# Red Capitalists: Political Connections and Firm Performance in China

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## 1. INTRODUCTION

Uncertainty in the policy making process creates substantial transaction costs for firms (Williamson, 1991; Henisz and Zelner, 2004). Consequently, business organisations engage in political behaviour to internalise these costs and influence the policy process in ways favourable to them. The current paper is concerned with a particular form of political strategy adopted by firms in China. A significant number of private-owned enterprises adopt the so-called "red hat" strategy by seeking political affiliation with the Communist Party and various governmental entities. Some scholars see this strategy as a means of circumventing problems associated with the lack of secure property rights and institutional discrimination, such as the lending bias of China's state-dominated banking system against indigenous entrepreneurs (Li et al., 1999; Huang, 2003), heavy government regulations and extralegal fees (Johnson et al., 2000; Guriev, 2004). This view is consistent with the "helping hand" theory of government-business relationship (Che and Qian, 1998). However, theory also predicts that government bureaucrats tend to be more interested in rentseeking, extraction and political objectives rather than corporate efficiency and maximising firm value (e.g. Shleifer and Vishny, 1998; Rosa and Pérard, 2010).

Given that politics and business have always been interrelated, it is perhaps surprising to observe that there is a paucity of work analysing the corporate performance implications of political connections. The few studies in this area include Fisman's (2001) estimation of the value of political affiliations to firms in Indonesia and the analysis of Leuz and Oberholzer-Gee (2006) on the financing strategy of politically connected Indonesian firms. For Malaysia, Johnson and Mitton (2003) uncover a strong positive correlation between stock market performance and political connections in Malaysia in the

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presence of capital controls. Using a survey of 3259 private enterprises in China, Li et al. (2008) find that Communist Party membership of private entrepreneurs is important to firm profitability, especially in regions with weaker market institutions.

The purpose of this paper, therefore, is to contribute to this sparse literature by evaluating the effects of political connections on the survival and growth prospects of newly formed private enterprises in China. Political connection is defined through three categorical variables indicating whether these private enterprises are formally affiliated with local, middle level (prefecture and town level) or high level (regional and central) government agencies, whose functions include offering credit guarantees and political protection in return for "management fees" (Huang, 2003). Our study is based on more than 106,000 private firms that entered the market between 1999 and 2004, 23% of which are politically affiliated in the sense defined above. Some papers (e.g. Li et al. 2008) use managers' party membership as an indicator of political connection. However, such studies tend to rely on small sample sizes and therefore have limited scope.

We argue that China is a particularly interesting country for studies of the relationship between political connections and firm performance. First, in spite of a centralised political system, China's process of economic liberalisation has been highly decentralised, with various levels of governments having autonomous policymaking powers within their jurisdictions. Thus the case of China offers useful variation in the type of political connections that can be exploited to identify the relationship of interest. Second, China's World Trade Organisation (WTO) accession stipulates several compulsory provisions on government relationships, including the absence of discriminatory economic policy. In this respect, it is important to determine the extent to which political cronvism is distorting market mechanisms. If the business environment in the country is not providing a level playing field for all market participants, it is not only politically unaffiliated domestic firms that would be discriminated against. Firms in China's trading partner countries would also face unfair competition in light of China's ever-deeper integration into the world economy. Thus, a study of the business-politics nexus in China has wider implications beyond the narrow confines of the domestic political economy sphere. Third, an advantage of using Chinese data is that one need not be concerned with endogenous matching between firms and political parties (Ackerberg and Botticini, 2002) since there is only one political party. Furthermore the focus on newly formed private enterprises with a given level of political connection helps us abstract from the issue of possible reverse causality in which a firm decides on its political affiliation based on its past growth performance.

Our econometric analysis yields five major conclusions: (i) political connections significantly enhance firms' survival prospects; (ii) conditional on survival, employment growth is faster for politically affiliated firms; (iii) conditional on survival, politically unaffiliated private firms perform better in terms of productivity growth; (iv) the benefits due to political connections are largely confined to firms associated with local and high levels of government; and (v) the effects of political connections are more pronounced in capital intensive industries where firms require a wider range of resources for their growth, and the "helping hand" of government is presumably needed more.

The rest of the paper is organised as follows. Section 2 discusses the evolution of private firms-government relationship in China. Section 3 presents the empirical model, and Section 4 describes the data set used in the analysis. The main findings of the paper are discussed in Section 5. Finally, Section 6 concludes.

## 2. PRIVATE FIRMS AND THE BODY POLITIC IN CHINA

The private sector accounts for 60% of the value-added generated in China and employs close to 200 million people<sup>1</sup>. As a result, the sector's contribution to the prosperity of the country is praised by the political hierarchy, and private entrepreneurs are courted by the Chinese Communist Party (Guiheux, 2006). The country has indeed come a long way from the time of the Cultural Revolution when entrepreneurs were prosecuted as "tails of capitalism" (Young, 1989).

However, in spite of improving legal protection for private firms, marketsupporting institutions are still weak in China and private entrepreneurs suffer from political and institutional discrimination. Li et al. (2006) documents evidence that private entrepreneurs' response to market and institutional failures is to engage in political behaviour—the strategy of "wearing a red hat". The motivation for joining the political hierarchy is easier access to resources such as land and bank credit, information on regulations and new policies, and protection from competition.

A study conducted in 2002 revealed that 80 percent of the entrepreneurs surveyed had become members of the party before starting a business (Guiheux, 2006). Other ways entrepreneurs can participate in politics include: serving as delegates in local or national People's Congresses, contesting elections for local administration posts and joining business associations that link the state and the private sector (Guiheux, 2006).

Yet another way in which firms engage in political behaviour is affiliation with some level of government administration. A large number of private enterprises in China have political connections with governmental bodies whose functions include offering credit guarantees and political protection in

<sup>1.</sup> Source: OECD Economic Surveys: China (2005).

return for "management fees" (Huang, 2003). Broadly speaking, firms can be politically affiliated with five different levels of governments (e.g. Li, 2004). These are (in decreasing order of hierarchy): central, provincial, prefecture, county and township (local) governments. The relationship between different levels of government has been shaped by the revenue sharing system (fiscal federalism). The system requires lower level governments to hand over a fixed amount of their revenue to the higher tier of government. Since township governments have no lower level governments from which to extract revenue, their main sources of income are the firms under their jurisdiction. Thus, it is expected that local governments have more incentive to support productive non-state enterprises. As Qian (2003) and Li (2004) observe, fiscal federalism has aligned the interests of local governments with local business, implying that it might pay off for private firms to be affiliated with their local governments. However, it is also reasonable to suppose that firms associated with higher levels of government (i.e. central and provincial) are likely to enjoy better protection and more privileges such as easier access to export and import licences, favourable bank loans and lucrative public contracts.

There are those who fear that the alliance between business and the body politic is likely to foster rent seeking among entrepreneurs and cadres, reducing the competitiveness of the market. Also as Dickson (2003) argues, "red capitalists" have little incentive for structural changes that favour the private sector as a whole. This view is consistent with the more general observation that progress in large-scale economic liberalisation is constrained by the relative power of political decision-makers and national interest groups (Opper, 2004).

## 3. ECONOMETRIC SPECIFICATION

In this section, we describe the empirical strategy to identify the effects of political behaviour on the post-entry performance of private firms in China. We estimate a nonlinear model of the probability of firm exit and two linear models of employment and total factor productivity growth.

## Modelling the impact of political behaviour on firm survival

We model the probability of firm exit using a hazard rate specification. The hazard or the probability of exit for firm i in period t, conditional on having survived up to that point can be expressed as

$$h_i(t|X, P) = h_0(t) \exp(\beta' X_{it-1} + \gamma' P_{it-1} + \delta D)$$
(1)

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where  $h_o(t)$  is the baseline hazard. With hazard functions one tries to model the probability of firm failure in a given interval (i.e. between t-1 and t) conditional upon the firm having survived to the beginning of the interval. We choose a flexible specification for the baseline hazard and employ the Cox proportional hazard model, which imposes a proportional characteristic-specific shift on the baseline hazard.

In the above equation, P is a vector of 3 binary variables indicating the government level (high, middle and local) the firm is affiliated with. Start-ups without political connection are the base group. D is a set of time, sectoral and regional dummies and X is a vector of control variables. In line with the empirical literature (see Geroski, 1995) we include firm size (measured by employment), age and productivity as control variables. It appears to be a stylised fact that larger, older and more efficient firms have better survival prospects than smaller, younger and inefficient ones. We also hypothesise that firms that are export-oriented, enjoy access to finance and are engaged in innovative activity, have lower likelihood of market exit. The vector X also includes three industry level variables, namely industry exit and entry rates and industry concentration. In all cases, lagged values of the covariates are used to mitigate concerns about endogeneity. Table 1 gives the precise definition of the variables used in the econometric analysis.

Another source of concern in the estimation of hazard models is the issue of unobserved heterogeneity. As shown by Lancaster (1990), unobserved

	Definition of Key Variables
Variable	Definition
Size	Log of total number of employees
Firm growth Total factor	Year on year growth rate of total employment. Total factor productivity (TFP) estimated using the Levinsohn and Petrin.
productivity (TFP)	(2003) approach.
TFP growth	Year on year growth rate of total factor productivity growth.
Age	Years since birth
Export	Share of export sales in total sales
Innovation	Share of output involving new product and process divided by total output.
Finance	Domestic bank loans divided by total asset.
Industry concentration	Three-digit level Herfindhal index of concentration.
Industry entry	Number of new entrants in industry as a proportion of total firms in industry.
Industry exit	Number of exiting firms as a proportion of total firms in industry.
High level political affiliation	Dummy for entrants that are politically affiliated with central or regional governments: (total number $= 1,053$ ).
Middle level political affiliation	Dummy for entrants that are politically affiliated with middle level governments, i.e. prefecture and towns: (total number = 8,983).
Local level political affiliation	A dummy variable for private firms politically affiliated with local governments: (total number = 12696).
No political affiliation	Private firms with no political affiliation: (total number $= 83,986$ ).

Table 1

heterogeneity, if neglected, would bias the proportionate response of the hazard to variation in each regressor. For this reason, we estimate the hazard model with unobserved heterogeneity that follows a gamma distribution<sup>2</sup>.

## The impact of political affiliation on firm and productivity growth

In order to isolate the impact of political affiliation on firm growth, we estimate the following model:

$$Y_{it} = \beta' Z_{it-1} + \gamma' P_{it-1} + \delta D_{it} + f_i + \varepsilon_{it}$$

$$\tag{2}$$

The dependent variable Y denotes either employment or total factor productivity growth which is estimated using the Levinsohn and Petrin (2003)'s approach; P and D are defined as in Equation (1), Z is a vector of covariates hypothesised to impact on firm growth, f is a term capturing firmspecific heterogeneity and  $\varepsilon$  is a random error term. In the above model, Z consists of exporting intensity, innovation intensity, and age, access to finance, initial size / productivity and industry concentration.

There is a large body of empirical evidence that finds firm (productivity) growth has a negative relationship with initial size (productivity), suggesting convergence in firm size (e.g. Geroski, 1995). The positive correlation between performance and exporting has been widely documented across a number of countries, including China (Kraay, 1999). The growth enhancing effects of innovation and labour quality have also been recognised in the literature (Gort et al., 1993 and Jovanovic, 1982). By contrast, increased competition is widely believed to have a positive impact on firm performance (e.g. González-Páramo and De Cos, 2005). On the other hand, the finance-growth nexus is well researched in the economic literature (Levine, 2005, and Du and Girma, 2007). Some theoretical models predict that firms with debt contracts tend to grow faster than otherwise similar firms (e.g. Aghion et al., 1999). In these models, debt is hypothesised to reduce the amount of free cash to managers, giving them the incentive to reduce managerial slack and seek innovative ways to boost efficiency.

We employ a generalised method of moments (GMM) estimator that explicitly controls for the potential endogeneity of political connections. To this end, we made an exploratory analysis on the determinants of political connections<sup>3</sup>. The results suggest that politically affiliated firms tend to be larger at birth, have higher initial productivity and enjoy greater access to finance. Furthermore firms in a region with greater financial development and

<sup>2.</sup> This is the equivalent to the inclusion of firm-specific effects in linear panel data models.

<sup>3.</sup> The results are available upon request from the authors.

competition, larger presence of lawyers and intellectual property rights are less likely to engage in political behaviour. At the industry level, the share of the private sector has a negative relationship with the propensity of start-ups to join the political bandwagon. We employ these regional and industry characteristics as exogenous instruments for the political connection variables in the GMM estimations and ascertain their validity using the Sargan test of overidentifying restrictions.

## 4. DATABASE DESCRIPTION

Our econometric analysis draws on the Annual Report of Industrial Enterprise Statistics compiled by the National Statistical Bureau of China (NSB). The report covers the population of state-owned enterprises and all non-state firms with an annual turnover of over five million Renminbi (just above \$600,000). It is estimated that the firms contained in the data set account for about 85–90% of total output in most industries. The NSB performs several logic tests to ensure the accuracy of the information in the report and identify illogical data.

The data set includes information on firm ownership structure, industry affiliation, geographic location, establishment year, employment, gross output, product innovation, R&D, value-added, net fixed assets, exports, R&D and employee training expenditures.<sup>4</sup> The data set available to us spans the period 1999 to 2005, and comprises more than 1.3 million firm-year observations. It is worth noting that we used the whole sample to construct industry-level variables (e.g. industry entry and exit rates). However, in view of the objective of this paper, the econometric work is confined to the new private domestic-owned enterprises that entered the market.

The NSB assigns to each firm in the database a categorical variable indicating ownership status. Nevertheless, it is also possible to construct a continuous measure of ownership composition from the database by looking at the fraction of paid-in capital contributed by state, private and foreign investors. Using this measure of ownership, we define a firm as being private if private individuals are majority investors in the firm and it has used neither central government nor foreign capital at its establishment.

A firm is defined to be a new entrant at time t if its establishment year is given as time t and it is observed in the database for the first time at time t. This tight definition of entry year helps avoid measurement error problems in the establishment year variable. A nice feature of the database is that it maintains a unique enterprise identifier irrespective of the dynamics of ownership change.

<sup>4.</sup> Nominal values are deflated using industry-specific ex-factory price indices obtained from China Statistical Yearbook 2006.

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			Ι	level of polit	ical affili	iation		
	1	High	Ν	fiddle	1	Local	1	None
	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation
Growth	0.071	0.508	0.018	0.491	0.084	0.517	0.029	0.486
TFP growth	0.013	0.639	0.027	0.694	0.014	0.639	0.053	0.590
Size	5.031	1.453	4.812	1.080	4.390	0.950	4.351	0.923
Age	2.362	1.544	2.206	1.550	2.182	1.479	2.655	1.576
Finance	1.218	2.306	0.939	1.968	0.890	1.442	0.509	1.491
Export	0.058	0.188	0.059	0.206	0.100	0.272	0.117	0.294
Innovation	0.095	0.246	0.038	0.162	0.020	0.118	0.024	0.131
Number of firms	1053		8982		12696		83986	

Summary Statistics of Some Variables of Interest by Political Affiliations of Firms

This feature is useful when it comes to distinguishing private firms that are liquidated (i.e. exited the market) and those that have experienced ownership change (e.g. acquired by foreign investors). A firm is designated to have exited the market at time t+1 if it is observed at the time t or earlier, but not in subsequent periods.

We identified 106,718 private firms who entered the market over the period 1999–2004<sup>5</sup> that have the necessary information for econometric estimation. Some quarter of a million observations on these firms provide the basis of our analysis. Table 2 reports summary statistics of some variables of interest by political affiliation of firms. About 23% of new entrants are politically affiliated, and more than half of these are associated with local governments. Table 2 shows politically affiliated firms are generally bigger, grow at a faster rate but exhibit slower productivity growth compared to their politically unaffiliated counterparts. Perhaps not surprisingly, the former group of firms also enjoy greater access to finance.

## 5. DISCUSSION OF THE MAIN FINDINGS

## Does political affiliation affect firms' survival probability?

Inspection of the raw data reveals that politically affiliated firms have a higher survival chance compared to their unaffiliated counterparts. To be

<sup>5.</sup> Entrants during the last year of the data (i.e. 2005) are not considered because we have no post-entry information on them. Of course we use 2005 data for previous entrants.

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precise, 76% of the latter survived during the sample period, whereas the corresponding figures for firms affiliated with higher, middle and local level of governments are 86%, 81% and 84% respectively. These figures do not of course control for observable and unobservable characteristics affecting firms' survival prospects. For this we turn to the econometric estimates of the proportional Cox hazard model with unobserved heterogeneity reported in Table 3.

The importance of political affiliation for the survival prospects of firms can be seen from the magnitude of the hazard ratio coefficients given in the

	e ,		
COEFFICIENT	All firms	Labour intensive	Capital intensive
High level of government affiliation	0.626***	0.917**	0.503***
	(-2.69)	(-2.30)	(-3.08)
Middle level of government affiliation	0.709***	0.691***	0.699***
	(-5.81)	(-3.96)	(-4.30)
Local government affiliation	0.635***	0.659***	0.603***
	(-6.54)	(-4.80)	(-4.49)
Productivity	0.899***	0.903***	0.895***
	(-5.90)	(-4.24)	(-4.10)
Size	0.774***	0.776***	0.770***
	(-37.2)	(-28.1)	(-24.5)
Age	1.026***	1.027***	1.025***
	(6.65)	(5.15)	(4.22)
Finance	0.990***	0.987***	0.995
	(-2.82)	(-2.93)	(-0.91)
Export	0.620***	0.607***	0.647***
*	(-20.7)	(-17.8)	(-10.8)
Innovation	0.507***	0.534***	0.490***
	(-12.7)	(-7.34)	(-10.4)
Industry concentration	1.044**	0.913	1.138**
	(2.69)	(-0.95)	(2.58)
Industry entry rate	0.919	0.975	0.795
	(-0.56)	(-0.13)	(-0.90)
Industry exit rate	4.028***	3.089***	6.633***
	(8.05)	(5.36)	(6.19)
Observations	175648	102210	73438

#### Table 3

Political Affiliation and Firm Survival: Hazard Ratio Estimates from Cox Model with Unobserved Heterogeneity

Notes:

a. Asymptotic standard errors are given in parentheses. b. significant at 10%; \*\*significant at 5%; \*\*\*significant at 1%.

c. All specifications include time, sectoral and regional dummies.

d. Note that the coefficients in the above table give hazard ratio. Hence a coefficients greater (less) than one implies a higher (lower) hazard rate. For example, the hazard ratio of 0.659 on "Local level" in the second column of Table 3 suggests that a private firm that is politically affiliated with local governments have a 34.1% less hazard of exit than an otherwise equivalent firm with no political affiliation.

e. All explanatory variables are lagged by one period.

second column of Table 3. A firm that is affiliated with a high level of government (i.e. central and provincial) faces a hazard rate that is only 62.6% of the hazard faced by a firm without political association. The benefits due to affiliations with local and middle level governments are also positive and economically significant. Figure 1 shows the estimated hazard lines by level of political connections, and it is evident that firms without political affiliation face higher probability of exit. The results indicate an inverted-U shaped relationship between the level of government affiliation and its impact on firm survival. This is depicted in Figure 1, which also shows that this inverted Ushaped relationship persists over time. Start-ups associated with higher level of governments benefit the most, followed by those affiliated with local governments, with middle level governments conferring the least advantage on their protégées. This is in line with the conjecture discussed in Section 2. Incidentally, the four curves in Figure 1 appear to be parallel, suggesting that the proportionality assumption underlying the Cox hazard model is quite plausible in our context.

Reassuringly, the coefficients on the control variables of the hazard model are broadly consistent with expectations: larger, more productive and innovative firms enjoy higher survival probabilities and firms in highly concentrated



*Figure 1* Hazard function by level of political affiliation

Note: The vertical axis indicates the probability of firm exit at time t conditional on surviving up to time t-1.

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industries face higher likelihood of exit. Also export activity and access to external finance enhances firms' survival probability.

It is well-established in the finance literature different sectors are likely to face different external financing requirements due to their technological differences (Rajan and Zingales, 1998). Given that one of presumed motivation for seeking political affiliation is related to access to bank finance, we will explore whether the benefits or otherwise political affiliation vary across labour and capital intensive sectors<sup>6</sup>. It is interesting to note that the survival effects of political affiliations are more pronounced in capital-intensive industries. In a labour-abundant country like China, the "helping hand" of governments appears to be more effective in sectors where access to capital is relatively more important.

It is a stylised fact that new entrants are exposed to high risk of exit, especially in the first post-entry year. As Geroski (1995) put it, "the most palpable consequence of entry is exit". Influential theoretical models such as Jovanovic (1982) and Pakes and Ericson (1998) predict that firms' growth and survival performance depend on expectations about their own efficiency and the uncertainty associated with this expectation. Having entered the market with some prior belief about their performance, start-ups continuously update this belief based on their observed post-entry efficiency. Depending on their updated knowledge and the level of uncertainty they face, economically rational firms decide whether to grow, decline or exit the market. In light of this discussion, a plausible channel through which higher levels of political connections may help enhance firms' survival prospects is by reducing the uncertainty regarding the future.

## Firm growth and political behaviour

Table 4 reports the GMM estimates from the firm employment growth model. In line with the results from the survival regressions, we uncover evidence that political affiliation with higher levels of government is most beneficial for the post-entry growth of start-ups. Controlling for a host of variables affecting employment growth, we find that firms in capital (labour) intensive sectors that are affiliated with higher level of governments grow 5.81 (3.53) percentage points faster than politically neutral firms. On average, this translates into 8 additional jobs per firm and per year than would otherwise be the case. Affiliation with local governments also confers marked advantage on firm growth. By contrast, the growth benefits associated with middle level of governments fall short of statistical significance.

This finding of positive correlation between political behaviour and start-ups growth is consistent with theoretical models that postulate internal uncertainty

<sup>6.</sup> OECD's classification of labour and technology-intensive sectors is used in the analysis.

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Firm Performance and Political Affiliation

COEFFICIENT		Employment growth			Productivity growth	
	All	Labour intensive	Capital intensive	All	Labour intensive	Capital intensive
High level of government affiliation	0.0431***	0.0353***	0.0581**	- 0.049***	- 0.0838***	$-0.0276^{***}$
Middle level of government affiliation	(3.08) - 0.0366 (-1.42)	(4.09) - 0.0164 (-0.40)	(2.58) - 0.0629	(-5.20) $-0.0270^{***}$	(-4.74) -0.0227***	(-2.69) $-0.0270^{***}$ (-6.52)
Local government affiliation	(.4.1 0.0647***	(-0.49) $0.0567^{***}$	(6.1 - 1) $0.0617^{***}$	(-9.27) $-0.0187^{***}$	$(-0.0103^{***})$	$(-0.0129^{***})$
Initial size/productivity	(5.10) - 0.127***	(4.21) - 0.135***	(2.70) - 0.116***	(-11.5) $-1.092^{***}$	(-9.09) $-1.092^{***}$	(-6.21) $-1.093^{***}$
Age	(-40.4) $-0.0132^{***}$	(-33.1) $-0.0108^{***}$	(-23.9) $-0.0166^{***}$	(-18.1) $-0.0425^{***}$	(-14.3) $-0.0451^{***}$	(-11.5) $-0.0388^{***}$
Finance	(-8.90) $0.00609^{***}$	(-5.64) $0.00438^{***}$	(-7.11) 0.00848***	(-34.6) 0.0111**	(-28.8) $0.0279^{**}$	(-19.7) 0.0984**
Export	(5.80) 0.0721***	(3.20) 0.0818***	(5.15) 0.0547***	(2.12) 0.0107***	(2.17) 0.0143***	(2.14) 0.000529
Innovation	(12.0) $0.0482^{***}$ (3.50)	(11:4) 0.0220 (0.08)	0.0694*** 0.0694***	0.0103 0.0103 0.840	(2.92) 0.033 <b>3</b> * (1.80)	0.00616 0.00616 0.30)
Industry concentration	(2.2) $-$ 0.0201 $(-1.23)$	$-0.0760^{**}$	0.0164	(0.07) - 0.0107 ( - 0.55)	0.0415	(0.00) - 0.0409
p-value: Sargan test	0.58	0.65	0.46	0.81	0.61	0.77
p-value. AN(z) test Observations	74583	44108	30475	74583	44108	30475

Notes:

a. Asymptotic t-statistics are given in parentheses.
 b. significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%
 c. All specifications include sectoral, regional and time dummies.
 d. All regressors are lagged by one period.

## **RED CAPITALISTS**

as a key driver of firm growth. Firms that receive political protection and all the attendant benefits in terms of access to resources get positive signals about their future prospects and grow larger as a result. On the other hand, because of greater uncertainty regarding their future, it takes longer for start-ups without political masters to determine their optimal firm size. Consequently, their post-entry growth rate tends to be lower than that of otherwise similar "red hat" firms.

We also find that conditional on survival, smaller firms tend to grow faster, suggesting convergence in firm size. Exporting intensity, access to finance and innovation all have a positive impact on employment growth. In contrast, higher product market concentration and firm age have adverse effects on growth.

## Does the productivity of politically affiliated firms grow faster?

Table 4 also reports estimates from the productivity growth model. The most striking finding is that, conditional on survival and a number of control covariates, private firms without political affiliations exhibit higher productivity growth than firms with political connections. The total factor productivity growth of start-ups affiliated with higher (middle) level governments is, on average, 4.9 (2.7) percentage points lower than "pure" private firms. It is also interesting to note that the productivity growth differential between start-ups with and without political behaviour is smallest for firms affiliated with local governments. In other words, amongst politically connected firms, those affiliated to local government enjoy the highest productivity growth. This is consistent with the notion that China's system of fiscal federalism has been more successful in aligning local business interests with those of local government. Alternatively, this finding can also be explained by the fact that local governments have fewer firms per head under their protection, and might as a result be able to provide effective assistance conducive to efficiency improvement. A final explanation could be that since local governments' bureaucrats are subject to less frequent rotations than provincial or prefecture officials, their decision making process is subject to less acute time inconsistency problem (Huang, 2003).

To summarise, the results reported in this section provides fresh firm level evidence on the economic impact of political affiliation. Previous papers have focused on the financing strategy (Leuz and Oberholzer-Gee, 2006), stock market performance (Fisman, 2001 and Johnson and Mitton, 2003) and profitability (Li et al., 2008) of politically connected firms. By contrast, our work concentrates on the survival and growth of start-up firms and thus complements existing studies and contributes to a fuller understanding of the

economic impact of government-firm relationships. Furthermore by using a large and more representative sample, we are able to identify more complex effects of political connections than has been possible thus far.

## 6. CONCLUSION

This paper sought to understand the role of political connections on the postentry performance of private start-up companies in China. It documents robust evidence that political connections enhance firms' growth and survival prospects, even if politically neutral start-ups enjoy faster efficiency improvements. So more than a quarter of a century after Deng Xiaoping's famous pronouncement that the colour of the cat does not matter as long as it catches mice, it seems that the cat in a red hat is somewhat more privileged than the one without.

Assessing the aggregate ramifications of political cronyism in China is beyond the scope of this paper. However, in view of our finding that private firms with no political ties tend to exhibit faster productivity growth and yet are more likely to exit the market, it is safe to conjecture that the close association between the state and a segment of the business community is leading to sub-optimal resource allocation in the economy by interfering with the process of market selection. Growing calls for a level playing field are likely to be heard in the future, though almost certainly not from the red capitalists who appear to thrive in the current political economic milieu.

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### SUMMARY

Using a unique firm level data, this paper analyses the role of political connections in the post-entry performance of private start-up companies in China. It documents robust evidence that political affiliation enhances firms' survival and growth prospects. But interestingly politically neutral start-ups enjoy faster productivity improvements conditional on survival. In addition, the benefits of political connections are largely confined to firms associated with local or top level governments, and they are more pronounced in capital-intensive industries. We conclude that the close association between the state and a segment of the business community is leading to sub-optimal resource allocation in the economy by interfering with the process of market selection.