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Does Accessibility To Different Sources Of Financial Capital Affect Competitive Advantage And Sustained Competitive Advantages? Evidence From A Highly Regulated Chinese Market

M. M. Fonseka, Ph.D., Xi'an Jiaotong University, P. R. China
XingYang, Xi'an Jiaotong University, P. R. China
Gao-liang Tian, Ph.D., Xi'an Jiaotong University, P. R. China

ABSTRACT

We investigate whether access to different financial capital sources offers competitive advantages in China's highly regulated market. To identify sources and analyze financial capital relationships that affect competitive advantages, we study 6750 firm-year observations from 2000-2009. Firms gain competitive advantages when they can access internal and external financing in equities, bonds and equity-financed capital. Financial industry reforms benefit large private and government-owned firms. Regional institutional developments help to access sources of external financial capital. Implications include the need to mobilize external financial resources for small and private firms and further reform security regulations to ensure fair competition and sustainability.

Keywords: Competitive Advantage; China, Institutional Development; Regulation; Sources of Financial Capital

INTRODUCTION

Relationships between firm resources and performance attract much research interest even though little is known about why some firms use resources successfully and others do not (Helfat 2000). Extant literature suggests that superior performance comes from resource uniqueness (Barney 1991), reconfiguration and integration of existing resources (Eisenhardt and Martin 2000, Teece *et al.* 1997), and the ability to respond appropriately to the environment (Mintzberg 1987, Pfeffer and Salancik 1978, Tan and Litsschert 1994). Scholars suggest that strategy and performance depend largely on the accessibility, timing, and amount of financial resources during development and new investments. Financial resources enable or constrain the strategic decision-making abilities of entrepreneurs and managers (Gilbert *et al.* 2006, Pissarides 1999, Zou *et al.* 2010). However, many researchers ignore access to different sources of financial capital as a crucial factor that offers competitive advantage. In this study, we analyze the financial capital impact on competitive advantages by focusing on a highly regulated market with large institutional and regional disparity regarding resource access.

Resource theorists suggest that a firm differs from another due to differences in sources of advantage (Peng 2009) and strategic orientations (Zhou and Li 2010). Institutional theorists claim that sources of competitive advantage are discovered due to differences in institution frameworks (DiMaggio and Powell 1999, North 1990, Oliver 1997, Peng 2002, Scott 1995). Firms have different levels of access to sources of financial capital because of variations in institutional frameworks. The China Security Regulatory Commission (CSRC) heavily regulates financing activities, so Chinese firms have unequal rights to finance and equity capital and bonds. Firms in other countries such as the US must fully and truthfully disclose information before financing operations. A regulatory

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body[1] facilitates only fair disclosures and information flow. In comparison, China's strict regulations create dissimilar access to equity capital and bonds, so that some firms have better financial access than others (Li 2009).

China maintains a government-dominated financial system in which the government tightly controls entry to banking and other financial services (Allen *et al.* 2008, Fan *et al.* 2008) and Chinese listed firms rely strongly on bank loan finance (Firth *et al.* 2008). Privately held companies have difficultly accessing bank credit (Linton 2006). Government banks differentially favor politically connected firms by providing them greater access to credit (Khwaja and Mian, 2005). China's politicians and bureaucrats strongly influence the allocation of bank loans: state ownership of banks means state control over most financial resources (Fan *et al.* 2008). The banking sector has undergone management reforms in the pursuit of maximizing value; thus, inland and coastal firms encounter difficulty in obtaining external loans (Sun and Yamori 2009). Hence, it is crucial to know how institutional differences such as formal structures, regional institutional developments, and regulation impact access to difference sources of financial capital and affect comparative advantages.

First, we address how neglected financial resources affect competitive advantage in a highly regulated market with a weak institutional environment. Second, we study how regulatory regimes and institutional developments influence financing, and to what extent regulations of institutional environment create an advantage for firms, and in what ways they affect competitive advantage in a highly regulated market.

CHINA'S INSTITUTIONAL ENVIRONMENT

Studies have established dimensions of the institutional environment in China's transitional economy: capital market, labor market, product markets, government regulations, and contract enforcements (Khanna and Palepu 1997); political, legal and regulatory effects (Newman 2000); and regulatory, political, and financial effects (Li and Ferreira 2011). Governments in many transition countries control key resources because of the lingering legacy of the command economy and slow development of market-supporting institutions (Li *et al.* 2008). Private entrepreneurs in transition economies face many obstacles. They are often denied access to bank loans and other key resources that are largely reserved for SOEs or are subject to heavy government regulations or "extralegal" fees (Guriev, 2004, Johnson *et al.* 2000, McMillan & Woodruff, 2002).

By promulgating and enforcing economic policies and regulations, governments can directly change competitive environments (Hillman *et al.* 1999, Mahon and Murray 1981, Shaffer 1995). Government regulations create external uncertainties for the firm's operations (Lang and Lockhart 1990) and restrict capabilities for acquiring external resources (Khawaja and Mian 2005). In China, compared with more-developed countries, the state holds a significant stake and greatly influences company operations, exerting enormous power in resource allocation and regulation enforcement (Nee 1992, Peng 1997, Tsai 2008, Wu and Cheng 2011). SOEs enjoy preferential status in obtaining bank loans and other key inputs (Brandt and Li 2003, Che 2002, Chow *et al.* 2010, Li *et al.* 2008, Poncet *et al.* 2010), while private firms are often denied access to bank loans (Brandt and Li 2003, McMillan 1997, Nee 1992). Government struggles to create fair market conditions so that private firms can compete (Li *et al.* 2008).

In regions where marketization processes are moving more rapidly, as noted, government intervention is reduced and legal environments are stronger. Better institutional and legal environments in regions have faster marketization (Fan *et al.* 2009), but various Chinese regions have very different historical and geographical conditions and policies (Du and Xiu 2009). China's market-supporting institutions are imperfect and likely to remain flawed (Li *et al.* 2008). Market reforms have yielded decisive progress, but large institutional development gaps still exist regionally (Fen *et al.* 2003). Listed firms in China show conspicuous regional disparities; eastern and coastal regions are rich, while western and central regions are poor because China's long-term unbalanced development strategy gave priority to the eastern and coastal regions (Sun and Yamori 2009).

Chinese Regulatory Requirements for External Financing

Chinese firms face more constrained financial resources in the areas of market economies, performance, and competitive advantage (Peng and Heat 1996). CSRC regulations and bureaucrats have more power than the

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developed market, then, to favor some firms and discriminate against others by influencing their access to sources of capital and finance. China's regulatory regime restricts Chinese firms in their ability to obtain funds through the financial markets. Its regulations define which firms can access different sources of financial capital and which firms can achieve both competitive and sustained competitive advantages. In this paper, we explore the relation between access to difference sources of financial capital and competitive advantage that may be created by government-CSRC regulation and other institutional differences. The CSRC regulates the issuance of securities, primarily determining their regulatory requirements by firm-based quantitative and qualitative criteria. Table 1 provides a summary of the historical evolution of the main quantitative criteria (Appendix for a complete listing).

THEORETICAL BACKGROUND AND HYPOTHESES

External analysis of competitive advantage focuses on idiosyncratic firm attributes as they impact competitiveness (Porter 1990). Such analysis isolates characteristics, or resources, that exploit opportunities and neutralize threats (Barney 1991). External analysis is based on two assumptions concerning idiosyncratic firm resources. First, competitive advantage assumes that firms within an industry control identical strategically relevant resources and pursue the same strategies (Porter 1981, Rumelt 1984). Second, industries develop resources heterogenically but for the short-term because the resources are highly mobile (Barney 1986). Such analyses assume that firms have the same resources for implementing strategies or have the same access to resources for achieving competitive advantage. In line with this analysis, we argue that regulations and weak institutional environments can also create a competitive advantage for firms that have the same resources but different levels of access to resources, that is, financial capital, for implementing strategies.

The concept of RBV competitive advantage is based on the link between a firm's internal characteristics and performance (Rumelt 1984). In addition to internal competencies that generate competitive advantages, external factors also affect RBV (Collis and Montgomery, 1995). Most industries probably possess at least some degree of resource heterogeneity and immobility (Barney and Hoskisson, 1990). They cannot expect to obtain sustained competitive advantage when all competing firms have evenly distributed strategic resources (Barney 1991). Across firms in China, access to financial resources is uneven and mobility is imperfect. China's weak financial infrastructure makes it difficult for most Chinese firms to raise capital. (Ju and Zhao 2009, Peng *et al.* 2010).

In addition to firm- and industry- levels characteristics, scholars suggest that firms must consider wider state and social influences when designing and implementing strategies (DiMaggio and Powell 1999, Oliver 1997, Peng 2002). These influences are considered broadly to be the institutional framework (North 1990, Scott 1995), a perspective applied to strategic research regarding the IBV of business strategy theory (Peng 2002, Peng and Heath, 1996). Hence, researchers must study institutional frameworks: how, why, and when they matter (Powell, 1996).

Institution theory provides strong insight for studies of business in developing countries (Peng, Wang and Jiang 2008, Peng *et al.* 2009) and Asia (Hoskission *et al.* 2000). Asia's emerging economy is not uniform, and its formal institutions fall short of supporting low-transaction-cost business operations in three critical areas: credible legal framework, stable political structure, and functioning strategic market factors (Khanna and Palepu 1997, Peng 2002, Peng and Heath 1996). From business's viewpoint, institutional literature focuses on formal laws, rules, and regulations, (La Porta *et al.* 2008). Underdevelopment of formal institutions in emerging economies causes much uncertainty regarding supply and demand conditions and sudden changes in government policies (Hoskission *et al.* 2000, Wright *et al.* 2005). Formal institutions encourage market competition, reduce information issues, and enhance legal effectiveness (Zhou and Peng 2010). In developed economies, specialized organizations such as stock markets, research firms, law firms, and courts — as a collection of formal institutions — handle costly activities including allocating capital, obtaining information, and enforcing contacts (Peng 2002).

We investigate how CSRS's regulation for external financing, institutional developments affect competitive advantage and what sources of financial capital and finance offer competitive advantage in a highly regulated market. The RBV fails to adequately consider context; in one context, valuable, rare, inimitable resources and capabilities are non-valuable; in another they are plentiful and easily imitated (Peng et al. 2009). We study both RBV and IBV and find support for the underlying mechanisms that relate institutions to organizational strategies and link them to performance.

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Table 1. Summary regulations on external financing in China

Date	Rights Issues	Seasoned Equity Issues	Corporate Bond Issues	Convertible Bond Issues
1993/11/17	2 years' of profitability	Not permitted.	• Firm is a state-owned enterprise. • ROE > 0 in x consecutive years prior to the issue.	Not permitted.
1994/10/30	3 years' of profitability and 3-year average ROE ≥ 10%			
1996/01/24	ROE ≥ 10% in each of the previous 3 years			
1997/03/25				• Firm is a state-owned enterprise. • 3-year average ROE ≥ 10% & ROE ≥ 10% in the previous year. • Assets-liability ratio shall not be more than 70% after issue. • Total bond balance shall not exceed 40% of book equity. • Issue shall be not less than 100 million RMB..
1999/03/17	3-year average ROE ≥ 10% & ROE ≥ 6% in each of the previous 3 years			
2000/04/30		ROE ≥ 0% in each of the previous 3 years		
2001/03/15	3-year average ROE ≥ 6%	3-year average ROE ≥ 6%		
2001/04/26				• 3-year average ROE ≥ 10% & ROE ≥ 10% in the previous year. • Assets-liability ratio shall not be more than 70% after issue. • Total bond balance shall not exceed 40% of book equity. Issue shall be not less than 100 million RMB.
2002/07/24		• 3-year average ROE ≥ 10% & ROE ≥ 10% in the previous year • Total value of this issue shall be less the book equity at the end of last year. • Assets-liability ratio of the previous year before issue shall not be less than the average level of listed firms in the same industry.		
2006/01/01			• Book equity ≥ 30 million RMB. • Total bond balance does not exceed 40% of book equity. • The 3-year average distributable profits are sufficient to cover interest on bonds.	
2006/05/08	• ROE ≥ 0% in each of the previous 3 years • Operating earnings shall not have declined more than 50% in last issue year if the firm had an issue (including equity and bond over the last 2 years. • Total cash or stock dividends of last 3 years should be more than 20% of average net distributable earnings of last 3 years.	• 3-year average ROE ≥ 6% • Operating earnings shall not have declined more than 50% in last issue year if the firm had an issue (including equity and bond over the last 2 years. • Total cash or stock dividends of last 3 years should be more than 20% of average net distributable earnings of last 3 years.		• 3-year average ROE ≥ 6%. • Total bond balance shall not exceed 40% of book equity. • Operating earnings shall not have declined more than 50% in last issue year if the firm had an issue (including equity and bond over the last 2 years. • Total cash or stock dividends of last 3 years should be more than 20% of average net distributable earnings of last 3 years. • Last three years average distributable profits are sufficient to cover interest on corporate bonds.

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The ability to raise external capital is an important capability (Peng 2009), especially critical for Malaysian biotechnology firms (Ahn and Yoke 2011). Access to equity capital is an important capability that firms need in at least four situations: (1) to finance cash flows resulting from payment delays; (2) to obtain bank guarantees; (3) to invest in capacity expansion and other developments; and (4) to provide cushioning during economic recession (Vorasubin and Chareonngam 2007). According to corporate finance literature, 'since IPOs raise funds to expand and compete more effectively, they gain competitive advantage over rivals (Akhigbe *et al.* 2003, p. 532) and 'publicly listed industry peers' (Hsu *et al.* 2010, p. 496).

We focus on Chinese listed firms that raise external capital from SEOs. They can obtain equity capital through existing shareholders (right offerings) and/or the public (public offerings). In China, firms must meet regulation requirements before an SEO, and they have unequal rights when raising capital through secondary public and rights share offerings. Equity financing represents a luxury available only to a few listed Chinese firms, although the ability to issue shares is a valuable intangible asset (Zou and Xiao 2006). Young firms possessing rich equity capital during developmental periods enjoy many advantages, perform better, and exploit resources from rich market niches (Lee *et al.* 2001). Biomedical firms experiencing a lack of equity capital while pursuing significant technological breakthroughs perform more poorly than firms that have enough equity capital for technological developments (Roberts and Hauptman 1987). These agreements lead to the following hypothesis:

Hypothesis 1: A firm that has better access to equity capital has (a) a higher level of competitive advantage and (b) a higher level of sustained competitive advantage.

Vorasubin and Chareonngam (2007) demonstrate that access to debt financing is a vital source of financial capital. They examine unlisted construction firms, but omit access to the bond market, which is outside the scope of their study. Generally, bonds are a low-cost debt-financing option, but development of the Chinese bond market is far behind the stock market (Hirson 2005, Leung and Young 2002) and is the smallest corporate bond market in East Asia (Linton 2006). Corporate bonds issuance became more liberal after 1999. Still, all firms unable to freely issue bonds because first they must meet CSRC's regulation criteria, and they have unequal debt-financing bond rights. Hence, firms have preferential access to bond finance may obtain adequate investment funds when needed to gain competitive advantage.

Corporate bond can substitute for a bank loan, which reduces over-reliance on bank loans and enables firms to acquire long-term debt capital directly. Although the ability to issue bonds is a valuable intangible financial-asset, Chinese firms possess unequal rights regarding bonds. The bond market has, however, been changing dramatically in the transition from a command to a market economy (Huang and Song 2006). An accelerated bond market expands financial channels for listed companies. These arguments lead to the following hypothesis:

Hypothesis 2: A firm that has higher ability to access bond capital has (a) a higher level of competitive advantage and (b) has a higher level of sustained competitive advantage.

A vital source of financial capital is access to bank financing at a competitively lower cost than the primary competitors (Vorasubin and Chareonngam 2007). Firms with better access to bank financing assume much lower interest rates under better terms. Before the late 1990s, bank financing was a primary financing source for Chinese firms (Ma, 1998) and is still a main source of debt finance because bond financing is inadequate (Fazzari *et al.* 1988, Leung and Young, 2002), so competition is high for bank financing with better terms. Firms with better access to bank financing are better able to manage trade credit and are more likely to gain advantage from early-payment discounts and avoid late-payment penalties (Uzzi and Gillapsi 2002). However, Chinese firms over rely on bank loans to meet their financing needs (Linton 2006). Before recent banking reforms, banks acted as government agents that distributed funds to preapproved projects with little to no collateral and without proper credit analysis. After reform, commercial banks granted loans under commercial terms, including SOEs; local governments and government officials were forbidden to interfere with banks in their lending decisions (Peiser and Wang 2002). These arguments lead to the following hypothesis:

Hypothesis 3: Firms that have better and easier access to bank financing have (a) a higher level of competitive advantage and (b) a higher level of sustained competitive advantage.

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The ability to generate internal funds is an important source of financial capital (Peng 2009, Wang 2010). A firm that is better able to raise internal funds enjoys competitive advantage by reducing financing costs and self-financing highly profitable investments. Debt instruments are difficult to acquire because of problems in forecasting how much capital is needed and how long it will take to realize intangible investment returns (Vorasubin and Chareonngam 2007). Therefore, most intangible investments must be financed through internal funds such as retained earnings. Firms that face tighter financing constraints must rely more on internal funds (Fazzari and Peterson 1993). Inland firms rely more on internal funds for investment than coastal firms, and the sensitivity gap between inland and coastal firms widens under contractionary monetary policy (Sun and Yamori 2009). Inland firms find it more difficult to obtain outside funds, such as those from capital markets. Thus capital markets in China reflect regional institution disparities. These arguments lead to the following hypothesis.

Hypothesis 4: Firms that are better able to finance themselves have (a) a higher level of competitive advantage and (b) a higher level of sustained competitive advantage.

METHODOLOGY

Sample

For this study, we used all Chinese listed companies in the China Stock Market and Accounting Research (CSMAR) database from 2000 to 2009. We excluded foreign-listed Chinese companies, Chinese mainland companies listed in the Hong Kong market, financial firms and firms with missing data. The final sample (balanced-panel data) included 6,750 firm-year observations.

Dependent variables

We used firm-specific, abnormal profitability (F_{ijt}) to measure competitive advantages. Abnormal profit is the difference between a firm's ROA and its industry-median ROA (Jacobsen, 1988; Wu, et al. 2010). We used CSRC's industry classification and divided the sample into 21 industries using the two-digit code for manufacturing and the one-digit code for nonmanufacturing industries. F_{ijt} is attributed to a firm independent of industry structural characteristics (Acquaah 2003).

Persistence of abnormal profitability (Φ_{ijt}) is used to measure sustained competitive advantage; it is defined as the proportion of a firm's abnormal profitability (F_{ijt}) that persists systematically in any time before time *t* (Acquaah 2003, Mueller 1986). We use industry-adjusted return on assets (IROA) to calculate firm-specific abnormal profitability and 3-year-average IROA as persistence of firm-specific abnormal profitability (Acquaah 2003, Mueller 1986).

Independent variables

We measure eligibility to access (ability) to initiate SEO using the approach suggested by Zou and Xiao (2006). We construct a dummy variable for each firm that satisfies all regulation criteria for SEO (E1), denoted as 1 and 0. Amount obtained from equity (E2) is measured as Millions of Chinese Yuan value of net equity sales in the financial year.[2]

We measure ability to issue bonds (B1) as a construct dummy variable based on screening of each firm's regulatory criteria eligibility for issuing bonds, denoted 1 and 0. Amount obtained from bonds (B2) is measured as Millions of Chinese Yuan value of bonds sales in the financial year.[2]

Ni *et al.* (2010) find that banks are more likely to grant loans to Chinese firms that have more tangible assets such as properties that can be mortgaged. The tangibility ratio (TAN) is used to measure a firm's ability to obtain finance from commercial banks (L1; Ni *et al.* 2010). It computes as property, plant and equipment, and inventories divided by total assets. Amount obtained from bank loans (L2) is measured in Millions of Chinese Yuan value of bank loan obtained in the financial year (Li *et al.* 2008).[3]

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Self-financing firms have advantages over competitors that have lesser self-financing ability; self-financing depends on retained earnings, and the retention rate (RET) can be used as a measure. RET is calculated as 1 minus the dividend pay-out ratio (I1). Amount retained from internally generated funds (I2) is measured in Millions of Chinese Yuan value of retained profit in the financial year.

Control variables

Firm size (SIZE) is measured in terms of the logarithm of total assets, while age (AGE) is measured as the number of years since incorporation. Financial leverage measures as the debt/equity ratio. The market-to-book value ratio (MBV) is also used as a control variable to capture growth prospects. Ownership type (OWN) is measured using a dummy variable; 1 if the largest controlling shareholder is the government, and 0 otherwise (privately owned) (Wu and Pangakar, 2010).[2] Capital investment may impact on firm performance in short- and long-terms differently. Effective capital investment (CAPI) is measured by the asset turnover ratio (Vorasubin and Chareonngam, 2007).

Politically strong firms can secure favorable regulatory conditions (Agrawal and Knoeber 2001). Previous China studies find that political links have positive effects (Berkman *et. al.* 2010, Fan *et. al.* 2008, Francis *et. al.* 2009, Li *et. al.* 2008) and negative effects (Fan *et. al.* 2007, Yuan 2008) on performance and value. Following Fan *et. al.* (2007) and Wu *et. al.* (2010), we define a dummy variable, 1 if the firm has a politically connected chairman and/or CEO, and 0 otherwise.[2] Regarding the requirements to access sources of financial capital, one major criterion is previous performance and other capabilities prior to accessing financial capital. We chose the time-lagged return on sales (ROS) because it is a less-biased measure and highly applicable to cross-sectional comparisons between firms with varying levels of assets intensity (Bettis 1981, Florin *et. al.* 2003, Wu and Cheng 2011).

Industry type (IND) is measured as a categorical variable that represents industry classifications in accordance with CSRC. Annual market percentage for each industry segment measures the industry concentration (INCON) ratio (Acquaah 2003, Wu and Pangakar 2010). We followed Fan *et. al.* (2007) and Wu and Cheng (2011) in defining a dummy variable: 1 if the firm belongs to heavily regulated industries: natural resources, public utilities, finance, and real estate, and 0 otherwise. Institution factors (*INS_FACTOR*) is used to measure the effectiveness of regional institutional developments. INS_FACTOR is a marketization index used for capturing regional differences in the institutional environment (Chen *et. al.* 2009, Jin *et. al.* 2005, Wu *et. al.* 2010).

RESULTS

In assessing whether a firm meets the requisite regulation criteria, we manually filtered for the established regulations with very few exceptions caused by information limitations. For equity offerings, we excluded two qualitative regulatory requirements that specify that the issuing firm had no harmful related-party transactions with controlling shareholders and no public reprimands for exchanges over the previous year. For assessing eligibility to issue corporate bonds, we excluded one qualitative criterion: that the firm had not delayed payment of principal and interest on bonds or other debt. In determining eligibility to issue convertible bonds, we excluded two qualitative requirements: that the firm had no delayed payment of principal and interest on bonds or other debt, and no guarantees, litigation, arbitration, or other significant matters that seriously affect continuing operations.

Table 2 shows the number and the percent of firms that met the eligibility regulation criteria of CSRC for access to right and public offerings of equity and issuance of convertible and non-convertible bonds in each year during the sample period. These data also lend reliability to our selection procedure for ascertaining eligibility since change is very discernible in the number of eligible firms corresponding to the changes in regulations. The data show the dominance of the SOEs in terms of the number of firms eligible to issue securities under the CSRC regulations.

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Table 2. Descriptive statistic on the number of firms' ability to access equity and bond

Security Type	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Ability to access rights offerings	212	244	241	260	258	209	257	264	256	240
	(31.36)	(36.19)	(35.71)	(38.48)	(38.36)	(31.06)	(38.12)	(39.20)	(37.88)	(35.65)
Ability to access public equity offerings	460	405	39	34	37	42	201	230	223	204
	(68.20)	(59.98)	(5.80)	(5.15)	(5.54)	(6.36)	(29.70)	(34.05)	(33.16)	(30.23)
Ability to access non-convertible corporate bond offerings	407	403	389	368	336	306	571	560	482	560
	(60.33)	(59.70)	(57.69)	(54.61)	(49.80)	(45.38)	(84.61)	(82.94)	(71.50)	(82.92)
Ability to access convertible bond offerings	130	90	79	88	97	93	274	256	238	219
	(19.23)	(13.44)	(11.75)	(13.05)	(14.41	(13.82)	(40.65)	(37.99)	(35.36)	(32.49)
Ability to access rights offerings- SOE	143	173	175	181	170	132	177	180	158	89
	(30.70)	(37.73)	(38.83)	(41.64)	(41.97)	(38.02)	(52.64)	(53.58)	(49.35)	(41.93)
Ability to access rights offerings- PVT	69	71	66	79	88	77	80	84	98	151
	(35.19)	(40.55)	(38.96)	(40.32)	(40.59)	(36.19)	(35.78)	(35.84)	(39.81)	(40.26)
Ability to access public equity offerings- SOE	339	295	30	24	26	26	136	154	134	74
	(71.32)	(60.32)	(6.31)	(5.42)	(5.96)	(6.44)	(33.83)	(38.64)	(35.14)	(30.18)
Ability to access public equity offerings- PVT	121	110	09	10	11	16	65	76	89	130
	(60.74)	(59.11)	(4.55)	(4.57)	(4.76)	(6.23)	(24.04)	(27.45)	(30.56)	(30.27)
Ability to access non-convertible corporate bond offerings- SOE	407	403	389	368	336	306	357	354	298	206
	(85.58)	(82.38)	(79.25)	(79.06)	(76.62)	(73.18)	(88.19)	(88.82)	(80.48)	(84.50)
Ability to access non-convertible corporate bond offerings- PVT							214	206	184	354
	NA	NA	NA	NA	NA	NA	(79.29)	(74.48)	(59.64)	(82.00)
Ability to access convertible bond offerings- SOE	130	89	79	88	97	93	274	256	238	219
	(27.29)	(18.28)	(16.14)	(18.89)	(22.14)	(22.29)	(67.90)	(64.40)	(62.28)	(54.47)
Ability to access convertible bond offerings- PVT	0	1	0	0	0	0	0	2	1	2
	(0.00)	(0.34)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.64)	(0.32)	(0.64)

Notes: Percentage of firms is presented in parenthesis. SOE and PVT denote state-owned enterprises and private firms respectively. NA means not available for private firms due to regulatory restrictions by the CSRC.

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Table 3. Descriptive statistics on independent and control variables

Firm Characteristic	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Mean
Firm Age (AGE) – years	6.462	6.979	7.749	8.524	9.279	9.936	10.859	11.555	12.050	12.650	9.908
	(3.113)	(3.299)	(3.368)	(3.430)	(3.496)	(3.626)	(3.605)	(3.676)	(3.930)	(4.171)	(4.147)
Firm size (SIZE) – Rmb	1,78	1,920	2,190	2,510	2,850	2,970	3,410	4,340	4,910	5,660	3,420
	(2,180)	(2,630)	(3,430)	(3,960)	(4,620)	(5,000)	(6,080)	(7,520)	(8,590)	(9,580)	(6,320)
Leverage (LEV)	0.531	0.566	0.579	0.613	0.662	0.645	0.621	0.578	0.600	0.591	0.601
	(0.727)	(0.751)	(0 .721)	(0 .734)	(0.855)	(0 .896)	(0 .887)	(0 .765)	(0.802)	(0.848)	(0.808)
Market-to-Book Ratio (MBV)	7.256	5.363	4.128	3.198	2.547	1.990	3.036	7.016	2.757	5.429	4.184
	(5.498)	(4.653)	(4.139)	(3.468)	(2.857)	(2.751)	(3.980)	(6.111)	(3.421)	(5.051)	(4.651)
Tangibility Ratio (TAN)	0.422	0.428	0.439	0.454	0.467	0.487	0.493	0.460	0.469	0.452	0.459
	(0.166)	(0.174)	(0.170)	(0 .171)	(0 .166)	(0 .169)	(0.175)	(0 .180)	(0.178)	(0 .182)	(0 .175)
Profitability (ROE)	0.037	0.008	-0.002	0.020	-0.008	-0.026	0.026	0.071	0.020	0.047	0.020
	(0 .250)	(0.268)	(0.269)	(0 .222)	(0.321)	(0.332)	(0 .263)	(0 .212)	(0.266)	(0.235)	(0.267)
Past Performance (ROS)	-0.270	0.086	-0.142	-0.143	-0.497	-0.460	-0.929	1.322	14.78	-0.277	13.88
	8.13	1.325	3.03	4.984	4.37	0.936	5.513	20.36	55.47	10.676	84.144
Retention Rate (RETR)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Capital Investment (CAPI)	0.7383	0.7639	0.7889	0.7919	0.7443	1.6228	1.5803	2.7817	0.5489	0.6075	1.0968
	(0.2821)	(0.2918)	(0.3014)	(0.3025)	(0.2843)	(0.2843)	(0.6218)	(1.0626)	(0.2096)	(0.2321)	(0.3872)
State Ownership %	72.74	74.31	74.43	69.96	65.86	64.29	61.76	61.64	61.34	49.81	65.64
Political connected %	31.10	33.66	33.76	38.06	40.24	36.88	35.87	35.31	34.90	34.68	35.70
Competitive intensity	0.078	0.077	0.076	0.073	0.076	0.076	0.070	0.075	0.126	0.074	0.080
	(0.040)	(0.076)	(0.039)	(0.041)	(0.040)	(0.040)	(0.030)	(0.039)	(0.171)	(0 .043)	(0 .067)
Regulated industries %	20.87	20.87	20.87	20.87	20.87	20.87	20.87	20.87	20.87	20.87	20.87
Coastal Regions %	62.24	62.24	62.24	62.24	62.24	62.24	62.24	62.24	62.24	62.24	62.24
Institutional factors	5.098	5.827	6.300	6.860	7.438	8.035	8.419	8.919	8.989	8.989	7.474
	(1.309)	(1.759)	(1.860)	(1.950)	(1.908)	(1.904)	(1.960)	(2.10)	(2.10)	(2.10)	2.324
Amount financed by Equity– Rmb	65.5	68.1	24.6	16.3	20.2	0.48	92.8	160	154	113	71.5
	(204)	(231)	(122)	(102)	(318)	(0.10)	(932)	(100)	(734)	(766)	(570)
Amount financed by Bonds – Rmb	6.87	0	20.0	291	151	6.63	6.5	148	1440	29.9	506
	(140)	(0)	(288)	(232)	(177)	(1.56)	(156)	(160)	(1080)	(163)	(633)
Amount financed by bank loan – Rmb	16.0	23.9	55.1	31.8	59.3	40.4	67.7	90.4	127	182	69.3
	(103)	(165)	(404)	(125)	(676)	(664)	(112)	(109)	(110)	(124)	(795)
Internally generated funds – Rmb	59.4	32.5	30.5	76.6	98.3	112	148	300	306	442	160
	(202)	(249)	(316)	(391)	(495)	(579)	(760)	(106)	(135)	(142)	(814)

Notes: Standard deviations are in parenthesis. Firm size is in millions Rmb and all other RMB figures are in 100 millions.

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Table 4. Correlations among variables

Panel A: Correlation between independent variables

	F_{ijt}	Φ_{ijt}	E1	B1	L1	I1	E2	B2	L2
Ability to access to Equity (E1)	0.343*	0.410*							
Ability to access to Bonds (B1)	0.192*	0.245*	0.176*						
Ability to access to bank loan (L1)	0.002	-0.006	0.043*	0.071*					
Ability to generate internal capital (I1)	0.012	0.002	0.013	-0.019*	0.005				
Amount financed by Equity (E2)	0.029*	0.060*	0.051*	0.056*	0.020*	0.005			
Amount financed by Bonds (B2)	0.002	0.009	0.047*	0.022*	0.021*	-0.001	0.021*		
Amount financed by bank loan (L2)	0.016	0.021*	0.023*	0.014	0.020*	0.004	0.027*	0.026*	
Firm's internally generated funds (I2)	0.252*	0.194*	0.120*	0.129*	0.005	0.008	0.277*	0.047*	0.018*

Panel B: Correlation between firm-level variables

	F_{ijt}	Φ_{ijt}	1.	2.	3.	4.	5.	6.
1. Firm age	-0.065*	-0.067*						
2. Firm size	0.148*	0.234*	0.038*					
3. Ownership	0.016	0.028*	-0.256*	0.154*				
4. Political connection	-0.011	-0.016	0.033*	0.031*	-0.024*			
5. Leverage	-0.164*	-0.195*	0.016	0.016	-0.006	0.007		
6. Growth opportunities (MBV)	0.077*	0.068*	-0.005	0.020*	0.020*	-0.005	-0.162*	
7. Capital investment (CAPI)	0.041*	0.072*	0.106*	-0.103*	0.022	0.032	-0.029	0.322*
8. Past performance (1-year lag ROS)	0.013	0.040*	0.002	-0.104*	-0.015	-0.009	-0.002	0.002
9. Past performance (3-year ave. lag ROS)	0.017	0.048*	0.002	-0.102*	-0.015	-0.009	-0.002	0.002

Panel C: Correlation between industry-level and institutional variables

	F_{ijt}	Φ_{ijt}	9.	10.
10. Competitive intensity	-0.018*	0.011		
11.Regulated industry	-0.038*	-0.048*	0.044*	
12. Institutional factors	0.035*	0.066*	0.047*	0.010

Note: F_{ijt} and Φ_{ijt} denote competitive advantage and sustained competitive advantage respectively. * Indicates significant at the 0.05 level.

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Table 5. Hierarchical linear modeling (HLM) examining impact of ability to access sources of capital on competitive and sustained competitive advantages

	Competitive Advantage (IROA)				Sustained Competitive Advantage (3-year average IROA)			
Variables	**Model 1A**	**Model 2A**	**Model 3A**	**Model 4A**	**Model 1B**	**Model 2B**	**Model 3B**	**Model 4B**
Constant	-0.2210***	-0.1582***	-0.1221***	-0.0753**	-0.3357***	-0.3014***	-0.3067***	-0.2753***
	(0.0369)	(0.0314)	(0.0298)	(0.0253)	(0.0323)	(0.0285)	(0.0321)	(0.0246)
Firm age	-0.0002	0.0001	-0.0002	0.0001	-0.0003	-0.0003	-0.0003	-0.0002
	(0.0004)	(0.0003)	(0.0003)	(0.0003)	(0.0003)	(0.0003)	(0.0003)	(0.0003)
Firm size	0.0093***	0.0053***	0.0056***	0.0021*	0.0142***	0.0119***	0.0128***	0.0108***
	(0.0011)	(0.0009)	(0.0011)	(0.0009)	(0.0009)	(0.0008)	(0.0008)	(0.0008)
Ownership	-0.0035+	-0.0172***	-0.0035+	-0.0166***	-0.0024	-0.0119***	-0.0024	-0.0118***
	(0.0021)	(0.0021)	(0.0021)	(0.0021)	(0.0015)	(0.0015)	(0.0015)	(0.0015)
Political connection	-0.0046*	-0.0025+	-0.0051**	-0.0029+	-0.0044**	-0.0033*	-0.0047**	-0.0035*
	(0.0020)	(0.0018)	(0.0019)	(0.0017)	(0.0014)	(0.0013)	(0.0014)	(0.0013)
Leverage	-0.0041***	-0.0026***	-0.0039***	-0.0026***	-0.0045***	-0.0038***	-0.0045***	-0.0037***
	(0.0006)	(0.0006)	(0.0006)	(0.0006)	(0.0004)	(0.0004)	(0.0004)	(0.0004)
Growth opportunities (MBV)	0.0206***	0.0183***	0.0191***	0.0170***	0.0085***	0.0071***	0.0081***	0.0067***
	(0.0012)	(0.0012)	(0.0012)	(0.0011)	(0.0008)	(0.0007)	(0.0008)	(0.0008)
Capital Investment (CAPI)	0.0055	0.0052	0.0062	0.0071	0.0012	0.0014	0.0021	0.0038
	(0.0017)	(0.0015)	(0.0019)	(0.0021)	(0.0003)	(0.0003)	(0.0006)	(0.0012)
Past performance (1-year lag ROS)	0.0003	0.0004	0.0008	0.0008				
	(0.0001)	(0.0001)	(0.0001)	(0.0001)				
Past performance (3-year average lag ROS)					0.0002+	0.0002+	0.0002*	0.0002*
					(0.0001)	(0.0001)	(0.0001)	(0.0001)
Competitive intensity	-0.0273*	-0.0246+	-0.0327*	-0.0299*	-0.0003	0.0017	-0.0021	0.0002
	(0.0132)	(0.0129)	(0.0129)	(0.0126)	(0.0082)	(0.0079)	(0.0082)	(0.0079)
Regulated industry	-0.0060	-0.0185	0.0031	-0.0006	0.0047	-0.0045	0.0064	-0.0049
	(0.0291)	(0.0243)	(0.0196)	(0.0161)	(0.0267)	(0.0231)	(0.0252)	(0.0164)
Institutional factors	0.0021***	0.0012*	0.0019**	0.0011*	0.0016**	0.0010+	0.0015**	0.0010+
	(0.0006)	(0.0005)	(0.0006)	(0.0005)	(0.0005)	(0.0005)	(0.0005)	(0.0005)
Ability to access to Equity (E1)		0.0341***		0.0326***		0.0217***		0.0213***
		(0.00169)		(0.00165)		(0.0011)		(0.0011)
Ability to access to Bonds (B1)		0.0335***		0.0324***		0.0253***		0.0250***
		(0.0022)		(0.0021)		(0.0014)		(0.0014)
Ability to access to bank loan (L1)		0.0047		0.0031		0.0100**		0.0092*
		(0.0051)		(0.0051)		(0.0037)		(0.0037)
Ability to generate internal capital (I1)			0.0388***	0.0362***			0.0124***	0.0106***
			(0.0021)	(0.0019)			(0.0013)	(0.0013)
N	6750	6750	6750	6750	6750	6750	6750	6750
Log restricted-likelihood	8968.39	9264.33	9125.67	9410.74	11811.07	12136.24	11837.36	12153.31
Wald chi^2	742.37***	1586.79***	1135.35***	2003.16***	825.00***	1703.24***	922.05***	1791.16***

Notes: Standard errors are in parenthesis. +, *, **, and *** represent statistical significance at the 0.1, 0.05, 0.01, and 0.001 level respectively.

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Table 6. Hierarchical linear modeling (HLM) examining impact of amount financed by sources of capital on competitive and sustained competitive advantages

	Competitive Advantage (IROA)				Sustained Competitive Advantage (3-year average IROA)			
Variables	**Model 1A**	**Model 2A**	**Model 3A**	**Model 4A**	**Model 1B**	**Model 2B**	**Model 3B**	**Model 4B**
Constant	-0.2212***	-0.2223***	-0.1160***	-0.1334***	-0.3350***	-0.3251***	-0.3060***	-0.3041***
	(0.0369)	(0.0372)	(0.0351)	(0.0352)	(0.0323)	(0.0283)	(0.0321)	(0.0281)
Firm age	-0.0002	-0.0002	-0.0003	-0.0002	-0.0003	-0.0003	-0.0003	-0.0003
	(0.0004)	(0.0004)	(0.0003)	(0.0003)	(0.0003)	(0.0003)	(0.0003)	(0.0003)
Firm size	0.0094***	0.0094***	0.0056***	0.0065***	0.0142***	0.0142***	0.0128***	0.0132***
	(0.0011)	(0.0011)	(0.0011)	(0.0011)	(0.0008)	(0.0009)	(0.0009)	(0.0009)
Ownership	-0.0035+	-0.0035+	-0.0035+	-0.0034+	-0.0024	-0.0024	-0.0025	-0.0025
	(0.0021)	(0.0021)	(0.0020)	(0.0020)	(0.0015)	(0.0015)	(0.0015)	(0.0015)
Political connection	-0.0046*	-0.0046*	-0.0051**	-0.0052**	-0.0044**	-0.0045**	-0.0047**	-0.0047**
	(0.0020)	(0.0020)	(0.0019)	(0.0019)	(0.0015)	(0.0015)	(0.0015)	(0.0015)
Leverage	-0.0041***	-0.0041***	-0.0040***	-0.0040***	-0.0046***	-0.0046***	-0.0045***	-0.0045***
	(0.0006)	(0.0006)	(0.0006)	(0.0006)	(0.0004)	(0.0004)	(0.0004)	(0.0004)
Growth opportunities (MBV)	0.0206***	0.0206***	0.0191***	0.0190***	0.0085***	0.0085***	0.0080***	0.0080***
	(0.0012)	(0.0012)	(0.0012)	(0.0012)	(0.0008)	(0.0008)	(0.0008)	(0.0008)
Capital Investment (CAPI)	0.0054	0.0052	0.0062	0.0071	0.0012	0.0014	0.0021	0.0038
	(0.0017)	(0.0015)	(0.0019)	(0.0021)	(0.0003)	(0.0003)	(0.0006)	(0.0012)
Past performance (1-year lag ROS)	0.0004	0.0004	0.0008	0.0008				
	(0.0001)	(0.0001)	(0.0001)	(0.0001)				
Past performance (3-year average lag ROS)					0.0002+	0.0002+	0.0002*	0.0002*
					(0.0001)	(0.0001)	(0.0001)	(0.0001)
Competitive intensity	-0.0273*	-0.0262*	-0.0327*	-0.0270*	-0.0003	0.0003	-0.0021	-0.0001
	(0.0132)	(0.0133)	(0.0129)	(0.0129)	(0.0082)	(0.0083)	(0.0082)	(0.0082)
Regulated industry	-0.0060	-0.0041	-0.0139	-0.0142	0.0047	-0.0038	0.0020	-0.0039
	(0.0291)	(0.0278)	(0.0282)	(0.0282)	(0.0267)	(0.0193)	(0.0264)	(0.0191)
Institutional factors	0.0021***	0.0021***	0.0019**	0.0019**	0.0016**	0.0016**	0.0016**	0.0015**
	(0.0006)	(0.0006)	(0.0006)	(0.0006)	(0.0006)	(0.0006)	(0.0006)	(0.0006)
Amount financed by Equity (E2)		0.0079***		0.0068***		0.0042*		0.0166*
		(0.0001)		(0.0001)		(0.0001)		(0.0001)
Amount financed by Bonds (B2)		-0.0001		-0.0001		-0.0011		-0.0012
		(0.0000)		(0.0000)		(0.0000)		(0.0000)
Amount financed by bank loan (L2)		0.0008		0.0001		0.0019+		0.0026+
		(0.0000)		(0.0000)		(0.0000)		(0.0000)
Firm's internally generated funds (I2)			0.0014***	0.0016***			0.0007***	0.0007***
			(0.0001)	(0.0001)			(0.0000)	(0.0000)
N	6750	6750	6750	6750	6750	6750	6750	6750
Log restricted-likelihood	8968.39	8937.87	9104.94	9089.92	11811.06	11779.56	11816.64	11787.36
Wald chi^2	742.37***	744.52***	1035.35***	946.52***	825.00***	827.96***	824.21***	826.42***

Notes: Standard errors are in parenthesis. +, *, **, and *** represent statistical significance at the 0.1, 0.05, 0.01, and 0.001 level respectively.

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Table 3 shows the mean and standard deviation of control and independent variables. Financial leverage also rose from 53% in 2000 to 59% in 2009, and averaged about 60%. This suggests that average debt as a percent of total assets was about 38%. Market-to-book ratio varied substantially, suggesting volatility in growth prospects. Tangibility, which shows the tangible assets as a proportion of total assets, averaged about 46% and showed a slight increase over time. Thus, the ability of firms to use tangible assets as collateral to obtain bank financing was fairly stable during the sample period. Profitability also varied with an average of just 2%, implying that, on average, Chinese companies have not been very profitable.

Table 4 presents the Pearson correlation coefficients of the variables included in the regressions. The variance inflation factors (VIF) are below 2, which shows that multicollinearity is not a serious concern. Furthermore, we find some preliminary evidence suggesting that all four financing variables show positive associations with competitive and sustained competitive advantages.

We employed hierarchical linear modeling (HLM) to separate regional and industry effects from the hypothesized firm effects. HLM provides a better way to examine data with hierarchically nested structures (Hofmann 1997). Table 5 presents the HLM regression output for the relationships between ability to access various sources of financial capital and competitive and sustained competitive advantages.

Table 5 shows that firm size, growth opportunities, and institutional factor index positively affect (p <0.001) competitive and sustained-competitive advantages. Firm ownership type (p <0.1), political connection (p <0.05), leverage (p <0.001), and competitive intensity (p<0.05) negatively influence advantages. Access to all external sources of financial capital: ability to offer equity and issuance of bonds (except ability to access to bank finance) are positively related (p <0.001) to advantages. These results support hypotheses 1a, and 2a. Access to all external sources of financial capital—ability to offer equity, issuance of bonds, and accessibility to bank loan—is related positively (p <0.001) to sustained competitive advantage. As indicated in model 3, the ability to generate internal capital is related positively (p <0.001) to competitive and sustained competitive advantages.

Amount financed by equity and internally generated funds are related positively (p <0.001) to competitive advantage. All external sources of financial capital—amount financed by equity, and bank loan (excluding amount financed by bonds) - are related positively (p <0.001) to sustained competitive advantage. As indicated in model 3 of Table 6, the amount to generated by internal funds is related positively (p <0.001) to competitive and sustained competitive advantages.

We take steps to alleviate endogeneity problem. We specify lagged models, as suggested by Bromiley (1991). We use measures from previous year (t-1) as the predictor variables while using industry-adjusted profitability (IROA) to measure competitive advantage. Bromiley (1991) suggested a one-year lag structure that subsequent researchers have followed (Tan 2003, Wu *et al.* 2010). We used size at the beginning of the year to control economics of scale or size effect (Tan 2003, Wu *et al.* 2010). We added lag ROS to the models to control for the potential endogeneity and reverse causality (Heckman and Borjas 1980, Wu *et. al* 2010).

DISCUSSION

We focus on China for this study and contribute to the RBV and IBV literatures by examining access to sources of financial capital on competitive and sustained competitive advantages, recognizing that China's underdeveloped and highly regulated market means that regions vary in institutional sources of financial capital. We study the influence of regulations and institutional developments that lead firms to seek various sources of financial capital and thus contribute to growing research concerning a little-understand topic: entrepreneurial resource accumulation and exploitation during the transition (Meyer 2001, Meyer and Peng, 2005).

We present evidence that governmental agencies must be aware of the impacts of their policies on the development and competiveness of different types of firms. Firms must have access to financial resources if they are to modernize their operations, so policymakers must continue developing relevant institutions and relaxing regulations to make the market more transparent and reduce transaction costs. Such developments could eradicate existing discrimination conferred by regulations and institutional factors. Peng (2002) points out that no firm is

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immune to the institutional frameworks embedded within it. Hence, researchers must study the intricacies of institutional frameworks: how, under what circumstances, to what extent, and in what ways they matter (Powell 1996). Our study contributes empirically to the literature by showing how and to what extent institutional and regulatory frameworks matter in allowing access to sources of capital and competitive advantage.

This study is significant for several reasons. First, it addresses the literature's failure to consider effects of financial resources on competitive and sustained competitive advantages in a tightly regulated institutional environment. Second, results support strategy scholars in arguing the importance of resources, and, in this instance, the accessibility to sources of financial capital and effects on sustained outcomes (Acquaah 2003, Barney 1991). Third, the access to different sources of financial capital may not affect competitive advantage in developed markets, unlike China's. Our study empirically supports Collis and Montgomery (1995) and Peng *et al.*'s (2009) argument that RBV does not pay adequate attention to context.

The results demonstrate that highly regulated markets significantly discriminate against some firms in their need to access financial capital. Furthermore, the results complement empirical studies on RBV that investigate firm-specific effects under tight regulations and institutional theory indicating that institutional environments inhibit some firms from accessing external financing. Findings suggest that imperfections in policy-driven capital and underdeveloped bond markets, implies uncollateralize external financial capital is less accessible. Those firms are unable to access equity and bond capital due to high information and operational costs. Furthermore, Chinese firms highly depend on bank loans; most interest expenses are not much different among firms in the short-term.

Internally generated capital is also important for exacting competitive advantages. However, internally generated capital yields less than externally financed capital and, as a whole, yields little significant advantage. Our descriptive analysis is found that, on average, Chinese companies have not been very profitable. Internally generated funds are insufficient to finance growth and new investment in most Chinese firms. Ayyagari *et al.* (2010) and Cull *et al.* (2009) find that highly profitable private firms can finance growth solely through retained earnings and their findings explain why internally generated capital yields little significant advantage.

We find that large firms have greater access to external financing, but small firms cannot afford to do so. Some researchers argue that formal financing development positively impacts small firms (Beck *et al.* 2007, Beck *et al.* 2005). Others argue that formal financing development assists only large firms (Greenwood and Jovanovic 1990). Findings support that formal financing development assists large firms, but reforms are inadequate and Chinese capital and debt markets are still highly regulated, which lessens support for small firms. Small firms cannot fulfill CSRC regulations for eligibility to access capital and debts markets and are also hurt the most because underlying weaknesses in the institutional environment make it difficult for them to access financing.

Government ownership and political connection negatively affect competitive advantage. SOEs demonstrate that they have preferential access to equity and bonds capital. Competitive intensity affects competitive advantage negatively because increasing industry concentration leads to highly competitive access to different sources of financial capital in short-run. However, it does not affect sustained competitive advantage, because industry concentration is saturated in the long-run. Regional institutional development positively affects competitive and sustained competitive advantages because firms in highly developed regions have more favorable access to external sources of financial capital than firms in less-developed regions.

Limitations

This research has inherent limitations that suggest pathways for future research. Access to equity and bonds in China is hampered because of strict regulations in enterprise financing. Further research is needed to examine contextual robustness.

CONCLUSIONS

Access to internal and external financing offers distinct advantages in China's highly regulated, unequally developed market. Firms that can easily access external financing enjoy short-term competitive advantages and

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sustained competitive advantages over others that lack such abilities. Equity and internally generated capital confer competitive advantage, and equity, bank loans, and internally generated capital give sustained competitive advantage. In China's tightly regulated market with disparity in institutional development among regions, firms with access to sources of external financial capital have competitive advantages over firms that must rely on internally generated capital.

Strict regulations and institutional development disparities give some Chinese firms advantages in accessing needed capital. CSRC should regulate Chinese SEO and debt markets minimally with respect to access to equity, bonds, and especially eligibility regulations. However, CSRC must provide timely and accurate information, monitor activities, and punish firms that engage in fraudulent activities. These changes would reduce financial constraints, encourage investment in viable projects, reduce financing costs, encourage easy access to optimum capital structures, affect growth prospects, enhance competitiveness, and upgrade and secure long-term corporate sustainability.

Self-financing capability is also important for conveying competitive advantages, especially, they lack in access to sources of external financial capital. China's existing financial industry reforms benefit large privately owned firms and government-owned firms whatever the size. Institutional developments in regions are helpful for access to sources of external financial capital. In this context, policymakers should focus attention on further reforms to mobilize external financial resources for small and private firms and progress of institutional development in less-developed inland regions.

NOTES

1. Security regulations in developed and free markets are divided into (a) discloser duties, (b) restrictions on fraud and manipulation, (c) restrictions on insider trading. Disclosure requirements reduce the cost of searching for information; restrictions on fraud and manipulation lower costs of verifying the credibility of information; and restrictions on insider trading protect investors from insiders recouping investments. The Chinese stock market functions differently from mature market economies because of administrator interventions (Bo, Huang, & Wang, 2011).
2. We obtained equity, bond, bank loan data, and financial data from China Listed Firms' Seasonal Equity Offering Database, China Bond Market Research Database and Stock Market Financial Statements Database in CSMAR data series. We manually collected ownership data before 2003 and political connection data from annual company reports.

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AUTHOR INFORMATION

M.M. Fonseka has PhD in Business Administration (Accounting) and is at the School of Management, Xi'an Jiaotong University, Xi'an 710049, China. Dr. Fonseka has previously published his research work in journals such as the *Journal of International Financial Markets, Institutions & Money*, *The Journal of Applied Business Research, Chinese Management Studies*, *Tropical Agricultural Research*, *African Journal of Business Management, International Journal of Finance and Policy Analysis*, and leading conferences including the Empirical Accounting Research in China, Financial Management Association meeting, American Accounting Association annual meeting, and Global Finance. E-mail: mohanfonseka@yahoo.co.uk Corresponding author

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Yang Xing is a doctoral candidate at the School of Management, Xi'an Jiaotong University, Xi'an 710049, China. Yang Xing has published research papers in leading Chinese Journals. E-mail: yangxing665@163.com

Gaoliang Tian is a professor in accounting & finance, PhD in Management, director with the Department of Accounting and Finance, The School of Management, Xi'an Jiaotong University, Xi'an 710049, China. Prof. Tian was supported in part by the National Science Foundation of China under Grant 70772110 and in part by the National Soft Science Research Foundation of China under Grant 2010GXS5D262. He was a visiting research fellow in the Leeds University Business School; He also was a PCMPCL member in Harvard Business School. He has published over 30 papers in leading Journals. E-mail: tian-gl@mail.xjtu.edu.cn

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