



# Oligarchic family control, social economic outcomes, and the quality of government

Kathy Fogel

Department of Economics and Finance, Northern  
Kentucky University, Highland Heights, KY, USA

Correspondence:

Kathy Fogel, Department of Economics and  
Finance, College of Business, BEP 431,  
Northern Kentucky University, Highland  
Heights, KY 41099, USA.  
Tel: +1 859 572 7607;  
Fax: +1 859 572 6627;  
E-mail: fogelk1@nku.edu

## Abstract

Wealthy families, as opposed to small public shareholders, characterize ownership of the large corporate sectors of many countries around the world. This paper shows that greater oligarchic family control over large corporations is associated with worse social economic outcomes. It also correlates with more bureaucratic and more interventionist governments, and less developed financial markets. Further tests show that red tape, price controls, and the lack of shareholder rights protection are the paramount factors relating to the extent of family control of large firms. These results are broadly consistent with Olson and others who argue that economically entrenched wealthy insiders pursue rent-seeking activities to preserve the status quo, and that this increases corruption, and impedes growth.

*Journal of International Business Studies* (2006) 37, 603–622.

doi: 10.1057/palgrave.jibs.8400213

**Keywords:** oligarchic family control; government; institutions

## Introduction

A handful of very wealthy families control a substantial part of the large corporate sectors in many countries and across all levels of economic development.<sup>1</sup> Through control pyramids, cross-holding, dual-class shares, and other mechanisms, these families are able to control a vast amount of corporate assets many times their family fortune, sometimes a considerable share of the host countries' economies. Such concentrated control of very large business groups is thus highly relevant for the economic and institutional development of those countries. The following three questions emerge.

First, the wealth of nations is closely tied to the prosperity of large businesses, which tend to be the most capital intensive, the most technologically advanced, and utilize the largest economy of scale. Is there any identifiable relationship between these ownership patterns and the host countries' economic performance and social development in general? Whereas La Porta *et al.* (1999) and Morck *et al.* (2000) addressed the relationship between concentrated ownership pattern and national income, this paper focuses on social economic development indicators such as the quality of healthcare, education, infrastructure, and income equality.

Second, what determined wealthy families' choice in the ownership patterns of their firms? The families behind the largest publicly traded corporations in the United States generally retain a small, non-controlling stake in the firm once the firm is taken

Received: 6 June 2005

Revised: 1 December 2005

Accepted: 17 January 2006

Online publication date: 27 July 2006

public, whereas their counterparts in Italy tend to retain significant control in the firm after generations. Would institutions, the broad economic and political environment in which the businesses operate, matter in business families' choice in ownership shares?

Lastly, as governments are charged with the responsibility to set up and enforce rules and regulations, would government behavior and the quality of bureaucracies matter in the choice of how businesses organize themselves?

It is to be hoped that the empirical answers to these questions would advance our understanding of ownership pattern, economic performance, and institutional environment, as pleaded in Morck *et al.* (2005b).

This paper attempts to answer these questions using new data on the ownership structures of the largest 10 corporations or business groups in 41 countries. First, it shows that the proportion of the largest businesses controlled by wealthy families is inversely related to the success of these economies, particularly as measured by income equality, health care, education, and infrastructure development. Second, the lack of basic institutions such as law and order and universal education is related to the prevalence of family control. These countries also lack well-developed advanced institutions such as shareholder rights protection to facilitate external financing in both the domestic and international markets. Lastly, the quality of government matters. A handful of wealthy and established business families control more of the largest firms in countries whose governments are more bureaucratic and more interventionist. Further analysis shows that the frequency of price controls, the extent of red tape, and the lack of shareholder protection are the dominating factors that link government quality to corporate control structure. Price controls indicate the extent of government power. Red tape speaks to the efficiency in bureaucracies. The lack of shareholder protection points to poor institutions that adversely affect financial market development (La Porta *et al.*, 1998).

These findings are broadly consistent with Krueger (1974), who argues that government intervention in economic activities creates large political rents, with North (1981), who argues against government interventionism, and with Rauch (1995) and Mauro (1995), who argue that inefficient bureaucracy and corruption are bad for growth.

The paper also lends support to the arguments advanced by Olson (1963, 1982), Acemoglu *et al.* (2005b), Morck *et al.* (2005b) and others that those in control of greater economic resources command greater political power and could use this power to push for future institutions most favorable to their interests. Entrusting a substantial share of a country's corporate sector to the hands of a few oligarchic families might thus obstruct institutional development crucial to economic growth, such as universal property rights, financial market developments, and capital and trade openness.

The next section reviews the literature and describes the motivation for the paper. This is followed by a description of the data, and definitions of family control and the other variables used in the paper. The following section presents the main results of the paper, and the final section concludes.

### The literature

Previous studies suggest social, economic, and legal factors to explain the prevalence of family ownership, or concentrated ownership in a broader sense, of large corporations. For example, La Porta *et al.* (1997, 1999) attribute ownership and control concentration to basic features of a country's legal system, especially those resulting in weak protection for outside investors' property rights. Burkart *et al.* (2003) model the control succession decisions of family-controlled firms and argue that the founding families choose to preserve control within the family if institutions are weak and expropriation risk is high for minority shareholders. Roe (2003) argues that block ownership exists to respond to and counterbalance strong labor unions.

Poor institutions might sustain the prevalence of oligarchic family control by allowing large private control benefits. Poor legal protection of minority shareholders allows wealthy controlling shareholders to reap private control benefits that are disproportionate to their capital contribution (Dyck and Zingales, 2004). Johnson *et al.* (2000) dub the self-dealing transactions of controlling shareholders 'tunneling', which includes transfer pricing, excessive executive compensation, and dilutive share issues. Bebchuk *et al.* (2000) show how controlling shareholders can use pyramids, cross-holding, and dual-class shares to transfer wealth from minority shareholders and extract private control benefits at the expense of outside investors.<sup>2</sup>

Private control benefits may also derive from nepotism and political connections (Hellman *et al.*, 2000; Morck *et al.*, 2000, 2005a). Morck and Yeung (2004) argue that firms controlled by oligarchic families are generally adept rent-seekers who thrive in societies with low trust levels and corruption. Fisman (2001) shows that the stock prices of Suharto-connected firms fell sharply at the news of Suharto's health problems. Faccio *et al.* (2001) show that controlling shareholders of East Asian corporations obtained extensive access to 'related party loans', which facilitated expropriation of minority shareholders. Johnson and Mitton (2003) find that Malaysia introduced capital controls to benefit politically connected firms at the time of the Asian financial crisis. Dyck and Zingales (2004) show that poor tax enforcement greatly increases the private benefit of control.

Many empirical studies suggest that large businesses controlled by old-moneyed families underperform. For example, Morck *et al.* (2000) show that heir-controlled Canadian firms exhibit low financial performance, low R&D spending, and low rates of patent filing. Perez-Gonzalez (2001) finds that heir-controlled firms underperform professional managers in an array of operating measures. Faccio (2003) shows that politically connected firms underperform despite easier access to debt financing, lower taxation, and stronger market power. Anderson and Reed (2003) show that family firms in the S&P 500 perform better than other firms; however, they include new entrepreneurial firms such as Dell and Microsoft among family firms. Amit and Villalonga (2004) show that this result holds for such firms only, and that inherited family firms underperform. Note that, although it is possible that large, old-moneyed families perform poorly, they might still be able to leave public shareholders a high return if rent-seeking by these families is sufficiently lucrative.

On the other hand, there is a literature (e.g., Khanna and Rivkin, 2001) that shows that firms affiliated with family groups yield superior performance in countries such as India, Indonesia and Taiwan. They propose that corporate groups, some of which could be family controlled, add value because their internal organization and markets let them bypass poorly functioning markets for goods, capital, and labor, and generally allow them to substitute for poor institutions.

This may well be correct, but an economic dominance of large family-controlled corporate groups, even composed of firms that pay share-

holders a solid return, may nonetheless impede development. First, capital allocation within the boundary of family groups might not be the most efficient without the functioning of a competitive external capital market. Second, when very wealthy families control a great proportion of economic resources, an economy-wide capital misallocation seems inevitable. Young upstart firms are likely to be deprived of access to capital, and innovations can be seriously depressed. Third, the opacity of concentrated control of large groups might raise the cost of capital for all firms, and this further reduces the access to financing for upstart firms. See Morck *et al.* (2005b) for a detailed discussion of these problems.

If the superior returns of family-controlled groups come from political rent-seeking while controlling families extract private benefits, institutional development might be seriously retarded. Hellman *et al.* (2000) show that pervasive state capture, where politicians sell individualized protection of property rights, causes a much higher degree of insecurity of general property rights, and weaker overall firm performance in many transition economies. They also show that, even though some influential firms enjoy higher growth rates, the overall growth rate of the business sector is much lower. Murphy *et al.* (1991) argue that a high return from rent-seeking diverts resources and talents away from real investments. Murphy *et al.* (1993) argue that lobbying and corruption obstruct innovation and productivity gains. Rajan and Zingales (2003) argue that entrenched elites lobby for a weakened financial market to starve new firms of financing and to heighten the entry barrier. Morck *et al.* (2005b) argue that controlling owners of very large business groups command great lobbying advantages over young upstarts and are capable of using their political influence to sustain their existing wealth and power, favoring weak property rights and poor institutions in general. Similarly, Acemoglu *et al.* (2005) emphasize the ability of those who command economic resources to turn their economic might into political power to change the political institutions that are most favorable to their interests.

In summary, the literature suggests a mutually causal relationship between concentrated control by oligarchic families and the host economy's institutional environment. Oligarchic family-controlled firms tend to thrive in countries with poor institutions. These families in turn use their economic power to reap political advantages and

shape institutional development to preserve the status quo, curtail competition and innovation, and impede growth.

The results section of this paper examines the relationship between concentrated family control and social economic indicators. As the government is put in charge to define and enforce the rule of the game and to establish the infrastructure of the marketplace, its actions and quality shapes economic behavioral norms. The paper therefore also examines the relationship between concentrated family control and indicators of the quality of government, which include bureaucratic and regulatory efficiency, government's involvement in business, corruption and rent-seeking behaviors, financial market infrastructure and development, and labor rights. It is reasonable to assume that the influence of these institutional factors may evolve as the economy progresses, so the relations between oligarchic family control of very large businesses and institutions are assessed as conditional on the stage of economic development.

### Data and variable construction

This section describes the raw data, the construction of the family control variables, and all the other variables used in the paper.

#### Raw data

Dun & Bradstreet's *Principal International Business 1998/99* is the data source, covering a wide range of enterprises including state-owned enterprises, privately owned firms, publicly traded firms, and foreign subsidiaries. Countries that do not report more than 30 firms are excluded, as are countries whose 10 largest firms do not hire more than 500 employees. This removes very small countries. Countries that have experienced prolonged wars are also excluded from the sample.

Extensive research is conducted to locate the ultimate owners of each firm that hired more than 500 employees by using information gathered from multiple sources including the Internet (Google searches, online databases such as Hoover's online, and firms' websites), library resources, databases (Worldscope, SDC, and Dun & Bradstreet), media coverage such as *Forbes*, and academic research papers. Most Arabic, African, and all East European countries are removed from the sample because ownership information on their largest corporations is unavailable. Banks are also excluded from the sample because even when privately owned

they are usually tightly controlled and regulated by governments.<sup>3</sup>

A variety of ownership types are present in the data, either showing dispersed ownership or showing controlling shareholders as being wealthy families, governments, trust organizations, or banks. A 20% cutoff is used to assign majority ownership and control rights to firms and pyramids; a 51% ownership of voting shares is not necessary to assign control rights in most cases, because a single dominant shareholder can exert effective control when all other shareholders are small. When cash flow rights and voting rights diverge, the percentage of voting rights is used to assign control of the firm regardless of the size of the cash flow rights. This is important in countries that permit extensive use of dual share classes and control pyramids, which allow wealthy families to secure majority control many times larger than their cash flow rights. A firm is thus classed as family controlled if members of a single family collectively control more than 20% of the votes, control a greater stake than any other shareholders, and occupy multiple top executive positions in group member firms. The same 20% rule applies to government-controlled firms or corporate groups.<sup>4</sup> Organizations are classified as widely held if no owner controls more than 20% of the vote and small distant shareholders elect the board and appoint CEOs. Dispersed ownership structure is common among large corporations in the United States and the United Kingdom, and among agricultural and retail cooperatives in European and Oceanic countries.

Based on the names of the ultimate owners of each firm, firms are consolidated into corporate groups. The employees of subsidiaries are added to those of the parents, and the employees of firms belonging to the same families and control pyramids are summed up for the family group. The final numbers for the corporate groups are double-checked across multiple sources to ensure accuracy and avoid double counting.

The final sample includes 41 countries for which we can be confident in the ownership information of the largest corporate groups. This sample includes mostly high- or middle-income countries where detailed ownership information on firms, both private and public, is accessible to the public through the Internet and other library resources. The average per capita GDP in 1996 among the sample countries is \$15,270 and the median is \$16,464.

For each of the 41 countries, the largest 10 domestically owned non-government corporate groups are selected based on the total number of employees of each conglomerate or corporate group in 1996.

These largest 10 groups are chosen for three reasons. First, the focus is on the control of very large businesses and the economic and political impacts of such. Every country, including the US, has a great majority of small firms that are started as proprietorships or partnerships, and are owned by brothers or by husbands and wives. The ownership and control of very large firms, and the resulting political and economic impact, however, vary across countries. Second, business groups in some countries might include hundreds of firms organized through control pyramids or cross-holding. A country thus may have only a very small number of gigantic business groups once companies are consolidated based on ultimate controls. For example, the Wallenberg family of Sweden controlled 40% of the Stockholm Stock Exchange's \$265 billion market capitalization in the late 1990s (Reed and Sains, 1999). Of the total domestic market capitalization, 30% in Belgium, 29% in Switzerland, and 34% in Portugal are controlled by the largest 10 families of their home country (Faccio and Lang, 2002). Lastly, it is prohibitively expensive to obtain information on smaller groups in those countries, because their sizes and importance become largely insignificant compared with a handful of very large groups. Coverage of ownership information on these small and less-known groups is scant and less reliable.

### Family control indices construction

Based on the list of the largest 10 domestic conglomerates ranked by number of employees, an *employee-weighted family control index* is calculated as

$$D_V = \frac{\sum_{i=1}^{10} f_i L_i}{\sum_{i=1}^{10} L_i} \quad (1)$$

where  $L_i$  is the total number of employees of the  $i$ th largest conglomerate in the country in 1996, and  $f_i=1$  if the conglomerate is majority-controlled by a wealthy family, and  $f_i=0$  otherwise.

An *equally weighted family control index* is calculated to side-step accuracy issues surrounding the employee counts and consolidation, and is defined as

$$D_E = \frac{1}{10} \sum_{i=1}^{10} f_i \quad (2)$$

The interpretation of the family control indices is straightforward. The employee-weighted family

ownership index is the total employment of all family-controlled conglomerates divided by the total employment of the largest 10 conglomerates in the domestic private sector of each country. The equally weighted family ownership index is simply the total number of conglomerates controlled by wealthy families divided by 10. In Chile, Greece, Malaysia, Mexico, Pakistan, Peru, Philippines, Thailand, Turkey, and Venezuela, all of the largest 10 corporate groups are family controlled. Only in Japan are none of the largest 10 groups family controlled.<sup>5</sup>

Subsidiaries of large multinational corporations (MNCs) play important roles in open economies such as Austria, Chile, Peru, and the Philippines. For these countries, the list of the largest 10 firms differs drastically compared with that of the largest domestic firms. Thus, another set of family control indices,  $P_V$  for employee-weighted and  $P_E$  for equally weighted, are calculated based on the largest 10 non-government firms both domestically and foreign owned. The proportions of largest family firms among similar-sized businesses are much smaller in countries such as Austria, Brazil, Chile, New Zealand, Peru, Philippines, Thailand, and Venezuela, when subsidiaries of MNCs are included in the largest 10 list of firms or groups.

The four family control indices are, not surprisingly, highly correlated with each other. The average correlation coefficient is 0.908 and highly statistically significant.

Table 1 lists the values of the four family control indices and the univariate statistics.

### Other variables

The following sets of variables on institutional development are used in the paper:

- the levels of social and economic development;
- the quality of governments, including the competence of the bureaucracy, the extent of red tape and regulatory burdens, the magnitude of corruption and expropriation risks, and the degree of direct government ownership in enterprises and banks;
- the development of domestic and international financial markets; and
- labor rights.

These variables are collected from sources such as the World Development Indicators, the World Economic Forum, Freedom House, the Fraser

**Table 1** Family control indices are based on the 10 largest conglomerates in the private sector, and are calculated as the fraction of firms that are majority controlled by wealthy families in 1996.  $D_v$  and  $D_E$  are based on the 10 largest domestically owned firms, and are labor weighted and equally weighted, respectively.  $P_v$  and  $P_E$  are based on the 10 largest conglomerates including foreign subsidiaries, and are labor weighted and equally weighted, respectively (Sample includes 41 countries).

*Panel A Family control indices*

Argentina	0.852	0.7	0.749	0.6	Mexico	1.000	1.0	0.887	0.9
Australia	0.061	0.1	0.000	0.0	Netherlands	0.198	0.3	0.198	0.3
Austria	0.839	0.8	0.588	0.6	New Zealand	0.391	0.5	0.141	0.2
Belgium	0.895	0.9	0.738	0.7	Norway	0.334	0.5	0.286	0.4
Brazil	0.913	0.9	0.551	0.5	Pakistan	1.000	1.0	1.000	1.0
Canada	0.415	0.6	0.415	0.6	Peru	1.000	1.0	0.324	0.5
Chile	1.000	1.0	0.530	0.6	Philippines	1.000	1.0	0.681	0.7
Colombia	0.852	0.8	0.732	0.7	Portugal	0.960	0.9	0.869	0.7
Denmark	0.063	0.1	0.063	0.1	Singapore	0.158	0.3	0.000	0.0
Finland	0.250	0.3	0.250	0.3	South Africa	0.568	0.5	0.555	0.5
France	0.382	0.4	0.382	0.4	South Korea	0.614	0.5	0.614	0.5
Germany	0.066	0.1	0.066	0.1	Spain	0.468	0.5	0.414	0.4
Greece'	1.000	1.0	0.959	0.9	Sweden	0.732	0.6	0.732	0.6
Hong Kong	0.427	0.7	0.367	0.6	Switzerland	0.145	0.3	0.145	0.3
India	0.963	0.9	0.917	0.8	Taiwan	0.728	0.7	0.655	0.6
Indonesia	0.699	0.9	0.651	0.8	Thailand	1.000	1.0	0.727	0.6
Ireland	0.279	0.2	0.279	0.2	Turkey	1.000	1.0	1.000	1.0
Israel	0.786	0.7	0.786	0.7	United Kingdom	0.159	0.2	0.159	0.2
Italy	0.671	0.5	0.671	0.5	United States	0.188	0.1	0.188	0.1
Japan	0.000	0.0	0.000	0.0	Venezuela	1.000	1.0	0.703	0.7
Malaysia	1.000	1.0	0.948	0.9					

*Panel B Summary statistics of the main variables*

		<i>N</i>	<i>Mean</i>	<i>s.d.</i>	<i>Minimum</i>	<i>Maximum</i>
<i>Family control of the private sector</i>						
% of family control of the largest 10 conglomerates in the domestic private sector, employee weighted	$D_v$	41	0.611	0.351	0.000	1.000
% of family control of the largest 10 conglomerates in the domestic private sector, equally weighted	$D_E$	41	0.622	0.327	0.000	1.000
% of family control of the largest 10 conglomerates in the private sector, employee weighted	$P_v$	41	0.510	0.309	0.000	1.000
% of family control of the largest 10 conglomerates in the private sector, equally weighted	$P_E$	41	0.507	0.280	0.000	1.000

*Sample characteristics*

1996 real per capita GDP at PPP	<i>y</i>	41	15,270	7,900	1,952	29,194
---------------------------------	----------	----	--------	-------	-------	--------

Institute, the Heritage Foundation, Business Environment Risk Intelligence (BERI), and previous academic publications such as Botero *et al.* (2004) and La Porta *et al.* (1998). This section briefly reviews the definition, country coverage, and the source of each variable. Sample varies as country coverage of each data source varies.

**Measures of social and economic development**

Five indicators of social economic development are used. First, *GDP per capita* is the logarithm of real per capita GDP in 1996 using purchasing power parity adjusted exchange rates. It provides an overall measure of the level of economic advancement in 1996. The data are from the Penn World

Tables 6.1, available at the NBER data site, <http://www.nber.org/data/>.

Gini coefficients are employed to measure *income inequality* among the entire population. The data are collected from the World Income Inequality Database (WIID), developed by the United Nations Development Programme. The detailed description of this data is available from Deininger and Squire (1996). Gini coefficients for 1996 based on high-quality income or expenditure data for all national population are used in this paper.

The *quality of healthcare* is taken from the World Development Indicators, published by the World Bank (World Development Indicators (WDI) CD-ROM, World Bank Publications, 2001), and is measured by the infant mortality rate - the number of infant death per 1000 live births in 1996.

The *quality of education* comes from Barro and Lee (2001) and is measured by the total years of schooling in the adult population aged 25 or older in 1999.

Lastly, the *quality of infrastructure* is an index from BERI and measures the adequacy of physical infrastructure in a country. The index is based on a survey of a panel of professionals with many years of experience in that country. The index value ranges from 0 to 10, with a higher value signifying more adequate physical infrastructure. This variable is available for 39 countries in the sample, but missing for Hong Kong and New Zealand.

### Measures of bureaucracy and regulatory burden

For bureaucracy, three variables are used: *red tape* is taken from BERI, and measures the level of bureaucratic delays, with higher values indicating less red tape; *bureaucratic quality*, from ICRG, assigns higher scores to governments that maintain 'autonomy from political pressure' and have 'strength and expertise to govern without drastic changes in policy or interruptions in government services'; and *competence of public personnel*, from the Global Competitiveness Report, is a survey on the question whether 'public sector personnel are more competent than their private sector counterparts', with answers from 1 (strongly disagree) to 7 (strongly agree).

Four variables are used to measure regulatory burden: *fair regulation*, taken from La Porta *et al.* (1998); *entry regulation* from Djankov *et al.* (2002), defined as the log of the time it takes to obtain legal status for a new business; the *frequency of price control* ranges from 0 to 10, 0 being the most frequent price control; and *freedom to compete* from the World Competitiveness Report.

### Measures of bureaucrats in business

Government ownership in enterprises is based on a data set that includes the largest 10 domestically owned enterprises or business groups in each country in 1996. This data set differs from the previous data set used to calculate family control in that it includes all domestically owned firms, both privately held and government enterprises. The equally weighted index  $S_E$  is the number of enterprises majority-owned by the government divided by 10, and the employee-weighted index  $S_V$  is the total number of employees hired by the government-controlled enterprises divided by the total number of employees of the largest 10 enterprises or conglomerates. A modified SOE index is also used to ensure the robustness of the result. The index is originally compiled by the World Economic Forum and takes a maximum of 10 to indicate the least existence of SOEs in the economy. Subtracting the original index value from 10 yields a modified index that assumes a higher value for a larger share of SOEs. SOE investment as a percentage of the total domestic investment and SOE output as a percentage of the GDP are obtained from the World Bank and are averaged over 1978 to 1991. Government ownership in banks is taken from La Porta *et al.* (2002) and uses the percentage of banks and commercial banks owned by the government.

### Political rent-seeking

The risk of expropriation and repudiation of contracts are taken from La Porta *et al.* (1998), with higher values indicating lower risks. Indices measuring the respect for rule of law, the efficiency of the judiciary system, tax compliance, and corruption are also collected from La Porta *et al.* (1998), with higher values indicating an institutional set-up that is more friendly to private businesses and fair competition. These indexes range from 0 to 10, with higher values indicating more tradition for law and order, more efficient legal environment, better tax compliance, and less corruption in governments.

### Financial market institutions and the availability of financing

Indices measuring shareholders' rights, creditors' rights, and accounting disclosure standards are taken from La Porta *et al.* (1998). Higher values of these indices signify more rights and protection for shareholders and creditors, and stricter accounting disclosure rules.<sup>6</sup> Credit available to the private

sector as a percentage of GDP in 1996 is used to capture the size of the banking sector. The total value of shares traded during the year 1996 as a percentage of GDP is used to measure the size of the stock markets. These data are taken from the World Development Indicators.

The next three variables are from the Global Competitiveness Report and capture the ease of obtaining financing for new firms. The first, *venture capital*, measures the availability of venture capital to finance new businesses. It ranges from 1 to 7, with higher values indicating more readily available venture capital funds. The second, *existence of hostile takeovers* (through share purchases in the stock market), assumes a higher value when managers should be more concerned with the possibility of hostile takeovers. The third variable, *ease of bank entry*, captures the degree of difficulty in starting a new bank. A higher value of this variable means that regulation is reasonable and entry is fairly easy.

The next four variables account for the availability of international capital flows. *Capital restrictions*, taken from "the 1998 edition of the *Global Competitiveness Report*, is the total number of restrictions on capital account transactions, out of a maximum of 12, that a country had in 1996.<sup>7</sup> *Capital control intensity* is taken from Edison and Warnock (2003), and measures the difficulty for foreign investors to hold domestic portfolios; it ranges between 0 and 1, with 1 indicating that it is impossible to hold a domestic portfolio.<sup>8</sup> *Gross private capital flows as a percentage of GDP* and *gross foreign direct investment (FDI) as a percentage of GDP* are both taken from the World Development Indicators.

### Labor rights

Four variables are used to measure various aspects of labor rights, all of them taken from Botero *et al.* (2004). *Union density* is the percentage of total labor force affiliated with labor unions. *Social security protection* includes the provision of old age and disability, sickness and health, and unemployment benefits by a country's social security system. *Labor protection* covers employment laws that regulate alternative employment contracts such as part-time contracts, employment conditions such as working time requirements and mandatory payments for non-working days, and employment termination including grounds and procedures for dismissal, and timing and costs of dismissal. *Collective relations* measure the extent of legal protection of workers'

rights to collective bargaining and to participation in the management of companies, and their rights during a collective dispute such as a strike. The last three indices assume higher values for better social security protection, more labor protection through employment laws, and stronger union power during collective bargaining and disputes.

### Main results

This section presents the main results of the paper. First, it considers where family control is more common. Next, the relations between family control and various measures of government quality and behaviors are examined. These relations are quantified using Pearson's correlation and partial correlation tests, the latter controlling for the variation in a country's development stages using the log of 1996 per capita GDP. Finally, multivariate analysis is used to determine which factors are the most crucial to the relationship between family control and governments.

#### Where is family control more common?

Table 2 relates the level of family control among nations' largest corporate groups to indicators of social and economic development. The correlation coefficients suggest that, when wealthy families control more of the largest firms, the economy tends to be poorer, grows slower, and provides less adequate public health, education, and infrastructure. A higher level of family control is also associated with higher Gini coefficients, meaning that income is less evenly distributed among the entire population. The correlation coefficients become smaller once per capita GDP of 1996 is controlled for, as shown in the right panel of Table 2, but remain significant between oligarchic family control and income inequality, healthcare, and infrastructure quality. Concentrated control of the very largest corporations by a handful of very wealthy families is therefore related to poorer social economic outcomes, as indicated by more unevenly distributed income, poorer provision of healthcare, and less adequate infrastructure.

#### Bureaucracies and regulatory burden

Effective competition from young and innovative firms requires ease of entry and a light regulatory burden. De Soto (1989) shows that, in many developing countries, bureaucracy and business regulation are so costly, especially for new entrants, that many businesses are forced to operate underground. He argues that regulatory and bureaucratic

**Table 2** Family control and social economic development

	Simple correlations				Partial correlations controlling for log of 1996 per capita GDP				N
	$D_V$	$D_E$	$P_V$	$P_E$	$D_V$	$D_E$	$P_V$	$P_E$	
Economic development: log of real per capita GDP of 1996 at PPP	-0.712 (0.00)	-0.710 (0.00)	-0.627 (0.00)	-0.655 (0.00)	—	—	—	—	41
Income inequality: higher Gini coefficient indicates less equally distributed income	0.450 (0.00)	0.466 (0.00)	0.252 (0.12)	0.254 (0.11)	0.269 (0.10)	0.294 (0.07)	0.013 (0.94)	-0.001 (0.99)	40
Quality of healthcare: log of average infant mortality rate	0.738 (0.00)	0.726 (0.00)	0.646 (0.00)	0.660 (0.00)	0.280 (0.09)	0.237 (0.15)	0.199 (0.23)	0.165 (0.32)	39
Quality of education: log of total years of schooling in adult population aged 25 or over	-0.620 (0.00)	-0.622 (0.00)	-0.614 (0.00)	-0.613 (0.00)	-0.109 (0.50)	-0.119 (0.46)	-0.234 (0.15)	-0.190 (0.24)	41
Quality of infrastructure: higher score indicates roads, air, ports, telecom, and power better meet business needs	-0.680 (0.00)	-0.621 (0.00)	-0.601 (0.00)	-0.552 (0.00)	-0.467 (0.00)	-0.420 (0.01)	-0.346 (0.03)	-0.274 (0.10)	39

The left panel reports correlation coefficients between family control indices and various measures of social economic development. The right panel reports partial correlation coefficients controlling for the log of 1996 per capita GDP at PPP. Numbers in parentheses are probability levels for the null hypothesis that the correlation coefficients are zero.

costs affect large, established business groups much less than small upstart companies. That is, these costs serve as a barrier to entry, penalizing small or new firms and protecting large or established ones. Djankov *et al.* (2002) find large differences in the regulatory costs of entry across countries. They show that the costs of entry, in terms of the numbers of days, the number of procedures and the money required to register a business, are heftier in countries with higher corruption, and that the primary beneficiaries of entry regulation are politicians and bureaucrats.

The top panel of Table 3 shows that higher levels of family control are associated with inferior quality of bureaucracies characterized by higher levels of red tape, less autonomy from political pressure, and less competent public personnel. All three measures are statistically significantly related to family control of the large corporate sector, even after controlling for 1996 per capita GDP.

The next panel relates family control to measures of business freedom in a competitive market place. Variables used include the extent of regulation, the frequency of price controls, the freedom to compete, and the number of days required to legally register a business. The relations between family control and all four measures of lack of marketplace freedom are consistently significant, indicating a more heavily regulated business environment and a higher cost of entry where family control is higher. Partial correlations controlling for the log of GDP per capita in 1996 convey the same story.

In summary, increased family control of a nation's largest firms is associated with higher obstacles against young firms trying to rise and compete. There are two possible explanations. First, family firms might have a competitive advantage in dealing with large bureaucracies and heavy regulations. Second, wealthy families might use their power to institute government policies that block competition and preserve the status quo. These two explanations need not be mutually exclusive; both could be valid simultaneously. Economic theory suggests that both explanations may indicate sub-optimal outcomes, as Schumpeter (1912) argues that economic growth requires constant rejuvenation through a continual emergence of new firms with new technologies. This is also consistent with the view that bureaucracy and excessive regulation only create rent-seeking opportunities that maximize the bribes and profits for small groups of cronies, as in Murphy *et al.* (1991, 1993), Botero *et al.* (2004), and others.

### Bureaucrats in business

The findings of Megginson *et al.* (1994) and others reflect a growing consensus that government-operated businesses perform less well than the private sector. Nonetheless, the World Bank (1994) reports that state-owned enterprises still account for a large share of investments and outputs in many countries. Governments seem inevitably to become important business partners with private firms, and the degree of public ownership thus may

**Table 3** Family control and bureaucracies and regulatory burdens

	Simple correlations				Partial correlations controlling for log of 1996 per capita GDP				N
	$D_V$	$D_E$	$P_V$	$P_E$	$D_V$	$D_E$	$P_V$	$P_E$	
<i>Panel A Bureaucracy</i>									
Higher score indicates lower level of red tape	-0.780 (0.00)	-0.754 (0.00)	-0.704 (0.00)	-0.703 (0.00)	-0.484 (0.00)	-0.390 (0.02)	-0.428 (0.01)	-0.349 (0.03)	39
Higher score indicates autonomy from political pressure	-0.746 (0.00)	-0.772 (0.00)	-0.633 (0.00)	-0.686 (0.00)	-0.437 (0.00)	-0.497 (0.00)	-0.298 (0.06)	-0.373 (0.02)	41
Higher score indicates public sector personnel are more competent than their private sector counterparts	-0.653 (0.00)	-0.563 (0.00)	-0.594 (0.00)	-0.548 (0.00)	-0.454 (0.00)	-0.303 (0.06)	-0.403 (0.01)	-0.325 (0.04)	40
<i>Panel B Regulatory burdens</i>									
Higher score indicates better and fair business regulation	-0.477 (0.00)	-0.459 (0.00)	-0.440 (0.01)	-0.459 (0.00)	-0.081 (0.63)	-0.051 (0.76)	-0.095 (0.57)	-0.103 (0.54)	39
Frequency of price control	-0.686 (0.00)	-0.606 (0.00)	-0.678 (0.00)	-0.602 (0.00)	-0.460 (0.00)	-0.326 (0.05)	-0.455 (0.00)	-0.308 (0.06)	40
Freedom to compete in the private market	-0.339 (0.05)	-0.363 (0.04)	-0.299 (0.09)	-0.288 (0.10)	-0.003 (0.99)	-0.057 (0.76)	-0.078 (0.67)	-0.052 (0.78)	33
Log of the time it takes to obtain legal status of a new business	0.623 (0.00)	0.593 (0.00)	0.581 (0.00)	0.564 (0.00)	0.377 (0.02)	0.326 (0.04)	0.350 (0.03)	0.308 (0.05)	41

The left panel reports correlation coefficients between family control indices and various measures of bureaucracy, barriers to entry, and government intervention in markets. The right panel reports partial correlation coefficients controlling for the log of 1996 per capita GDP at PPP. Numbers in parentheses are probability levels for the null hypothesis that the correlation coefficients are zero.

greatly influence how private businesses choose to organize themselves. Morck and Yeung (2004) propose that concentrated ownership in the hands of a few very wealthy families makes sense where the state is an active business partner, because members of a powerful business family are more capable of developing long-term relationships with politicians than are managers hired for a few years by a group of diffuse shareholders. In fact, Faccio (2006) shows that many of a country's leading politicians are members of the same powerful families that control their largest firms. The literature therefore suggests a coexistence of the importance of SOEs and the prevalence of family control among the largest business groups.

Table 4 reports correlations between family control and various measures of the extent of government ownership as well as the investments and output of state-owned enterprises. The first two indices in Panel A capture the extent of government control among the largest domestically owned businesses, whereas the next three indices depict an overall picture of SOE activities in the economy. More family control is associated with more SOEs in all three measures. Controlling for 1996 per capita GDP reduces the magnitude of the

correlation coefficients, but the significance remains in most cases.

There is much anecdotal evidence that politicians direct loans from state banks to their favorite firms. Inefficiency can ensue where governments use these powers to finance politically desirable but possibly economically wasteful projects. La Porta *et al.* (2002) show that government ownership of banks is associated with slower subsequent financial development and slower subsequent growth in productivity. Panel B shows that family control of large business groups and state ownership of banks is positively related.

In summary, Table 4 shows a strong link between family control and measures of governments' involvement in business activities.

### Political rent-seeking

A predatory government faces a commitment problem: if it is strong enough to protect property rights, it is also strong enough to abrogate them to its own benefit. Investment does not take place where private investors lack confidence about the security of their property rights. Haber *et al.* (2002) argue that predatory governments tend to resolve the commitment problem through 'limited commitments', which promise respect for the property

**Table 4** Family control and bureaucrats in business

	Simple correlations				Partial correlations controlling for log of 1996 per capita GDP				N
	$D_V$	$D_E$	$P_V$	$P_E$	$D_V$	$D_E$	$P_V$	$P_E$	
<i>Panel A Government ownership of enterprises</i>									
% of SOEs in 1996's largest 10 conglomerates, employee weighted	0.579 (0.00)	0.548 (0.00)	0.562 (0.00)	0.524 (0.00)	0.346 (0.03)	0.295 (0.06)	0.354 (0.03)	0.284 (0.08)	41
% of SOEs in 1996's largest 10 conglomerates, equally weighted	0.570 (0.00)	0.542 (0.00)	0.582 (0.00)	0.539 (0.00)	0.356 (0.02)	0.310 (0.05)	0.400 (0.01)	0.326 (0.04)	41
SOE in the economy index: higher value indicates more SOEs.	0.505 (0.00)	0.427 (0.01)	0.576 (0.00)	0.502 (0.00)	0.284 (0.08)	0.161 (0.33)	0.416 (0.01)	0.299 (0.06)	40
SOE investment/GDP, avg. 1978–1991	0.441 (0.01)	0.453 (0.01)	0.496 (0.00)	0.513 (0.00)	0.120 (0.51)	0.119 (0.51)	0.257 (0.15)	0.242 (0.18)	34
SOE output/GDP, avg. 1978–1991	0.356 (0.06)	0.388 (0.04)	0.391 (0.04)	0.442 (0.02)	0.236 (0.24)	0.277 (0.16)	0.294 (0.14)	0.352 (0.07)	28
<i>Panel B Government ownership of banks</i>									
% of banks governments owned	0.566 (0.00)	0.519 (0.00)	0.630 (0.00)	0.596 (0.00)	0.332 (0.04)	0.254 (0.12)	0.461 (0.00)	0.400 (0.01)	39
% of commercial banks government owned	0.513 (0.00)	0.469 (0.00)	0.583 (0.00)	0.547 (0.00)	0.297 (0.07)	0.227 (0.17)	0.425 (0.01)	0.366 (0.02)	39

The left panel reports correlation coefficients between family control indices and various measures of government ownership in enterprises, banks, and the relative size of SOEs. The right panel reports partial correlation coefficients controlling for the log of 1996 per capita GDP at PPP. Numbers in parentheses are probability levels for the null hypothesis that the correlation coefficients are zero.

rights of a reduced set of favored economic actors. This greatly increases the return to opportunistic rent-seeking activities, which divert valuable resources to profitable but unproductive uses. 'Limited commitments' and poor institutional environment overall thus make family control advantageous. First, Khanna and Palepu (1997, 2000) argue that oligarchic families effectively operate within an internal capital and labor market by interconnecting various firms into a corporate group, and are thus less dependent on the institutional environment. Second, Morck and Yeung (2004) argue that large firms have transaction cost advantages in dealing with the government. Large firms controlled by wealthy families enjoy low coordination costs while controlling vast amount of economic resources, and are thus able to establish trust relationships with officials and make upfront payments to buy protection from the government. Consistent with the literature, the Panel A of Table 5 confirms that family control is more prevalent among large firms where governments do not respect private property rights and contracts.

Panel B links family control with various variables measuring government integrity and efficiency. The first four indices measure official respect for the rule of law, the absence of official corruption, the efficiency of judiciary system, and tax compli-

ance. These indices range from 1 to 10, with higher values indicating less corruption and greater respect for the law and tax code. Family control is negatively and significantly correlated with all four measures of government integrity. After controlling for per capita GDP, judicial corruption and tax avoidance remain significant factors relating to family control. -

The next two variables measure connections between firms and governments. The first is 'from Faccio (2006) and indicates the percentage of firms closely connected to a top government official, such as a minister or MP. The second evaluates the extent to which governments generally pick winners in awarding subsidies and grants. A higher score indicates that government subsidies are directed at future winners. Family control seems more dominant in countries where political connections are more widespread, and where government subsidies have a higher chance of landing on future losers. However, these relationships seem to be a side-product of low income levels, and disappear once per capita GDP is controlled for.

Olson (1963, 1982) argues that political rent-seeking retards growth because entrenched elites lobby to preserve institutions. It starves real investments of capital where rewards for rent-seeking activities are higher than for entrepreneurial

**Table 5** Family control and political rent-seeking

	Simple correlations				Partial correlations controlling for log of 1996 per capita GDP				N
	$D_V$	$D_E$	$P_V$	$P_E$	$D_V$	$D_E$	$P_V$	$P_E$	
<i>Panel A Dealing with governments</i>									
Higher score indicates lower risk of expropriation	-0.738 (0.00)	-0.728 (0.00)	-0.616 (0.00)	-0.645 (0.00)	-0.338 (0.04)	-0.318 (0.06)	-0.166 (0.33)	-0.185 (0.27)	40
Higher score indicates lower risk of repudiation of contracts	-0.725 (0.00)	-0.716 (0.00)	-0.599 (0.00)	-0.630 (0.00)	-0.294 (0.07)	-0.272 (0.09)	-0.126 (0.44)	-0.149 (0.36)	41
<i>Panel B Corruption and rent-seeking</i>									
Higher value indicates more respect for rule of law	-0.664 (0.00)	-0.633 (0.00)	-0.588 (0.00)	-0.601 (0.00)	-0.117 (0.48)	-0.030 (0.86)	-0.101 (0.54)	-0.077 (0.64)	40
Higher score indicates less corruption in governments	-0.702 (0.00)	-0.688 (0.00)	-0.607 (0.00)	-0.613 (0.00)	-0.253 (0.12)	-0.216 (0.18)	-0.172 (0.29)	-0.130 (0.42)	41
Higher score indicates judiciary systems are more efficient	-0.661 (0.00)	-0.644 (0.00)	-0.618 (0.00)	-0.598 (0.00)	-0.295 (0.07)	-0.263 (0.11)	-0.301 (0.06)	-0.235 (0.15)	40
Higher score indicates low levels of tax avoidance	-0.649 (0.00)	-0.577 (0.00)	-0.646 (0.00)	-0.589 (0.00)	-0.368 (0.02)	-0.239 (0.15)	-0.437 (0.01)	-0.329 (0.04)	39
% of firms connected to a minister, MP, and other close relationships	0.215 (0.20)	0.267 (0.10)	0.281 (0.09)	0.298 (0.07)	0.020 (0.91)	0.099 (0.56)	0.148 (0.38)	0.165 (0.33)	38
Higher score indicates that government subsidies are directed at future winners	-0.219 (0.17)	-0.162 (0.32)	-0.330 (0.04)	-0.270 (0.09)	-0.068 (0.68)	0.015 (0.93)	-0.239 (0.14)	-0.158 (0.34)	40

The left panel reports correlation coefficients between family control indices and various measures of political rent-seeking. The right panel reports partial correlation coefficients controlling for the log of 1996 per capita GDP at PPP. Numbers in parentheses are probability levels for the null hypothesis that the correlation coefficients are zero.

pursuits (Kmege, 1974). Moreover, the high returns from bribing and lobbying politicians would attract a country's most talented individuals to rent-seeking activities, rather than improving productivity and output (Murphy *et al.*, 1991). The strong link between family control and rent-seeking opportunities suggest that established business families might be part of the circular problem of corruption and low growth described by Morck and Yeung (2004).

In summary, the results of this section support the argument of mutual causality that oligarchic family-controlled corporate groups thrive in poor institutional environments, and they develop both the advantages and the incentive to engage in extensive rent-seeking that influence the government's chosen behavior.

### Financial markets

The development of financial markets plays a critical role in nations' economic growth (King and Levine, 1993; Levine and Zervos, 1998). Burkart *et al.* (2003) argue that financial underdevelopment and poor protection of minority shareholders give rise to concentrated control within wealthy families. Furthermore, Rajan and Zingales (2003)

argue that financial market development seems purposely depressed in many countries, because corporate elites might favor a weakened financial system to starve new firms of financing, and prevent the rise of new competition that might lead to the demise of their incumbent firms. Similarly, Morck *et al.* (2000) and Johnson and Mitton (2003) show that ineffective financial markets serve the interests of dominant families by limiting entry from upstarts. It follows that increased family control of large corporations might be associated with weaker financial markets.

Table 6 gauges three aspects of the availability of external financing: the legal protection available to shareholders and creditors, financing from domestic sources, and financing from the international capital markets.

Panel A relates family control of nations' largest business groups to measures of shareholder and creditor protection and accounting disclosure rules. Higher family control is associated with poorer shareholder rights and accounting standards. Shareholder rights become more significant after controlling for country difference in stage of development. Creditor rights appear unimportant to family control.

Table 6 Family control and financial markets

	Simple correlations				Partial correlations controlling for log of 1996 per capita GDP				N
	$D_V$	$D_E$	$P_V$	$P_E$	$D_V$	$D_E$	$P_V$	$P_E$	
<i>Panel A Investors' protection</i>									
Higher value indicates more shareholder rights	-0.247 (0.13)	-0.224 (0.16)	-0.202 (0.21)	-0.191 (0.24)	-0.389 (0.01)	-0.355 (0.03)	-0.289 (0.07)	-0.283 (0.08)	40
Higher value indicates more rights for creditors at bankruptcy	-0.078 (0.64)	-0.025 (0.88)	0.030 (0.86)	0.042 (0.80)	-0.141 (0.40)	-0.066 (0.69)	0.013 (0.94)	0.028 (0.87)	39
Higher value indicates stricter accounting disclosure rules	-0.580 (0.00)	-0.536 (0.00)	-0.431 (0.01)	-0.424 (0.01)	-0.360 (0.03)	-0.297 (0.08)	-0.190 (0.27)	-0.182 (0.29)	37
<i>Panel B Availability of domestic financing</i>									
Credit available to private sector, % of GDP	-0.525 (0.00)	-0.472 (0.00)	-0.468 (0.00)	-0.457 (0.00)	-0.241 (0.15)	-0.152 (0.36)	-0.202 (0.22)	-0.171 (0.31)	40
Total value of stock traded as % of GDP	-0.309 (0.05)	-0.229 (0.15)	-0.222 (0.17)	-0.152 (0.35)	-0.116 (0.49)	0.004 (0.98)	-0.027 (0.87)	0.082 (0.63)	40
Higher value indicates venture capital is more readily available	-0.511 (0.00)	-0.463 (0.00)	-0.428 (0.01)	-0.397 (0.01)	-0.203 (0.22)	-0.118 (0.48)	-0.158 (0.34)	-0.087 (0.60)	40
Higher value indicates ease to start a new bank	-0.254 (0.11)	-0.246 (0.13)	-0.313 (0.05)	-0.258 (0.11)	-0.222 (0.18)	-0.209 (0.21)	-0.290 (0.08)	-0.219 (0.19)	40
Higher value indicates higher possibility of hostile takeovers	-0.582 (0.00)	-0.543 (0.00)	-0.487 (0.00)	-0.475 (0.00)	-0.383 (0.02)	-0.318 (0.05)	-0.282 (0.09)	-0.252 (0.13)	40
<i>Panel C International capital flows</i>									
Capital restrictions: number of types of capital restrictions out of 12	0.567 (0.00)	0.510 (0.00)	0.564 (0.00)	0.510 (0.00)	0.126 (0.45)	0.020 (0.91)	0.250 (0.13)	0.131 (0.43)	39
Capital control intensity: higher value indicates more restrictions on foreign portfolio investments	0.559 (0.00)	0.536 (0.00)	0.551 (0.00)	0.499 (0.00)	0.191 (0.25)	0.153 (0.36)	0.246 (0.14)	0.134 (0.42)	39
Gross private capital flows as % of GDP	-0.370 (0.02)	-0.345 (0.03)	-0.367 (0.02)	-0.381 (0.02)	-0.0635 (0.70)	-0.0113 (0.95)	-0.109 (0.52)	-0.103 (0.54)	39
Gross foreign direct investment (FDI) as % of GDP	-0.503 (0.00)	-0.408 (0.01)	-0.557 (0.00)	-0.502 (0.00)	-0.236 (0.17)	-0.0609 (0.72)	-0.356 (0.03)	-0.253 (0.14)	37

The left panel reports correlation coefficients between family control indices and various measures of investors' protection, the availability of domestic financing and the international capital flows. The right panel reports partial correlation coefficients controlling for the log of 1996 per capita GDP at PPP. Numbers in parentheses are probability levels for the null hypothesis that the correlation coefficients are zero.

Panel B relates family control to types of financing available domestically: through borrowing, share issues and venture capital financing. Supplies of capital from domestic sources are less adequate where wealthy families control more large firms. The relationship disappears once per capita GDP is controlled for. The underdevelopment of the domestic market might just be a reflection of a market still in development. The prevalence of family control is also associated with higher barriers to entry against new banks. The last variable in this panel measures whether control of corporate assets can be contested through hostile takeovers. The possibility of hostile takeovers is significantly lower where wealthy families control more of the large corporate sector.

Panel C measures capital market openness and financing from international capital flows. Greater family control of the large business sector is associated with less open capital markets, as measured by the number of types of restrictions and by an overall index measuring restrictions on foreign portfolio investments. The dominance of wealthy families is also related to smaller gross private capital flows and FDIs. However, the relationship between family control and international capital flows appears to be rooted in the host countries' income level. After controlling for per capita GDP, only FDI is significantly related to family control.

Overall, the results in Table 6 suggest that external financing, both domestic and international,

is low in countries where a few wealthy families control the largest businesses. One possibility is that poor capital markets restrict arm's length capital movements and encourage capital circulation within a firm with dominant control or a group of firms controlled by the same family. The other possibility is that wealthy families do not like competition, and they suppress the growth of small firms by lobbying for a weak financial market and tight capital controls. The coexistence of family control and weak financial markets might also be mutually reinforcing, resulting in sub-optimal outcomes that impose major constraints on capital allocation, innovation, and growth.

### Labor rights

Roe (2003) argues that the strength of labor unions determines corporate ownership structure in Western Europe. Ownership concentrates to a handful of large shareholders in order to counterbalance the power of the union. Using the data set on the regulation of labor assembled by Botero *et al.* (2004), Table 7 presents empirical tests of Roe's hypothesis with a larger sample of countries.

Family control indices are negatively correlated with union density, defined as the percentage of the total labor force associated with labor unions. This relationship becomes positive but insignificant after controlling for per capita GDP. More extensive family control is also associated with worse old age, health and unemployment benefits, but the relationship disappears after controlling for per capita

GDP. The relationship between oligarchic family control and labor's power in collective bargaining and disputes also loses significance once per capita GDP is controlled for. Countries with more extensive family control do provide more protective employment laws with respect to increasing hours worked and firing workers. Controlling for per capita GDP results in smaller coefficients, but they are still statistically significant at conventional levels. This result is consistent with Botero *et al.* (2004), who find that more protective employment laws are supported by the privileged incumbents and lead to higher unemployment for the young population, and Fogel *et al.* (2006), who observe less entrepreneurial entry with tougher employment laws.

In general, Roe's contention that concentrated ownership exists to counterbalance labor power is not strongly supported. However, the result seems to suggest that incumbent families might derive benefit from tougher labor laws to shut out potential competitors.

### Multiple regressions

In the previous sections, higher family control is shown to correlate with heavier bureaucracies, more government intervention through regulation, higher government ownership of enterprises, poorer investor protection, weaker financial markets, and more rigid employment laws. In this section, stepwise regressions are first used to find the single best explanatory variable among the

**Table 7** Family control and labor rights

	Simple correlations				Partial correlations controlling for log of 1996 per capita GDP				N
	$D_V$	$D_E$	$P_V$	$P_E$	$D_V$	$D_E$	$P_V$	$P_E$	
<i>Labor Rights</i>									
Union density: % of total labor force affiliated with labor unions	-0.288 (0.07)	-0.328 (0.04)	-0.200 (0.21)	-0.247 (0.12)	0.139 (0.39)	0.069 (0.67)	0.191 (0.24)	0.146 (0.37)	41
Social security protection: higher index value indicates better protection of old age, health and unemployment	-0.408 (0.01)	-0.455 (0.00)	-0.333 (0.03)	-0.377 (0.02)	0.104 (0.52)	0.014 (0.93)	0.126 (0.44)	0.086 (0.60)	41
Collective relations: higher index indicates more protection in collective bargaining, participation in management and collective dispute	0.258 (0.10)	0.186 (0.24)	0.179 (0.26)	0.126 (0.43)	0.158 (0.33)	0.053 (0.74)	0.061 (0.71)	-0.016 (0.92)	41
Labor protection: higher index indicates more labor protection through employment laws	0.456 (0.00)	0.446 (0.00)	0.378 (0.01)	0.359 (0.02)	0.317 (0.05)	0.301 (0.06)	0.219 (0.17)	0.186 (0.25)	41

The left panel reports correlation coefficients between family control indices and various measures of labor rights. The right panel reports partial correlation coefficients controlling for the log of 1996 per capita GDP at PPP. Numbers in parentheses are probability levels for the null hypothesis that the correlation coefficients are zero.

variables that significantly relate to family control. Next, other variables that strongly correlate with family control in the previous section are added, one at a time, to the regression, with family control as a dependent variable. The log of per capita GDP is always present as a control variable. Thus, the regressions are of the form

$$\text{family control} = \beta_0 + \beta_1 V_s + \beta_2 V_l + \beta_3 \times \ln(\text{GDP}_{96}) + \varepsilon \quad (3)$$

where  $V_s$  is the variable stepwise picked as the best explanatory variable, and  $V_l$  is a variable significantly related to family control in the previous sections.  $V_s$  and  $V_l$  run a 'horse race', the one with stronger influence on the dependent variable winning the race.

Stepwise regressions suggest *bureaucratic delays* when the dependent variable is the equally weighted family control index based on the domestic private sector,  $D_E$ , or the value-weighted index based on the domestic private sector,  $D_v$ , or the equally weighted index based on the private sector including foreign-controlled firms,  $P_E$ . Stepwise suggests *frequency of price controls* as the best explanatory variable when the dependent variable is the value-weighted index based on the private sector,  $P_v$ . Table 8 shows, unsurprisingly, that *red tape* and *price controls* remain significant after another variable is added to the regression.

The *frequency of price controls* measures how often governments fix prices to control economic activities. Price controls generally require sellers to sell at less-than-market prices, which causes a shortage, or induces buyers to consume more than they normally would. With price controls, the government effectively takes over the resource allocation function of the free market, and the market is inevitably distorted once information discovery and communication channels are blocked.

*Bureaucratic delays (red tape)* and *frequency of price controls* are both significant if they put in the same regression. This seems reasonable, because these two variables capture two distinct aspects of government: the nature of its intervention - benign or corrupt - and the extent of its power. Regressions 9A.2 and 9B.2 suggest that both are related to the extent of family control.

The index measuring the protection of shareholder rights is significant in 9A.5, 9B.5 and 9C.5, after controlling for red tape and the log of 1996 per capita GDP. Shareholder protection is an important factor even after bureaucracy and the level of economic development are accounted for. This

result is consistent with La Porta *et al.* (1998), which concentrated ownership in large public companies is associated with poor protection of small shareholders.

Overall, the result suggests that government inefficiency, interventionism, and poor protection of shareholder rights are the paramount factors relating to the extent of family controls.

## Conclusions

This paper shows that countries with more extensive family control over their large corporate sectors tend to have worse social economic outcomes. It also finds that oligarchic family control is more prevalent in the large corporate sectors of countries whose bureaucracies are less efficient, whose governments direct more economic activities, whose political rent-seeking opportunities are probably more lucrative, and whose financial markets are less functional. The last appears to entail weak property rights for outside shareholders.

These observations suggest that extensive family control of large corporate sectors could be an outcome of poor social economic and institutional development and low government quality. This is consistent with the literature (e.g., Burkart *et al.*, 2003) that suggests concentrated corporate control is advantageous in a poor property rights environment, and the literature (e.g., Khanna, 2000; Khanna and Palepu, 2000) that "suggests that large corporate groups with concentrated control serve as substitutes for poor institutions.

The observations of this paper also support contentions advanced in various forms by Olson (1963, 1982), Bebchuk *et al.* (2000), Krueger (1974, 2002), Morck *et al.* (2000), Haber *et al.* (2002), Faccio (2006), Rajan and Zingales (2003), Morck and Yeung (2004), Acemoglu *et al.* (2005), Stultz (2005) and Morck *et al.* (2005b), who argue that highly concentrated economic power perpetuates poor institutions, which are bad for growth. The literature describes a mutually reinforcing relationship in which poor institutions lead to the rise of concentrated economic power, and the oligarchies in turn use their economic might to reap political advantages and shape institutional development most favorable to their interests. If the wealthy and established find it beneficial to preserve the status quo, institutional development could remain stagnant or even deteriorate. The vicious circle of poor institutions - concentrated economic power - poor institutions is therefore more likely to manifest itself when concentrated control of corporations is

Table 8 Multiple regressions

	9A.1	9A.2	9A.3	9A.4	9A.5	9A.6	9A.7
<i>Panel A</i>							
Constant	1.93 (0.01)	2.14 (0.00)	2.21 (0.00)	1.75 (0.00)	2.87 (0.00)	2.69 (0.00)	2.29 (0.00)
Red tape	-0.14 (0.02)	-0.12 (0.02)	-0.14 (0.02)	-0.15 (0.02)	-0.14 (0.01)	-0.13 (0.02)	-0.15 (0.02)
Time to obtain legal status	0.06 (0.17)	-0.06 (0.02)					
Frequency of price control			0.22 (0.25)				
SOE in top 10 domestic firms				-0.10 (0.06)			
Risk of expropriation							
Shareholder rights					-0.06 (0.04)		
Possibility of hostile takeovers						-0.06 (0.15)	
Employment laws							0.08 (0.43)
Log of 1996 per capita GDP	-0.09 (0.35)	-0.06 (0.51)	-0.1 (0.28)	0.05 (0.12)	-0.14 (0.68)	-0.12 (0.22)	-0.11 (0.26)
F-statistic	20.62	23.9	20.12	21.42	21.99	19.99	19.49
Adjusted R <sup>2</sup>	0.608	0.65	0.601	0.623	0.63	0.606	0.593
Sample	39	38	39	38	38	38	39
<i>Panel B</i>	98.1	98.2	98.3	98.4	98.5	98.6	98.7
Constant	2.21 (0.00)	2.44 (0.00)	2.46 (0.00)	2.18 (0.00)	3.18 (0.00)	2.96 (0.00)	2.52 (0.00)
Red tape	-0.09 (0.08)	-0.09 (0.07)	-0.09 (0.10)	-0.11 (0.10)	-0.09 (0.07)	-0.09 (0.09)	-0.09 (0.11)
Time to obtain legal status	0.06 (0.16)	-0.05 (0.05)					
Frequency of price control			0.27 (0.15)				
SOE in top 10 domestic firms				-0.07 (0.15)			
Risk of expropriation							
Shareholder rights					-0.06 (0.02)		
Possibility of hostile takeovers						-0.06 (0.17)	
Employment laws							0.13 (0.17)
Log of 1996 per capita GDP	-0.14 (0.12)	-0.12 (0.18)	-0.16 (0.08)	-0.04 (0.08)	-0.20 (0.71)	-0.17 (0.07)	-0.17 (0.06)
F-statistic	19.06	20.42	19.14	18.59	21.56	18.19	18.99
Adjusted R <sup>2</sup>	0.588	0.612	0.589	0.588	0.625	0.582	0.587
Sample	39	38	39	38	38	38	39

Table 8 Continued

Panel C	9C.1	9C.2	9C.3	9C.4	9C.5	9C.6	9C.7
Constant	1.78 (0.01)	1.88 (0.00)	1.88 (0.00)	1.88 (0.00)	2.42 (0.01)	2.01 (0.00)	2.01 (0.00)
Red tape	-0.08 (0.11)	-0.07 (0.13)	-0.07 (0.18)	-0.10 (0.05)	-0.08 (0.05)	-0.09 (0.09)	-0.09 (0.09)
Time to obtain legal status	0.04 (0.34)	-0.04 (0.07)	0.25 (0.14)	-0.03 (0.57)	-0.04 (0.10)	-0.03 (0.43)	0.04 (0.66)
Frequency of price control							
SOE in top 10 domestic firms							
Risk of expropriation							
Shareholder rights							
Possibility of hostile takeovers							
Employment laws							
Log of 1996 per capita GDP	-0.1 (0.21)	-0.08 (0.31)	-0.12 (0.15)	-0.07 (0.54)	-0.14 (0.09)	-0.1 (0.27)	-0.12 (0.18)
F-statistic	13.17 (0.00)	14.57 (0.00)	14.12 (0.00)	12.35 (0.00)	14.06 (0.00)	10.73 (0.00)	12.67 (0.00)
Adjusted R <sup>2</sup>	0.49	0.524	0.509	0.479	0.514	0.441	0.479
Sample	39	38	39	38	38	38	39
Panel D	9D.1	9D.2	9D.3	9D.4	9D.5	9D.6	9D.7
Constant	1.8 (0.01)	1.52 (0.02)	1.78 (0.02)	2.09 (0.00)	2.32 (0.00)	2.1 (0.00)	2.17 (0.00)
Frequency of price control	-0.06 (0.01)	-0.06 (0.02)	-0.06 (0.01)	-0.07 (0.01)	-0.07 (0.01)	-0.07 (0.01)	-0.07 (0.01)
Time to obtain legal status	0.05 (0.24)	-0.10 (0.05)	0.32 (0.06)	-0.02 (0.75)	-0.02 (0.54)	-0.02 (0.68)	0.03 (0.70)
Red tape							
SOE in top 10 domestic firms							
Risk of expropriation							
Shareholder rights							
Possibility of hostile takeovers							
Employment laws							
Log of 1996 per capita GDP	-0.12 (0.07)	-0.02 (0.86)	-0.11 (0.07)	-0.11 (0.26)	-0.15 (0.03)	-0.12 (0.09)	-0.14 (0.03)
F-statistic	14.63 (0.00)	15.42 (0.00)	16.19 (0.00)	13.62 (0.00)	13.83 (0.00)	11.97 (0.00)	13.72 (0.00)
Adjusted R <sup>2</sup>	0.512	0.539	0.539	0.499	0.503	0.464	0.495
Sample	40	38	40	39	39	39	40

Regressions in Panels A-C are in the form: family control =  $\beta_0 + \beta_1$  \* red tape +  $\beta_2$  \* various institution variable +  $\beta_3$  \*  $\ln(\text{GDP}_{96}) + \varepsilon$ . The dependent variable in Panel A is  $D_A$ , in Panel B is  $D_B$ , and in Panel C is  $P_E$ . Regressions in panel D are in the form: family control =  $\beta_0 + \beta_1$  \* price control +  $\beta_2$  \* various institution variable +  $\beta_3$  \*  $\log(\text{GDP}_{96}) + \varepsilon$ . The dependent variable is  $P_A$ . Numbers in parentheses are probability levels for t-test rejecting the null hypothesis of zero coefficients.

prevalent. This further endangers genuine investment of capital, innovation, and growth.

## Acknowledgements

This paper is derived from one chapter of my Ph.D. dissertation at the University of Alberta, Canada. I am grateful to my supervisor, Randall Morck, and to committee members G Andrew Karolyi, Vikas Mehrotra, and Thomas Scott for their insightful comments and suggestions. Special thanks go also to Vladimir Atanasov, Thomas Gate, the editor (Bernard Yeung), and two anonymous referees for their valuable comments to improve the paper. All errors are mine.

## Notes

For example, see La Porta *et al.* (1999) for 27 high- and middle-income countries, Claessens *et al.* (2000) for nine East Asian countries, Barca and Becht (2001) and Faccio and Lang (2002) for western European countries, Attig *et al.* (2006) for Canada, Khanna and Palepu (1997) for India, Wiwattanakantang (2001) for Thailand, and Valadares and Leal (undated) for Brazil.

<sup>2</sup>Doidge *et al.* (2004) show that firms cross-listed in the US are worth significantly more because controlling shareholders of these firms cannot extract as many private control benefits as can controlling shareholders of firms not listed in the US.

<sup>3</sup>A case in point is from Korea, as documented by Nam (2004). The Korean government still tightly controls commercial banks in which the government has no or very few shares. Even though the *chaebols* such as Samsung and Hyundai are the largest shareholders of these banks, the government somehow successfully took over the control rights of the banks and left no governance power to even the largest shareholders.

Governments partially privatized SOEs in response to social, economical, or political pressure. For example, the Argentinian government retains 20% of the ex-state oil giant YPF and remains the largest shareholder after privatization. In this case, YPF is still considered state-owned.

<sup>5</sup>Large Japanese firms are structured as *kereitsus*, where firms each control a small stake of the other member firms.

## References

- Acemoglu, D., Johnson, S. and Robinson, J. (2005) 'Institutions as the Fundamental Cause of Long-run Growth', NBER Working Paper #10481, in: P. Aghion and S. Durlauf (eds.) *The Handbook of Economic Growth*, North-Holland: Amsterdam, pp. 385-172.
- Amit, R. and Villalonga, B. (2004) 'How do family ownership, management, and control affect firm value?' Harvard business school working paper.
- Anderson, R. and Reed, D. (2003) 'Founding family ownership and firm performance: evidence from the S&P 500', *Journal of Finance* 58(3): 1301-1329.
- Attig, N., Fong, W., Cadhoum, Y. and Lang, L.H.P. (2006) 'Effects of large shareholding on information asymmetry and stock liquidity', *Journal of Banking & Finance*, doi: 10.1016/j.jbankfin.2005.12.002.

<sup>6</sup>The shareholder right index ranges from 0 to 6, assigning one point each when: (1) proxy vote by mail is allowed; (2) shareholders are not required to deposit their shares prior to the general shareholders' meeting; (3) cumulative voting or proportional representation of minorities in the board of directors is allowed; (4) an oppressed minority mechanism exists; (5) the minimum percentage of share capital that entitles a shareholder to call for an extraordinary shareholders' meeting is less than or equal to 10%; and (6) shareholders have preemptive rights that can only be waived by a shareholders' vote. The creditor right index ranges from 0 to 4, assigning one point each when: (1) the country imposes restrictions, such as creditors' consent or minimum dividends to file for reorganization; (2) secured creditors are able to gain possession of their security once the reorganization petition has been approved (no automatic stay); (3) secured creditors have first priority on distribution of proceeds from asset sales of a bankrupted firm; and (4) management does not have to stay pending the resolution of a reorganization. The index of accounting disclosure standards measures the comprehensiveness of company reports. The index ranges from 0 to 90, based on the inclusion or omission of 90 accounting items.

<sup>7</sup>The capital account transactions that may be subject to controls include: transactions of capital market securities; money market instruments; collective investment securities; derivatives and other instruments; commercial credits; financial credits; guarantees, sureties, and financial backup facilities; direct investment; liquidation of direct investments; real estate transactions; personal capital movements; and commercial banks and other credit institutions. For more details, refer to the 1997 IMF's Annual Report on Exchange Arrangements and Exchange Restrictions (AREAER).

<sup>8</sup>The capital control intensity index is defined as 1 minus the ratio of the market capitalizations of a country's investable index and its global index, where the investable index represents the portion of the market available to foreign investors and the global index represents the entire market.

- Barca, F. and Becht, M. (2001) *The Control of Corporate Europe*, Oxford University Press: Oxford.
- Barro, R.J. and Lee, J.W. (2001) 'International data on educational attainment: updates and implications', *Oxford Economic Papers* 53(3): 541-563.
- Bebchuk, L., Kraakman, R. and Triantis, C. (2000) 'Stock Pyramids, Cross Ownership and Dual Class Equity: The Mechanisms and Agency Costs of Separating Control from Cash Flow Rights', in R. Morck (ed.) *Concentrated Corporate Ownership*, National Bureau of Economic Research Conference Volume University of Chicago Press: Chicago, pp. 295-315.
- Botero, J., Djankov, S., La Porta, R., Lopez-de-Silanes, F. and Shleifer, A. (2004) 'The regulation of labor', *Quarterly journal of Economics* 119(4): 1339-1382.
- Burkart, M., Panunzi, F. and Shleifer, A. (2003) 'Family firms', *Journal of Finance* 58(5): 2167-2201.
- Claessens, S., Djankov, S. and Lang, L.H.P. (2000) 'The separation of ownership and control in East Asian Corporations', *Journal of Financial Economics* 58(1-2): 81-112.
- De Soto, H. (1989) *The Other Path: The Invisible Revolution in the Third World*, Harper & Row: New York.
- Deininger, K. and Squire, L. (1996) 'A new data set measuring income inequality', *World Bank Economic Review* 10(3): 565-591.
- Djankov, S., La Porta, R., Lopez-de-Silanes, F. and Shleifer, A. (2002) 'The regulation of entry', *Quarterly journal of Economics* 117(1): 1-37.
- Doidge, C., Karolyi, G.A. and Stulz, R. (2004) 'Why are foreign firms listed in the US worth more?' *Journal of Financial Economics* 71(2): 205-238.
- Dyck, A. and Zingales, L. (2004) 'Private benefits of control: an international comparison', *Journal of Finance* 59(2): 537-600.
- Edison, H.J. and Warnock, F.E. (2003) 'A simple measure of the intensity of capital controls', *Journal of Empirical Finance* 10(1-2): 81-103.
- Faccio, M. (2003) 'Politically connected firms: can they squeeze the state?' University of Notre Dame Working Paper.
- Faccio, M. (2006) 'Politically Connected firms', *American Economic Review* 96(1): 369-386.
- Faccio, M. and Lang, L. (2002) 'The ultimate ownership of Western European corporations', *Journal of Financial Economics* 65(3): 365-395.
- Faccio, M., Lang, L. and Young, L. (2001) 'Debt and expropriation', unpublished manuscript, Vanderbilt Owen Graduate School of Management.
- Fisman, R. (2001) 'Estimating the value of political connections', *American Economic Review* 91(4): 1095-1102.
- Fogel, K., Hawk, A., Morck, R. and Yeung, B. (2006) 'Institutional Obstacles to Entrepreneurship', in M. Casson, B. Yeung, A. Basu, and N. Wadeson (eds.) *Oxford Handbook of Entrepreneurship*, Oxford University Press: Oxford, UK, forthcoming.
- Haber, S., Maurer, N. and Razo, A. (2002) 'Sustaining Economic Performance Under Political Instability: Political Integration in Revolutionary Mexico', in S. Haber (ed.) *Crony Capitalism and Economic Growth in Latin America: Theory and Evidence*, Hoover Institution Press: Stanford, CA, pp. 25-74.
- Hellman, J., Jones, C. and Kaufmann, D. (2000) 'Seize the state, seize the day: state capture, corruption and influence in transition. World Bank policy research working paper 2444.
- Johnson, S., La Porta, R., Lopez-de-Silanes, F. and Shleifer, A. (2000) 'Tunneling', *American Economic Review* 90(2): 22-27.
- Johnson, S. and Mitton, T. (2003) 'Cronyism and capital controls: evidence from Malaysia', *Journal of Financial Economics* 67(2): 351-382.
- Khanna, T. (2000) 'Business groups and social welfare in emerging markets: existing evidence and unanswered questions', *European Economic Review* 44(4-6): 748-761.
- Khanna, T. and Palepu, K. (1997) 'Why focused strategies may be wrong for emerging markets', *Harvard Business Review* 75(4): 41-51.
- Khanna, T. and Palepu, K. (2000) 'Is group affiliation profitable in emerging markets? An analysis of diversified Indian business groups', *Journal of Finance* 55(2): 867-891.
- Khanna, T. and Rivkin, J. (2001) 'Estimating the performance effects of business groups in emerging markets', *Strategic Management Journal* 22(1): 45-74.
- King, R. and Levine, R. (1993) 'Finance and growth: Schumpeter might be right', *Quarterly journal of Economics* 108(3): 717-738.
- Krueger, A. (1974) 'The political economy of the rent-seeking society', *American Economic Review* 64(3): 291-303.
- Krueger, A. (2002) 'Why Crony Capitalism is Bad for Economic Growth', in S. Haber (ed.) *Crony Capitalism and Economic Growth in Latin America: Theory and Evidence*, Hoover Institution Press: Stanford, CA, pp. 1-24.
- La Porta, R., Lopez-de-Silanes, F. and Shleifer, A. (1999) 'Corporate ownership around the world', *Journal of Finance* 54(2): 471-517.
- La Porta, R., Lopez-de-Silanes, F., Shleifer, A. and Vishny, R.W. (1997) 'Legal determinants of external finance', *Journal of Finance* 52(3): 1131-1150.
- La Porta, R., Lopez-de-Silanes, F., Shleifer, A. and Vishny, R.W. (1998) 'Law and finance', *Journal of Political Economy* 106(6): 1113-1157.
- La Porta, R., Lopez-de-Silanes, F. and Shleifer, A. (2002) 'Government ownership of banks', *Journal of Finance* 57(1): 265-301.
- Levine, R. and Zervos, S. (1998) 'Stock markets, banks, and economic growth', *American Economic Review* 88(3): 537-558.
- Mauro, P. (1995) 'Corruption and growth', *Quarterly journal of Economics* 110(3): 681-712.
- Meggison, W.L., Nash, R.C. and van Randenborgh, M. (1994) 'The financial and operating performance of newly privatized firms: an international empirical analysis', *Journal of Finance* 49(2): 403-452.
- Morck, R., Stangeland, D.A. and Yeung, B. (2000) 'Inherited Wealth, Corporate Control, and Economic Growth: The Canadian Disease', in R. Morck (ed.) *Concentrated Corporate Ownership*, National Bureau of Economic Research Conference Volume, University of Chicago Press, pp. 319-369.
- Morck, R., Percy, M., Tian, C. and Yeung, B. (2005a) 'The rise and fall of the widely held firm: a history of corporate ownership in Canada', in R. Morck (ed.) *A History of Corporate Governance Around the World*, University of Chicago Press: Chicago and London, pp. 65-140.
- Morck, R., Wolfenzon, D. and Yeung, B. (2005b) 'Corporate governance, economic entrenchment, and growth', *Journal of Economic Literature* 43(3): 655-720.
- Morck, R. and Yeung, B. (2004) 'Family control and the rent-seeking society', *Entrepreneurship Theory and Practice* 28(4): 391-409.
- Murphy, K.M., Shleifer, A. and Vishny, R.W. (1991) 'The allocation of talent: implications for growth', *Quarterly journal of Economics* 106(2): 503-530.
- Murphy, K.M., Shleifer, A. and Vishny, R.W. (1993) 'Why is rent-seeking costly to growth?' *American Economic Review* 83(2): 409-414.
- Nam, I.C. (2004) 'Recent developments in the public enterprise sector of Korea', in T. Ito and A.O. Krueger (eds.) *Governance, Regulation, and Privatization in the Asia-Pacific Region*, University of Chicago Press: Chicago, IL, pp. 95-126.
- North, D. (1981) *Growth and Structural Change*, Norton: New York, NY.
- Olson, M. (1963) 'Rapid growth as a destabilizing force', *Journal of Economic History* 23(4): 529-552.
- Olson, M. (1982) *The Rise and Decline of Nations*, Yale University Press: New Haven.
- Perez-Gonzalez, F. (2001) 'Does inherited control hurt firm performance? Unpublished manuscript, Columbia University.

- Rajan, R. and Zingales, L (2003) 'The great reversals: the politics of financial development in the 20th century', *Journal of Financial Economics* 69(1): 5-50.
- Rauch, J. (1995) 'Bureaucracy, infrastructure, and economic growth: Evidence from US cities during the progressive era', *American Economic Review* 85(4): 968-979.
- Reed, S. and Sains, A. (1999) 'Busting up Sweden Inc.', *Business Week*, International Editions, 22 February: 9.
- Roe, M. (2003) *Political Determinants of Corporate Governance*, Oxford University Press: Oxford.
- Schumpeter, J.A. (1912) *Theorie der Wirtschaftlichen Entwicklung*, Leipzig, Duncker und Humboldt, [Published 1934 as R. Opie (tr.) *The Theory of Economic Development: An Inquiry into Profits, Capital, Credit, Interest, and the Business Cycle*] Harvard University Press: Cambridge, MA.
- Stulz, R. (2005) 'The limits of financial globalization: presidential address at the American Finance Association', *Journal of Finance* 60(4): 1595-1638.
- Valadares, S.M. and Leal, R.P.C. (undated) 'Ownership and control structure of Brazilian companies. Working paper, Universidade Federal do Rio de Janeiro.
- Wiwattanakantang, Y. (2001) 'Controlling shareholders and corporate value: evidence from Thailand', *Pacific Basin Finance Journal* 9(4): 323-362.
- World Bank (1994) 'Bureaucrats in business: the economics and politics of government ownership,' World Bank Policy research report Oxford University Press: Oxford.

### About the author

**Kathy Fogel** (Ph.D., University of Alberta) is Assistant Professor of Finance at Northern Kentucky University. Her research interests include corporate governance, comparative economic institutions, and entrepreneurship.

Accepted by Bernard Yin Yeung, Departmental Editor, 17 January 2006. This paper has been with the author for two revisions.