10 scale)		
	at 1/3 MES	at 1/2 MES	at 2/3 MES	at 1/3 MES	at 1/2 MES	at 2/3 MES
33 <u>Manufacture of Office Machinery and Data processing eqp.</u>						
Electronic typewriters	5-10			2.7-6.7		
34 <u>Electrical Engineering</u>						
342 <u>Manf of Electrical Machinery</u>						
Transformers, Distribution transformers, etc. (various sizes)		7-10			3.8-5.6	
Turbo generators - one design		5.0			2.5	
Electric motors - range of models (1-100 h.p.)		15.0			8.8	
343 <u>Electrical Equipment for Industrial Use, and Batteries & Accumulators</u>						
Auto Battery	4.6			2.4		
<u>Manf of Telecommunications Equipment</u>						
Micro Processors						
Public Switches	5-10	4.5		2.7-6.7	2.2	
344 <u>Manf of Radio and Television Receiving Sets</u>						
TV Sets	15.0			10.6		
Electronic Capital goods		8.0			4.4	
19 Electronic Capital Goods		9.0			5.0	
19.1 (a) one product (e.g. Computer or radar equipment)		8.0			4.4	
19.2 (b) range of products		10.0			5.6	
346 <u>Manf of Domestic Type Electric Appliances</u>						
Fridges & Washing Machines	6.5-7.5			3.9-4.7		
Domestic Electrical Appliances - range of 10 appliances		8.0		4.7	4.4	
35 <u>Manf & Assembly of Motor Vehicles</u>						
351 <u>Manf of Motor Vehicles</u>						
Cars	> 10 & 15			6.7-10.6		
(a) one model and its variants		6.0			3.1	

Product, etc.	% increase in costs per unit (over costs at MES)			increase in costs per unit (over costs at MES) (0-10 scale)		
	at 1/3 MES	at 1/2 MES	at 2/3 MES	at 1/3 MES	at 1/2 MES	at 2/3 MES
(b) a range of models Trucks	12.0	6.0		8.2	3.1	
36 <u>Manf of Other Means of Transport</u>						
361 <u>Shipbuilding</u>						
Marine Dissels (?)		8.0			4.4	
363 <u>Manf of Cycles</u>		small			small	
364 <u>Aerospace Equipment Manf</u>		20.0			11.9	
Aircrafts - one type of aircraft		> 20			> 11.9	
41/2 <u>Food, Drink & Tobacco Industry</u>						
				<i>moderate ES for large breweries, slight ES for cigarette factories</i>		
411 <u>Manf of Vegetable and Animal Oil</u>						
Soybean oil			4			1.8
412 <u>Slaughtering, Preparing and Processing of Meat</u>						
Meat Packing			3			0.9
413 <u>Manf of Dairy Products</u>						
Butter			2			0.0
Cheese			2			0.0
Milk Products			2			0.0
414 <u>Processing and Preserving of Fruit and Vegetables</u>						
Canned fruit and vegetables			3-12 (??)			0.9-8.9
415 <u>Grain Milling</u>						
Flour			23 (??)			> 18.8
Rice			9			6.3
419 <u>Bread and Flour Confectionary</u>						
Bread - bakery		15.0			8.8	
420 <u>Sugar Manf and Refining</u>						
Sugar			5(?)			2.7 ?
427 <u>Brewing and Malting</u>						

Product, etc.	% increase in costs per unit (over costs at MES)			increase in costs per unit (over costs at MES) (0-10 scale)		
	at 1/3 MES	at 1/2 MES	at 2/3 MES	at 1/3 MES	at 1/2 MES	at 2/3 MES
Beer - brewery	5-10	7-9		2.7-6.7	3.8-5	
<u>Manf of Tobacco Products</u>						
Cigarettes	< 3			> 1.2		
43 <u>Textile Industry</u>	<i>Generally ES are more limited than in most other sectors, but there are economies of specialization for long prod. runs.</i>					
431 <u>Wool Industry</u>						
432 <u>Cotton Industry</u>						
Spinning open-end weaving			significant			
20 Cotton Textiles						
20.1 (a) spinning mills			small for mills, but high for individual products			
20.2 (b) weaving mills			small for mills, but high for individual products			
<u>Manf of Carpets</u>			10		5.6	
Warp knitting			small			
45 <u>Footwear and Clothing Industry</u>						
<u>Manf of Mass-produced footwear</u>	1.5	2.0		0.0	0.6	
47 <u>Paper Products</u>						
471 <u>Processing of Paper & Board</u>						
.... Board		8			4.4	
kraft Paper		13			7.5	
Printing paper		9			5.0	
473 <u>Printing and Allied industries</u>						
Book printing		20-30			11.9-18.2	
(a) one title		36.0			21.9	
24.1 (b) firms		small			small	
24.2 Newspapers		20.0			11.9	
23						
48 <u>Processing of Rubber & Plastic</u>						

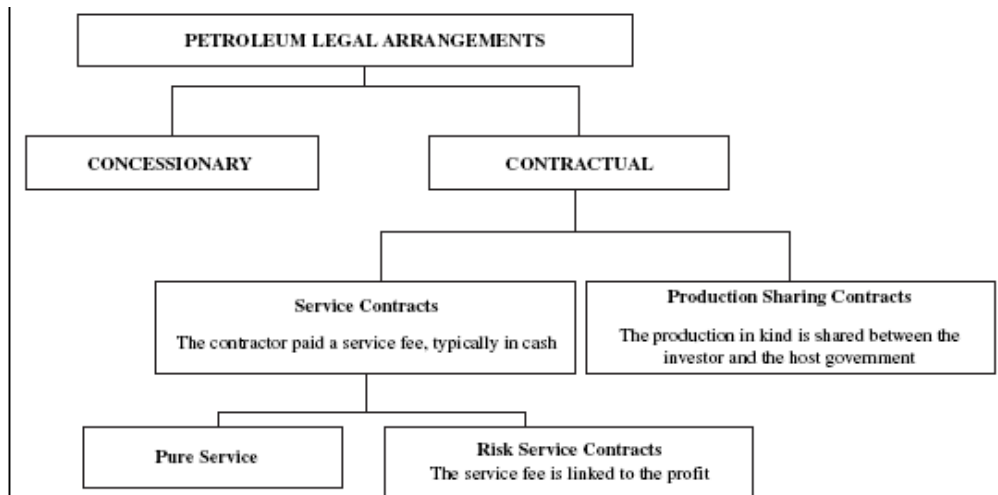
Product, etc.	% increase in costs per unit (over costs at MES)			increase in costs per unit (over costs at MES) (0-10 scale)		
	at 1/3 MES	at 1/2 MES	at 2/3 MES	at 1/3 MES	at 1/2 MES	at 2/3 MES
<u>Manf of Rubber Products</u>						
Tires for passenger cars		5			2.5	
Plastics products						
(a) one product		large			large	
(b) firms making range of products		small			small	
MEAN	10.9	9.7	3.7			
STD DEV.	7.7	6.8	2.7			
1.5 STD DEV.	11.5	10.2	4.1			
MEAN + 1 STD DEV.	14.3	16.9	13.2	10.0	10.0	10.0
Smallest	1.5	1.0	2.0	0.0	0.0	0.0
Biggest	26.0	36.0	23.0	19.2	21.9	18.8

APPENDIX III

A NOTE ON THE SPECIAL CHARACTER OF THE TAX REGIMES IN EXTRACTIVE INDUSTRIES ³⁶⁴

The special character of the fiscal regimes comes from the fact that in extractive high/high sectors (i.e. hydrocarbons and mining sectors) the fiscal regime applied to investing companies is different from the general corporate taxation system, and is usually highly complicated with even *inter*-sector variations. A general inquiry of the fiscal regimes applied to petroleum and mining sectors reveals that companies (usually foreign investors) in those sectors pay not only corporate income tax (CIT) but also some other additional special taxes, such as royalties, rentals, license taxes, etc. Two fiscal systems—Concessionary System and Contractual Systems—and their variations dominate the petroleum industry. Figure 38 displays a visual summary of the fiscal systems for the hydrocarbons industry.

Figure 38 – Petroleum Legal Arrangement.



Source: Daniel Johnston, *International Petroleum Fiscal Systems and Production Sharing Contracts* (PennWell Books, 1994) presented in Silvana Tordo, “Fiscal Systems for Hydrocarbons Design Issues”, *World Bank Working Paper*, No. 123, p.8.

³⁶⁴ This section is based on the following articles:

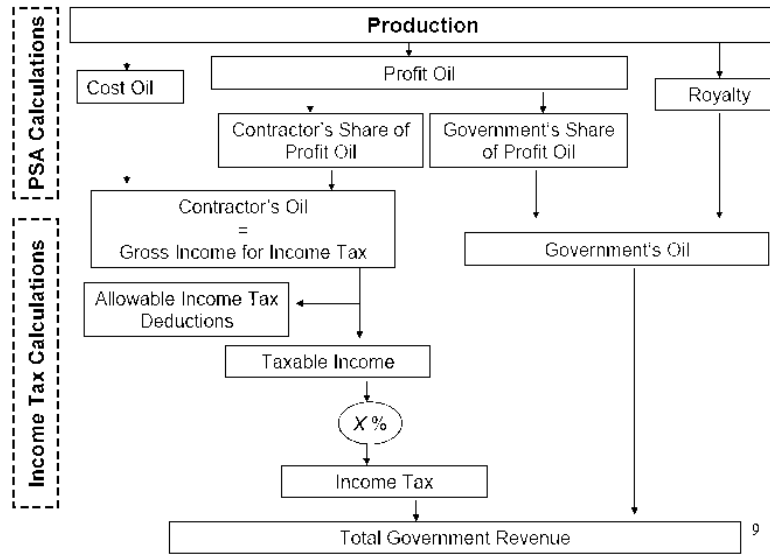
Greg Muttitt, “Production sharing agreements: oil privatisation by another name?” Paper presented to the General Union of Oil Employees’ conference on privatization, PLATFORM, Basrah, Iraq, (26 May 2005), p.5. (www.carbonweb.org).

African Development Bank Group, Development Research Department, “Briefing Note on Revenue and Tax Levels: Mineral Taxation in Africa,” (March 2008)

Concessionary system: In its most basic form, a concessionary system has three components: royalty; deductions (such as operating costs, depreciation, depletion and amortization, intangible drilling costs); and tax. In the Concession or Tax and Royalty system the government grants a foreign company (or more often, a consortium of foreign companies) a license to extract oil, which becomes the company's property (to sell, transport or refine) once extracted. The company pays the government taxes and royalties for the oil. Royalties is a fixed percentage to be received by the host government based on volume or value of production or export.

Production sharing contracts (PSC) are the most widely used form of the contractual system. Under a PSC the contractor receives a share of production for services performed. In its most basic form, a PSC has four components: royalty, cost recovery, profit oil, and tax. In theory, the state has ultimate control over the oil, while a foreign company or consortium of companies extracts it under contract. In practice, however, the actions of the state are severely constrained by stipulations in the contract. In a PSA, the foreign company provides the capital investment, first in exploration, then drilling and the construction of infrastructure. The first proportion of oil extracted is then allocated to the company, which uses oil sales to recoup its costs and capital investment – the oil used for this purpose is termed 'cost oil'. There is usually a limit on what proportion of oil production in any year can count as cost oil (commonly 40-60%). Once costs have been recovered, the remaining 'profit oil' is divided between state and company in agreed proportions. The company is taxed on its profit oil. There may also be a royalty payable on all oil produced. Sometimes the state also participates as a commercial partner in the contract, operating in joint venture with foreign oil companies as part of the consortium – in this case, the state provides its percentage share of capital investment, and directly receives the same percentage share of cost oil and profit oil. (For example, in a 50-50 joint venture, the state provides 50% of the investment and directly receives 50% of the cost oil and profit oil.) The foreign company's share of the profit oil is then subdivided according to the production sharing terms. Figure 39 displays the main characteristics of the production sharing system.

Figure 39 – Production Sharing Scheme



Source: Philip Daniel, “Fiscal Regimes for Minerals and Petroleum: Issues and Current Trends, Fiscal Affairs Department,” International Monetary Fund, International Consortium on Governmental Financial Management, Washington DC, November 5, 2008, p.9

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