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## CONSTRUCTION FINANCING AND INDUSTRY DEVELOPMENT

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**ABSTRACT:** The market of building construction has been competitive in Hong Kong, perhaps as anywhere else in the world. The barrier to entry is low because there are relatively low requirements on the three factors of production – technology, manpower and finance. The prevailing building technology is traditional and labour-intensive. There is also not much need of capital because clients’ periodic payments have been the main source of project finance. Further, capitalizing on trade sub-contracting, contractors have been able to keep their direct labour-force small and to transfer much of their business risk to the sub-contractors. Based on interviews to solicit the perception of a sample of building contractors on the particular issues of construction finance, we present the findings in this paper and discuss the various implications. We believe that the current practice of construction financing is both the cause and effect of the competition within, and the competitiveness of, the building construction sector in Hong Kong. We conclude that the building construction sector is “locked or stuck” in this “equilibrium” of traditional technology, reliance on clients’ finance and exploitation of sub-contracting. In this “equilibrium” state, there is hardly any motivation for contractors to engage themselves in product or process innovation. Consequently, any talk of industry reform or innovation could only remain just that. We believe that this problem is not unique in Hong Kong. The building construction sector in many other developed and developing economies is posed with similar if not the same problems and constraints. We conclude that there has to be some “external forces” to bring this “equilibrium” state to a higher level “equilibrium” one where higher value-added building construction services are supplied and demanded. This is a state where building contractors possessing innovative technology, better financial and manpower resources could thrive to build better buildings with innovative building methods and processes.

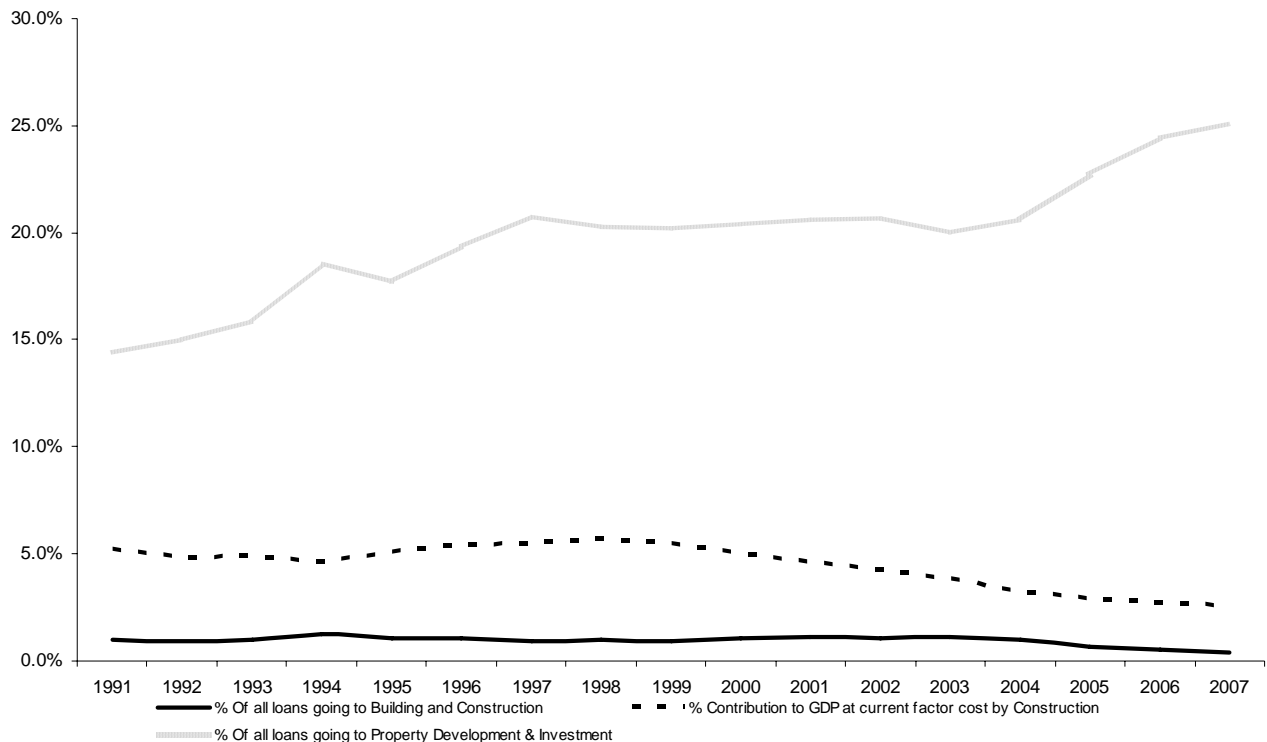
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### 1. INTRODUCTION

The construction industry in Hong Kong has contributed on average 4.5% to GDP at current fact cost between 1991 and 2007. During the same period, an average of 0.9% of all Authorized Institutions’ loans went to “building and construction”. Under the Three-tier Banking System, an Authorized Institution is authorized under the Banking Ordinance to take deposits. Under the supervision of the Hong Kong Monetary Authority, Authorized Institutions are classified into “banks”, “restricted licence banks” and “deposit-taking companies”. They vary in the capital requirements they have to fulfil, and hence the maturity and amount of deposits they can take. There were altogether 200 Authorized Institutions in 2007. The total loans and advances extended by them amounted to HK\$2,274 billion (C&S [1]). Annual statistics of 17 years show that whilst construction has contributed 4.5% to GDP, loans advanced to the sector represent 0.9% only. The sector does not seem to be getting a “fair” amount of debts from the banking sector. Time series of construction loans and construction’s contribution to GDP are presented graphically in Figure 1.

Most construction firms in Hong Kong are small. According to C&S [2], there were altogether 19,399 “building and civil engineering establishments” in 2007. On average, each firm employed 5.9 persons only, with an average business turnover of HK\$7.3 million gross value of construction works. The vast majority, 86%, of all firms were classified as the smallest. They employed only 2.6 persons each and undertook HK\$1.1 million gross value of works per annum. On the other hand, a mere 1% of all firms, or 193 firms, were classified as the largest. On average, each of them employed 172 persons and had an annual turnover of HK\$426 million gross value of work. Out of them, there were only 11 listed in the Hong Kong Stock Exchange. The implication is that most construction firms in Hong Kong are small private business. Apart from their own equities and very limited informal capital channels such as their friends and relatives, bank loans are their major, if not only, source of finance. Capital being an important factor of production, the lack of it, or its limited access, would have major implications on both the competition of the construction market, and the competitiveness of the contractors.

In this paper, some preliminary findings will be presented to reflect the opinion of both contractors and



Sources: (i) *Hong Kong Annual Digest of Statistics*, various issues, and (ii) *2008 Gross Domestic Product*.

**Figure 1 – Construction and Property Loans and Construction’s Contribution to GDP**

bankers on the demand and supply of bank loans. Opinions were solicited through interviews conducted with 8 contractors and 3 bankers. After the presentation of the respondents’ opinion on the current practice of construction financing, a discussion will follow. It will address the implications on the competition within, and the competitiveness of, the building construction sector in Hong Kong.

## 2. CAPITAL STRUCTURE THEORIES

Literature on capital structure can broadly be categorized into trade-off and pecking order theories. According to the trade-off theories, how much a firm borrows is a trade-off between costs and benefits. Firstly, it is the trade-off between corporate tax shield and personal taxes that causes optimal capital structure to happen. The benefit of tax deductibility was proposed by Miller and Modigliani [3] to modify their earlier seminal work (Modigliani and Miller [4]). However, Miller [5] later advanced that the benefit is neutralized or nullified by investors’ personal taxes upon receipts of (i) income or capital gains from stock and (ii) debt interests. Secondly, there is the trade-off between agency costs of debt and equity financing. Jensen and Meckling [6] argued that there is a divergence of interests between equity holders and bond holders. Agency costs are the costs incurred to constraints on shareholders and managers so that bondholders would not be disadvantaged. Thirdly, there is the trade-off between costs and benefits of signalling arising from information asymmetry. Managers know

their firms best (Ross [7]). They would strive to send the best signals to the market by adjusting their capital structure so as to minimize the capital costs (Leland and Pyle [8]). Fourthly and lastly, there is the trade-off between benefits of leverage and costs of bankruptcy. The weighted average cost of capital decreases when gearing increases because cost of debt is cheaper than that of equity. However, when a firm borrows beyond the “tipping point”, both costs will start to rise because of the increasing bankruptcy risk. Even if they are prepared to lend more, creditors would ask for more returns because they may rightly query if the firm could really make enough profits to pay back the loans plus the interests, especially if the market situation turns sour unexpectedly. For equity investors, they would also rightly ask for more return when they see that a larger part of the firm’s profits would be spent in fulfilling its interest payment and debt repayment obligations, leaving them not much for dividends and retained earnings.

The pecking order theory was suggested by Myers [9] drawing on the agency theory of Jensen and Meckling [6], the information asymmetry of Myers and Majluf [10] and the signalling theory of Ross [7]. According to the theory, firms have no particular capital structure to maintain. Instead, they will minimize cost of capital arising out of information asymmetry. They would prefer internal financing to external financing, and debt to equity. There are studies that support the pecking order theory. Helwege and Liang [11] found that firms with surplus internal funds did not seek outside capital. Titman and Wessels [12] found that more profitable firms used less

external financing. Fama and French [13] also found firms' use of debts for short-term financing. However, there are also empirical studies that suggested findings contrary to the pecking order theory, for example, Frank and Goyal [14].

In the case of the property and construction sectors in Hong Kong, it seems that the pecking order theory explains better than the trade-off theory, which, for example, would suggest that profitable companies, because of their large tax shield, should borrow more. However, it is the contractors who borrow relatively more than the developers, despite the latter having been far more profitable than the former (Chiang et al. [15]). Besides, most building contractors are small private firms. They actually don't have the luxury of choice between external debts and equities. As aforesaid, contractors in Hong Kong generally have loan financing on top of their pecking order.

### 3. CONTRACTORS' DEMAND

Interviews were conducted with 8 contractors to solicit their views on their financing needs, in particular how much they need to, and can, borrow from banks. The interviews were conducted between June 2008 and January 2009, each interview typically lasting for one hour. A profile of the interviewees is described in the following Table 1:

Interviewee's Company	Interviewee
Grade B Contractor	Managing Director
Grade B Contractor	Director
Grade B Contractor	Director
Grade C Contractor	Managing Director
Grade C Contractor	Director
Grade C Contractor	Finance Manager
Grade C Contractor	Deputy Managing Director
Property Developer & Contractor	Senior Project Manager

Table – Contractors Interviewed

Out of the 8 interviewees, 7 of them are listed as either "Grade C" or "Grade B" contractors with the Hong Kong Government. A "Grade C" contractor, as defined here, can bid for contract of any value in the public building and housing construction sector. A "Grade B" contractor can only bid for contract up to a value of HK\$50 million. They are "independent contractors" undertaking mainly public works. Otherwise, there are only a few active building contractors in the private sector, being either the construction subsidiaries or "inner-circle" contractors of developers. The 5 largest developers in Hong Kong, who were also the largest in the world, had supplied more than 70% of all residential units (Chiang et al. [15]), Being part of the developers' groups, these private sector building contractors have made financing decisions based on considerations different from that of the "independent contractors". On the other hand, "independent contractors" do not have a property development holding company to resort to. They must raise corporate finance on their own.

We found that firstly they don't need to borrow much because (i) clients provide the bulk of project finance

through interim payments, (ii) there are not too many works available, and (iii) they do not have a growth strategy to pursue and hence they do not need additional capital to drive company growth. Secondly, how much they can borrow is constrained by the value of the real and financial assets they could pledge as collaterals.

#### 3.1 Construction Projects are "self-financing"

Nearly all of them said that they only need working capital equal to 10% - 15% of the contract sum to run a construction project. All they need is the money to cover insurance and performance bond premiums (about 2.5%-3% and 1% of the contract sum respectively), and the expenditures on the works in the first two months. Afterwards, with suppliers' credit, the project would sort of become self-financing once interim or periodic payments start rolling in from developers. Some contractors would also resort to front-loading to get their money early. They would price some preliminaries (e.g. insurance) and concreting trades higher. One contractor even maintained that, with front-loading, contractors could get as much as 100% of the expenses from interim payments.

If we compare this 10%-15% with the proportion of construction loans on contract sums, we may have an idea of how reliant contractors are on bank loans. Annual construction contract value is reported in C&S [16]. Based on this information, we derived the average proportion of construction loans on contract sums to be 13.4%, which tally with the 10%-15% range that indeed all interviewees quoted. It also suggests that contractors have relied almost entirely on bank loans to finance their construction works. The statistics generally substantiate the contractors' opinions that they don't really need that much external finance to run their construction projects, which are otherwise always considered to be capital intensive.

Table 2 shows the descriptive statistics of the proportions of all loans advanced by all Authorized Institutions to "Building and Construction", and to "Property Development and Investment" between 1991 and 2007. Also shown in the last row of the table are the descriptive statistics of the size of the total loans during the period. The average proportion of all loans going to "Property Development and Investment" is 19.8%, which is 22 times the figure for "Building and Construction". Indeed loans for "Property Development and Investment" amounted to 25% of all loans, or more than six fold of total construction contract value, in 2007. The figures highlight the role of developers in acquisition of land, which still routinely commands premiums among the highest in the world, and in financing the construction works.

(% of all loans)

	Average	Standard Deviation	Maximum	Minimum
Building and Construction	0.9%	0.2%	1.2%	0.4%
Property Development & Investment	19.8%	2.9%	25.1%	14.4%
All loans (HK\$ million)	1,646,360	413,285	2,274,284	817,077

Compiled from: C&S, Census and Statistics Department, *Hong Kong Annual Digest of Statistics*, Hong Kong, Government of the Hong Kong Special Administrative Region, various issues.

Table 2 - Construction and Property Loans  
as % of All Loans, 1991 - 2007

### 3.2 No Work and No Growth

There emerged a general opinion during the interviews that there was no urgent need of raising money because there was not much work available for tender. According to statistics, the construction volume has continued to shrink for more than 10 years in a row ever since the all-time peak in 1997. According to CII-HK [17], total construction volume shrank by 31% in 2006 when compared to 1997. There was more reduction in new works. The residential and non-residential building sectors shrank by 53% and 52% respectively. It was the dramatic increase in the value of non-site works, maintenance and alterations, that has lessened the drop in the total amount of construction works. Because of the near-collapse of the construction market, many smaller contractors have gone dormant. Some interviewees suggested that there are less than 20 large contractors still remaining active in the market. Among them, 5 to 10 are the leading contractors who have dominated the public building construction market in the last twenty to thirty years.

Another reason why contractors don't ask for more is that they have secured enough works, and they don't want to expand their business by taking more jobs. Many of them, especially the smaller contractors, are family business. They are content with their current level of operation, and hence the profit margins. They don't need to ask for more bank loans than what they have already got with their term loans and revolving credit lines. Otherwise, as a couple of interviewees did mention, it would be too risky if they spread their financial resources too thinly over a large portfolio of projects.

Some smaller contractors may not have growth as their strategy. As one Grade B contractor interviewee commented, theirs is a family business. Many of their employees have been working for the firm for more than three decades. Their major motive of running the business is to keep their loyal employees employed. Indeed, it happens not infrequently in Hong Kong that a family business would keep on running even when making razor thin profits, if any, until both the owner and the employees grow into old age and retire. Another large

contractor said that they don't want to grow big and get listed to become a public company. For these contractors without "ambitions" to grow bigger, they have sufficient access to credits to keep the status quo. Besides, one interviewee commented that bank loans are not cheap. The less money is borrowed, the lower the construction cost is and subsequently the more competitive the tender would be. With a frugal mindset, good cost control and prudent financial management, these contractors are still able to thrive on in a shrinking market that has become hyper-competitive. However, they may have also become too conservative and reluctant to invest in innovation and development.

### 3.3 Lack of Assets to Pledge as Collaterals

The last but not least reason that contractors don't need to borrow extensively is that they don't have enough assets to pledge as collateral. In Hong Kong, perhaps as elsewhere but especially many Asian economies, bank loans are collateral based. The role of fixed assets as collateral is highlighted by Hall et al. [18]. They concluded that "it would be surprising if increases in collateral were not welcomed by lenders within even cultures in which the nature of principal-agent relationship were of the most benign form". Their analysis of 4000 incorporated small and medium sized enterprises across eight European countries in 1995 reached the conclusion that "firms have to rely on their own resources and are only able to borrow if they have collateral".

Contractors need to maintain with their bankers a relationship long enough to win the trust of their bankers. Even so, corporate and personal guarantees are typically required, as well as collaterals. More often than not, they would be required to pledge "bricks and mortars" as collaterals, and to provide company or personal guarantees as well. Personal guarantees are normally required in cases of private companies.

However, a couple of comments were made that few large contractors are able to get loans without the need of collaterals. This happens when they present their contracts from reputable developers to the banks. We thus turned to the bankers to ask for their opinions on construction lending.

## 4. BANKERS' SUPPLY

After hearing the contractors' comments, we turned to the bankers for their version of the story, especially on the issue of collaterals. The construction market has never been a major one for bankers in Hong Kong, the average proportion of construction loans being less than 1% on average. We anticipated that bankers willing to be interviewed would not be easy to find, yet we managed to interview three. They were Vice President (Head of Commercial Banking), Assistant General Manager and Senior Assistant Manager of their banks. The interviews were conducted between August and October of 2008, each typically lasting for an hour. It is not unexpected that all the three bankers maintained that contractors are not their major clients. Further, they said that, to the best of

their knowledge, there is not even one bank in Hong Kong that has focused on contractors as their major target group. Rightly or wrongly, they considered construction business the riskiest of all business. Yet they said that when they lend to contractors, they would regard them as a company that happens to be carrying out construction business, and the company has to fulfill all requirements that the bank may impose on any other company.

There came out to be three most important criteria of lending, and they are all related to the debt capacity of the contractor: (i) contractor's sources of loan repayment, (ii) default risk (contractor not paying), and (iii) contractor's cash flow, as suggested by Jain [19] that debt capacity is a function of the availability of cash flow and the borrower's intention to repay the loan. We found that collaterals were regarded important by the bankers, but not as important as good sources of incomes for repaying loans.

The interviewees commented that bankers would consider borrowers' major source of income as the prime factor for lending decisions. One interviewee commented that "banks are not real estate companies". They don't want to build up a portfolio of properties pledged as loan collaterals. Rather, they would lend to those who have good sources of incomes to repay their loans. It is banks' perceived repayment capability of the contractors that would determine their decision to lend or not lend. To sum up interviewees' suggestions, we have identified the following four most important criteria that bankers would consider:

1. First and foremost, it is the contractor's source of incomes coming from the developer. If the bank has faith in the developer, it is likely that they have faith also in the contractor. The more the reliable the developer is perceived to be, the higher the chance the contractor will have when applying for bank loans. As one interviewee said, "they would see who the 'big boy' behind" is. The contractor is more likely to get a loan when building for big clients.
2. To guard against default risk, banks would usually require personal guarantee from the contractor making loan applications. In the case of publicly listed companies, corporate guarantee may be provided instead. Since the majority of contractors are small private companies, personal guarantee is the norm. Of course, collaterals are often required to provide the banks with the protection they need.
3. Banking used to be relational but has become less so these days. Banks would be more ready to approve a loan application if the contractor is seen to be professionally run and their management perceived to be of good quality. Publicly listed companies are in a better position than smaller ones because they are perceived to be more professional in the way their companies are managed, say, by well qualified managers, accountants, and financial controllers. As regards the smaller contractors, it will be to their advantage if they could at least "look"

professional in the way they apply for the loan. For example, contractors should have their financial statements "dress up" so that bankers are more confident about their cash flows and hence their ability to repay the loan.

4. Who the contractor's principal or major bankers are may also reflect on their credibility. Even a well-established bank may have constraints imposed by internal policy and the regulatory bodies including the Hong Kong Monetary Authority on the amount of loans they could advance to a particular industry such as construction. The maximum amount that a bank can lend is confidential information. Thus, a contractor may sometimes be refused even if their creditability is good. Under such circumstances, other banks would be ready to lend.

Banks usually charge only a few hundred basis points over Hong Kong Interbank Offered Rate (HIBOR). The risk premium is apparently not large enough for them to routinely make non-resource loans. It is believed that contractors may occasionally obtain some non-resource loans, but only from their long-term banks, and only when the banks are reasonably certain of the repayment. This also highlights the importance of maintaining good relationship with lenders. Good relationship with the banks is a necessary but not sufficient for contractors to secure loans. They have to be perceived to be professionally run, and their applications professionally prepared as well. The provision of collaterals alone is not enough. After all, the decision to lend quite often depends on how healthy the contractor's cash flow is, how robust their liquidity and leverage are, and perhaps the most important of all, how well the bank knows their customers. As one interviewee said, a new customer would not get loans even with collateral, especially when the potential customer is a contractor, and especially when the construction industry is not the bank's targeted industries, nor any other bank's.

## 5. SME FINANCING SCHEMES

Bank loans are not the only source of contractors' external finance, though they are the main one. Though still on a small scale, Hong Kong does provide some financial assistance to small firms. The Chief Executive of the Hong Kong Government claimed that he would like to use "big market, small government" to describe "Hong Kong's style of capitalism" (Tsang [20]). It means that the "the Government should not intervene in any sector of the market which the private sector can sustain on its own" (Tsang [20]). The Government has not been used to provide industry-specific assistance, and construction is no exception. The only financial assistance that the Government has provided is in the form of Small and Medium Enterprises (SME) Funding Schemes, and construction is all but one among the many beneficiaries.

There are four schemes operating under the umbrella: (i) SME Loan Guarantee Scheme (ii) Special Loan

Guarantee Scheme, (iii) SME Development Fund, and (iv) SME Export Marketing Fund. As the name implies, the Schemes were designed to provide financial assistance to small and medium enterprises. An SME firm is defined as “a manufacturing business which employs fewer than 100 persons in Hong Kong; or a non-manufacturing business which employs fewer than 50 persons in Hong Kong” (TID [21]). Construction is considered as non-manufacturing.

In 2008 and according to the Trade and Development Department, there were “about 270000 small and medium enterprises (SMEs) in Hong Kong”. Together, they constituted “over 98% of our business establishments” and employed “about 50 % of our workforce in the private sector” (TID [22]). In the same year, the total labour force was 3.668 million (C&S [23]). Roughly speaking, each business establishment employed 6.8 persons. As already discussed before, a typical building or civil engineering establishment has the average size of 5.9 persons. An average building or civil engineering establishment is therefore smaller than an average SME.

The major sources of loans for “business installations and equipment” and “working capital” are the SME Loan Guarantee Scheme. Following the banking crisis, the SME Loan Guarantee Scheme was revised to increase the amount of loans that the Government would guarantee. With effect from 3 November 2008, “the maximum cumulative amount of grant an SME may obtain from the EMF is \$150,000. For each successful application, the maximum amount of grant will be 50% of the total approved expenditures or \$50,000, whichever is the less. The scope of EMF is also extended to include advertisements on printed trade publications targeting export markets; as well as advertisements on websites of exhibition organisers” (SME Funding Schemes [24]). There were 27 participating lending institutions that were “ready to take on SGS applications with the enhanced measures”. Included in the list were some of the largest banks in Hong Kong.

If history is of any guide, it is only the SME Loan Guarantee Scheme that has brought some limited benefits to the construction industry. The other schemes are aimed at promoting technology development and export marketing. According to a Legislative Council document, as at end September 2008, the Government has approved “some 149,000 applications under the SME Funding Schemes, involving about \$11.7 billion in grants/guarantees. Over 48,800 SMEs have directly benefited from the schemes”. The default rate was assumed to be 7.5% after the banking crisis. The actual rate, as at September 30, 2008, was 2.8% (Legislative Council Finance Committee [25]). However, according to the TID [26], out of the 1988 beneficiaries of SME Loan Guarantee Scheme as at 31 October 2002 (that is about one year after the launch of the funding schemes in late 2001/early 2002), only 5% were from the construction industry. Out of the 270000 SMEs, there were about 19000 building and civil engineering establishments. That is, out of all SMEs, about 7% were construction firms. This also implies that, in relative terms, small and medium construction firms got a less share (5%) of the

funds than their share in the number of all SMEs would suggest (7%). There were no updated figures available, but anecdotal evidence suggests that the construction sector has successfully sought less, not more, financial assistance provided by the SME Funding Schemes.

## 6. IMPLICATIONS

Much of the project finance a contractor needs when undertaking construction works comes from their client in the form of interim payments. For the rest, bank loans are practically their only source of external finance, though for a few, Government operated schemes such as the SME Funding Schemes would provide some financial assistance once in a while. Yet, their credibility and hence access to bank loans depend, to a large extent, on whom they construction for. Developers are contractors’ major financier, directly and indirectly. The “money flow” for a contractor undertaking a typical interim-based construction work is illustrated in Figure 2.

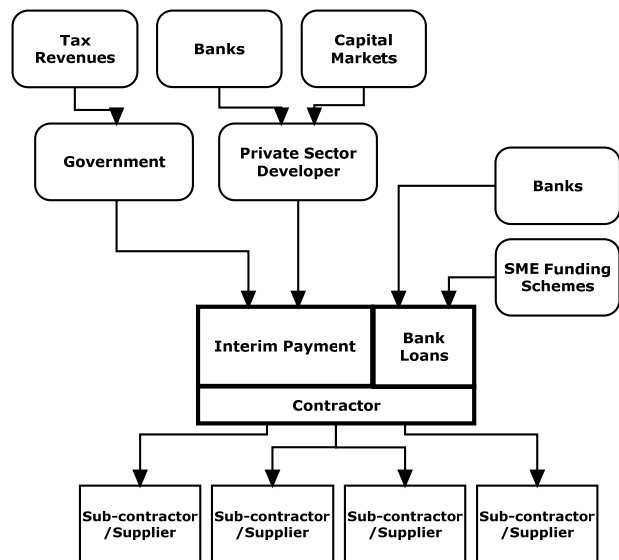


Figure 2 – Financing Contractors

The reliance on developers as the major source of project finance has implications on both the competition of the market, as well as competitiveness of the contractors.

### 6.1 Competition of Market

A consequence of the developer providing the bulk of construction finance is that the financial barrier to entry is low. The technology barrier to entry is also low because well-established traditional construction methods are typically employed. The traditional methods are also labour intensive, thus enabling the use and then the exploitation of sub-contractors, who are paid by their contractors up the chain on a “pay-when-paid” or “pay-if-paid” basis. The barrier to exit, on the other hand, is high, because the knowledge, skills and expertise of construction are not readily transferable to other industries. The low barrier to entry and the high barrier to exit together give rise to the intense rivalry and

competition within the industry, as characterized by the competition model of Porter [27]. A direct consequence is the erosion of profit margins and over-capacity of the industry.

The situation is unlikely to improve in the near term. As mentioned by many interviewees, many smaller contractors have become dormant when there are not many works around. However, there is always a potentially large supply of construction services. Profit margins, if any, are not expected to improve even when there are more works in the future. In the meantime, even the largest developers are facing credit crunch problems after the “financial tsunami”. Since they are the source of finance, their financial problems have had repercussions down the value chain. One contractor said in last January that since last October in 2008, developers had delayed payments by at least one quarter. The consequence is that the main contractors, and hence all the sub-contractors and suppliers down the line, were not paid, and their financial situation got worsened.

A ramification of the erosion of profit margins is the competitiveness, or the lack of, of the contractors.

## 6.2 Competitiveness of Contractors

The low profit margins have left contractors with no more financial resources for their managerial and technological developments. Building technology remains labour intensive but nevertheless the cheapest option. This is however welcome by developers, who have thus helped to perpetuate and institutionalize the craft-based technological state of the building construction industry (Chiang and Tang [28]).

The reliance on client's money has also impeded the adoption of any new contract form that does not provide interim or periodic payments. Not unexpectedly, all our interviewees commented that it would pose them major financial difficulties if they have to provide the bulk of project finance during the construction stage. In fact, most contractors do not have the necessary financial resources to undertake Public-Private Partnership (PPP) or Private Finance Initiative (PFI) projects, where they will be required to finance 100% of the construction work, and they could recoup their expenses and investment only through a long time series of receivables from the public sector.

## 7. CONCLUSIONS

The way a project and hence a construction company is financed is the evolution of years of industry practice. It has served the industry well for many years and there must be good reasons why such practice has been so adopted. The “money flow” has become sort of an equilibrium system, and without exogenous force to be applied to it, the system may perhaps go on for a long time to come. However, we have reasons to believe that the mechanism of interim payments and the practice of labour-only sub-contracting have exacerbated the rivalry and accordingly the low profitability of the industry. In this “equilibrium” state, it is understandable that contractors could not be resourceful enough to engage

themselves in product or process innovation. Without the self-motivated participation of the contractors, any talk of industry reform to improve productivity could only remain just that. This problem is unlikely to be unique to Hong Kong. Elsewhere, we have found similar problems. For example, comprehensive reviews have been conducted in the United Kingdom, the USA, Australia and Singapore. Their reports all strike a similar chord with the report of Hong Kong's own Construction Industry Review Committee [29]. There have to be exogenous forces to elevate this “equilibrium” state to a higher level where higher value-added building construction services are supplied and demanded. One way to start this process is to help contractors equip themselves with better financial resources. Perhaps the government can review the economic and social roles the construction can play, especially in view of the large building programmes that many governments around the world have proposed to stimulate and revive the “post-tsunami” economy, and then consider taking a more active champion role to initiate and facilitate financial reforms in the construction industry. At stake is nothing less than the global economic order.

## ACKNOWLEDGEMENT

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