

## Cronyism and capital controls: evidence from Malaysia

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### Abstract

The onset of the Asian financial crisis in Malaysia reduced the expected value of government subsidies to politically connected firms, accounting for roughly 9% of the estimated \$60 billion loss in their market value from July 1997 to August 1998. Firing the Deputy Prime Minister and imposing capital controls in September 1998 primarily benefited firms with strong ties to Prime Minister Mahathir, accounting for roughly 32% of these firms' estimated \$5 billion gain in market value during September 1998. The evidence suggests Malaysian capital controls provided a screen behind which favored firms could be supported.

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## **1. Introduction**

Until the late 1970s, capital controls were widely used to prevent the free flow of funds between countries. A cautious relaxation of such controls during the 1980s proved consistent with greater economic integration in Europe and strengthened the case for capital market opening more generally. By the time the IMF and World Bank encouraged a further wave of liberalization for “emerging markets” in the early 1990s, capital controls appeared to be finished as a serious policy tool for relatively open economies (Bhagwati, 1998a). Today, however, capital controls are again being taken seriously. Malaysia reimposed capital controls in September 1998, China and Chile maintain effective capital account restrictions, and there is debate regarding the value of free capital flows in a number of crisis-prone countries, including Korea, Russia, and Turkey. Capital controls have also just begun to be mentioned as a possibility for Japan (Dornbusch, 2001b).

There are two main views on the causes and effects of capital controls. The more established view emphasizes macroeconomics. If a country faces a severe external crisis, particularly one caused by pure panic, and if standard measures have failed, Krugman (1998) argues that imposing capital controls may be an effective way to stabilize the economy. More generally, Bhagwati (1998a, 1998b) and Rodrik (2000) oppose the conventional wisdom that free capital flows help countries benefit from trade liberalization, and argue instead that capital market liberalization invites speculative attacks. The recent performance of Malaysia has been interpreted as demonstrating that capital controls can have positive macroeconomic effects (Kaplan and Rodrik, 2001), although this claim is controversial (Dornbusch, 2001a).

While not denying the importance of macroeconomic issues, the second view puts greater emphasis on institutions (i.e., the rules, practices and organizations that govern an economy). Olson (1982) argues that when societies remain stable, they tend to develop organized interest groups that are rent seeking (e.g., his proposition 2 on p. 41). He also argues that “on balance, special-interest organizations and collusions reduce efficiency and aggregate income in the societies in which they operate and make political life more divisive” (p. 47). Related ideas are developed in Ekelund and Tollison (1981) and

Parente and Prescott (1994). More recently, Morck, Strangeland, and Yeung (2000) argue that Olsonian entrenchment leads to protection for inefficient activities, such as in the form of tariff barriers. Reducing these barriers hurts entrenched firms; for example, established, well-connected firms in Canada (as measured by family inheritance of control) are less efficient and had negative abnormal stock returns when the 1988 Canada-U.S. free trade agreement reduced barriers to foreign capital.

The Morck, Strangeland, and Yeung argument can also be applied to capital controls. If this view is correct, we should expect capital controls to be associated with an increase in cronyism (i.e., the resources available to firms through political favoritism). There are two testable implications at the firm level for a country such as Malaysia. Firms with stronger political connections should (1) suffer more when a macroeconomic shock reduces the government's ability to provide privileges and subsidies and (2) benefit more when the imposition of capital controls allows a higher level of subsidies.

Using data from Malaysia before and after the imposition of capital controls, this paper reports strong support for both hypotheses. In the initial phase of the crisis, from July 1997 to August 1998, roughly 9% of the estimated \$60 billion loss in market value for politically connected firms can be attributed to the fall in the expected value of their connections. With the imposition of capital controls in September 1998, about 32% of the estimated \$5 billion gain in market value for firms connected to Prime Minister Mahathir can be attributed to the increase in the value of their connections. For connected firms, the value of political connections was approximately 17% of their total market value at the end of September 1998.

Malaysia is an appealing case study for several reasons. Researchers identified important relationships between politicians and firms before capital controls were imposed (Gomez and Jomo, 1997). Politically connected firms could generally differ in unobservable ways relative to unconnected firms, but in the Malaysian data it is possible also to examine variation in performance within the set of politically connected firms. Because the imposition of capital controls in September 1998 coincided with a major political realignment, with Prime Minister Mahathir Mohamad winning and Deputy

Prime Minister Anwar Ibrahim losing, any “excess” gain for firms connected to the winner should provide a good measure of cronyism with capital controls.

In this analysis, it is important that whether a firm was affiliated with Mahathir or Anwar is not due to some other unobserved characteristics of the firm. According to the detailed research of Gomez and Jomo (1997), the connection of firms to individual politicians appears to have been based primarily on chance personal histories. Early friendships with rising politicians, such as Mahathir and Anwar, have been an effective way to build firms in Malaysia over the past 20 years. In other words, the personal relationships between individuals in our dataset largely predate associations of these individuals with particular firms and so political connections were not determined by the nature of the firms themselves.

In addition, throughout the Asian financial crisis that began in July 1997, Malaysia maintained a large and liquid stock market, so examining how stock prices varied across firms is a reasonable way to measure the effects of policy changes. Anecdotal evidence suggests that financial markets understood the crisis as a threat to politically favored firms and believed that the imposition of capital controls represented an opportunity for strong politicians to support some firms. The available information also indicates that these expectations have subsequently been met – for example, there have been numerous press reports of government support for well-connected firms after September 1998.

We find that firms’ stock price performance in Malaysia is broadly supportive of the view that capital controls create a screen for cronyism. Firms with political connections had worse stock returns in the early phase of the Asian financial crisis, but once capital controls were imposed, these firms did better on average. One way to evaluate the size of this effect is to compare having a political connection with the consequences of having higher leverage when the crisis hit. Malaysian firms with more debt suffered larger falls in stock price in the first phase of the crisis (through August 1998). Having political connections had a similar effect (in the sense of inducing a similar fall in stock price) to that of increasing a firm’s debt-asset ratio by 50-60 percentage points, e.g., from the median of 23.3% to around 75% (roughly equivalent to a 2½-standard deviation increase in the debt ratio). These results hold when we control for

other measurable characteristics of the firms, such as debt, size, and sector. The results also hold when we control for whether a firm has the status of being “Bumiputera,” meaning that it is largely owned by Malays and qualifies for some official government support.

Consistent with the view that cronyism increases with capital controls, we find that only firms previously connected to Prime Minister Mahathir experienced a disproportionate increase in stock price in September 1998. The stock market’s reaction appears to have been confirmed by subsequent events – over the following year, Anwar-connected firms were either taken over by Mahathir-connected firms or their owners switched allegiance to Mahathir.

The paper closest to our approach is Fisman (2001), who estimates the value of political connections in Indonesia by looking at how stock prices moved when former President Suharto’s health was reported to change. Fisman measures the direct effect of health shocks to a dictator, which is presumably quite specific to authoritarian systems, during a period of relative economic stability. The Malaysian experience lets us examine the interaction of cronyism and capital controls in a democracy. In addition, we are able to use variation between firms connected to winning and losing politicians. This helps ensure that political connections rather than some other unobservable characteristics of firms drive our results.

Rajan and Zingales (1998) argue that capital controls are an essential part of the package of policies that allows “relationship-based” capitalism to function. In this system, informal relationships between politicians and banks channel lending towards approved firms, and this is easier to sustain when a country is relatively isolated from international capital flows. If capital controls are relaxed, as in some parts of Asia in the early 1990s, the result may be overborrowing and financial collapse (Rajan and Zingales, 1998).<sup>1</sup> In this context, Rajan and Zingales (2001) suggest that reimposing capital controls may be attractive if it enables politicians to support the financing of particular firms. At the same time, directed lending behind capital controls could create future

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<sup>1</sup> Theoretically, relaxing capital controls can lead to financial distress in at least three ways. First, local financial institutions respond by taking on more risk. Second, local firms borrow directly from international lenders who are either unable to assess risks appropriately or believe that there

problems due to bad loans and distorted incentives. Leading proponents of the macroeconomic perspective on capital controls are aware that institutional issues can be important as well. For example, Kaplan and Rodrik (2001) clearly state their concerns that capital controls can distort incentives and undermine future performance in Malaysia. However, their emphasis is on macroeconomic effects (i.e., for all firms) rather than the differential benefits for just some firms.

Morck, Strangeland, and Yeung (2000) also show that while heir-controlled firms initially had lower labor intensity (suggesting superior access to capital for privileged firms), this advantage deteriorated following enactment of the Canada-U.S. free trade agreement. Our results are consistent with their idea that the level of capital mobility affects the degree to which privileged firms can receive favored treatment.

Our paper is part of a growing literature that examines the performance of relatively privileged firms. La Porta, Lopez-de-Silanes, and Zamarippa (2002) show that well-connected Mexican banks engaged in a considerable amount of irresponsible lending before the 1995 crisis, and this presumably contributed to the severity of the crisis when it came. To our knowledge, no previous papers have tried to measure the combined effects of cronyism and capital controls.

Our work is also related to the recent literature that shows important links between institutions and economic outcomes. Johnson, Boone, Breach, and Friedman (2000) present evidence that the Asian financial crisis had more severe effects in countries with weaker institutions in general and weaker investor protection in particular (as measured by La Porta, Lopez-de-Silanes, Shleifer, and Vishny, 1997, 1998). Mitton (2001) finds firm-level evidence that weaker corporate governance was associated with worse stock price performance in the Asian crisis, and Lemmon and Lins (2001) confirm these results using different definitions of governance and outcomes. More broadly, Morck, Yeung, and Yu (2000) argue that in countries with weak property rights protection, stock price movements are predominantly driven by political shocks.

Section 2 reviews the nature of political connections in Malaysia. Much of this information is taken from Gomez and Jomo (1997), whose research was completed before the

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is an implicit sovereign guarantee. Third, after they lose their monopolies, local banks are less willing to bail out firms that encounter problems, as in Petersen and Rajan (1995).

Asian financial crisis broke out in July 1997. Section 3 explains our data and methodology in more detail. Section 4 reports descriptive statistics for connected and unconnected firms. Section 5 presents our main results and robustness checks. Section 6 reports the available direct evidence on what happened to firm subsidies after the imposition of capital controls. Section 7 concludes.

## **2. Political favoritism in Malaysia**

Two forms of political favoritism exist in Malaysia today (Gomez and Jomo, 1997). The first is the official status awarded to firms that are run by ethnic Malays. The second consists of much more informal ties that exist between leading politicians and firms that are run by both Malay and Chinese business people.

Although ethnic Malays (known as Bumiputeras, literally “sons of the soil”) account for some 60% of the population, business in Malaysia has historically been dominated by ethnic Chinese. With an eye toward correcting this imbalance, and partly in response to ethnic rioting in 1969, the government instituted the New Economic Policy (NEP) in 1970. Since that time, Bumiputeras have been given, among other privileges, priority for government contracts, increased access to capital, opportunities to buy assets that are privatized, and other subsidies. The ruling coalition in Malaysia for the past 30 years has been the Barisan Nasional, which is dominated by the United Malays’ National Organisation (UMNO). Dr. Mahathir Mohamad, president of UMNO and Prime Minister of Malaysia since 1981, has consistently promoted Bumiputera capitalism (Gomez and Jomo, 1997).

The increased state intervention required for implementation of the NEP has opened the door to greater political involvement in the financing of firms in Malaysia. For example, when Mahathir was minister for trade and industry in 1980 he helped set up the Heavy Industries Corporation of Malaysia (known as Hicom). Hicom subsequently invested in the auto industry, steel, and cement. This kind of investment involved the government in picking which private sector firms received access to investment resources (Perkins and Woo, 2000). As the government has more actively handed out favors to firms, businessmen have increasingly used personal connections to influence the allocation of those favors (Gomez and Jomo, 1997). During Mahathir’s tenure as Prime

Minister, three government officials, along with their associated protégés, concentrated their power to help business in Malaysia. The first is Mahathir himself. The second is Daim Zainuddin, who was finance minister early in Mahathir's term and who was brought back into government in 1998. He has been perhaps the most powerful person in corporate Malaysia and is generally considered to have been consistently close to Mahathir (at least until summer 2001). The third is Anwar Ibrahim, who, before his downfall in September 1998, was second in power to Mahathir and had numerous corporate connections. While Anwar was closely allied with Mahathir before the crisis, in 1998 he came to be regarded as a potential rival. Although other officials in Malaysia may have provided valuable connections for businessmen, Mahathir, Daim, and Anwar have clearly been the most dominant figures. This is illustrated in the Appendix, which lists Malaysian companies and their political connections (based on Gomez and Jomo, 1997) before the Asian financial crisis began in summer 1997.

Note that there is no evidence that the alliances between firms and specific politicians were the result of anything other than chance personal relationships. For example, Anwar's connection with Kamaruddin Jaafar, linked to Setron Bhd. at the time of the crisis, dates to their days as schoolmates at the Malay College (Gomez and Jomo, 1997, p. 126). As another example, Daim's relationship with Tajudin Ramli, who came to control Technology Resources Industries in 1990, was forged in the early 1980s before Daim came to power as Mahathir's finance minister (Gomez and Jomo, 1997, pp. 148-149). Before the Asian financial crisis, affiliations to either Anwar or Mahathir were close substitutes, and we have found no evidence that being close to one was preferable to being close to the other. We therefore have no reason to believe that unobserved characteristics of these firms determined their political affiliations. Any systematic differences in the performance of these firms should therefore be due to the changing relative value of their political connections.

### **3. Data and methodology**

In this section we describe our sample of firms, define the crisis period, and describe the variables used and how they were constructed. The sample consists of all Malaysian firms with at least a minimal amount of data in the Worldscope database as of

October 1999. Although all firm characteristics are measured on a pre-crisis basis, we use this later version of the Worldscope database because Worldscope has substantially increased the number of firms that it covers over time. (All the firms included in Worldscope prior to the crisis were still included in October 1999, so there is no sample selection bias due to firms dropping out of the data set.) The 424 firms in our sample are representative of the firms listed on the main board of the Kuala Lumpur Stock Exchange. Firms not represented in the sample include smaller unlisted Malaysian firms and multinationals with no local listing.

Fig. 1 shows an index of stock returns of Malaysian firms in Worldscope for 1990 to 1999, measured in both U.S. dollars and Malaysian ringgit. Lines on the chart delineate the “crisis period” as defined in this paper. The beginning of the crisis period corresponds to the devaluation of the Thai baht on July 2, 1997, a date generally considered to be the starting point of the Asian financial crisis. The end of the crisis period and start of the “rebound period” corresponds to the imposition of capital controls on September 2, 1998 when the stock index began a sustained upward trend.<sup>2</sup>

Other studies have focused on September 1998 as a key date in the Malaysian crisis. Kaplan and Rodrik (2001) explain the nature of Malaysian capital controls in detail, and assess how economic performance differed after September 1998. The most detailed account of Malaysia’s economic crisis, Jomo (2001, Ch. 7), also identifies the beginning of September 1998 as the critical turning point.

### *3.1. Political connections*

To identify which firms have political connections with government officials, we rely on the analysis of Gomez and Jomo (1997). Gomez and Jomo (1997) provide a detailed analysis of Malaysian corporations and their political connections prior to the Asian crisis. We code as “politically connected” any firm that Gomez and Jomo (1997) identify as having officers or major shareholders with close relationships with key government officials – primarily Mahathir, Daim, and Anwar. For example, Gomez and Jomo (1997) state that Technology Resources Industries (TRI) is “controlled by Tajudin

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<sup>2</sup> Capital controls were announced on September 1 and the ringgit-dollar rate was fixed in the early afternoon of September 2, 1998.

Ramli, who is closely linked to Daim Zainuddin” (p. 103), so TRI is coded as politically connected, with Daim as the primary connection. As another example, because Gomez and Jomo (1997) state, “The chairman of George Town Holdings was Tunku Abdullah of the Melewar Group, a close friend of Prime Minister Mahathir” (p. 59), George Town Holdings Bhd. is coded as politically connected with its primary connection listed as Mahathir. As a final example, the phrases in Gomez and Jomo (1997) “Setron, one of the first companies linked to Anwar . . .” (p. 126) and “. . . Setron (M) Bhd (in which Kamaruddin Jaafar, probably Anwar’s closest confidant, has an interest)” (p. 57) result in Setron (Malaysia) Bhd. being coded as politically connected, with Anwar as the primary connection. We search the entire text of Gomez and Jomo (1997) for all such indications of connections and code them accordingly. The Appendix lists each firm identified as connected and the source of the connection.

Using the analysis of Gomez and Jomo (1997) to identify connections has two limitations. First, these authors do not claim to have exhaustively identified every firm with political connections in Malaysia. This limitation is not too troublesome, because they likely focused on the subset of firms with the strongest connections or the subset of the largest firms with connections. The fact that larger firms generally had better stock price performance during the crisis would make it harder for us to find that (larger) connected firms performed worse during the crisis. The second limitation is that, while all connections identified by Gomez and Jomo (1997) are from before the crisis, some are identified from earlier in the 1990s, creating the possibility that a connection could have disappeared prior to the beginning of the crisis.<sup>3</sup> However, given the relative stability of the government over this period, this limitation is also not too worrying. Our “politically connected” dummy variable, then, is set equal to one if the firm has a connection listed in the Appendix, and zero otherwise.

We use the same source to create an “Anwar connected” dummy variable which is set equal to one for politically connected firms whose connections depended primarily upon Anwar (based on the data presented in the Appendix; 14 firms in total). We code a

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<sup>3</sup> In the second edition of their book, which was prepared in late 1997 and which appeared in 1998, Gomez and Jomo (1998) updated their list of political connections. We have used this revised list as a robustness check and find that it does not affect any of our main results.

firm as “Mahathir connected” if the connection in the Appendix is to Mahathir, Daim (Mahathir’s consistently close political ally), UMNO (the ruling party controlled by Mahathir), or to another politician. Note that although Anwar was also an important force in UMNO before his downfall, UMNO-connected firms should still benefit from a Mahathir connection after Anwar’s downfall because as president of UMNO, Mahathir should have a strong interest in supporting firms linked to UMNO. (Our results are not materially changed if we do not code UMNO-connected firms as Mahathir-connected.) Note that some firms are associated with both camps and that a few firms are politically connected but the precise nature of the connection is not identified.<sup>4</sup>

### *3.2. Description of other variables*

To measure firm performance we use dividend-inclusive monthly stock returns expressed in Malaysian ringgit. We do not calculate abnormal returns using historical betas because data limitations prevent calculation of pre-crisis betas for many of the firms in the sample.<sup>5</sup> Instead, we control for factors that could affect expected returns by including leverage, size, and industry in the regressions.

Firm size is measured as the logarithm of total firm assets. Growth is the one-year growth rate in total assets. As a measure of leverage we use the firm’s debt ratio, calculated as the book value of total debt divided by total assets. We include dummy variables for 12 of 13 industries, where industries are defined broadly, similar to the definitions in Campbell (1996), and correspond with the firm’s primary SIC code. The book-to-market ratio is defined as the book value per share divided by the stock price. Return on assets is defined as net income (before interest and after taxes) divided by beginning-of-year total assets. Profit margin is defined as net income divided by net sales. The current ratio is defined as current assets divided by current liabilities, and the quick ratio is current assets minus inventory divided by current liabilities. Asset turnover

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However, we prefer to use their pre-crisis list, as this was complete before there was any sign of economic trouble.

<sup>4</sup> If a firm is indicated in Gomez and Jomo (1997) as having connections to both Anwar and Mahathir (a total of 5 firms), then it is coded as Mahathir-connected. This seems the best way to identify those firms that a priori we would expect to suffer from Anwar’s downfall.

is defined as net sales divided by total assets, and inventory turnover is cost of goods sold divided by inventory. Finally, we assume that short-term debt is anything with maturity of less than a year. All of these variables are constructed using data from Worldscope, and they are measured using the last available information prior to the beginning of the crisis.

As a reasonable proxy for access to international capital markets, we look at where firms' stocks traded and where firms had placed debt before the Asian crisis began in summer 1997.<sup>6</sup> A significant number of Malay firms are traded in countries other than Malaysia, including Singapore (the so-called Central Limit Order Book, CLOB), the U.S. (either a direct listing or an ADR), London, and (in a few cases) Seoul or another foreign exchange. Other firms trade only on the Malaysian market. Of Mahathir-connected firms, 40% trade overseas and 60% trade only in Malaysia. In addition, a search of the Securities Data Corporation database shows that 20 of the firms in our dataset had issued debt on the Eurobond market at some point in the 1990s prior to summer 1997. (A further search shows that none of the firms in our dataset had issued debt in the U.S.) We code a firm as having "foreign capital access" if its stock traded on a foreign exchange or if it had placed debt on the Eurobond market.

To identify whether firms are ethnically favored, we use data from the Kuala Lumpur Stock Exchange *Annual Companies Handbook*. For each firm, the handbook identifies how much of its ownership falls into the following categories: Bumiputera, non-Bumiputera, foreign, or government. The *Handbook* does not provide an exhaustive listing of all firms, so we are able to identify the ethnicity of ownership for only 74% of the firms. To categorize firms as Bumiputera-controlled, we focus on a definition given by the Corporate Affairs Unit of Malaysia's Securities Commission (press release, 8/27/96), which states that a Bumiputera-controlled company is one in which 50% or more of the equity is held by Bumiputera shareholders or institutions.<sup>7</sup> We assume that

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<sup>5</sup> Even requiring a price history of just 24 months, we can calculate betas for only 65% of the firms in our sample. In this subsample, all of our key results are robust to including beta in the regressions.

<sup>6</sup> Lins, Strickland, and Zenner (2000) and Reese and Weisbach (2001) show that non-U.S. firms that list in the U.S. do so in part to improve their access to equity capital.

<sup>7</sup> A secondary definition from the same source notes that a firm may qualify as "Bumiputera-controlled" if 35% of the equity is held by Bumiputeras and 51% or more of the officers of the

shareholdings by government agencies contribute toward this percentage. Thus, the “ethnically favored” dummy variable is set equal to one if the Bumiputera shareholdings are above this threshold and zero otherwise.

#### 4. Descriptive statistics

Table 1 reports the basic descriptive data for these firms. The first row reports the number of firms in each category of our sample, breaking it down by politically connected versus unconnected and then by Mahathir-connected versus Anwar-connected. We also look at nonfinancial firms separately.

The second row shows that politically connected firms had significantly worse returns from July 1997 to August 1998, although there was no significant difference between Mahathir- and Anwar-connected firms. The third row shows that politically connected firms had significantly better returns in September 1998, and that Mahathir-connected firms performed much better than Anwar-connected firms. The fourth row shows no significant differences between politically connected and unconnected firms in returns after September 1998. Anwar-connected firms outperformed Mahathir-connected firms over this later period, although as we explain below this is probably because most were forced into the Mahathir camp after September 1998.

The fifth row of Table 1 shows that, in terms of total assets, politically connected firms were significantly larger (about twice the size on average) compared with unconnected firms, although asset growth immediately before the crisis was not significantly greater in connected firms (row 6). There is no evidence that Mahathir-connected firms had more assets on average than Anwar-connected firms.

The seventh row of Table 1 suggests that politically connected firms were less profitable than unconnected firms (in terms of return on assets) before the crisis. We further investigate the profitability of firms in Table 2. Panel A of Table 2 shows that once we control for other firm characteristics, there is no evidence that politically connected firms had lower profitability before the crisis.<sup>8</sup> With return on assets (in the

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firm are Bumiputera. This definition is not useful for our purposes because the ethnicity of officers cannot always be inferred from their names.

<sup>8</sup> Using data through 1995, fewer firms, and a different specification, Samad (n.d.) finds that politically connected firms have higher profitability but no difference in investment behavior.

last full year of financial results prior to July 1997) as the dependent variable, the dummy variable for being politically connected is consistently insignificant. The separate dummies for Mahathir-connected and Anwar-connected are also not significant in a regression with profitability as the dependent variable (not reported here).

Table 1 reports very little other difference in the operational efficiency of favored and unfavored firms.<sup>9</sup> The ratios for profitability (profit margin in row 8), liquidity (current ratio and quick ratio), and asset utilization (asset turnover ratio and inventory turnover ratio) show no significant differences across the dimensions of political connections (in terms of t-tests of the means). The book-to-market ratio is one way to examine whether investors perceive that there is expropriation of assets by managers or controlling shareholders. These ratios are not significantly different for any group of firms before the crisis. Overall, we find no evidence suggesting that favored firms performed differently during the crisis because they were better- or worse-run before the crisis.

#### *4.1. Corporate indebtedness*

If politically connected firms had greater leverage prior to the crisis, then this could explain some or all of the performance differences. A firm with higher debt would naturally be expected to perform worse in a crisis both because of the effect of leverage on a firm's covariation with the market and also because the depreciation of the local currency will hurt a firm if any of its debt is denominated in foreign currency. In addition, if the government responds to the crisis by raising interest rates – as in Malaysia early in the crisis – this will raise the cost of servicing corporate debt. The data on leverage in Table 1 shows that firms with political connections had debt-asset ratios some 11 percentage points higher, on average, than unconnected firms prior to the crisis. However, politically connected firms had less short-term debt and while total debt to assets before the crisis was rising faster in politically connected firms, the opposite was true for short-term debt. These differences are only rough measures, however, in that they do not account for differences in industry or other characteristics.

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<sup>9</sup> In related work, Pomerleano (1998) uses ratio analysis to study the East Asian crisis, but focuses on differences across countries rather than differences among firms within a country.

Panel B of Table 2 presents the results of regressions intended to measure the effect of political favoritism on levels of debt more carefully. We estimate the following model:

$$\begin{aligned} \text{Debt ratio} = & a + b_1(\text{Political Connections}) + b_2(\text{Size}) + b_3(\text{Profitability}) \\ & + b_4(\text{Growth}) + b_5(\text{Industry Dummies}) + e, \end{aligned} \quad (1)$$

where the inclusion of size, profitability, and growth follows the lead of Lee, Lee, and Lee (2001).

Panel B of Table 2 confirms that politically connected firms had more debt before the crisis. For nonfinancial firms only, including all control variables, politically connected firms had debt ratios five percentage points higher (with the coefficient significant at the 10% level). The final column of Panel B shows that the results are similar if all firms are included in the sample.

Panel B of Table 2 shows that controlling for size, profitability, growth, and industry accounts for some, but not all, of the difference in leverage between favored and unfavored firms. Specifically, larger firms had higher debt ratios, as predicted by Titman and Wessels (1988), and more-profitable firms had lower debt ratios, as would be suggested by Myers (1977). Nonfinancial firms with higher growth had higher debt ratios. Only the coefficient on profitability is consistently significant at standard levels, however. Because firms with political connections still had significantly higher debt ratios even after controlling for these other factors, we control for levels of debt in all of our subsequent empirical analysis.

## 5. Results

This section presents our main results and robustness checks. To assess the impact of political connections on stock price performance during various periods, we estimate the following model:

$$\begin{aligned} \text{Stock Return} = & a + b_1(\text{Political Connection Variables}) + b_2(\text{Size}) + b_3(\text{Debt Ratio}) \\ & + b_4(\text{Industry Dummies}) + e, \end{aligned} \quad (2)$$

where the stock return is measured over the indicated period and the political connection variables change according to the specification.

Olson's argument about the nature of rent seeking suggests two hypotheses for Malaysia:

- 1) The stock price of politically connected firms should have fallen more in the early crisis period.
- 2) The stock price of politically connected firms should have risen more once capital controls were imposed. Within the set of politically connected firms, the benefits of capital controls should be concentrated in firms that were linked to Mahathir rather than Anwar in September 1998.

We examine the evidence for each of these hypotheses in turn.

### *5.1. The early crisis: July 1997-August 1998*

Table 3 presents the results from these regressions for the period from July 1997 to August 1998. In the first three columns, the politically connected dummy variable is included. For nonfinancial firms, the coefficient on the politically connected dummy is -0.075, indicating that a political connection is associated with a greater stock price decline of 7.5 percentage points, on average, during the crisis period of July 1997 through August 1998. For financial firms, the coefficient is similar, at -0.077. These coefficients are significant at the 1% level of confidence. The control variables for size and leverage are also significant in these regressions, with larger size being associated with higher returns during the crisis, and higher leverage with lower returns.

In the last three columns, we include separate dummies for connections to Mahathir or Anwar. Both types of politically connected firms had worse stock price performance than did unconnected firms. Among nonfinancial firms, Mahathir-connected firms had a greater decline of 7.9 percentage points, and Anwar-connected firms had a greater decline of 5.9 percentage points. The difference in performance between Mahathir- and Anwar-connected firms is small in this time period.

Note that depending on the precise specification, as many as six of the 12 industry dummies are significant in our "crisis period" regressions. The agricultural sector does relatively well, presumably because the demand for agricultural products is less

susceptible to downturns. The other sector dummies that are usually significant are industrial (i.e., manufacturing, which is positive), utilities (also positive), and service firms (also positive). Most important for our analysis, we find that including industry dummies does not weaken the coefficients on the political connection variables.

In the first phase of the financial crisis, therefore, favoritism based on personal relationships had a strongly negative effect on the stock price performance of Malaysian firms. This is broadly consistent with the Rajan and Zingales (1998) view that firms with strong political connections suffer more in a financial crisis, presumably because the expected value of subsidies declines. It is hard to know exactly what the Malaysian government was doing with regard to such subsidies in 1997-98, but Anwar's policy was to follow tight budget discipline along the lines of a de facto IMF program (although Malaysia did not sign up for official IMF conditionality). There was also a certain amount of political rhetoric regarding the need to reduce cronyism (and various statements from both Anwar and Mahathir about who was or was not a "crony"). Our results indicate that the market interpreted the policies of July 1997 to August 1998 as squeezing politically connected firms.

### *5.2. The effects of capital controls*

If politically connected firms performed poorly during the first phase of the crisis because the connections themselves decreased in value, then the Olson view predicts that connected firms would rebound more than unconnected firms when capital controls were imposed.

In general, it could be difficult to differentiate a rebound based on political connections from a rebound based on operating characteristics of firms. But Malaysian political events allow for a cleaner test. September 1998 marked both the imposition of capital controls and also the downfall of the second-most-powerful political figure in Malaysia, Deputy Prime Minister (and Finance Minister) Anwar. Once considered Mahathir's certain successor, Anwar was fired on September 2, 1998, and then jailed on charges of corruption and sodomy on September 20, 1998. Clearly, over the course of September 1998, these events reduced the value of political connections for firms with strong ties to Anwar. To the extent that politically connected firms enjoyed a rebound in

September due to the increased value of their connections, we would not expect the same increase in value to be enjoyed by Anwar-connected firms.

Table 4 presents the results of regressions of stock returns for September 1998 on the same variables as in Table 3. The first three columns present results for the political connections indicator. Politically connected firms as a whole enjoyed a rebound in September 1998. Among nonfinancial firms, a higher return of 8.1 percentage points, not significant at standard levels, can be attributed to political connections. The effect is stronger among financial firms, where connected firms on average had a higher return of 28.5 percentage points, which is significant at the 1% level. For all firms combined, the political connections coefficient shows a higher return of 13.8 percentage points, and is significant at the 5% level.

The final three columns of Table 4 present results for connections broken down between Mahathir and Anwar. Among nonfinancial firms, Mahathir-connected firms on average experienced higher returns of 13.0 percentage points, significant at the 10% level, while Anwar-connected firms on average experienced lower returns of 11.6 percentage points, for a net difference of 24.6 percentage points between Mahathir- and Anwar-connected firms. The effect is even stronger among financial firms, where Mahathir-connected firms had higher returns of 40.3 percentage points, significant at the 1% level. Among all firms combined, Mahathir-connected firms on average had higher returns of 19.9 percentage points, significant at the 1% level, while Anwar-connected firms on average had lower returns of 6.3 percentage points. This result suggests that the value of political connections themselves was an important determinant of the fortunes of Malaysian firms during the crisis.

### *5.3. Variation within connected firms*

If capital controls constrain financial flows across borders, we would expect to see smaller gains for connected firms having access to international capital markets compared to connected firms without such access. Table 5 repeats our basic regressions, breaking down Mahathir- and Anwar-connected firms according to whether or not they had access to foreign capital.

Column 4 of Table 5 shows that among nonfinancial firms, gains were slightly higher for Mahathir-connected firms without access to foreign capital, with a coefficient of 0.135 compared to 0.122. The difference is more pronounced among Anwar-connected firms, where firms without foreign capital access (coefficient of -0.031) had higher returns than firms with foreign capital access (coefficient of -0.185). Column 5 of Table 5 shows that among financial firms, gains were significantly higher for Mahathir-connected firms without foreign capital access, with a coefficient of 0.542 (significant at the 1% level) compared to 0.221. However, the same pattern does not hold among Anwar-connected firms, where financial firms with foreign capital access performed worse. Column 6 of Table 5 shows that with all firms combined, firms without foreign capital access did somewhat better among both Mahathir- and Anwar-connected firms.

While the evidence is not especially strong, the results from Table 5 are consistent with the idea that capital controls affected Malaysian firms' access to foreign finance. Presumably all Mahathir-connected firms gained some subsidies or access to local capital when capital controls were imposed. But a second effect was that some connected firms also lost their previous access to international capital.

#### *5.4. Economic significance of political connections*

Our estimated coefficients indicate that the “political connections” effect is large relative to one of the most important characteristics of firms – their leverage. From Column 3 of Table 3, the coefficient on the debt ratio is -0.0014. Leverage (the debt ratio) is expressed in percentage points, i.e., for a firm with total debt to total assets (TD/TA) of 55%, the variable would be 55.0. An increase in the debt ratio of ten percentage points (e.g., from the median debt ratio of 23.3 to 33.3) would thus correspond to a lower crisis-period return of 1.4 percentage points. The coefficient on the politically connected dummy is -0.077 when we also control for debt, meaning that politically connected firms had a lower crisis-period return of 7.7 percentage points compared to unconnected firms. Put together, this means that having political connections had an effect similar to increasing the debt ratio by 55.0 percentage points (e.g., from the median of 23.3% to around 78%). The standard deviation of TD/TA is

22.5, so having political connections is roughly equivalent to a 2½-standard deviation increase in the debt ratio during the “crisis period.”

For September 1998, the magnitude is similar. The coefficient of 0.0032 on the debt-asset ratio (from Column 3 in Table 4) corresponds to a higher return of 0.32 percentage points for each percentage point increase in the debt ratio. So the higher return of 13.8 percentage points for politically connected firms is equivalent to the effect of increasing the debt ratio by 43 percentage points (e.g., from the median debt ratio of 23.3% to 66%). In sum, for both periods, the leverage effect is strong, but the political connections effect is arguably much stronger.

For an alternative measure of economic significance, we use our regression coefficients to estimate the impact of connections on the total market value of firms. We find that during the crisis period, roughly \$5.7 billion of the market value lost by connected firms is attributable to their political connections. When capital controls were imposed in September 1998, although market valuations were then on a smaller scale, political connections accounted for an incremental gain of roughly \$1.3 billion in market value for connected firms.<sup>10</sup>

As a measure of the size of the effect of political connections in relation to the total variation in returns, we note that in regressions with September 1998 returns, the R-squared of the regression rises incrementally from 0.109 to 0.143 when the political connection variables are added. This suggests that roughly 3.4% of the total variation in returns is explained by differences in political connections. For regressions of returns for the initial crisis period, adding political connection variables increases the R-squared from 0.210 to 0.237, suggesting that 2.7% of the total variation in returns is explained by differences in political connections.

By looking at the outcomes for Anwar- and Mahathir-connected firms separately in September 1998, we can obtain an estimate of the value of political connections as a percentage of total firm value after capital controls were imposed. If we assume that the events of September 1998 destroyed all remaining value of Anwar connections and

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<sup>10</sup> The estimates of the effects of political connections on market value are based on our estimated regression coefficients, monthly stock prices, and available data on the number of shares outstanding for each firm. Because the number of shares outstanding is not known for every

restored the full value of Mahathir connections, then the loss due to Anwar connections added to the gain due to Mahathir connections should roughly equal the total percentage of firm value attributable to political connections. Our regression coefficients from Column 6 of Table 4 show that Mahathir connections account for a 19.9% increase in firm value in September 1998, while Anwar connections are associated with a 6.3% decrease in firm value. In terms of (higher) valuations at the end of September 1998, these percentages would be about 12% and 5% respectively. Summed together, these estimates suggest that political connections accounted for about 17% of the total market value of connected firms after the events of September 1998. While only a rough estimate, this figure is within the 12% to 23% range estimated by Fisman (2001) for connected firms in Indonesia.

### *5.5. Econometric issues*

We address several econometric issues to ensure the validity of our results. We use heteroskedasticity-robust standard errors throughout our regression analysis. The significance of our results is not altered if we adjust the standard errors of the coefficients to account for clustering of observations among firms with the same connected entrepreneur. Additionally, multicollinearity does not seem to be a problem in the model, as the average variance inflation factor of the coefficients is about 1.5 with September 1998 returns or crisis-period returns as the dependent variable (with maximum variance inflation factors no greater than 2.8). Also, errors-in-variables regressions indicate that our results are not particularly sensitive to measurement error.

Perhaps the most important econometric issue is that errors across firms might not be independent because returns are correlated in calendar time. A lack of pre-crisis stock return data for many of the Malaysian firms in Worldscope prevents us from using some standard methodologies to address this issue. As an alternative approach, we use a diagnostic measure to assess whether correlation of errors across firms appears to be affecting our inferences. We run simulated regressions of the actual return data on a wide variety of randomly generated hypothetical variables. In 10,000 repetitions using

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month and is missing for three of the connected firms, the estimated figures are not exact calculations, but reasonable estimates.

September 1998 returns, we find that the coefficients on the hypothetical variables are significant at the 1% level in 1.07% of the repetitions, at the 5% level in 5.27% of the repetitions, and at the 10% level in 9.97% of the repetitions. (The corresponding percentages using crisis-period returns are 0.85%, 4.87%, and 9.61% respectively.) The lack of spuriously significant coefficients indicates that correlation of the errors is probably not a serious problem in these data.

### 5.6. Robustness checks

We perform a number of tests in order to check the robustness of the central result that favored firms performed differently during the initial crisis and after the imposition of capital controls compared with unfavored firms. Our results do not appear to be dominated by outliers. All of our key results are robust to truncating the data at the first and 99th percentiles of observations on stock returns, firm size, or debt ratios.

Table 6 provides further robustness checks by adding control variables to our basic regressions. Due to space considerations, we present results for nonfinancial firms only. As discussed in Section 2, some Malaysian firms have advantages because they are officially ethnically favored. Note that the government publicly states its support for Bumiputera businesses and has implied that any direct measures to support firms were primarily designed to help Bumiputeras. For example Prime Minister Mahathir writes, “Recovery must be accompanied by the equitable distribution of the economic pie between *Bumiputeras* and *non-Bumiputeras*. Failure to do so could result in the kind of race riots that broke out in May 1969” (Mahathir, 2000. p. 20). Perkins and Woo (2000) also argue that the government helped Bumiputera firms after the imposition of capital controls. In Panel A of Table 6, we find that whether a firm is officially ethnically favored is not significant and including it does not have a large effect on our political connections coefficients. For crisis-period returns, the coefficient on the Anwar-connected dummy becomes slightly positive. For September 1998 returns, the difference in performance between Mahathir-connected and Anwar-connected firms becomes even more pronounced. These results show that political favoritism, and not simply ethnicity, was the more important factor in determining the fortunes of Malaysian firms during this period.

In Panel B of Table 6 we use the log of net sales as an alternative measure of firm size. The results are essentially unchanged. In other robustness checks (not reported) we repeat our regressions using a number of other size measures. Our results are robust to including variables for total assets (or sales), total assets (or sales) squared, and total assets (or sales) cubed, as well as the logarithms of all these measures, either separately or in combinations. In short, there is no evidence that size effects are driving our results. Panel C presents the results of regressions with the sample restricted to firms included in the International Finance Corporation (IFC) Global Index. The motivation for using this subsample is to address the concern that some Malaysian stocks in our base sample are not as liquid as others, and thus we could be using some uninformative stock prices. The IFC includes stocks in its Global Index only if they are among the largest and most liquid stocks in the country. In addition, the quality of data reported to Worldscope is often better for IFC Global Index firms. In the IFC Global Index subsample, the coefficients on the Mahathir-connected and Anwar-connected dummies are only slightly different for the crisis period. For the September 1998 period, the coefficient on Mahathir-connected is virtually unchanged; its significance falls, but the sample size is now only 109 firms. The coefficient on Anwar-connected becomes even more strongly negative, falling to -0.236.

In Table 7 we provide further checks on our results by examining the performance of firms in other time periods. In Panel A of Table 7 we regress returns from the year immediately preceding the crisis on our political connection and control variables. Panel A shows that Anwar-connected firms performed relatively well during this period (perhaps due to Anwar's rising influence), but the coefficients on the Mahathir-connected and Anwar-connected dummies are not significant at standard levels. This shows that in contrast to this earlier period, the political connection variables have much greater explanatory power during the crisis and its accompanying political events.

In Panel B of Table 7 we address an alternative interpretation of our results by examining performance in February 1998. The alternative interpretation is that politically connected firms could have done relatively well in September 1998 simply because the market rebounded in that month. Would connected firms have done well in any market recovery irrespective of whether that upturn involved the imposition of

capital controls? The data do not support this alternative interpretation. February 1998 was a strong upturn month in the middle of the early crisis period (see Fig. 1). In regressions with stock returns for this month only, the coefficients on the political connection variables are not significantly different from zero, i.e., politically connected firms did not do well just because there was an upturn in the market. We have run similar regressions for returns in November 1998 and April 1999, the two other largest percentage jumps in the index through the end of 2000. In neither case are the political connection variables significant, or even close to being significant. (Results for these months are not reported in the tables to save space; they are available from the authors.) These findings support the hypothesis that in September 1998 the relatively good performance of well-connected firms was due to the political events of that month.

Finally, in Panel C we examine firm performance in the two years following September 1998. Anwar-connected firms did relatively well during this period, perhaps because (as discussed below) these firms generally shifted allegiance to Mahathir during this period. But again we see that the political connection variables have no significance during this later period. We test key subperiods of this two-year period and also find no significance of these variables. The crisis and the imposition of capital controls appear to have been unusually powerful political and market events.

## **6. Support for favored firms after the imposition of capital controls**

What did the Malaysian government do once capital controls were imposed? Some general reflationalary measures were taken, including cutting interest rates and making credit more readily available to consumers and firms (Kaplan and Rodrik, 2001; Mahathir, 2000, Ch. 8). Mahathir and Daim also encouraged banks to lend more, and announced bailouts for troubled firms (Perkins and Woo, 2000). A new expansionary budget was introduced in October 1998 (Perkins and Woo, 2000).

There also appear to have been both increased subsidies for some pro-Mahathir firms and punishments for firms that were allied with Anwar. The anecdotal evidence strongly supports the idea that the government used the economy's isolation from short-term capital flows to restore implicit subsidies for some favored firms. The precise distribution of subsidies is hard to measure, as they are usually not reported publicly.

However, we can discern the three main forms of these subsidies from high-profile incidents that have been reported in the international media.

First, the state-owned oil company, Petroliam Nasional Bhd. (known as Petronas), has been called upon to provide bailouts to particular distressed firms (Jayasankaran, 1999a). In the most prominent case, Petronas injected cash into the national car company Perusahaan Otomobil Nasional, known as Proton (Restall, 2000a).<sup>11</sup> In mid-1998, Petronas also acquired the shipping assets of the Prime Minister's son, Mahathir Mirzan, who was facing financial difficulties (Lopez, 2001).

Second, a number of companies have received advantageous deals directly from the government. In December 2000, the government bought back the 29% stake held by Tajudin Ramli in Malaysian Air System (MAS), the operator of Malaysian Airlines. The price was reported to be about twice the market price, effectively bailing out Mr. Tajudin while at the same time putting MAS on a firmer financial footing.<sup>12</sup> There has also been serious discussion of the government buying back the assets of two unprofitable privatized light-rail projects in Kuala Lumpur. This would benefit primarily Renong Bhd., controlled by Halim Saad who is reported to be close to the ruling party (Prystay, 2000).

Third, the most significant changes have arguably occurred within the banking system. The government has supervised a process of consolidation, including instructing 58 financial institutions to merge, creating ten “superbanks.” The final picture is not yet settled, but it is clear that bankers who were connected to Anwar are likely to do relatively badly and those with connections to Daim will do relatively better (Jayasankaran, 1999b). At the same time, large companies, such as Renong and the Lion group, have been allowed to repeatedly roll over their debts (Dhume, Crispin, Jayasankaran, and Larkin, 2001).

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<sup>11</sup> Petronas is not the only government-controlled institution used to save firms. Khazanah Nasional Bhd., the powerful state-owned investment fund, has proved to be an alternative vehicle for providing financial support. For example, in 2000 it purchased shares in Renong's telecom unit (Jayasankaran, 2000).

<sup>12</sup> Mr. Tajudin has a great deal of debt: \$263 billion personally and 900 million ringgit borrowed by Naluri, the listed company in which Mr. Tajudin owns 44% and which in turn holds the stake in MAS (Asian Wall Street Journal weekly edition, July 31-August 6, 2000). He has had difficulty servicing these loans.

All three forms of subsidies could benefit minority shareholders, in part because they put the supported firms on a stronger financial basis and reduce the incentives to transfer resources out of the firms (Johnson, Boone, Breach, and Friedman, 2000). In addition, however, the government has permitted companies to carry out actions that might otherwise be considered violations of laws protecting minority shareholders. The most prominent case involves Renong, which is financially distressed but has a “well-connected” chairman (Restall, 2000b). In November 1997, a subsidiary of Renong, United Engineers Malaysia, received a waiver of stock market rules, in order to provide a bailout to its parent. The stock market fell sharply on this news, and some observers interpreted this reaction as indicating that the government would have difficulties if it provided further support to favored firms. However, in October 1998 after capital controls were in place, the government took over and paid off some of Renong’s debts (Perkins and Woo, 2000).<sup>13</sup> Again in late 2000, United Engineers Malaysia agreed to purchase \$1.8 billion of problem assets from Renong. Shareholders have protested these actions.

While it is impossible to measure the size and nature of Malaysian subsidies precisely, the weight of anecdotal evidence supports the notion that well-connected firms received direct and indirect financial support from the government after the imposition of capital controls. This suggests that the market reaction to the imposition of capital controls in September 1998 was correct in anticipating that particular well-connected firms would receive greater subsidies.

In addition, we have investigated the fate of the firms in the Appendix that are listed as affiliated primarily to Anwar. As far as we can ascertain, all of these firms have either been taken over by pro-Mahathir management or the owners have switched allegiance to Mahathir. In many cases there have been asset transfers out of these firms and into firms more closely aligned with Mahathir. Again, it seems that the stock market in September 1998 correctly anticipated what would happen.

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<sup>13</sup> Halim Saad, chairman of Renong, is quoted as saying “Yes, the government helped. But our creditors will get paid 100% with interest and with no haircuts. What’s wrong with

### *6.1. Assessment*

Malaysia's macroeconomic performance after the imposition of capital controls was good. Growth was 4.7% in 1999, although there remains a controversy about whether it would have been higher or lower without capital controls (Kaplan and Rodrik, 2001; Dornbusch, 2001a). At the same time, there is clear evidence of some government support for favored firms, both directly and – more commonly – through various forms of indirect subsidies.

Weak institutions in Malaysia mean that the allocation of government favoritism is of first-order importance for firm-level outcomes. As a result, when hit by the initial Asian crisis, favored firms suffered large falls in expected subsidies. The imposition of capital controls, on the other hand, allowed the government to channel greater resources (and provide other advantages) to firms with strong political connections to the Prime Minister. The interaction of shocks and institutions therefore had a large impact on the distribution of outcomes at the firm level.

## **7. Conclusion**

The evidence from Malaysia strongly supports the idea that firms with political connections were expected to lose subsidies in the first phase of the Asian crisis. Conversely, firms connected to the Prime Minister were expected to gain subsidies when capital controls were imposed in September 1998.

The presence of political connections in East Asian economies does not mean that “cronyism” caused the crisis or even that “relationship-based capitalism” was necessarily a suboptimal system for these countries. While politically connected firms were hit harder during the crisis, the evidence presented here does not suggest that this was a punishment for past misdeeds and deficiencies. The evidence suggests rather that the crisis implied that previously favored firms would lose valuable subsidies, and the imposition of capital controls indicated that these subsidies would be restored for some firms.

Our Malaysian results offer empirical evidence that is consistent with the general idea of Blanchard (2000), who argues that macroeconomic dynamics depend on

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that?”(Jayasankaran 2000).

institutional structures: “Institutions also matter for short-run fluctuations, with different mechanisms across countries” (p. 1404). There is growing evidence that institutions matter for long-term growth (e.g., Acemoglu, Johnson, and Robinson, 2001.) A great deal remains to be done, however, to understand precisely how institutions affect short- and medium-term outcomes.

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Table 1  
Summary statistics and ratio analysis

The table presents summary statistics of Malaysian firms in the Worldscope database. The numbers reported are simple averages except as noted. Listed p-values are from t-tests of differences of means, except for last two rows, which are tests of proportions. "Politically connected" refers to a firm with identifiable political connections from Gomez and Jomo (1997). "Ethnically favored" refers to a firm controlled by bumiputeras (primarily indigenous Malays). "Foreign capital access" means that the firm either had its stock listed on a non-Malaysian exchange or had issued debt on the Eurobond market in the 1990s prior to the start of the crisis. A financial firm is defined as one with primary SIC in the range 6000-6999. Financial figures are based on the last reported financial statements prior to July 1997. Data points are missing for some items, thus the number of observations included for each average may vary.

	All Worldscope firms						Nonfinancial firms only				
	All	Politically connected	Unconnected	(p-value)	Mahathir connected	Anwar connected	(p-value)	All	Politically connected	Unconnected	(p-value)
Number of Firms	424	67	357		53	14		312	50	262	
<b>RETURNS</b>											
July 1997 to August 1998	-78.5%	-83.0%	-77.7%	(0.010)	-83.4%	-81.3%	(0.529)	-78.1%	-82.1%	-77.3%	(0.065)
September 1998	39.7%	53.2%	37.1%	(0.000)	61.7%	31.3%	(0.021)	38.7%	50.5%	36.1%	(0.007)
October 1998 to September 2000	81.9%	83.5%	81.7%	(0.897)	69.8%	132.2%	(0.036)	81.6%	94.8%	79.1%	(0.348)
<b>SIZE AND GROWTH</b>											
Total assets (\$000)	986,606	1,845,217	820,423	(0.012)	1,799,914	2,013,485	(0.816)	599,554	1,299,733	465,535	(0.000)
Total asset growth (1-year)	50.3%	67.3%	46.8%	(0.301)	81.7%	20.3%	(0.376)	42.3%	39.3%	42.9%	(0.834)
<b>PROFITABILITY</b>											
Return on assets	4.0%	-1.2%	4.9%	(0.041)	-3.0%	5.2%	(0.604)	3.7%	-2.7%	4.9%	(0.062)
Profit margin	7.1%	9.7%	6.6%	(0.868)	8.9%	12.3%	(0.681)	1.6%	8.2%	0.3%	(0.746)
<b>LIQUIDITY</b>											
Current ratio	1.77	1.53	1.82	(0.432)	1.52	1.61	(0.846)	1.69	1.54	1.72	(0.516)
Quick ratio	1.26	1.20	1.27	(0.791)	1.27	0.93	(0.423)	1.26	1.21	1.27	(0.807)
<b>ASSET UTILIZATION</b>											
Asset turnover ratio	0.55	0.47	0.56	(0.147)	0.44	0.55	(0.421)	0.65	0.56	0.66	(0.170)
Inventory turnover ratio	9.43	12.70	8.82	(0.101)	14.79	5.47	(0.195)	9.50	12.71	8.91	(0.116)
<b>LEVERAGE</b>											
Total debt/Total assets (TD/TA)	23.7%	33.7%	21.9%	(0.000)	36.0%	24.6%	(0.298)	26.1%	36.9%	24.0%	(0.000)
Short-term debt/Total debt (STD/TD)	61.8%	57.1%	62.8%	(0.216)	56.8%	58.5%	(0.869)	61.7%	59.3%	62.2%	(0.573)
Increase in TD/TA	2.7%	6.3%	2.0%	(0.062)	8.4%	-70.0%	(0.334)	3.2%	7.7%	2.3%	(0.046)
Increase in STD/TD	-2.2%	-7.7%	-1.1%	(0.088)	-7.6%	-7.9%	(0.975)	-1.9%	-8.9%	-0.5%	(0.062)
<b>OTHER</b>											
Book/market ratio	0.45	0.47	0.45	(0.568)	0.50	0.36	(0.105)	0.42	0.45	0.42	(0.450)
Percent with foreign capital access	29.0%	47.8%	25.5%	(0.000)	47.2%	50.0%	(0.850)	28.2%	50.0%	24.0%	(0.000)
Percent ethnically favored	26.4%	22.6%	27.2%	(0.495)	27.9%	0.0%	(0.058)	26.4%	29.2%	25.8%	(0.642)

Table 2  
Political connections and pre-crisis firm characteristics

The table reports coefficient estimates from regressions of firm characteristics on a political connections indicator. All Malaysian firms with available data in the Worldscope database are included. Also estimated but not reported is a constant term and industry dummy variables. Profitability is return on assets, defined as net income divided by total assets (expressed in whole percentages). Leverage is defined as total debt over total assets (expressed in whole percentages). Firm size is the log of total assets; growth is the one-year growth rate in total assets. All financial variables are measured at the end of the last full year of financial results before July 1997. "Politically connected" means the firm has an identifiable connection with key government officials from Gomez and Jomo (1997). The number of observations varies in each specification due to missing data on net income and total asset growth. Numbers in brackets are heteroskedasticity-robust t-statistics. Asterisks denote levels of significance: \*\*\* means significant at the 1% level, \*\* is the 5% level, and \* is the 10% level.

	Panel A: Profitability			Panel B: Leverage		
	Nonfinancial firms	Nonfinancial firms	All firms	Nonfinancial firms	Nonfinancial firms	All firms
<i>Dependent variable is pre-crisis return on assets</i>						
Politically connected	-11.588 [-1.02]	-11.726 [-0.96]	-8.960 [-0.98]	12.480 * [1.68]	5.100 * [1.84]	4.677 ** [2.01]
Firm size	4.801 [1.29]	5.084 [1.32]	3.860 [1.22]	-0.057 [-0.02]	1.997 [1.02]	2.758 [1.51]
Firm growth		1.442 [0.69]	0.838 [0.90]		1.114 [0.71]	-0.129 [-0.17]
Profitability					-0.634 *** [-23.10]	-0.630 *** [-23.87]
Number of observations	305	270	358	312	270	358
R-squared	0.042	0.045	0.040	0.094	0.572	0.528

Table 3  
Political connections and crisis-period stock returns

The table reports coefficient estimates from regressions of stock returns on political connection variables and control variables over the Asian crisis period of July 1997 to August 1998. All Malaysian firms with available data in the Worldscope database are included. Also estimated but not reported are a constant term and industry dummy variables. "Politically connected" means the firm has an identifiable connection with key government officials from Gomez and Jomo (1997). "Mahathir connected" and "Anwar connected" indicate the source of the political connection as in Gomez and Jomo (1997). Firm size is measured as the log of total assets; the debt ratio is measured as total debt over total assets. Numbers in brackets are heteroskedasticity-robust t-statistics. Asterisks denote levels of significance: \*\*\* means significant at the 1% level, \*\* is the 5% level, and \* is the 10% level.

	Political connections			Mahathir and Anwar connections		
	Nonfinancial firms	Financial firms	All firms	Nonfinancial firms	Financial firms	All firms
	<i>Dependent variable is stock return from July 1997 to August 1998</i>					
Politically connected	-0.075 *** [-2.97]	-0.077 *** [-3.42]	-0.077 *** [-3.88]			
Mahathir connected				-0.079 *** [-2.78]	-0.091 *** [-3.58]	-0.083 *** [-3.64]
Anwar connected				-0.059 [-1.61]	-0.046 [-1.34]	-0.056 ** [-2.06]
Firm size	0.074 *** [5.19]	0.041 * [1.71]	0.070 *** [5.56]	0.074 *** [5.19]	0.042 * [1.75]	0.070 *** [5.56]
Debt ratio	-0.0014 * [-1.87]	-0.0011 [-1.65]	-0.0014 ** [-2.10]	-0.0014 * [-1.85]	-0.0010 [-1.53]	-0.0014 ** [-2.07]
Number of observations	312	112	424	312	112	424
R-squared	0.269	0.095	0.236	0.269	0.099	0.237

Table 4

## Political connections and stock returns following the imposition of capital controls

The table reports coefficient estimates from regressions of stock returns on political connection variables and control variables for the period September 1998. All Malaysian firms with available data in the Worldscope database are included. Also estimated but not reported are a constant term and industry dummy variables. "Politically connected" means the firm has an identifiable connection with key government officials from Gomez and Jomo (1997). "Mahathir connected" and "Anwar connected" indicate the source of the political connection as in Gomez and Jomo (1997). Firm size is measured as the log of total assets; the debt ratio is measured as total debt over total assets. Numbers in brackets are heteroskedasticity-robust t-statistics. Asterisks denote levels of significance: \*\*\* means significant at the 1% level, \*\* is the 5% level, and \* is the 10% level.

	Political connections			Mahathir and Anwar connections		
	Nonfinancial firms	Financial firms	All firms	Nonfinancial firms	Financial firms	All firms
<i>Dependent variable is stock return for September 1998</i>						
Politically connected	0.081 [1.23]	0.285 *** [2.69]	0.138 ** [2.42]			
Mahathir connected				0.130 * [1.76]	0.403 *** [3.02]	0.199 *** [2.98]
Anwar connected				-0.116 [-1.11]	0.027 [0.24]	-0.063 [-0.81]
Firm size	0.014 [0.42]	-0.038 [-0.50]	0.001 [0.04]	0.015 [0.43]	-0.043 [-0.58]	0.000 [0.01]
Debt ratio	0.0036 *** [3.48]	0.0018 [0.89]	0.0032 *** [3.53]	0.0035 *** [3.40]	0.0012 [0.58]	0.0031 *** [3.35]
Number of observations	302	111	413	302	111	413
R-squared	0.142	0.115	0.128	0.154	0.153	0.143

Table 5

## Capital controls and the interaction of political connections and foreign capital access

The table reports coefficient estimates from regressions of stock returns on political connection variables interacted with foreign capital access for the periods indicated. All Malaysian firms with available data in the Worldscope database are included. Also estimated but not reported are a constant term and industry dummy variables. "Mahathir connected" and "Anwar connected" indicate the source of the political connection as in Gomez and Jomo (1997). "Foreign capital access" indicates that the firm's stock is traded in a foreign market in addition to Malaysia or the firm has issued debt on the Eurobond market. Firm size is measured as the log of total assets; the debt ratio is measured as total debt over total assets. Numbers in brackets are heteroskedasticity-robust t-statistics. Asterisks denote levels of significance: \*\*\* means significant at the 1% level, \*\* is the 5% level, and \* is the 10% level.

	Crisis period: July 1997 to August 1998			Capital controls imposed: September 1998		
	Nonfinancial firms	Financial firms	All firms	Nonfinancial firms	Financial firms	All firms
	<i>Dependent variable is stock return for period indicated</i>					
Mahathir connected*Foreign capital access	-0.068 *	-0.082 ***	-0.072 **	0.122	0.221	0.157 *
	[-1.75]	[-2.82]	[-2.34]	[1.29]	[1.42]	[1.93]
Mahathir connected*No foreign capital access	-0.091 ***	-0.097 ***	-0.093 ***	0.135	0.542 ***	0.232 **
	[-2.80]	[-2.85]	[-3.46]	[1.32]	[3.19]	[2.51]
Anwar connected*Foreign capital access	-0.120 **	-0.121 ***	-0.120 ***	-0.185	0.191 *	-0.074
	[-2.46]	[-5.79]	[-3.39]	[-1.17]	[1.93]	[-0.58]
Anwar connected*No foreign capital access	0.014	0.007	0.010	-0.031	-0.103	-0.054
	[0.69]	[0.21]	[0.50]	[-0.27]	[-0.71]	[-0.59]
Firm size	0.075 ***	0.043 *	0.071 ***	0.017	-0.037	0.003
	[5.31]	[1.77]	[5.55]	[0.50]	[-0.50]	[0.08]
Debt ratio	-0.0015 *	-0.0010	-0.0014 **	0.0035 ***	0.0002	0.0031 ***
	[-1.92]	[-1.30]	[-2.14]	[3.37]	[0.11]	[3.33]
Number of observations	312	112	424	302	111	413
R-squared	0.274	0.110	0.243	0.156	0.184	0.144

Table 6  
Robustness checks

The table reports coefficient estimates from regressions of stock returns on political connection variables and control variables during the periods indicated. All nonfinancial Malaysian firms with available data in the Worldscope database are included, except in Panel C where only firms included in International Finance Corporation indexes are included. Also estimated but not reported are a constant term and industry dummy variables. Numbers in brackets are heteroskedasticity-robust t-statistics. Asterisks denote levels of significance: \*\*\* means significant at the 1% level, \*\* is the 5% level, and \* is the 10% level. "Ethnically favored" indicates that the firm is controlled by Bumiputera (primarily ethnic Malay) interests. The number of observations is smaller in Panel A because ethnicity is not identifiable for all firms. "Mahathir connected" and "Anwar connected" indicate the source of the political connections of Malaysian firms as in Gomez and Jomo (1997). Firm size is measured as the log of total assets, except in Panel B where it is measured as the log of net sales (sales data are missing for 16 firms). The debt ratio is measured as total debt over total assets.

	Panel A: Control for ethnicity		Panel B: Alternative size measure		Panel C: IFC firms only	
	Crisis period: July 1997 to Aug	Capital controls: Sept 1998	Crisis period: July 1997 to Aug 1998	Capital controls: Sept 1998	Crisis period: July 1997 to Aug	Capital controls: Sept 1998
<i>Nonfinancial firms only (all columns); dependent variable is stock return in period indicated</i>						
Mahathir connected	-0.074 ** [-2.59]	0.1565 * [1.90]	-0.072 ** [-2.61]	0.1624 ** [2.19]	-0.073 ** [-2.17]	0.1290 [1.10]
Anwar connected	0.014 [0.41]	-0.268 ** [-2.06]	-0.062 * [-1.70]	-0.081 [-0.79]	-0.089 * [-1.91]	-0.236 [-1.66]
Ethnically favored	0.022 [1.26]	-0.009 [-0.20]				
Firm size	0.065 *** [4.27]	0.031 [0.78]	0.029 *** [4.65]	-0.018 [-1.55]	0.101 *** [4.67]	-0.060 [-0.95]
Debt ratio	-0.0029 *** [-6.81]	0.0037 *** [3.02]	-0.0014 * [-1.92]	0.0039 *** [3.72]	-0.0006 [-0.75]	0.0041 ** [2.02]
Number of observations	239	232	306	296	116	109
R-squared	0.373	0.174	0.285	0.175	0.383	0.362

Table 7

## Political connections and stock returns during other periods

The table reports coefficient estimates from regressions of stock returns on political connection variables for the periods indicated. All Malaysian firms with available data in the Worldscope database are included. Also estimated but not reported are a constant term and industry dummy variables. "Mahathir connected" and "Anwar connected" indicate the source of the political connection as in Gomez and Jomo (1997). Firm size is measured as the log of total assets; the debt ratio is measured as total debt over total assets. Numbers in brackets are heteroskedasticity-robust t-statistics. Asterisks denote levels of significance: \*\*\* means significant at the 1% level, \*\* is the 5% level, and \* is the 10% level.

	<i>Panel A: Pre-crisis</i>		<i>Panel B: Early upturn</i>		<i>Panel C: Later period</i>	
	<i>July 1996 to June 1997</i>		<i>February 1998</i>		<i>Oct 1998 to Sept 2000</i>	
	Nonfinancial firms	All firms	Nonfinancial firms	All firms	Nonfinancial firms	All firms
<i>Dependent variable is stock return for period indicated</i>						
Mahathir connected	-0.052 [-0.54]	-0.075 [-1.08]	-0.022 [-0.28]	-0.041 [-0.64]	0.226 [1.23]	-0.036 [-0.23]
Anwar connected	0.577 [1.03]	0.436 [1.19]	0.058 [0.45]	0.013 [0.13]	0.449 [1.13]	0.369 [1.30]
Firm size	0.037 [0.71]	0.044 [0.94]	-0.028 [-0.76]	-0.049 *	-0.067 [-0.73]	0.029 [0.35]
Debt ratio	-0.0013 [-1.58]	-0.0010 [-1.42]	-0.0002 [-0.23]	0.0000 [-0.02]	-0.0017 [-0.59]	-0.0023 [-0.93]
Number of observations	277	375	311	422	298	407
R-squared	0.041	0.040	0.013	0.019	0.056	0.053

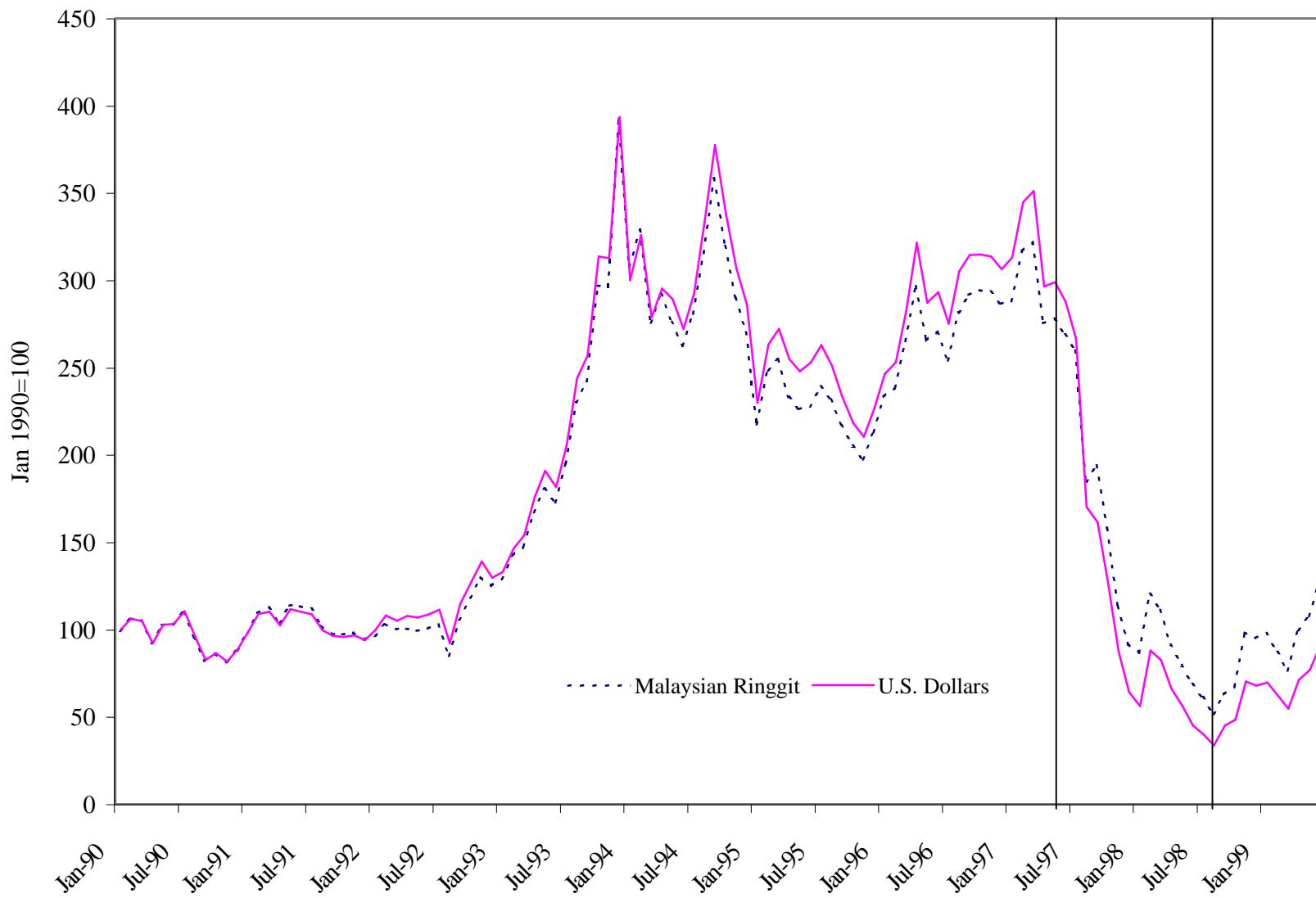


Fig. 1. Index of Malaysian stocks, 1990-1999. The figure shows equal-weighted indexes of stock prices of Malaysian firms in the Worldscope database. Vertical lines delineate the crisis period as defined in the paper.

Appendix

Malaysian firms and their political connections

The table lists Malaysian firms in the Worldscope database that have an identifiable connection with high-ranking political figures. The information is compiled from Gomez and Jomo (1997). Under "Primary political connection," Mahathir refers to Mahathir Mohamad, Daim refers to Daim Zainuddin, and Anwar refers to Anwar Ibrahim. "UMNO" refers to the United Malays' National Organisation, an ethnically based political party that dominates the government's ruling coalition.

COMPANY NAME	Primary connected major shareholder/director	Primary political connection
ADVANCE SYNERGY BHD	Ahmad Sebi Abu Bakar	Daim, Anwar
ANTAH HOLDINGS BHD	Negeri Sembilan royalty	Mahathir
AOKAM PERDANA BHD	Samsudin Abu Hassan	Daim
ARAB MALAYSIAN CORPORATION BHD	Azman Hashim	UMNO
AUSTRAL AMALGAMATED BHD	Samsudin Abu Hassan	Daim
BAN HIN LEE BANK BHD	Quek Leng Chan	Anwar
BANDAR RAYA DEVELOPMENTS BHD	MCA	MCA
BERJAYA GROUP BHD	Vincent Tan Chee Yioun	Daim
BERJAYA SPORTS TOTO BHD	Vincent Tan Chee Yioun	Daim
COLD STORAGE (MALAYSIA) BHD	Basir Ismail, Samsudin Abu Hassan	Daim
CONSTRUCTION AND SUPPLIES HOUSE	Joseph Ambrose Lee, Abdul Mulok Awang Damit	Daim
CYCLE & CARRIAGE BINTANG BHD	Basir Ismail	Daim
DAMANSARA REALTY BHD	Koperasi Usaha Bersatu Bhd	UMNO
DATUK KERAMAT HOLDINGS BHD	Koperasi Usaha Bersatu Bhd	UMNO
DIVERSIFIED RESOURCES BHD	Yahya Ahmad, Nasaruddin Jalil	Anwar, Mahathir
EKRAN BHD	Ting Pek Khiing	Daim, Mahathir, Abdul Taib Mahmud
FABER GROUP BHD	UMNO	UMNO
GADEK (MALAYSIA) BHD	Yahya Ahmad, Nasaruddin Jalil	Anwar, Mahathir
GEORGE TOWN HOLDINGS BHD	Tunku Abdullah	Mahathir
GOLDEN PLUS HOLDINGS BHD	Ishak Ismail, Mohamed Sarit Haji Yusoh	Anwar
GRANITE INDUSTRIES BHD	Samsudin Abu Hassan	Daim
HICOM HOLDINGS BHD	Yahya Ahmad	Anwar, Mahathir
HO HUP CONSTRUCTION COMPANY BHD	Halim Saad	Daim
HONG LEONG BANK BHD	Quek Leng Chan	Anwar
HONG LEONG CREDIT BHD	Quek Leng Chan	Anwar
HONG LEONG INDUSTRIES BHD	Quek Leng Chan	Anwar
HONG LEONG PROPERTIES BHD	Quek Leng Chan	Anwar
HUME INDUSTRIES (MALAYSIA) BHD	Quek Leng Chan	Anwar
IDRIS HYDRAULIC (MALAYSIA) BHD	Ishak Ismail	Anwar
KAMUNTING CORPORATION BHD	T.K. Lim	Daim
KFC HOLDINGS (MALAYSIA) BHD	Ishak Ismail	Anwar
KINTA KELLAS PUBLIC LIMITED CO	Halim Saad	Daim
KRETAM HOLDINGS BHD	UMNO Youth, Wan Azmi Wan Hamzah	Daim
KUMPULAN FIMA BHD	Basir Ismail	Daim

(Continued on next page)

Appendix (Continued)

Malaysian firms and their political connections

COMPANY NAME	Primary connected major shareholder/director	Primary political connection
LAND & GENERAL BHD	Wan Azmi Wan Hamzah	Daim
LANDMARKS BHD	Samsudin Abu Hassan	Daim
MAGNUM CORPORATION BHD	T.K. Lim	Daim
MALAKOFF BHD	Malaysian Resources	UMNO
MALAYSIAN AIRLINE SYSTEM BHD	Tajudin Ramli	Daim
MALAYSIAN RESOURCES CORPORATION	UMNO, Wan Azmi Wan Hamzah	Daim, Anwar
METROPLEX BHD	Dick Chan	Unspecified
MULTI-PURPOSE HOLDINGS BHD	T.K. Lim	Daim
MYCOM BHD	Mohd Tamrin Abdul Ghafar	Ghafar Baba
NANYANG PRESS (MALAYA) BHD	Quek Leng Chan	Anwar
NEW STRAITS TIMES PRESS (MALAYSIA)	Unspecified	Anwar
O.Y.L. INDUSTRIES BHD	Quek Leng Chan	Anwar
PACIFIC CHEMICALS BHD	Ting Pek Khiing, Robert Tan	Daim, Mahathir, Abdul Taib Mahmud
PENGKALEN HOLDINGS BHD	Joseph Ambrose Lee, Abdul Mulok Awang Damit	Daim
PRIME UTILITIES BHD	Ahmad Sebi Abu Bakar	Daim, Anwar
PROMET BHD	Ibrahim Mohamed	Mahathir
R.J. REYNOLDS BHD	Wan Azmi Wan Hazmah	Daim
RASHID HUSSAIN BHD	Wan Azmi Wan Hamzah	Daim
RENONG BHD	Halim Saad	Daim
SAPURA TELECOMMUNICATIONS BHD	Shamsuddin bin Abdul Kadir	Mahathir
SETRON (MALAYSIA) BHD	Penang Bumiputera Foundation, Kamaruddin Jaafar	Anwar
SISTEM TELEVISYEN MALAYSIA BHD	UMNO Companies	UMNO
STAR PUBLICATIONS (MALAYSIA) BHD	Vincent Tan Chee Yioun	Daim
TAIPEI CONSOLIDATED BHD	Vincent Tan Chee Yioun	Daim
TANJONG PUBLIC LIMITED COMPANY	T. Ananda Krishnan	Mahathir
TECHNOLOGY RESOURCES INDUSTRIES	Tajudin Ramli	Daim
TIME ENGINEERING BHD	Halim Saad	Daim
TONGKAH HOLDINGS BHD	Mokhzani Mahathir	Mahathir
UNIPHONIX CORPORATION BHD	Ibrahim Mohamed	Mahathir
UNIPHONE TELECOMMUNICATIONS BHD	Shamsuddin bin Abdul Kadir	Mahathir
UNITED ENGINEERS (MALAYSIA) BHD	Halim Saad	Daim
UNITED MERCHANT GROUP BHD	Ahmad Sebi Abu Bakar	Daim, Anwar
UNITED PLANTATIONS BHD	Basir Ismail	Daim
UTUSAN MELAYU (MALAYSIA) BHD	UMNO	UMNO
WEMBLEY INDUSTRIES HOLDINGS BHD	Ishak Ismail	Anwar
YTL CEMENT BHD	Yeoh Tiong Lay	Unspecified
YTL CORPORATION BHD	Yeoh Tiong Lay	Unspecified
YTL POWER INTERNATIONAL BHD	Yeoh Tiong Lay	Unspecified