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Attractiveness of Indian and Chinese LBOs Markets

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Abstract

China and India are the world's two most populated countries, encountering 1.3 and 1.2 billion people, or roughly a third of the planet's population. In addition, they also stand as the second and seventh world's largest economies. After having started the liberalization of their economies in 1978 for China and 1991 for India, the two countries delivered and continue to experience remarkable developments with tremendous growth rates, a fast growing middle-class and massive urbanization flows. Given the low GDP-per-capita, as well as the 400m and 200m people having joined the middle-class since the new century, there is plenty of room for further growth and investments. However, the two countries owe their incredible developments to distinctive drivers. India's economy relies on internal growth with high consumption rates, while the Chinese one bet its expansion on exports. Furthermore, China's corporate environment is dominated by State-Owned Enterprises (SOEs), usually large ones in strategic industries and high restrictions on foreign corporate ownership, whereas the Indian corporate culture is still largely dominated by family-businesses. The huge size of the economies and their young population explain the strong incentive for international investors, attracted by the countries' high returns, to inject billions of dollars. Financing needs were massive in China and in India in order to support the growth pace. Among the major asset classes, capital markets led by publicly-listed equities and tradable bonds have largely dominated the investments, but there is another source of financing, considered as alternative investments that emerged in the region at the beginning of the new century, namely, private equity. And one of the most interesting private equity types, that still emerges in the two countries, is the buyout industry. Although the activity is still considered as immature due to heavy cultural and legal barriers, some recent development and shifting cultures may open the road for a strong development of the activity. This paper highlights the attractiveness of the Indian and Chinese LBO markets.

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1 Introduction

1.1 Background & Research

The leveraged buyout (LBO) industry represents one of the most interesting investment types of private equity as alternative assets. Most favored in the US and to a lesser extent in Europe, the practice emerged in the United States during the 1980s as a response to a period defined by hostile takeovers. Over that decade, no fewer than 2,000 LBO transactions were signed worth an astonishing 250 billion dollars (Opler & Titman (1993)). The 1989 vintage - a jargon used by investors- became a legendary year for the buyout industry with the outstanding 25-billion-dollar-acquisition of RJR-Nabisco by the private equity group KKR. The market delivered huge investment opportunities, returning billions of dollars to the investors (Kaplan & Stein (1993)). However, excessive enthusiasm led to a short period of successive bankruptcies among highly leveraged invested companies and the turbulence present in the capital markets since the oil crisis of 1987 provoked a slowdown in the private equity buyout market as well as in the high yield bond market (Kester & Luehrman (1995)). A decade later, after having partially recovered from its previous losses, the buyout industry faced another crisis with the burst of the dot.com bubble in the wake of the new century. Investments plummeted, both in terms of volume and value, and a restructuring phase started until 2004 when a new boom reshaped the private equity industry. General enthusiasm coupled with cheap debt fled into the US economy in an attempt from the G. W. Bush administration to revamp investments and consumption in the US market. As a consequence, the buyout industry benefited from a third boom which spurred investments to record levels. The last decade was marked by four years of poor activity due to the subprime crisis, followed again by a new period of significant growth.

Today, the private equity industry is continuing to expand fastly, and in all parts of the world, especially in the European market (which was considered, until recently, as 'immature'). 2015 highlighted a remarkable year for the global buyout activity with 3,556 investment deals amounting to 411 billion dollars and 1,620 exit transactions reaching 416 billion dollars (Preqin private equity report (2016)). The private equity global market value reached in 2016 an all time high of 2.49 trillion dollars, and investors sit on a tremendous 820 billion dollars of 'dry powder' - a financial expression used to describe unspent but available capital. And this, despite the rough and shock-prone investment environment in the United States, Europe and the rest of the world, with a new US president declaring himself openly hostile to free-trade, a European identity crisis, and mounting scandals and concerns over Chinese debt levels.

From the United States, to Europe, to Asia

The United States, while still the most influential market for the buyout industry, lost its strong dom-

inant position as its market share slid from 87% in the 1990s to a mere 44% during the first years of this century (Stromberg & Kaplan (2008)). Faced by tougher competition to find the most valuable targets in North America, US private equity companies started to widen their research in order to invest globally. The European Union attracted a number of valuable investments with its attractive legal environment and quickly became the private equity's second largest market after the US. Indeed, EU policymakers ended prohibitions on the buyout activity, implemented employment & fiscal reforms, and pushed for a new legal framework in order to make alternative assets more attractive. As a consequence, the European Union's buyout market surged from 500m euros in 1984 to 24.3bn euros in 2001 (Goupers & Lerner (2002)). As the market continued to expand at a strong growth pace, the old continent (including the United Kingdom) managed to equal the market size of its US peer. However, by maturing, the European market steadily failed to offer the same returns as emerging countries, and more specifically Asia which hosts nowadays the world's fastest growing economies.

The lack of available much-needed capital in undervalued companies is more likely to deliver higher returns than in mature firms. Fast growing economies with tremendous needs of capital attracted billions of dollars in emerging countries since the wake of the new century. As an example, private equity capital inflows in emerging Asia considerably increased during the first decade of the century, surging from 3.2 billion dollars in 2002 to a tremendous 66.5 billion dollars in 2008 (EMPEA's private equity report in Asia (2012)). The share of the larger emerging economies to the global growth rate increased for its part from 24% in 2000-2006 period, to over 45% in the wake of the subprime crisis (O'Neill & Stupnytska (2009)). And the phenomenon continued after the crisis, as emerging countries benefitted from the financial turmoil spreading in Western countries to attract new capital.

The Asian Pacific block now represents nearly half of the world's population and around 34% of the world economy, becoming as such the planet's leading economic region (World Economic Forum). Private Equity in Asia tops nowadays \$100bn of investments a year and the buyout industry accounts for roughly 15%-to-20% of the total amount. By contrast to the Western world dominated by LBOs investments, the Asian private equity markets (with the exception of Japan, Australia, Singapore, and Hong Kong) are largely dominated by growth capital transactions, which deliver considerably higher results than the other parts of the world (Meerkatt & Liechtenstein (2010)). Growth capital is defined as investing minority stakes in companies with established products and markets seeking to expand fast. Traditional PE types such as LBOs or VC are less favored in emerging countries, because of the lack of a strong legal framework, a huge number of ownership restrictions and prohibitions in strategic industries, as well as a corporate culture still dominated by family-owned businesses categorizing sell-offs as a sign of failure (Pacanins (1997)). Moreover, while venture capital

relies on mature capital markets, LBOs rely heavily on a complex and sophisticated bond market, for which none of the two of them seem to be reliable.

1.2 Purpose and Need of the study

In this context and for the purpose of the study, two giant Asian nations have gathered my attention, namely the 'Chinese Dragon' and the 'Indian Elephant'. While 'China is a civilisation pretending to be a nation' (M. Ledeen), 'India happens to be a rich country inhabited by very poor people' (M. Singh). China and India represent the world's two most populated countries, encountering respectively 1.3 and 1.2 billion people, or roughly a third of the planet's population. In addition, they also stand as the second and fifth world's largest economies, due to remarkable growth developments. After having started the liberalization of their economies in the 1970s for China and the 1990s for India, both countries achieved astonishing developments with tremendous growth rates and massive urbanization flows. However, the two countries owe their incredible growth to distinctive drivers, as India's economy relies on internal growth with high consumption rates, while the Chinese one bet its expansion essentially on exports.

The Chinese and Indian economies also served as the growth engine of the private equity activity in Asia. The use of this alternative asset as a financing tool emerged in both countries in the late 1990s. Surprisingly, they directly followed the global momentum characterized by an 'early days' phase between 2000 and 2004, 'boom years' between 2005 and 2007, a non-avoidable 'crisis and post-crisis' phase which lasted until 2013, before surging again as of 2014. The early days phase was defined by a very small number of transactions, long holding periods, sluggish returns and an exit strategy mostly driven by trade sales (trade sales are defined as M&As). In the second phase, investment cycles accelerated (due mainly to shorter holding periods), transactions surged both in terms of value and volume, and exit routes started to diversify, even within the two countries, with China favoring Initial Public Offerings (IPOs) while its Southern neighbor continued to favor trade sales. In the third phase, defined by the financial crisis, the volume and value of the transactions halted, sliding by as much as 50% in both countries. The Chinese government decided therefore in 2010 to allow mid-size companies to go public through IPO's, which enabled to maintain an adequate exit rate but at a smaller rate of return. Finally, the last phase post-2014 was characterized by a booming activity and a surge in exits. The Chinese stock market had closed for a year and a half from 2012 to late 2013, which had shutdown IPOs during that period. As a consequence, IPOs skyrocketed during the new boom phase.

As I mentioned earlier, growth capital investments have been dominant the Asian private equity industry. However, the Indian market has the particularity of being dominated by Private Investments in Public

Equities (PIPEs), a structured investment (such as convertibles) defined by a minority stake investment. Buyouts are very uncommon in both countries for many reasons that I have already mentioned: i) ownership restrictions by the local governments, ii) lack of a mature bond market, iii) expensive costs of debt, iv) family-business corporate cultures, and v) the lack of a sophisticated legal system. However, two phenomena are happening at the same time that could spur the LBO activity. First, the Chinese government, embarrassed by its highly leveraged and totally inefficient '(un)-famous' state-owned enterprises (SOEs), vowed to boost the country's private corporate market. The buyout industry could seize this opportunity to expand in China as most SOEs operate in LBOs-friendly industries such as industrials, materials, energy, telecommunications & media, consumer goods & retail, as well as business services. At for India, the new Premier, Narendra Modi, vowed to cut the government's deficits and boost the economy through private investments. As a consequence, ports, railway companies, airlines, industrial corporates and all kinds of other markets are now ready to become private. And, a shift in legislation is also very likely to give more room to the buyout industry.

From my readings, I could notice that the Chinese market remains larger than its Indian peer but few papers have explained the attractiveness of buyouts in these two countries. Actually, there has been very little research and study on the buyout industry in Asia. Overall, most papers highlight venture capital or private equity in general, but hardly anyone has addressed specifically the buyout issue in any of the two Asian giants, as was widely the case for the Western world. This is why I have decided to devote this thesis to the drivers explaining the attractiveness of the LBO market in China and in India.

1.3 Organization of the Research

The thesis aims to determine the attractiveness of the Chinese and Indian buyout markets through the testing of several internal and external variables related to the private equity industry. It presents two main parts: i) a theoretical part which includes a literature background on LBOs, the Indian PE market, and the Chinese PE market, and ii) a practical part to test influential variables and discuss their results in a wide conclusion.

The first part, which is divided into four subsections aims at delivering a large overview of the LBO market in order to contextualize my practical part. Therefore, the first subsection introduces the characteristics of an LBO, such as the nature of the investors or the target companies, the desired holding periods, a performance overview when compared to public markets, and other types of buyouts (i.e. secondary buyouts). The second subsection describes the general size of the Asian private equity industry as well as the

most important trends. The third and fourth subsections introduce the private equity sectors in India and in China, respectively. For both countries, I will develop the emergence of private equity and discuss the situation of key topics such as the preferred sectors, the average investment amounts, the boom and decline periods, as well as the most important laws that impact the industry. A final section will summarize and synthesize both markets to enable a better comparison.

As for the second part, it is divided into three main sections. Section IV will focus on the four hypotheses I developed in order to answer the research question. The two first hypotheses highlight which one of the two countries offers currently the best opportunities. The first hypothesis is about the current market, while the second one concerns the near future. I based my answers on the investment type, so that I could compare the volume of their buyout markets, as well as the other private equity types. The third hypothesis stipulates that I can define this attractiveness through internal variables, such as the number of investors, the investment amount, the investment time, the holding period, the exit time, the sector, the exit type, and the exit amount that would give me the return. The fourth hypothesis regards external factors, such as the performance of the local stock markets, the link to the economic growth, and the nationality of the investors. I continue in this section by illustrating the methodology used to answer the research question through the choice of the variables and the way they enabled me to answer the hypotheses. I have decided to follow a qualitative methodology based on a deductive approach, enabling me, based on the theory, to test several variables and discuss the results. My two databases are also detailed in this section, as well as the mean I gathered the information. Section V highlights the results and provides a concluding discussion of the 4 hypotheses and deliver an answer to my research question. Limits, words for a further research, and a final conclusion will close this paper.

2 Literature Review

2.1 Leveraged Buyouts

Leveraged buyouts and venture capital constitute the two larger activities of private equity. However, they are most favored in vary different contexts and depend on disparate business models or financing methods. In general, LBOs differ from venture capital in the sense that transactions are mostly financed through huge amounts of outside debt, instead of equity injections. Moreover, investors take majority control of mature corporates, instead of young and emerging companies as do venture capital funds, who do not seek to obtain a majority control. And the reason is simple, while venture capital is mostly used to finance prototype companies with no established product nor market, LBO transactions take place in mature companies with established products nor markets, and who must be able to deliver sustainable cash-flows in order to pay back the service of debt.

The buyout industry started to emerge in the early 1980s and considerably expanded throughout the decade. The industry soared so fast that Jensen in 1989 predicted LBOs would 'turn out to be the larger corporate organizational structure'. He expected indeed that private equity firms would be driven by performance-based managerial compensation, highly leveraged capital structures ('junk bond financing' in the financial jargon), and active governance to the firms in which they invested. Moreover, he claimed the new business structures, driven by efficiency factors, would outperform the traditional public-listed companies with a disperse number of shareholders, low leverage, and weak corporate governance. And the foundation of his study was right, throughout the decade, around 2,000 LBO investments had been realized, for an astonishing value of \$250bn (Oples & Titman (1993)). But unfortunately for him, the junk bond market crashed shortly after his statement, provoking several highly leveraged buyout target companies to go bankrupt and buyouts on public-to-private deals simply vanished during the first years of the 1990s. Although buyouts of public corporations considerably decreased during the century-end decade, the leveraged buyout activity resisted and maintained the acquisition of smaller private firms. As soon as 2004, buyouts investments on public companies bounced back and the industry benefited from a second historical buyout boom. Furthermore, the bond market was also benefiting from the cheap capital that the Bush administration was artificially targeting in order to spur investments [note]. The first boom peaked in 1989 with the 25-billion-dollar-acquisition of RJR-Nabisco by the PE group KKR [note]. Record amounts of money flood into the PE industry in the years prior to the subprime crisis, before declining again with the financial turmoil that burst in 2007-2008.

2.1.1 Private Equity Giants and their Funds

Just like venture capital companies, leveraged buyout groups are structured as partnerships or limited liability corporations. Blackstone, Carlyle and KKR (Kohlberg, Kravis, Robert and Co.) are three private equity behemoths that have dominated the buyout activity since the industry emerged in the early 1980s. In his 1989 paper, analyzing the 12 larger PE corporations, Jensen characterized private equity-backed buyout corporations as lean, decentralized and relatively small in terms of employees. Indeed, he found out that most PE groups employed on average 13 professional investors, also known as general partners (GPs), from an investment banking background. Blackstone's founders for instance, S. Schwarzman and P. Peterson, both came from Lehman Brothers, a former prestigious US investment bank. The industry's organizational structure transformed itself throughout the years, as these companies grew considerably but still remain relatively small compared to the companies they use to invest in. Among the 12 larger PE companies in 2008, at least four of them were incorporating more than a hundred general partners, encompassing various backgrounds (Kaplan & Stromberg (2008)).

As for venture capital, the investment funds are designed as vehicles with a finite-lifetime of which investors cannot withdraw their capital until the fund is terminated (Stein (2005)). Each PE group raises capital from investors to settle various funds with different investment strategies [note]. The capital injected by investors is meant to be invested into target companies, as well as paying several managerial fees to the PE firm. General partners (GPs) manage the funds while Limited partners (LPs) provide almost all of the capital. In other words, general partners are responsible for management of the investments within the PE fund, whereas limited partners are net worth investors willing to invest in the PE industry, and who do not seek active management in the funds they invest in. LPs usually include institutional investors (corporate and public pension funds, mutual funds, endowments, insurance companies, etc) as well as wealthy individuals. Nonetheless, GPs still have to provide around 1 or 2 percent of the fund capital. This explains the difficulty to become a general partner in a fund and why benefiting from an investment banker background might help. Funds have an average 10-year-lifetime, with sometimes a 3-year-possible-extension. GPs are relatively free in the way they proceed and structure their investments as long as they follow some ground rules dictated by LPs, such as the maximum amount they are allowed to invest in a company, the product (type of security), or the debt ceiling to respect (Sahlman (1990), Gompers and Lerner (1996)). As for compensations, GPs can benefit from a 3-stage-remuneration: (i) an annual management fee which actually represents a share of the invested capital (around 1.5%), (ii) a share of the fund's profits when exiting an investment, also called 'carried interest', which can amount to up to 20 percent according to the industry's standard, (iii) and finally, a monitoring fee from the target company as a compensation for the investment and expansion (Metrick and Yasuda (2007)).

The 'Private Equity Analyst' published in 2008 a document listing 33 international PE companies with at least 10 billion dollars of assets under management (AUM), of which 22 are based in the US. The research also disclosed the 25 larger investors of these funds, led by public pension funds such as CalPERS, CasSTERS, PSERS, as well as the Washington State Investment Board. (MORE ON COMPENSATION AND INVESTORS).

Private Equity funds purchase private firms. It happens (RESULTS) that the purchased company is public, in which case the funds usually have to pay a premium of 15 to 50 percent of the stock price to make it attractive to shareholders (Kaplan (1989), Bargerion, Schlingemann, Stulz, and Zutter (2007)). The share of debt funding easily amounts to between 60 and 90 percent of the financing, which constitutes the major difference with venture capital. The debt-package includes a senior and secured loan usually issued by an investment bank. Banking institutions were still the largerst investors in the 1980s and 1990s, but institutional investors including hedge funds and 'collateralized loan obligation' managers have slowly integrated the senior loan financing. The latter, CLO managers settle a special purpose vehicle (SPV) in which they assemble several loans in a pool. Then, they cut the pool in several portions and sell the small pieces separately to the institutional investors. Each pool includes fractions of loans from different seniority and risk structure. The buyout process also uses junior and unsecured debt, financed by mezzanine debt or high-yield bonds (Demiroglu, and James (2007), Standard and Poors (2008)). The 10 to 40 percent remaining of the financing requirements come from the investors in the form of equity. Sometimes, the new management team, which may slightly differ from the initial pre-buyout team, also contributes to the financing but this is rather untraditional, cultural-specific and counts for a very short amount of the total financing (Axelson, Jenkinson, Stromberg, and Weisbach (2008)).

2.1.2 Cyclicalit

Private Equity companies started to gain importance at the beginning of the 1980s. The value of the capital raised by US funds each year surged, in nominal terms, from \$0.2 billion in 1980 to more than \$200 billions in 2007. However, as capital markets kind of followed the same strong growth pace, it would be more interesting to present fundraising as a percentage of the US stock market [note]. Figure X shows that deflated PE investments are cyclical. Indeed, they considerably increased throughout the 1980s' decade, peaking in 1988, to then decrease at the beginning of the next decade. The second wave also increased during the 1990s, peaked as well in 1998, before declining in the early 2000s. This decline was much stronger than the previous one, as is was due to the dot.com bubble burst and several crises in the junk bond market. Finally, the

market climbed again in 2003 before a new crash in 2008, related to the subprime bubble. The years 2006 and 2007 have been extraordinary for private equity, as the market experienced historical highs, exceeding the 1-percent-threshold of the US stock market value.

Figure X exposes the volume and aggregate transaction value of global leverage buyout investments supported by a private equity group sponsor. Kaplan and Stromberg documented a study in 2008 on the topic with data coming from Capital IQ. They gathered data from a total of 17,171 PE-backed buyout deals that have been executed since early 1970 to June 30, 2007. By computing the market value of equity and the book value of debt corrected by the cash, they highlighted that the investment values amount to the enterprise value of the target companies. Stromberg reckoned that their study sampling methodology could contain a couple of biases by undervaluing smaller transactions before the mid-1990s, but the general overview ought not to be significantly impacted. It is interesting to acknowledge that investments typically follow the path of fundraising. They both peaked in 1988, then declined for a few years before climbing again and highlighting a new peak in 1998. Then, they both skyrocketed after 2003. Most surprisingly, deals volumes and values between 2005 and June 2007, according to their study, amounted to 5,188 buyouts and roughly 1.6 trillion dollars, respectively. In other words, the activity within those 2 and a half years accounted for 30 percent of the volume and 43 percent of the total transaction value of the 23-year-studied-period. Moreover, the research only incorporated deals that have been materialized. Between January to June 2007, around 322 deals have been discussed and agreed but not signed yet, which proves that the activity continued to expand with a strong growth pace, until the wake of the financial turmoil. The following table provides a clear summary of the LBO activity throughout the last four decades, in terms of types: public to private, independent private, secondary, divisional, etc, as well as in terms of geographical areas. As the table shows, public to private and divisional constitute the larger LBO types, while the US and Canada remain the most active and attractive places for LBOs dominating 52 percent of the market. Disparities are even more pronounced when focused periods of time are taken into account. In that sense, the US, the UK and Canada, dominated the first decade of the PE industry with 89 percent of the volume and 93 percent of the investments total value. Massive investments in mature industries such as manufacturing or retail dominated the sector-target.

	1985-1989	1990-1994	1995-1999	2000-2004	2005- 06/30/2007	1970- 06/30/2007
Combined Enterprise value	\$257,214	\$148,614	\$553,852	\$1,055,070	\$1,563,250	\$3,616,787
Number of transactions	642	1,123	4,348	5,673	5,188	17,171
LBOs by Type:						
Public to private	49%	9%	15%	18%	34%	27%
Independent private	31%	54%	44%	19%	14%	23%
Divisional	17%	31%	27%	41%	25%	30%
Secondary	2%	6%	13%	20%	26%	20%
Distressed	0%	1%	1%	2%	1%	1%
LBOs by Target Location:						
US and Canada	87%	72%	60%	44%	47%	52%
UK	7%	13%	16%	17%	15%	15%
Western Europe (except UK)	3%	13%	20%	32%	30%	26%
Asia and Australia	3%	1%	2%	4%	6%	4%
Rest of the World	0%	2%	2%	3%	3%	3%

Figure 1: LBOS throughout the years. source: Stromberg & Kaplan (2008)

The 1990s have been marked by the junk bond market crisis, especially in the early years of the decade. Public to private transactions declined from a strong 49 percent of the activity during the first PE wave, to less than 10 percent during the five years through 1994. However, these years saw 'middle-market' buyouts of non-listed firms considerably increase, as they surged from an aggregate 48 percent in the previous period to an aggregate 85 percent. Investments in private companies expanded activity into IT, media, telecommunications, financial services, and healthcare [note]. In general, deals sizes were much smaller than those of the previous period, as transactions total value halved, while the number of deals doubled. The market continued to evolve steadily over the next 10 years, at the exception of 2000-2001, which were marked by the burst of the dot.com bubble [note]. Public to private transactions regained some attractiveness, increasing from 9 to 15 percent, but private companies investments still largely dominated with an 80 percent share of leverage buyouts total activity. Interestingly enough, secondary buyouts emerged in the first five years of the new century, accounting for slightly more than 20 percent of the total values, while they represented a mere 6 percent share ten years earlier. Secondary buyouts are characterized by PE funds exiting investments by selling the company to another PE fund. During this period, the market was dominated by large and mature corporations selling off some divisions in a global move to focus on core activities. (DATA focus trend). Public to private and independent private were the only two LBO types to decline over the period, even though public to private bounced back in 2007 since its 1994 weakest amount. The major gainer is secondary

buyouts with a steady increase that lead it to become the second most attractive investment-type during the 2005-2007 period. Finally, over the 35-year-period, LBOs transaction values have totaled 3,616,787 million dollars, of which half have been realized between 2005 and June 2017.

As far as the geographical regions are concerned, Western European countries increased their attractiveness of leverage buyout investments, as their share increased from 3 percent to 30 percent over the complete period, i.e. from 1985 to June 2007. This amount is even more significative when the UK is included, leading the total amount to 45 percent. Asia Pacific deals value slightly increased from 3 to 4 percent, offsetting a poor 1 percent in the early 1990s. Finally, the US and Canada, have seen their share steadily decline over the period, decreasing from 87 percent to 47 percent until the financial turmoil. Investments continued to expand throughout the period, mais Western Europe and the UK grabbed most of the lost share. North America also experienced changes in the target's industries, as services and infrastructure companies attracted an increasing share of the transactions.

2.1.3 Exits

Investment exit types are very important considering the close-end funds lifetime. The following table contains information on the exit types and investment periods of the same 17,171 sample-companies. Unsurprisingly, due to the massive investments since the new century, 54 percent of all transaction had yet to be exited in June 2007. Stromberg communicates two main limits that may result from this figure: (i) its is premature to make long-term economic impact of LBOs, (ii) and second, the performance of buyouts may be biaized as only materialized investments have been considered. The most favored exit form is a sale to a strategic non-financial buyer, with 38 percent of the total exits. When financial buyers are included, this figure amounts to 62 percent. Sales to financial buyers increased the most throughout the period. IPOs represent 14 percent of total exits, down from 28 percent during the first decade. Finally, and surprisingly enough, bankruptcies or restructurations only account for 6 percent of exits. If we consider the 6-year-average investment time, the share of bankruptcies decreases to an annual mere 1.2 percent. This figure is lower than Moody's research on all US corporate bond issuance from 1980 to 2002, which is established at an annual 1.6 percent (Hamilton, Varma, Ou, and Cantor (2006)). The important 11 percent unknown exits may hide interesting information that could slightly change the outcomes, or explain the small number of defaults. Indeed, 23 percent of the larger public to private investments of the 1980s would have defaulted at some time, which is not really observable with the current figures (Andrade, and Kaplan (1998)).

	1970-1984	1985-1989	1990-1994	1995-1999	2000-2002	2003-2005	2006-2007	Whole Period
Type of Exits								
Bankruptcy	7%	6%	5%	8%	6%	3%	3%	6%
IPO	28%	25%	23%	11%	9%	11%	1%	14%
Sold to a strategic buyer	31%	35%	38%	40%	37%	40%	35%	38%
Sold to a financial buyer	5%	13%	17%	23%	31%	31%	17%	24%
Sold to LBO-backed firm	2%	3%	3%	4%	6%	7%	19%	5%
Sold to management	1%	1%	1%	2%	2%	1%	1%	1%
Unknown	26%	18%	12%	11%	10%	7%	24%	11%
No Exit by Nov. 2007	3%	5%	9%	27%	43%	74%	98%	54%
% of deals exited within								
24 months (2 years)	14%	12%	14%	13%	9%	13%		12%
60 months (5 years)	47%	40%	53%	41%	40%			42%
72 months (6 years)	53%	48%	63%	49%	49%			51%
84 months (7 years)	61%	58%	70%	56%	55%			58%
120 months (10 years)	70%	75%	82%	73%				76%

Figure 2: LBOs by exit type & holding periods. source: Stromberg & Kaplan (2008)

The second panel of Table X discloses some information on the average holding periods of the investments. Stromberg documents that the median average period is 6 years, but also stresses that the figures varies considering the time-periods. Indeed, holding periods were shorter than 5 years in the early 1990s, as he suggests, the IPOs market was a bit turbulent at the end of the decade. Very short holding periods of about 24 months represent only 12 percent of the total amount. Secondary sales still account for holding period of an investment, and transactions can therefore being considered as 9- or 10-year-investment.

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2.1.4 Superior Performance?

Among the true believers of leverage buyout performance, Jensen claims in its 1989 paper 'Eclipse of the Public Corporation' that finance, governance and operating engineering brought by PE vehicles considerably improve companies' operations in addition to create economic value. However, several opponents claim that PE firms only benefit from tax breaks and superior information, without enhancing any operational value. Also, people stipulate that the activity is influenced by arbitrage (market timing and mispricing) between debt and equity markets. (To Be Continued).

2.1.5 Different Types

There exist several types of LBOs, other than the primary buyout I have introduced so far. They all arise in a particular and different context, responding to their own needs and objectives.

Secondary Buyouts (SBO)

Secondary buyouts are the second most popular form of buyouts. They are particular in the sense that they act as an investment and as an exit type. In a secondary buyout, the private equity company that purchased the target company, sells it to another private equity company with additional leverage. This new type of investment is heavily dependent upon macroeconomic event such as the cost of debt compared to equity, i.e. if the bond market is more attractive than equity issuance exits such as IPOs or strategic sales (Wang (2010)).

Furthermore, in addition to rely on conjecture, secondary buyouts can also be preferred for efficiency reasons (Jensen (1989)). In theory, an LBO transaction incurs if there is room for value to be produced from the target company. Phan and Hill (1995), as well as Opler (1992) assert then that secondary buyouts considerably increase value for the company as they purchase an improving company to make it even more profitable. In other words, they can benefit and rely from the first buyout measures to increase the company's ability to generate cash-flow and pay back its debts. However, empirical evidence shows that this sort of buyout hardly works and often fails to generate the stronger expected profits, as this kind of activity is usually seen as private equity funds sharing blue chips (Bonini (2010)). His study was supported by a monthly Deutsche Bank report published in April 2007 assuming serious doubts on the ability of secondary buyouts to benefit the macroeconomic environment.

At the beginning of the new century, SBOs were rare and considered as a niche phenomenon but the activity now acts as a standard form of corporate ownership, counting sometimes for 40% of exits in certain markets (Stromberg (2008)). However, in spite of the increasing trend, and the attractiveness of the activity, SBOs mostly underperform primary buyouts (PBOs) in terms of returns. Empirical evidence shows that SBO investments offer IRRs inferior by around 15% and return on average \$0.4 less for each invested dollar than PBOs (Degeorge, Martin, Phalippou (2013)). They pointed out three main reasons to explain the failure to generate comparable returns. First, agency issues between two buyout groups are very likely to generate an overpayment for the secondary buyout. Second, the investment is considered as less risky, which could explain fewer management interest from the general partners. And finally, most of the potential value is already extracted by the selling fund. Nonetheless, they also pointed another interesting phenomenon. If

SBO investments fail to deliver equal returns, their performance considerably varies according to the investment time. Indeed, the underperformance is much stronger for late investment, i.e. the ones operated at the end of the investment cycle (usually 5 years). This is what Axelson, Stromberg and Weisbach defined in 2009 as the 'go for broke' phenomenon, in which buyout funds tend to overpay for their investment. As the fund's lifetime is fixed, so is the investment period. Many GPs sitting on plenty of unspent capital in the middle of the fund's lifetime, prefer to overpay for a secondary buyout rather than losing it at the end. The investors commit capital ex-ante, which gives an incentive to general partners to spend it. However, the performance gap tends to decrease for early-stage transactions, for which the investment amounts are smaller and the due diligence work more effective.

Owner Buyouts (OBO)

Owner Buyouts can occur in two different situations. Either to reassemble a sparse and broken shareholding in the hand of a couple of owners in order to build a strong control (Seghers (2009)), or to sell a considerable stake into a hedge fund (Droit-finance (2015)). In the later case, it is used as a technique for a unique owner to secure a large part of his assets (Andr, and Servais (2014)). This can be seen as contrasting a standard LBO activity as the sell-off is made at the benefit of the owner. Finally, by injecting debt into the company's structure, return on equity is favored and made more attractive.

Management Buyouts (MBO)

This new kind of LBOs arises when the management team, supported by a financial investor, takes control of the purchased company (Peters (2006)). The management team is also expected to provide some part of the capital in order to avoid "free-riders" and keep them active, dynamic and responsible for their investment. MBOs are typically experienced in three distinctive events.

First, in case of sale of a particular department or business unit from a large corporate. Confidentiality is key and internal purchase is an effective way to assure the future reputation, competitive benefits, as well as the press headlines that could hinder the transaction (Peters (2006)). The second option looks like an OBO transaction in a sense that an owner would sell his company to the managing team in order to assure stability and sustainability of his company (Neal, Fecher, and Meadows (2013)). Finally, an MBO can also be required if a distressed company needs fresh new capital very fast, and could benefit from the experience and familiarity of the managing team.

Leveraged Build-up (LBU)

Finally, this last LBO type represents a fund or strategic investor building a conglomerate by integrating several businesses together (Toukalas (2009)). It usually works with an investor willing to enter a new industry with long term ambitions by aggregating companies together. It can also be used by large corporates to strengthen a position in a given sector. The main benefits are economies of scale, cost optimisations, wider range of products or the acquisition of a new technology.

It also differs from traditional LBOs in the sense that funds interested in leveraged build-ups aim long term ambitions and the desire to acquire and build something, instead of breaking. Most common in fragmented and leaderless industries (Toukalas (2009)). However, their share in total LBOs remains tiny as huge investments in logistics and homogeneization are required.

2.2 From Growth to Buyouts

Growth capital, also called growth equity lies at the intersection between leverage buyouts and venture capital. A private equity investment is considered as Growth Capital when targeted companies are able to reach a certain size with a proven product, historical records, and need to raise fresh new capital for further expansion. The fundings are usually deployed to develop new products or services, enter new markets, purchase another company, build a regional brand, R&D, marketing, etc. PE funds take minority stakes. Firms seeking to raise growth capital are bigger than with venture capital, as the product is usually already produced and sold. Therefore, they can also benefit from clearer historical records, stronger revenues and profitability (Stewart (2012)).

By contrast to venture capital, growth equity partners invest in a couple of mature industry-leading companies with effective business models. By contrast to LBOs, growth capital funds usually take minority stakes in companies providing a high growth potential.

2.3 Buyouts in Asia Pacific

Since the end of the past century, Asia Pacific has become one of the world's most dynamic and fast-growing regions. Foreign direct investments fled into the economies and capital markets, providing PE investors with a bunch of detailed information regarding challenges and opportunities to be seized. The fast-growing wealth, abundance of natural resources and expanding business sectors made Southeast Asia a regional deal-making hotspot over the last fifteen years, grabbing the attention and interest of US and European private equity investors. Asian export-driven economies transformed so rapidly that they became a fertile ground for private investments. Several Western private equity companies have settled regional offices and built local investment vehicles. Several trends have converged from the mixed views about Asia's consideration.

First, the region has traditionally been considered as politically and financially unstable and volatile. The 1994 currency and then financial crisis, the Tiananmen square incident in China, the late liberalization of the Indian economy, as well as the riots in Thailand's streets in 2010 heavily contributed to build second thoughts on investing in Asia.

Second, competition for profitable investments has been increasing since the beginning of the new millennium. The region, as defined by the World Bank, encompasses a population of roughly 2.9 billion people and a 17.5 trillion-dollar-GDP, growing at a mere 4 percent annualized rate (mostly driven by South-East Asian countries highlighting an 8% growth rate). When the Boston Consulting Group asserted in 2012 that China, India and Southeast Asia were the three largest emerging markets bloc, it is not unsurprising to see Foreign Direct Investments (FDIs) flow into the region. And though, their historic, political and economical background sensibly differs.

2.3.1 Somme figures

Asia and the Pacific were not an exception. If there was some uncertainty, it was not showed, as the latest regional three-year-average \$90bn private equity deal-value can explain. 2015 was an exceptional vintage with a record 124 billion dollars worth of investments (+39% compared to the previous year). The volume of deals also disclosed historical amounts, with 892 deals signed. Exits reached \$74bn, in line with a five-year-average-trend. More surprisingly, fund-raising missed expectations and delivered a five-year-low \$43bn dollars (Bain Capital Private Equity Report Asia Pacific (2017)). On the other hand, some investors argue that general partners (GPs) sit on near-record level of unspent capital, starving to sign new profitable deals instead of raising new funds. They wait to invest the current funds in profitable projects before renewing commitments in order not to 'lose' in opportunity costs. Private equity is steadily maturing in Asia and LPs

have still managed to remain cash-positive over the last 3 years, meaning their distributions exceeded their contributions. Though, it is important to bear in mind, that cash-flows were negative for a few years after 2006. But the market is still bullish and competition is soaring in the region due to all the FDIs and amounting unspent capital, driving valuations to ceiling-less territories. The average ratio of EBITDA-to-entrepise value in 2016 has reached an all-time high value of 17, up from an average of 13.4 between 2010 and 2015. As for instance, the ratio is of about 10 in the US. China led to upward pressure on valuations, with ratios reaching sometimes 30. Strong competition and limited profitable-available targets artificially inflated the prices. As you may have understood, the private equity industry in Asia has been more dynamic than ever these last few years and future expectations continue to head toward the same direction.

What is more surprising, is that mostly all stages of the industry delivered strong momentum. LPs still view the region as an emerging market with big potential. A combination of elements spurred the solid activity, such as the abundance of capital inflows, attractive IT and technological industries, as well as an expanding purchasing power for institutional investors and Sovereign Wealth Funds. Unspent capital remained flat at around 136 billion dollars, increasing pressure for general partners to invest their dry powder (Bain Capital Private Equity Report Asia Pacific (2017)).

High-growth technology companies continued to attract most of the investments, with 42 billion dollars injected in internet, media, technology and telecommunications, or roughly 43 percent of the injected capital. Investments in internet companies alone, followed a 5-year-trend by representing more than 30 percent of the total investments. The momentum for internet-led companies translated itself in a decreasing attractiveness for megadeals, especially in China, as they usually concern small and specialized companies with a high growth-potential. Internet spurred early-stage deals, mostly through venture capital and growth types of funding. Early stage deals surged 18 percent to \$16bn, of which \$14bn were invested in Greater China. The market-share was still standing at 2% in 2012 (Bain Capital Private Equity Report Asia Pacific (2017)).

In spite of the tremendous high valuations, exits trends failed to deliver the same enthusiasm and expectations as of the investments. However, the fewer number of transactions that actually concerned exits turned out be successful, especially in India. The decline in value and volume compared to the past decade is partly due to the lack of exit opportunities after the financial crisis, as most investors waited until 2014 to materialize their deals. 2014 was also the year were Chinese officials re-opened their stock market, ending therefore a ban on IPOs for a year and a half.

Finally, 'returns' is what drives investors appetite and performance has been met over the last couple of

years in Asia Pacific. Indeed, regional specialized funds have delivered internal rates of return of about 12% over the last two years on average, while the top-25-percent funds returned profits exceeding 20 percent. For the first half of 2016, LPs have received 1.4 dollars for every dollar invested. Surprisingly enough, the gap in the maturing Asia-Pacific region is wider than anywhere else in the world. Private equity in Asia Pacific is set for a period of restructuring as only the larger funds will be able to deal with massive competition, skyrocketing valuations, and cooling economic growth. Only the most accomplished and experienced partners will manage to properly seize the opportunities.

2.3.2 New sources of value

The private equity industry in Asia Pacific has been driven by a simple standard, namely the search for an attractive sector likely to benefit from an attractive macroeconomic conjuncture coupled with a strong multiple expansion, inject a minority stake in a particular company and wait the investment to mature before exiting on a profit. Partners are less keen to develop some interest for active management than in developed countries because minority stakes make it more difficult to get directly involved. Competition has hardened, and prices continue to jump, surpassing records after records every year. The only benefit, is that it helps driving value during the exit stage, as long as growth rates enable such a confidence. Conversely, this trend is meant to slowdown in the years to come because other factors than just multiples are also to be taken into account while considering the exit strategy.

First, since the beginning of the crisis, most of the world's central banks - including in Asia Pacific - have lowered their interest rates to rock-bottom levels in order to flow the markets with cheap capital and spur investments. This of course has considerably contributed to levy multiples and artificially encourage investments. A rise in rates, even short to slow inflation, would discourage exits for companies bought at current values. The cost of debt would become more expensive and stock market would also be affected. Second, economic growth is expected to slowdown compared to the past decades. Even though the region will remain the most dynamic in the world giving the pace of the growth rates, Asia Pacific economies will grow at lower rates than they used to. This is a sign of maturing economies after a transition from export-led growth to internal demand driving growth. The transition, which will take place in different periods of time according to the countries, will benefit buyout investment groups (as a corporate concentration and restructuring period will follow) but will probably deliver negative impacts on other types of private equity. Multiple expansion, the driving factor of Growth Capital (the major type of PE in emerging countries), is very likely to be replaced by cost control and margin expansion within the next decade (BAIN 2017). Furthermore, it is proven by empirical studies that internal growth models, like margins and cost cutting,

often fail to deliver the expected returns.

2.3.3 Leverage in Asia Pacific

Leveraged capital is a good source of returns for Asian and Western banks. But, until recently, bond investors were not following. Capital inflows flew to Singapore and Malaysia, attracted by their reliable legal framework (AsiaMoney (2014)). The two largest regional economies, China and India, also offer a bunch of opportunities for investors to seize but the difficulty to settle on-shore funds vehicles holds back investments in these countries. Laura Acres, from Moody's, stresses that the lack of LBOs in Asia compared to the US or the EU lies in the still unsophisticated high yield bond market in the region. It is work in progress, several indicators point to an increasing attractiveness of the market and that Asia is on track to enhance a mature bond market. But Asia still currently remains in the early stage. Private corporates in the region are still dominated by family-owned structures, which see sell-offs as a failure and therefore are reluctant to sell effective or profitable companies. It has only been since recently that Asian corporates take advantage from scale businesses and can afford LBO financing and issue high yield bonds (Nicholas Macksey (Bain Capital Asia)).

2.4 Private Equity in India

India is the first country I would like to study. Despite its size, the private equity industry and more specifically the buyout market remained relatively small compared to other countries. Average transaction amounts failed to increase throughout the past decade and the exit strategies remain a central issue. However, Prime Minister Narendra Modi, vowed to increase the country's attractiveness for foreign investments and currently works to ease the legal and tax framework in order to transform ownership and investment rules to make them more flexible. The number of active funds picked up since 2014, surging from 181 in 2009 to 314 in 2013 (Shukla (2014)). But most of them remain international and Indian PE groups usually invest in VC or take part into multiple-investor-transactions. This section aims at providing a historic overview of the Indian private equity industry, as well as the most favored sectors and exit types. The legal framework will also be discussed as it delivers the main issues regarding ownership restrictions and prohibitions.

Macro background

At the beginning of the new century, investors were very optimistic and enthusiastic about India's potential for private equity. Half of the 1.2 billion Indians were younger than 30 years old, GDP was growing at a 7.5 percent annualized rate, nearly 100 million people had joined the middle class between 2003 and 2007, the number of citizens surged from 35 million to 330 million, and finally, the labour force rate was standing at 60 percent (McKinsey and Company (2015)). PE-to-GDP ratio was amounting to 1.8%, which is quite small compared to mature economies such as the US (4.4%) or the UK (4.2%). There is still plenty of room for growth.

PE funds injected \$93bn into the Indian economy between 2001 and 2013, with a peak of \$21.5bn in 2007. Returns were more volatile, beating the 18% average return of public investments with a tremendous 25% return until 2005, before falling sharply for the next three years. Indeed, exits were returning on average 7%, compared to a mere 12% in public equity for the years prior to the crises. With a 9 percent risk-free rate and a 9.5 percent risk premium (which integrates currency risk, country risk, and a volatility coefficient), PE funds in the country performed well below the benchmarks. The cost of debt was tremendous and the buyout industry suffered most from these rates. Exits have been very few in India, compared to other countries. Indeed, of the 51 billion dollars invested between 2000 and 2008, only 16 billion dollars had been returned through exits. Common explanations to describe the decline of the PE industry in Asia have been given as non-suited management approach driven by US buyout funds, as well as the lack of experience from the GPs. The following sections will first briefly explain private equity in India, before further describing what went wrong.

2.4.1 A brief history

As it was previously mentioned, private equity is a cyclical business with bullish and bearish trends. 3 waves have been highlighted in India. The first one goes from 1995 to 2004 and was defined by the dot.com bubble. The second one lasted 4 years from 2004 to 2008, and was defined by the subprime crisis. Finally, the last cycle occurred from 2009 to 2014. Each period is identified with a phase of boom followed by a sharp decline.

The Indian private equity industry emerged in the late 1980s and early 1990s with local funds such as Gujarat Venture Finance Limited, ICICI Ventures and Actis Capital. The growing dot.com bubble considerably increased the activity of venture capital investments at the end of the century, driven by tech companies. Indeed, several funds vehicles established in the Indian Silicon Valley in Bangalore, which quickly became the Indian first PE center. The city was considered as a 'local branch' of the Silicon Valley because of all the US tech and venture capital companies that had settled offices there. The burst of the bubble, at the very beginning of the new millenium considerably cleaned the market and most of the active funds disappeared. The market remained flat until 2004, with very few recorded deals. On the same time, rates were decreasing in the US as a push to spur investments and a non-negligeable share of 'international capital' fled to the US instead of emerging markets. Deepak Shahdadpuri, founder of Beacon India Advisors Limited, remembers that in a 4-day-trip in 2000 he had the opportunity to meet the remaining 20 funds in India (Insead 2008). But between 2004 and 2008, private equity in the country witnessed an exponential growth as the industry grew from \$2bn to \$20bn. The number of funds had increased from 20 in the early 2000s to 300 at the eve of the subprime crisis. Deal sizes had grown from the 1-5 million dollars average, to a roughly 500 million dollars. Large companies started to consider PE funding as a real source of financing instead of the traditional debt or equity issuance. It became the largest investor class in 2006. In May 2008, mark-to-market valuations of PE transactions had resulted in pre-IPO returns of around 128 percent, IPO returns of 22 percent and finally PIPE returns of roughly 8 percent. However, average returns on PIPEs were slightly lower than what the figure reflects, but they have been ballooned by a couple of successful large deals such as Warburg's 560 million dollar exit of Bharti. This considerably impacted the industry's performance as PIPEs accounted for 38 percent of the exits. In spite of the crisis slowdown, India remained in 2008 the second Asian country to attract most PE capital, just after Japan. After the crisis, the PE industry plummeted again and both investments and the number of funds declined sharply. 2013 is among the worst vintages in the Indian private equity history with only \$470mn worth of investments.

2.4.2 What went wrong

Now that the first decade has been overviewed, this subsection focuses on what went wrong. First, international and local PE firms overestimated the Indian market in many ways. The investable universe of private firms has been misjudged, unexpected competition from public markets, and general over-expectations over GDP and other GDP-related ratios.

Market not as big as thought

The Indian private equity ocean was not as deep as once could have expected it to be. Indeed, India encountered in 2013 10,440 privately-held firms (excluding thus state-owned and public enterprises) with revenues ranging from 25 million dollars to 125 million dollars. The same number was 41,150 in China, and 16,700 in Russia. Larger private companies are also fewer in the country when compared to other BRICs with roughly 270 private corporations with 125 million dollars in revenue against 1,295 in Brazil, 7,680 in China, and 3,430 in Russia. Finally, only 30 non-listed or non-state-owned companies highlighted revenues superior to 500 million dollars, compared to 545 in Brazil, 780 in China, and 830 in Russia. Despite its population size and being the second larger economy within the ones cited, India's private sector is much smaller than the other big emerging countries. This helps to suppose, however, that based on more stable financial markets and a more open view on ownership, relatively more companies are listed on the Indian stock markets. Furthermore, India encompasses several 'smaller' companies and lacks of national giants or Behemoths. Most Indian large companies are either listed or under state-ownership. The family-business culture is still very present in the country's culture and explain the smaller size of its private corporations. As far as the public-listed companies are concerned, India held in 2013 3,800 companies, with median revenues of 20 million dollars and mean of 330 million dollars. On the other hand, Chinese public markets were representing 3,600 listed firms with median and mean revenues of 240 million and 1.6 billion dollars respectively. Here again, although the Indian markets encompass slightly more public companies, their size is considerably smaller than their Chinese peers. Of course, a natural explanation is the size of the economy, which is at least 5 times superior in China than in India (see Hypothesis 4). Finally, Brazil has an even more concentrated stock market than China with 325 public-listed companies delivering median revenues of 490 million dollars and mean revenues of 2.5 billion dollars. The difference is colossal, with Indian public-listed markets larger than the other countries in volume, but considerably smaller in value.

According to McKinsey and Company, which documented the past figures, the market does not look as attractive as it used to be, with the number of Indian firms lagging in all revenue categories. This results in fewer investable companies and therefore fiercer competition, leading to an accumulation of unspent capital. Sell-side intermediaries benefited the most from this environment, which in turn widened the competition

even more. Indeed, increased sell-off transactions can take advantage from the attractive high prices and push them even higher via auctions, which provides a greater incentive to go public. Furthermore, intermediaries (most often Western investment banks) benefited from higher management fees because of their dependance on investment amounts. The market turned out to be highly competitive, highly sell-side driven, overpriced, and encompassing few proprietary deals.

In all vintages except one between 2002 and 2010, India's gross domestic product outperformed all major statistical projections. However, the music stopped in 2011, where the trend reversed and the country's economy failed to meet expectations. Several models and ratios depend on GDP growth projections and volatility considerably increased confusion regarding returns. Furthermore, the private equity market in India was much more mature than investors and partners could have expected it to be. GPs were sitting on a huge amount of unspent capital pillow and the PE-to-GDP ratio (once considered as low compared to Western markets) was hiding another truth. Aggregate transactions from 2002 to 2005 (in terms of 2005-GDP-figures) stood at 0.72 percent in India, relatively comparable to China's 0.85 percent, and below Indonesia's 1.08 percent or even Korea's 1.15 percent. However, with the abundance of fresh new capital that spread over the market in the early 2000s, the ratio surged to 3.5 percent between 2006 and 2009, much higher than China's 1.2 percent, Indonesia's 0.8 percent, or Korea's 2.4 percent. Over the period, PE investments (in absolute amounts) in China still outperformed those in India, with 60 billion dollars compared to 47 billion, but 41,150 middle-size available private companies are considerably outnumbering the 10,440 Indian comparable firms [note].

New sectors

In an attempt to get rid of the unworking capital and invest it at all costs, general partners started to expand their investments to larger transactions and in a wider range of capital intensive and illiquid sectors. These new investments were also requiring a longer investment period, which affected returns, reduced the number of exits, and eventually considerably popularized secondary sales. From 2005 to 2008, investments were merely focused on real estate (24 percent of all transactions), financial services and telecommunications (with 14 percent of total investments each). But targeted sectors shifted between 2009 and 2013 towards sectors defined by longer maturities and requiring more capital-intensity to keep the businesses running, as for instance: engineering and construction (9 percent), hospitals (6 percent), power generation (10 percent), and real estate (13 percent). In a word, infrastructure-backed sectors, which are sometimes considered as greenfield in the country and requiring more time to mature. Information technologies also experienced a regain in attractiveness with transactions increasing from 9 percent to 14 percent of the total. Within the end of the period, infrastructure-led companies were present in all of the 25 largest funds' portfolios, amounting

to 43 percent, or nearly half of the 77 billion dollars deals-worth transactions from 2007 to 2013 [note]. On the same time, the subprime crisis that emerged in the US was expanding worldwide and emerging markets could not help but face the financial turmoil: loans from banking institutions melted, inflation surged, and policies "wavered". Returns on the infrastructure sector severely declined until 2013. Another encountered problem, was that several transactions in infrastructure were signed by generalist firms that lacked managerial skills and experience to manage risk and long-term projects effectively. The relatively strong (by its volume) consumer goods sector's attractiveness declined from 6 percent to 5 percent over the two periods, as a consequence of the lack in confidence. Maybe due to pure favorable macro events or also to the election of Narendra Modi as the country's Premier, but the market outlook considerably recovered at the end of 2013. A new period of steady growth started and returns in most sectors recovered from the sluggish years.

Larger Deals, Slower Exits

The average deal-sizes peaked in 2007-2008 where they reached 34.6 and 31.5 million dollars respectively, up from 14 million dollars in 2005. On the 5 following years, deals sizes averaged 22.2 million dollars annually (Shukla (2014)). The desire for investors to commit to larger deals came at the same time of increased capital expenditure for capital-intensive industries. The combination spurred risk considerably as the affected industries were facing increased costs of inputs due to a weak currency and mounting inflation. Data from McKinsey and Company shows that the holding period before exiting an investment escalated from 3.5 years in 2004 to 5.2 years in 2013. Throughout the period, illiquid long-term investments became even harder to exit because of the cold and unstable macro environment. According to the report, of the 51 billion dollars injected in the country over the 8 first years of the new century, only 14 percent of the real estate investments were materialized, 29 percent of the transport and logistics, 21 percent of the engineering and construction, and finally, only 9 percent of the energy companies transactions had exited in 2012. Costs of inputs were increasing, companies were starving for fresh capital to support their activities, and the IPO market was far from being an attractive way of exit. In other words, only \$16bn of the \$51bn exited, at a 27 billion dollars price though. The few exits managed to deliver strong profits and return cash to the investors. Other more short-term sectors, such as information technologies and healthcare providers highlight more exits, as 39 percent of the investments have been materialized in both industries. Financial services are also more liquid, with a 34 percent exited share. Investments in emerging markets are mostly driven by momentum. And India was not an exception with 70 percent of the deals designed during the first decade trading above the 10-year-median price-to-earnings multiple of 17.4. In other words, general partners in India managed to exit their investment at the most profitable time. The same ratio in China is smaller than 50 percent. Further explanation is documented in Section IV while answering the third hypothesis. I stress indeed that Chinese trends are much less dependent on external events or momentum than other countries such as India, and

conversely, that the size of the Chinese market enables investors to find buyers quite easily, without paying a particular attention to the momentum.

Due to the difficulty to exit an investment through the financial markets (IPOs), secondary sales jumped over the 2000s, increasing from 5 percent in 2005, to 10 percent in 2010, to finally stand nowadays at 30 percent of all exit types [note]. The rise of secondary buyouts can be due to two main factors. First the dominance of growth capital investments, which if successful, may be subjected to a buyout investment. And the second explanation relies on the huge amount of unspent capital lying in the Indian market. As explained in the first subsection, several fund managers have an incentive to invest in a secondary buyout in order to get rid of their cash before the end of the investment phase. Secondary buyouts are very common in Asia, as it will be documented in the analytical part.

2.4.3 A brighter future?

Private equity investments have become a major source for funding the country's economic growth. Indeed, 36 percent of all the investment funds raised by Indian companies over the first decade, have been settled by PE groups. The share is even more significant in times of financial or economical distress, as it increased to 47 percent in 2008 and around 46 percent for the years going from 2011 to 2013. Moreover, the McKinsey research also reveals that PE target companies outperformed their public-owned peers in terms of required time to deliver sustainable revenues and earnings. And this, among all industries and vintages. The report documents that most of these companies are driven by more effective corporate governance, a better understanding of the applicable regulations, and finally more likely to seize export opportunities. Furthermore, PE target companies are more flexible to adapt for an acquisition process. Although the Indian economy does not provide a wide range of private companies to be purchased compared to other emerging countries, it offers a wider freedom of more effective management. This particular point makes the Indian market look underserved. Several private Indian companies are mismanaged and fail to seize growth opportunities. International PE groups see plenty of room for action in the Indian corporations in order to increase profitability and governance, but this requires a great understanding of the country's corporate culture. 5 actions could reveal a new growth opportunity for PE partners and investors in India: a better control of the deals, an absolute understanding of the family-owned businesses requirements, answer to a starved and neglected need for mezzanine funding as well as capital restructuring, a greater collaboration between limited partners and general partners' strategy with track records, and finally, support from policy-makers to spur investors confidence (McKinsey (2017)).

In addition to widening the sectors and the targets, private equity partners also ought to seize opportunities in exercising a better control of their purchased companies. Just before the financial crisis, only 13 percent of all PE transactions were regarding control investments, while this figure increased to 29 percent five years later. Control strategies enable fund managers to train entrepreneurs, advocate for a more efficient and tighter capital discipline, and rethink exit strategies in order to renew the portfolios companies. According to another McKinsey study, capital discipline is considered among partners as the second requirement after managerial skills. Many brilliant entrepreneurs who get older express their fears to face succession issues. The Indian corporate culture is till largely dominated by family-owned business and see selling a running company as a failure. It thus up to the close family to take the reigns when the founder 'resigns' and continue to enhance the family business. However, all families do not benefit from the opportunity of having entrepreneurs in the younger generations and several business close because of that. Changing the corporate's culture might be a huge opportunity for private equity companies. As a matter of fact, already 46 percent of PE investments made between 2007 and 2013 regarded family-owned businesses. The share increases to a tremendous 70 percent in terms of volume. Funds that enhanced a great understanding of the complexities for such businesses, like family trusts, short-term liquidity needs, governance and succession provide far better customized strategies for the companies, resulting in a stronger financial performance. During the stage of due diligence, partners must provide as much time on understanding the business, than on understanding the promoter, in order to tackle faster governance problems. McKinsey concluded its study by stressing that one of the biggest weaknesses among general partners was their failure to understand family issues.

Mezzanine and distressed debt

Mezzanine and distressed debt financing is increasing in India but still remains a tight "niche" market, unlikely to top more than 18 to 24 billion dollars through 2020. However, demand is increasing fast and if the Indian bond market matures, mezzanine financing could well surge in the country. The pace of expansion, cross-border deals, as well as the volatility of banking loans can impact these special types of financing. But they both require a strong regulatory framework, which is far from being active.

2.4.4 Boom in Infrastructure

Another positive phenomenon might come from the inside. Indeed, as it was previously mentioned, investors started to invest heavily on infrastructure companies in order to spend their dry powder. As a direct

consequence, investments fled to a wider range of industries defined by capital-intensive sectors, secondary buyouts, as well as longer maturities. But these investments, may also have largely contributed to India's growth and regional developments. Indeed, Thillairajan and Behera (2014) advocate that growth in an economy, can only be reached through investments in physical assets such as roads, railways, ports, electricity and airports. India faces a great shortage of infrastructure capacities and efficiencies to sustain its urbanization growth pace, and private equity acts as a major source of financing. Narendra Modi's government made infrastructure investments one of its top priorities to maintain its economic growth rate above an annualized 7%-threshold. The huge need in capital is the major drawback. Traditionally, the government was committed to the growing infrastructure expenses, but under pressure to keep the public debt at sustainable levels, the state decided to promote infrastructure-led investments through private investors. They committed to long-term contracts in order to manage and build new physical facilities. As for instance, the shipping and ports industry has experienced one of the biggest shifts toward going private. The Financial Times highlights in an article published on March 23rd, 2017, that the shipping's volume share of the 12 state-owned ports decreased from 72% to around 55% in less than a decade. International trade is expanding fast with India and the government's facilities fail to meet the growing demand. This kind of opportunities is perfect for the buyout industry as international investors can use their expertise on the field and support companies to grow. In exchange, as long as trade will continue to expand, sustainable cash-flows will continue to service the debt. Investments in infrastructure is a win-win for the economy and the buyout industry. Moreover, as it has already been mentioned, in addition to bring new fundings, private equity investors also brought efficiency, experience and expertise to the facilities they were investing in. Innovation in technology, design, construction and operational structures rallied to the new trend.

Private investments have considerably increased since the beginning of the new century, from roughly 20 percent in the 10th Five Year Plan (2002-2007), to around 30 percent in the 11th Five Year Plan (2008-2013). Analysts even predict that the private sector share in infrastructure investments will reach 50 percent by the end of 2017, in the middle of the 12th FYP. In previous decades, private capital for infrastructure projects was provided as equity contributions of financial sponsors or debt from commercial banks and capital markets. Debt usually amounted to 60-70 percent of the investments. The sponsors, called sponsor investors, developed product-market relationships with the target companies. They took the form of construction companies, power purchasers, equipment companies, etc. Traditionally, equity investors only had access to the residual cash flows of the firm, while sponsor investors benefiting from a product-market relationship with the firms could grab access to the intermediate cash flows from the project. As for instance, a construction company acting as a sponsor would be paid for its construction services before the project company would deliver a return on the equity investment (Thillairajan, and Menon (2014)). Non-sponsor investors were

financing projects with debt or public equity. By contrast, PE investments outperformed non-sponsor ones. The difference came from the nature of acting as active investors, delivering managerial and added-value inputs to the projects. (A REVOIR ou supprimeur).

Private equity emerged as a form of private capital to finance infrastructure investments. However, they differ in the way that they do not seek to enhance and share a product-market relationship with the target companies. PE funds were rather interested in the fast growing companies and opportunities in the Indian infrastructure market. Thillairajan and Menon found evidence from VentureXpert in 2014 that \$9.54bn had been injected globally in infrastructure projects for the first five years of the century. The 3 years that followed, from 2006 to 2009, have seen an incredible increase of 102%, with 19.1 billion dollars were invested in such projects. Finally, momentum continued and peaked until 2012, where 250 annual deals on average were signed, skyrocketing the total invested amount to 100 billion dollars (Inderst (2013)). Over the whole 2006-2013 period, there were 216 billion dollars that had been raised globally by PE infrastructure-backed vehicles (Preqin (2014)). As far as India is concerned, Venture Intelligence (an Indian PE database), estimated for its part that 562 transactions had been signed in India between 2003 and 2013, totaling 21.8 billion dollars.

Thillairajan and Doshi published a study in 2011 documenting that most of the infrastructure investments in India were delivered by foreign PE vehicles. In 2014, Thillairajan and Menon studied 335 deals collected from Venture Intelligence, and discovered that the lowest deal sizes were attributed to Indian PE vehicles, while the highest were attributed to combinations of domestic and foreign investors. This can be explained by two reasons: (i) that Indian investors could take advantage of their knowledge of local business practices, and (ii) that their presence reassures international investors, who are committed to inject larger amounts. The same results were highlighted for fund sizes. Moreover, Indian funds acting alone tend to be younger and with less experience than international groups. That also explains the smaller investment amounts by Indian investors. As a conclusion, an international mix of investors build larger funds and commit to larger investments for the country. The Indian government ought to ease barriers limiting foreign investors to establish in the country and on the contrary seek to attract them.

2.4.5 The South dominates investments attractiveness

Finally, it is the Southern region that dominated the Indian private equity market by attracting the biggest share of the transactions, both in terms of volume and in value. The region stands higher in the PPP- and property rights indexes. High values indicate a higher level of activity and confidence among investors. The Northern region, which delivers the highest GDP per head values comes third as it fails to attract massive

investments. A higher corruption bureaucratic ranking might explain this result. The second position is held by the West region. Finally, the Eastern states did not manage to attract several transactions, as the region lacks of industrial activity (Thillairajan, and Menon (2014)).

2.5 Private Equity in China

Throughout the past 15 years, private equity emerged in China to become one of the most attractive investment type for international investors. But as the country's economic model drivers are shifting, what ought to be the impact for private equity? The country's astonishing growth throughout the past three decades remains the most compelling story in the global economy today. Nearly half of a century of massive reforms and strong performance propelled the country to become the world's second largest economy, and its global share represents nowadays roughly 4 times what it used to account for back in 1997 (EY (2014)). 2013 was a year of transition, from a social and economic point of view, but also from a political one. China started its shift toward a more balanced economy, to better align external demand and internal consumption, fueled by the fast-expanding middle class and urbanization flow. The Chinese-still-centralized government launches new structural reforms every year in order to boost productivity, ease business practices, tackle corruption and finally spur competition among economic agents.

The private equity industry as well has experienced a transition period around 2014, for two reasons. First, because the Chinese regulators decided to open back the financial markets, and thus the IPO market, after a two-year moratorium, which was by far the Chinese preferred PE exit route. The second reason, more structural, regards the need for Chinese family-owned small conglomerates to gain from operational efficiency after decades of artificial growth and mounting debts. Control buyouts can finally emerge in the country due to a more mature companies, sophisticated financial markets, and larger-scale deals.

2.5.1 Remarkable Economic Boom

The Chinese economy experienced an astonishing development since the early years of Deng Xiaoping's 1978 economic reforms. Market-oriented policies, as well as industrialization and urbanization supported and drove growth to double-digit figures for more than three decades, unlocking much of the country's huge economic potential. This helped to boost China to become the world's second largest economy, a considerable ascension from the 9th place it used to occupy in 1975.

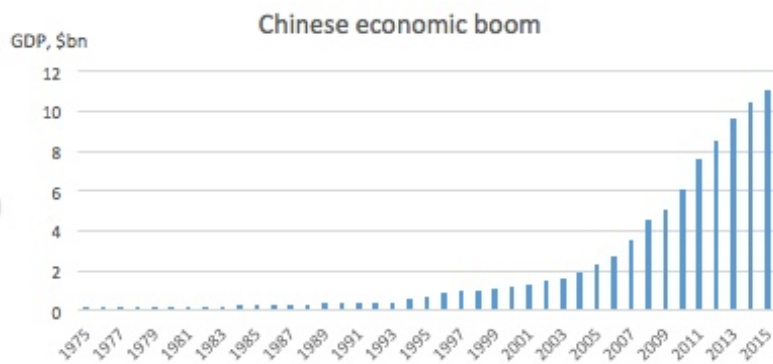


Figure 3: source: Thomson Reuters Datastream

Tremendous economic growth, sustainable as well as sophisticated financial markets, and high trading multiples of the domestic A-share market boosted PE investors profits and valuation arbitrage since the beginning of the new century (Zhang, et al. (2014)). But this general euphoria and overinvestments also brought businessmen, investors and policymakers to close their eyes on some indicators turning red such as the doubling corporate debt levels and the alarming overcapacity production. An aging demography - once considered as the major growth driver-, declining birth rates, a 6.5% economic growth rate, and overall mounting debts, are all pointing to a same direction, transition. The economy is currently shifting from a low-cost export-led model to a sustainable growth model supported by internal consumption, productivity, and high-value-added. China's Premier, Xi Jinping, vowed to propel his country beyond the "growth at any cost" model to a more balanced and diversified one. The Chinese government manages this transition very carefully and injected more than half-a-trillion dollar into the economy and financial system to assure its stability. As far as leveraged buyouts are concerned, it is time now for some operational efficiencies as well. The series of financial reforms are meant to boost flexibility in the country's financial and credit markets. Coupled with social, judiciary and fiscal reforms, the private equity industry is expected to considerably gain in attractiveness, with more mature and long term investments.

2.5.2 Current Private Equity Market

The recent US decision to increase interest rates, coupled with a reviving European economy delivering macroeconomic and political stability, contributed to a massive reversal of capital flows from high yield countries to the Western world. Nonetheless, the drivers that made China such an attractive destination for private equity investments are still present and offer even more attractive perspectives over the next decade.

Fundraising



Figure 4: source: PwC Private Equity / Venture Capital 2015 Review and 2016 Outlook

The first graph highlights fundraising in Greater China in millions of dollars. 2011 was by far the strongest year, after two years of weak activity due to the financial crisis and the global uncertainty. According to an EY report (2014), around 30 percent of the capital raised in 2013 came from onshore RMB funds, and the figure is likely to have steadily increased since then. The decline between 2011 and 2015 may be attributed to the moratorium on IPOs, which prevented investors to chose this exit mode (by far the most preferred in the country). The exit timing uncertainty and the constant need of liquidity pushed investors to reduce their exposure, especially the ones focused on pre-IPO funds.

By contrast, when transactions are taken into account, take-private (PIPEs) have experienced a non-negligible success with several acquisitions of companies listed in the US. Chinese local funds gain in sophistication and are no longer focused only on the domestic market. The Chinese private equity industry is diversifying and extending its grip to developed markets where profitable deals are to be made.

From the world's largest IPO market to the 2012-2013 IPO Moratorium

China's financial markets considerably developed and gained in flexibility and efficiency. Back in 2003, only 66 companies were listed on the country's stock exchanges, which raised 5.2 billion dollars, compared to 350 listed companies in 2010, having raised an aggregate 80 billion dollars (EY (2014)). The strong rise of Chinese IPOs on its two main domestic stock exchanges in Shanghai and Shenzhen, as well as its international stock market in Hong-Kong, Greater China grew to become the world's largest IPO market from 2005 to 2010. From 2008 to 2010 (just after the crisis, Greater China hosted 45% of all global IPOs in terms of value. Though, it is important to bear in mind that during these last two years, US stock markets

were seriously struggling to survive. Prahl, Cannarsi, Zeisberger (2011) documented a paper in which they disclose exit strategies for Chinese and Indian private equity deals. Over the 992 transactions that provided investment and exit data, it is clearly possible to notice the domination of IPOs as an exit route in China. The results are very different among the distinctive PE types. Venture capital clearly favors IPOs, while LBOs are largely favoring trade sales.

	China			India		
	VC	PE	LBO	VC	PE	LBO
Number of companies with entry and exit details						
	476	212	14	160	123	7
IPO	72%	63%	21%	34%	33%	14%
Trade sale	28%	37%	79%	66%	67%	86%

Figure 5: Exit strategies from 2000 to 2010 in China and in India. source: Prahl, Cannarsi, Zeisberger (2011)

2010 was a remarkable year for IPOs in China, as the central government decided to allow small- and middle- size companies to go public. However, due to the now even growing demand, Chinese authorities had no choice but to suspend new listings. The procedures were too heavy and the 'waiting queue' was starting to create issues. The moratorium on IPOs imposed by the central government in order to strengthen standards of quality, ease regulations, and increase sophistication in the Chinese financial system, sensibly impacted the private equity industry (Saigal (2014)). Indeed, IPOs are the most favored exit route in China. During the shutdown, GPs cancelled their investments and waited for the financial markets to open again. It is highly risky to enter an investment without a wide range of exit routes. However, fundraising took a couple of years before restoring total confidence, as the China Securities Regulatory Commission (CSRC) stressed in November of the same year that around 760 companies were waiting to go public (EY (2014)). As a direct consequence, sales to strategic investors and secondaries considerably increased during the following years, but were unable to outperform public listings.

Buyouts in China

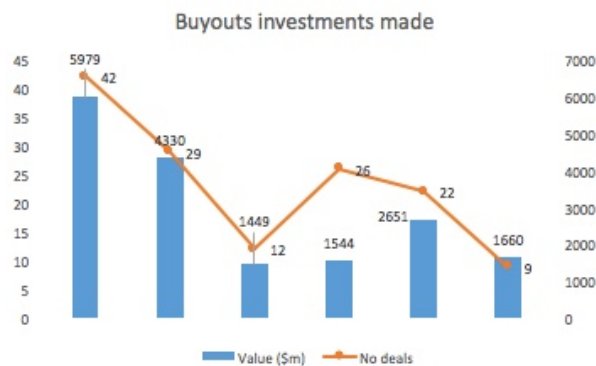


Figure 6: source: Asian Buyout Review (2012)

The number of buyout deals in Greater China is in line with the financial and economic conjuncture, with steadily declines from an all-time-high 2007 to a low-peak in 2009, before bouncing back in 2010 and decreasing again for the two following years. The invested amounts, however, showed different results in 2011. By taking the People's Republic of China alone, buyout transactions amounted to 980 million dollars in 2010 before surging to 2.5 billion dollars the following year. By contrast, the exact opposite scenario hit Honk-Kong, with buyouts deal values decreasing from 375 million dollars to 175 million dollars during the same period of time.

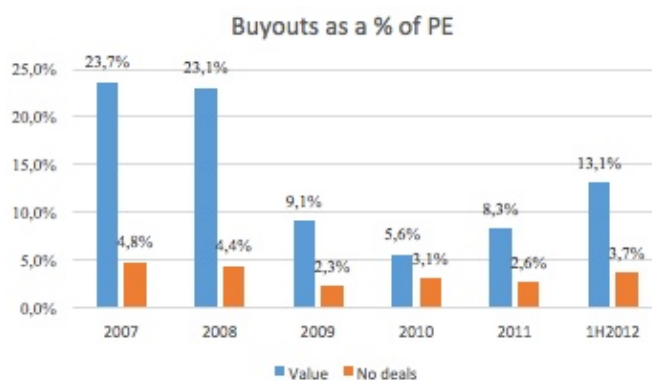


Figure 7: source: Asian Buyout Review (2012)

This late graph highlights the buyout activity as a percentage of private equity. At the exception of 2007 and 2008, buyout values failed to reach 15% of the country's private equity total value. Even more surprising, the number of transactions signed failed to top 5% for a single year from 2007 to 2012. The difference in market share shows at least evidence that average investment amounts are comparatively large for LBOs. It also proves that the market is still emerging and that several laws restrain the LBO activity.

It is time for buyouts

The 7,500 investments yet to be exited in 2013 represented a huge opportunity for strategic and financial investors seeking buyout transactions (China First Capital (2013)). At no previous time was the buyout industry more appealing in China. Private equity and venture capital had experienced their glory years in the eve of the global financial crisis of 2008. The rise of buyouts came at a time where minority stakes were harder to find as most of the top-performing corporations growth had already been financed, which made it difficult for private equity companies to exit investments before the closing of their funds. Several among them were considered as distressed sellers of profitable assets. Growth investments were among the most hit after the crisis as demand halted.

As far as majority stakes were concerned, three major agents play a significant role in China : i) international corporations willing to enter the Chinese market, ii) strategic acquisitions to expand a business in China, and iii), Chinese or international buyout-focused private equity companies aiming to purchase, assemble and sell performing assets. All three investors answer to different investment methods and metrics, but at no previous time was the environment for an \$100mn acquisition more attractive for all of them (China First Capital (2013)).

The industrial logic for buyouts in the Chinese domestic market has always been attractive due to its fast growing economy, its huge scale, as well as the fragmented nature of some industries. Though, because of cultural reasons, companies for sale usually regarded troubled or state-owned companies which were poorly managed. Efficient and profitable companies were not meant to be sold to strategic or international investors. Buyout funds took advantage of the IPO moratorium to act as an alternative reliable exit route. In Europe and in the United States, trade sale have always been the preferred exit choice for all kind of private equity investments, including late stage. The Chinese private equity industry emerged differently, by choosing IPOs as the most common tool to exit an investment, until recently as the market is urgently looking for alternatives because of the long awaiting list. A new strategy is emerging in China, consisting in "capturing added value". In other words, it means purchasing a company that will deliver strong operational efficiencies based on Ebitda margin increases, sustainable activity expansion and profit growth. Several such invested companies act now as leaders in their given industries and rely on a dominant position (Xiao (2013)). Their roots have been fixed in their markets and are very likely to continue further with an international ambition. Because of a sluggish credit market (Chinese banks are reluctant to finance leveraged deals to private companies), buyout companies must provide a considerable share of capital to their purchased companies and pay

a serious attention to cash flows and investment returns. This explains their need to build large businesses that must be able to deliver strong and sustainable periodic returns. The vast amount of companies waiting to be exited values Chinese firms at moderate levels (5-11X previous Ebitda) and prevents them to becoming too buoyant. As such, premium assets are not always valued at premium prices (China First Capital (2013)).

The delisting of Chinese companies on US exchanges

Despite its dominant importance in the Asian Pacific private equity industry, China has always disappointed in terms of buyouts transactions, because of several restrictions in majority control and massive leverage in the transactions. As for instance, LBOs represented only 8.3 percent of all Chinese PE transactions in 2011, against 86 percent for Australia and 66 percent for Japan. The amount of buyouts considerably decreased though, compared to the 23 percent in 2007 and 2008, which can mostly be explained by the uncertainty in the high yield bond market that the financial crisis created. Unsurprisingly, the deal's value is much more significant than their volume, with a multiple of at least 4 times higher. The market is still far from delivering Western-style buyouts on a large scale.

Several Chinese companies who went public in the United States over a decade ago are struggling to survive to the anti-sino reputation that settled in investors minds during the last couple of years, giving a huge opportunity to PE companies to help them go private. Indeed, the prestige of being listed in the "world's most developed market" as well as the abundance of liquidity flows pushed many Chinese companies to choose the US instead of domestic or regional markets such as Hong-Kong to go public. It seems that only two-fifth of the 598 PE-backed IPOs in China (between 2000 and 2010) were processed through the Chinese domestic markets, a-fifth-and-a-half in HK and the rest in the US (Prahl, Cannarsi, Zeisberger (2011)). By contrast, 90 out of the 94 Indian companies that experienced an IPO chose to be listed in their respective domestic markets. Unfortunately, the flow of fraud cases and their mediatization severely hit the companies' shares. As a consequence, a bunch of these Chinese companies listed on US stocks opted for management buyouts or delistings from unattractive US markets. Buyouts served as a preferred and profitable option, as the management teams were able to rely on strong and stable profits to pay back the financial sponsors (the private equity companies who financed the deal) before seeking to be re-listed on the hungry domestic or regional exchanges. Other companies waited for the US stock market to cool before being re-listed in the US (Laskowski (2013)). James Chapman, partner at Foley and Lardner LLP declared that " *There's tremendous financial opportunity for PE in taking some of these companies private, provided they partner with the right company. [...] You not only have to find the undervalued companies but avoid the the companies that resist transparency and have other serious flaws.*" In other words, there is opportunity, but the tricky part remains

in "*sorting the geese from the white elephants*". Joseph Chan from Sidley Austin LLP, expressed for its part that, unfortunately, *although most of the Chinese companies were "clean", they all suffered from the global reputation caused by a few fraudulent large corporations, which poised them to trade at undervalued prices and to spend considerable time on compliance reportings.* "As long as you are from China, it's guilt by association, regardless of industry or background or performance" he added (Laskowski (2013)).

Management buyouts are particularly difficult with Chinese companies, and this, due to three main reasons. First, there are some conflicts of interests between the management team willing to take their company private and the financial sponsor (the private equity firm) willing to maximise the return on its investment. But this point is the same regardless of the country. Second, there is no guarantee about an exit strategy and this uncertainty weights on the investors' confidence. The government's decision to freeze all new listings on Chinese stock markets is a good example of the matter. Finally, the Chinese corporate laws prevent investors from selling back purchased shares before a materiality period of minimum 3 years (a lifetime in private equity). Some investments can turn out to be highly profitable after a few months. Being in a peak period and having to wait several months before being allowed to exit an investment might cause disastrous consequences for a private equity company (Laskowski (2013)).

Off-/On-shore funds

According to Aizenman and Kendall (2008), China became the Asian largest net importer of private equity investments, mostly under the form of minority and growth capital (Feist, Wang, and Qin (2008)). Leveraged buyouts for their part are not very common in the country due to restrictions in leverage in Financial Invested Entities (FIE), which are capped to leverage ratios ranging from 0.43% to 2%. Moreover, the Ministry of Commerce prohibits the use of the target's assets as collateral for leverage (Eich & Li (2007)). Most of Chinese active funds are off-shore and benefit from the tax advantages by avoiding the Chinese legal system scope (Wolff (2008)). On the other hand, legal authorities allowed the settlement by international investors of Foreign Investment Partnerships (FIP) to support PE transactions. This enabled investors to ease the launch of on-shore funds (denominated in Chinese renminbis, also called RMB-Funds), which enables them to hedge positions against currency risks and the long off-shore structure regulatory requirements. RMB funds exceeded dollar denominated ones for the first time in 2009 and are now considerably more popular.

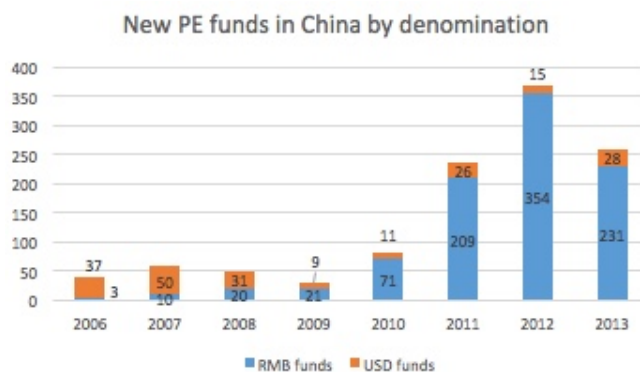


Figure 8: source: PWC (2016)

Foreign direct investments (FDIs) considerably increased between 2005 and 2009, surging from 79.1 billion dollars to around 147.8 billion dollars (worldbank.org). This puts China second only to the US. The centralized government favored FDIs since the early economic reforms, at the exception of a few prohibited or restricted sectors. The former regard securities companies, while the latter rather concern industries relying on limited natural resources and other sectors that are likely to impact national securities concerns such as News websites or internet providers. Securities companies and export-driven business are also subject to caps from international capital. Finally, service industries and high technology are among the mostly favored destinations for fresh new investments (Botnick and Forry (2012)). The Catalogue for the Guidance of Foreign Investments Industries dictates the different prohibited and restricted industries.

The Chinese corporate law only allows international investors to inject capital through FIEs (Wolff (2008)). The most common form is structured as an equity joint venture, where the target paid price must represent at least 90 percent of the security value (Botnick and Forry). Moreover, investments below 25 percent of ownership are highly restricted.

As far as public targets are concerned, the Chinese market includes A-shares, B-shares, and H-shares. The first ones are denominated in renminbi and traded on the two Chinese stock markets (i.e. Shenzhen Stock Exchange and Shanghai Stock Exchange). B-shares have the choice between being denominated in dollars and traded on the Shanghai SE or being issued in Hong-Kong dollars and traded in the Shenzhen SE. Finally, H-shares are libeled in HK dollars and traded on the HK SE. The acquisition and the trade of A-shares is forbidden for international investors. Only a few foreign financial institutions are allowed to hold up to 10 percent of the outstanding A-shares (Jingszhou, and Nee).

Strategic investors are permitted to purchase a controlling stake in a company through a private place-

ment if they own off-shore assets of at least 100 million dollars or manage 500 million dollars of off-shore assets (Botnick and Forry). Stakes of 10 percent of ownership or more must be validated by the MOC and being held for a period of minimum 3 years in order to avoid pure speculation and high volatility (Tao and Nee). Finally, every stake reaching a multiple of 5 percent starting at 5 percent is subjected to declaration to the Chinese authorities. These thresholds must be validated by the CSRC within 15 days.

The new Chinese corporate law, effective since January 1st, 2006, considerably increased the access and flexibility for international investors to structure private equity transactions (Eich and Li).

3 Elephant or Dragon?

The private equity industry in China, like the nation itself, is entering a new stage in its development. After three decades of export-led double-digit expansion figures, the country is shifting toward a more balanced economy, fueled by internal consumption, productivity and high-added-value investments. The private equity market continues to deliver strong returns despite the lower economic pace, and control buyouts are expected to take the lead in the future even if they still represent less than 25% of the total. Chinese corporations long benefited from overinvestments and fresh capital injections from the government, which resulted in mounting debt levels and poor financial performance. Time has come for private equity investors to take advantage of those underperforming corporates and conglomerates and seize the plethora of opportunities the Chinese market is willing to offer. Although venture capital will continue to dominate the market for a while, randomly picked companies for growth strategies will slowly be outnumbered by meticulously selected buyouts of any kind. The Chinese corporate market is concentrating. A first wave of massive acquisitions is coming before an era of divestitures as it is the case in developed economies (Cumming and al. (2010)). Several family-owners and entrepreneurs who benefited from previous growth equity to expand their product range on a local or regional scale will now move a step further and turn to buyout strategies in order to fuel international expansion.

Narendra Modi, the Indian Prime Minister, vowed to ease regulations to boost the private market. India relies on less sophisticated capital and bond markets than its Northern neighbor and the country's corporate environment is still largely dominated by family-businesses. However, due to its smaller size, now may also be the time to enter the Indian market in order to be ready when the market will reach a particular threshold of attractiveness.

4 Methodology

4.1 Qualitative Analysis based on a deductive approach

The purpose of this thesis is to analyse the leverage buyout industries in the Indian and Chinese markets and determine which among the Elephant or the Dragon offers the best opportunities for the years to come. Actually, the paper would aim to help a private equity general partner of a focused fund to determine in which country it would be more profitable to settle a new fund and invest in. Both markets are subject to heavy regulatory requirements such as restricted bank loans or ownerships prohibitions & limits in strategic industries. However, both governments vowed to ease regulations and make their financial markets more flexible and prone to international investments. The PE buyout industry ought to be among the best beneficiaries of eased regulations, simply by being allowed to do its business, i.e. seeking total control in particular companies. Both countries have corporate governance structures still dominated by family-owned enterprises but the trend is currently shifting in the two countries. Family-owned businesses have a negative impact on private equity as owners are less keen to sell their business to foreigners because of the cultural signification of failure. The changing trend might well considerably impact the LBO investment opportunities in the two countries. Based on the readings I have gathered so far, I have developed four hypotheses, which ought to help me find an answer to the research question. Although the first one might be obvious, it would be impossible to understand it without the third and fourth hypotheses.

4.1.1 The Hypotheses

My first hypothesis, claims that the Chinese LBO market currently offers better opportunities than the Indian LBO market in terms of investments, because of the size of its economy, as well as its more sophisticated financial and legal infrastructures. This hypothesis might be easy to validate, but what interests me the most in the answer, is the difference in scale for each type of private equity investment, rather than the name of the larger market. My second hypothesis though, stipulates that India is likelier to offer better investment opportunities due to its developing young middle class and greater openness to international markets. Furthermore, India's Premier's move to push fast for a safer and more stable regulatory and corporate-oriented legal framework is another point for the Indian market attractiveness. The results of the first hypothesis will guide those of the second one. Indeed, if the two countries show relatively equal volume transactions or a flat curve for China opposed to a fast increasing curve in India, the latter country could well be likely to outperform the Chinese buyout market within the decade. However, acknowledging the largest market is not enough to understand its attractiveness, and this will be the role of the two remaining hypotheses. The third one will highlight the impact a certain number of internal variables can have to explain the attractiveness of

a buyout market, while the fourth hypothesis will test macroeconomic variables to explain the attractiveness of the market. If my two last hypotheses are validated, I will be able to confirm the two first ones, and answer to the research question.

In order to validate the hypotheses, I have decided to determine a few variables that define and impact the attractiveness of an LBO market and test them by analyzing real figures from past Indian and Chinese LBO transactions. In total, 9 variables have been chosen. The investment type and the investment amount are the two variables I would like to test in order to validate the first hypothesis. The investment type will give me an insight of the buyout market when compared to other private equity activities, such as growth capital or PIPEs. Venture capital deals were not included in the database because of their early-stage-nature. The second variable (investment amounts), will provide me an insight of the scale of these markets.

To test the second hypothesis, I extrapolate the number of transactions I have gathered for each year and I compute the obtained equation for 3, 5, and 10 years. It is a statistical tool used to make estimations in time. I therefore use the investment type coupled with another variable: the investment year.

The third hypothesis will constitute the larger part of my analysis section. I will test 7 transaction-specific variables in order to assess their importance to make a market attractive. First, I would like to further test the investment and exit years in order to make activity tendencies. Then I would like to discuss the average holding period for a transaction, a year, or even a sector, in order to understand the ones that recycle fast. Moreover, although I already use the investment amount variable to describe the size of the aggregate market, I would like to test aggregate and average investment amounts by year. This will for instance deliver some useful information on the size of transactions and the required capital in order to enter the market. The type of exits will constitute one of the most important variables to explain returns. Furthermore, it would be very interesting to couple them with the exit dates. The choice of an IPO or a trade sale may sensibly differ regarding the invested amount, and the current momentum. The number of investors will provide me an insight of the competition and concentration among investors. This variable will also help me to acknowledge the number of investors for a single investment. In that particular case, multiple investors could rely on the expertise of each other to seek better returns, but on the other hand, would have to share the profits. Very interesting features may be produced with these variables. Also the concentration of multiple investors in a particular industry for example. The sectors also represent an important variable, as they can be coupled with all other variables in order to determine trends or explain some larger returns. And finally, the returns variable, which can also be coupled with all the previous ones will close this subsection by validating or not the third hypothesis.

The fourth and last hypothesis claims that macroeconomic factors such as economic growth, the performance of local stock markets, the nationality of investors and the cost of debt might also impact and explain the attractiveness of a market.

The origin of the data is explained in the next subsection, but the sample only includes investments that have, at least partially, been exited. The results to the variables are interpreted within my personal understanding of the topic and literature review, and by no means represent empirical evidence of which country ought to be preferred as an investment destination. Therefore, the thesis structure has been designed following a qualitative methodology, based on my own understanding of the results.

4.1.2 Qualitative methodology

It has been difficult to choose between a qualitative and a quantitative methodology. The first is often criticized for its lack of objectivity, realism, or even scientific validity, but on the contrary, considers reality as a human construction and puts subjectivity at the heart of our social life (Mukamurera, Lacourse, Couturier (2006)). Boutin defined in his paper "L'entretien de recherche qualitatif" (2000), qualitative inquiries as an action-significance process. I interpret this as the fact that there is an explanation or a theory behind each action or observation. Proof takes the form of presumption (Passeron (1991)). It is not based on empirical evidence, because all variables are not measurable. Interpretation and presumption might define evidence from a total different manner than empirical analyses. Huberman and Miles in their 1991 as well as 1994 papers define 3 analytical steps for an efficient qualitative process: manage your data, disclose your data, and finally, illustrate your conclusions. A qualitative approach is linked to detailed data on a small number of individuals (Patton (1991)), and aims to generalize theories (Yin (1994)). All the purpose of the methodology is to build precious knowledge on different contexts. On the other hand, quantitative processes aim to describe information globally, without stressing particular events. It analyses the behavior and drivers of large and representative samples, in order to build standards by considering the population as a whole (Kenneth (2000)).

After consideration, I deeply think that qualitative processes better define my thesis. The purpose of the paper is to understand the different drivers that make an LBO market attractive, in particular in China and in India, and the way historic transactions as well as investment records can provide an insight for future investments to come. A quantitative approach would have required the same data on 11 other countries (n-1-1) in order to be able to regress my variables and study their significance. Moreover, the significance

and weight of each variable is not the main object of this paper but rather how these variables, based on real historic investments, can define the attractiveness of a market. I would like to understand these variables and put them in context with the Chinese and Indian PE markets. This explains why a qualitative methodology has been chosen. Therefore, I followed Huberman and Miles study and based my research on three steps. I first gathered my data from the Preqin database (further details on the next subsection) and I cleaned it up to build variables such as the holding period or the rate of return. I also had to manage transactions for which the exit data were divided into different types and timeframes in order to avoid accumulating investment amounts. Then I build the different tables and graphs that seem relevant for my analysis. I expressed them in the analysis section and documented them in order to validate the variables. And finally, I summarized the main observations in the conclusion of the analysis section. For the purpose of that part, I coupled my observations with theoretical illustrations from the first part of my paper.

4.1.3 Deductive approach

There is a general standard stipulating that quantitative processes regard the analysis of numbers, while qualitative ones regard narrative data. Of this standard, the first has been categorized as deductive, while the latter is rather defined as inductive. Though, this is not necessarily true in practice, as it is the case for my thesis. Easterby-Smith and al stressed indeed the difference between the two practices. On the one hand, inductive methods are defined by a theory building process, or in other words that observations are considered as the starting point. On the other hand, deductive processes can be assimilated to a theory testing process, which means starting from a defined theory or generalization and test their validity in specific contexts. Data for qualitative inquiries usually take the form of interviews, observations or documents (Patton (1991)), which is the case with my observations.

I could have combined qualitative and quantitative processes in my thesis, in order to compete and understand the significance of each variable, but it would have required extended data that I was not able to gather. As such, a quantitative methodology could be applied to the same subject and could as well be part of further research that I would be delighted to perform in the coming years. Additional information is provided in the " Limits and Further Research " subsection.

4.2 Sample

While writing my thesis, I was experiencing an internship in the risk department of a global bank. Fortunately, with the help of some colleagues, I was able to access a Preqin database, a leading source of data

and intelligence of alternative assets, in order to construct a base sample of private equity transactions in India and in China. For both countries, I selected all types of investments: buyouts, growth, pipe, merger, public to private, recapitalisation, restructuring and distressed debt, ranging from January 1, 1995 to late 2016 that have fully or partially exited. I also selected all types of exits: IPO, merger, private placement, recapitalization, restructuring, sale to GP, sale to management, trade sale, write-off, and unspecified exits, which for the latter, might include several bankruptcies. Finally, I only chose focused funds (China or India), partial and total exits, the types of industries (business services, clean technology, consumer and retail, energy and utilities, food and agriculture, healthcare, industrials, information technology, materials, real estate, telecoms and media), as well as the name of the acquirers (which will provide me information on the number of investors and their nationality).

Starting with India, I managed to get 581 transactions, of which 480 have full investment amounts and 360 have full investment and exit amounts. Among the 581 transactions, 95 regard leverage buyouts, of which 78 have complete information. For the matter of the study, I have decided to keep the 95 transactions as variables such as exit type and the number of investors remains pertinent. Following with China, I managed to receive 634 transactions, of which 496 have full investment amounts and 363 have investment and exit amounts. Again, as only leverage buyouts are concerned, 171 buyout transactions have been notified, among which 115 present full investment amounts and 85 offer complete information on their exit amounts. I will also consider the whole 171 transactions for the study and I will clearly notify when values will be missing. It is surprising to experience that while both countries have roughly the same number of transactions with complete information, China nearly doubles India in buyout counts.

There are three ingredients that deals should not be without: a local fund on the investment, a domestic lender, and a cash-rich sector.

5 Analysis

5.1 First Hypothesis : The Chinese buyout market is larger than in India

The first hypothesis aims to determine the size of the two markets throughout the years. I decided to use the variables 'investment type' and 'investment amount' from my databases in order to answer the question. These variables will indeed provide me with the number of all investments that have already been exited by number and value.

5.1.1 Investment Type

The first variable I would like to test is the investment type: i.e. whether my transaction regards a buyout, a PIPE, or a growth financing. A PIPE transaction (Private Investment of Public Equities) is defined as a structured product (i.e. convertible) seeking a minority stake. Venture capital transactions were not included in the database, but this does not represent a problematic issue as they share very few common features with buyouts. However, PIPEs, growth equity investments, mergers, and buyouts share some common characteristics as it has previously been documented in the theoretical part. In a few words, they all define minority or majority stakes in mature companies with established products and markets. It is very common for growth investments to be exited as buyouts in secondary sales. The point of studying this variable, is to determine the share of buyouts among the different PE financing types. Further computations and analyses will follow based on this variable, as the holding period or the invested amounts & returns, which considerably vary according to the investment type. I strongly believe that comparing these might provide additional evidence on the attractiveness of a buyout market. Literature would want growth investments to largely dominate the sample, but due to the lack of available and effective data, interesting outcomes were delivered, especially when comparing the two countries.

	India		China	
Investment type	Number of investment transactions	Aggregate investment amount	Number of investment transactions	Aggregate investment amount
Add-on	3	195,93		
Buyout	66	3.219,37	108	20.569,65
Growth Capital	95	3.297,85	253	7.116,90
Merger	1		2	
PIPE	96	4.258,47	44	8.263
Public To Private			13	13.515,19
Recapitalisation			3	912
Restructuring			2	156,13
Total général	261	10.971,62	425	50.532,88

Figure 9: Private Equity industry in China and in India. source: Preqin

Before starting to describe the results, I must stress that the total amount of transactions is considerably lower than previously mentioned in the sample subsection. This is explained by the computations I had to realize in order to remove duplicates. Indeed, for an investment that was exited at different time periods, through different exit routes and amounts, several lines in the database would include the same investment type and number. This artificially boosted deal volumes and values, as an exit through 3 time periods, would include three times the investment amount. The smaller transaction volume is thus explained by the correction regarding the investment deals. For further details, Appendix A illustrates the issue. I shall now continue with the observations.

The first table enables me to understand that 261 private equity transactions have been notified in India between 1999 and 2015, of which 230 offer detailed information on the investment amounts. Of these investments, the Indian buyout market encompasses 71 transactions, with 54 deals providing full information. The 71 investment transactions represent 25.3% of the whole volume of the Indian private equity industry (excluding venture capital). Similarly, the value of the Indian buyout market reached \$3.219bn over the period. This amount represents 29.3% of the total value of the PE Indian market and is in line with the slightly lower 25.5% share of the transactions volume. In the sample, buyout transactions represent the third most favored investment type by accounting for roughly 25% of the Indian private equity industry, both in terms of volume and of value. Surprisingly, growth capital investments came second with 95 recorded deals and a share of 36.4% and 30.1% of the market volume and value, respectively. Finally, PIPE transactions dominated the Indian private equity industry throughout the studied period with 96 recorded transactions.

However, despite a similar volume share than growth capital investments, it holds a larger share of the market value with 38.8% of the total amount. This makes me understand that PIPEs can be associated to relatively larger investment amounts, compared to growth capital and to a lesser extent, buyouts. Further observations on investment amounts and investment years will be documented in the third hypothesis. Moreover, I expect buyout deals to represent the larger average deal sizes.

Investment type	India		China	
	Number of investment transactions	Aggregate investment amount	Number of investment transactions	Aggregate investment amount
Buyout	25,3%	29,3%	25,4%	40,7%
Growth Capital	36,4%	30,1%	59,5%	14,1%
PIPE	36,8%	38,8%	10,4%	16,4%
Total général	261	10.971,62	425	50.532,88

Figure 10: Private Equity industry in China and in India in percentage of the total amounts. source: Preqin

Quite interestingly, the Chinese private equity industry is considerably larger. Indeed, although it holds nearly twice as many 'valuable' transactions as of India (with 425 vs 261), the Chinese industry offers much stronger opportunities with a \$50.5bn market, against \$10.9bn for the Elephant country. Put differently, the Chinese private equity industry, over the studied period, is 5 times larger than its Indian peer for only twice the number of transactions. Moreover, the country's buyout market is even more attractive, with a revenue reaching \$20.5bn or roughly two-fifths of the total Chinese market. Of the 110 recorded buyout transactions, only 52 of them offer investment amounts data and therefore are responsible for the market revenue. This is even more particular as it means that the same number of investment transactions (54 in India and 52 in China), deliver a Chinese buyout market valued at more than 6 times its Indian peer.

As the second table discloses, the share of value in the Chinese buyout industry is nearly twice as big as its volume portion. The results for the Chinese buyout transactions are more in line with the expectations I had from the literature (i.e. late-stage majority-control deals are expected to be the largest). The difference between the two countries is huge, with a buyout market as big as six times that of India. Buyouts are the second most favored investment type in China in terms of volume with 25.4% of the market, following a strong growth capital dominance with roughly 59.5% of the market. The value share however, is considerably smaller for growth capital. PIPEs do not seem to attract many investors, with a market share of "just" 10.4%.

To conclude, the Chinese private equity industry is much stronger than the Indian one, with comparable volume amounts but sensitively higher investment numbers. The difference is even more representative for the buyout market, with a Chinese market more than six times stronger than that of India. I may, therefore, validate my first hypothesis claiming that China constitutes a more attractive buyout market than India.

5.2 Second Hypothesis : the Indian buyout market is likely to surpass the Chinese one within the next decade

The second hypothesis aims at discussing the buyout market attractiveness for the next five to ten years. Based on my previous readings, I expected a much smaller disparity between the two markets and that the Indian market was likely to outperform its Chinese peer within the decade. However, evidence shows that growth rates are higher in the Dragon country, meaning that China is not ready for letting India stealing its market share or reducing its dominance. As a consequence, I am not able to validate my second hypothesis that India is on track to fast catch up the Chinese buyout attractiveness. Additional information from the first part of the paper, based on cultural and historical events may also explain why this hypothesis cannot be validated. Further explanations are provided in the following discussion subsection.



Figure 11: Extrapolation of a 4-period mobile-average in India and in China. source: Preqin

The graph highlights 4-period mobile-average of Indian and Chinese transaction volumes. The purpose of this mobile-average, was motivated by the periodicity of my numbers. I suspect it to be the most appropriate

tool to deliver a trend on highly variable data. And on the graph, the Chinese tendency remains higher than the Indian one. This graph does not aim to explain the second hypothesis alone, but acts as an additional tool in order to strengthen my thoughts.

The two following hypotheses regard structural and contextual variables that may explain China's leading position in the region. Furthermore, when I established my second hypothesis, I was ignoring the massive difference in the two market sizes, which could also explain the negative result. Results from hypotheses 3 and 4 will considerably strengthen my decision to not validate this second hypothesis.

5.3 Third Hypothesis : internal variables explain the Chinese PE dominance

The third hypothesis discusses the results of 7 variables I received in my databases in order to validate internal factors that could better benefit the Chinese buyout market instead of the Indian one. The seven variables are: a) the investment and exit dates in order to test whether investments follow a linear trend or if they rather rely on unforeseen circumstances, b) the holding period to understand the "required" time before being able to successfully exit an investment, c) the investment amount calculated by year, which would provide me relevant information on average and aggregate transaction amounts depending on the time period, the sector, etc, d) the type of exit, a major factor and very interesting due to the shutdown of Chinese IPOs for more than a year, e) the number of investors as it was documented in the PE literature that a greater number of investors was likely to be correlated to a larger return, f) the sector in which the target company operates in, and finally, g) the returns, which simply, represents one of the most attractive investment determinants. Other factors, such as the health of the financial markets, GDP growth, the costs of debt, and the nationality of the investors, will be developed in the next subsection in order to validate to the fourth hypothesis.

5.3.1 Investment and Exit Dates

This variable will help give an insight of the total number of transactions that have been signed regarding the investment and exit years. I would also like to use these variables to understand the historical development of buyouts compared to other private equity types.

Investment years / Exit years India	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Total Investment years
1999				1										1
2001	1			1										2
2002	2	1												3
2004			2				1							3
2005	1		2	1	1	1				1				7
2006			2	1	2	2		1	1	2				11
2007				1	1		4	1	2	3	2			14
2008						2		2			3			7
2009								2						2
2010								2			1			3
2011							1	2		1	1	1	2	8
2012										1		1		2
2013											3	1		4
2014											1	2		3
2015											1			1
Total exit years	4	1	6	5	4	5	6	10	3	8	12	5	2	71

Figure 12: Indian exit years regarding the investment years. source: Preqin

The table highlights the number of deals according to their investment and exit years. Deal volumes by investment year peaked in 2007, with a record number of 14 deals recorded for that year. 2006 was the second most active vintage, with 11 transactions signed. The number of deals decreased then, which is normal considering the fact that the database is based on exit transactions. It seems logic then that fewer deals were signed since 2012 as they would not have had much time to materialize. It is interesting though to notice that 3 investments in 2014 exited in 2015 and 2016. The three deals were also relatively profitable, with 2015 returning 1.37 the 2014 investment and 2016 returning an average 3.4 times the two investments.

Unsurprisingly, there were more returns at the end of the studied period, with 2012 and 2015 being the two most busiest years. The 'return variable' will provide additional data on the returns of these years, and a comparison with the stock market (under the fifth hypothesis) will give an overview of the momentum at those time periods. The busiest combination was 2007 with 4 deals that exited in 2011.

Investment years/ Exit years in China	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Total Investment years
2002						1						1
2003	1											1
2004				2	2		1					5
2005	1	1	2			1			1			6
2006	2	2	3	3		1		1	1	1		14
2007	2	1	3	8	4	3	2	2	3			28
2008			2	2	1	3	1		3			12
2009				1	1			2	1			5
2010				1	4		3	5	2	1		16
2011								2	2			4
2012								1	3	1	1	6
2013										3	1	4
2014									6	1		7
2016										1		1
Total Exit years	6	4	10	17	12	9	7	13	22	8	2	110

Figure 13: Chinese exit years regarding the investment years. source: Preqin

The preceding table delivers the same observations for the Chinese buyout industry. The country's busiest year, regarding investments, was 2007 as well. As it was documented in the first part of the paper, the Chinese market also highlighted a busy year in 2010, because of improvements in its stock market.

As far as exits are concerned, the busiest year was 2015 with a 22 transactions that exited, or a fifth of the total number. Unsurprisingly, 2010 was the second most favored year for disinvestments, notably due to the decision from policymakers to allow small- and mid- size companies to go through an IPO. The busiest combination was 2007 (again) with 8 investments that materialized in 2010. Quite interesting as well, 2 investments from 2007 exited in the same year, and returned nearly 4 times the investment. Both exited through an IPO, which is the most common exit route for very short investments. Investors take advantage of bullish markets in order to completely, or most often, partially exit their investment.

The following graph enables me to raise an expectation of the share of deals that ought to have exited given the year of investment.

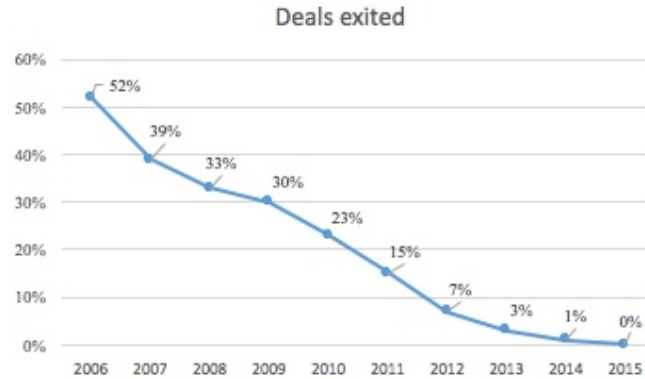


Figure 14: Percentage of deals exited according to the investment years. source: Preqin, Exit report (2016)

The data come from a Preqin survey (2016) on LBO holding periods, and represent an aggregate of global LBO deals. Thousands of deals from several of countries are included. This is quite interesting, because the graph should give me an insight of the number of total investment transactions that would have been made each year. 2006 for instance, with a 50% exit rate, ought to have experienced around 28 transactions in China and 22 in India. It also helps to understand the pace at which the investment numbers each year are expected to decline due to the smaller probability of a young or early exit. Another example regards 2014, where 7 deals have been signed in China. Globally, only 1% of 2014 deals have exited so far, which is interesting in order to get an idea of the total number of deals.

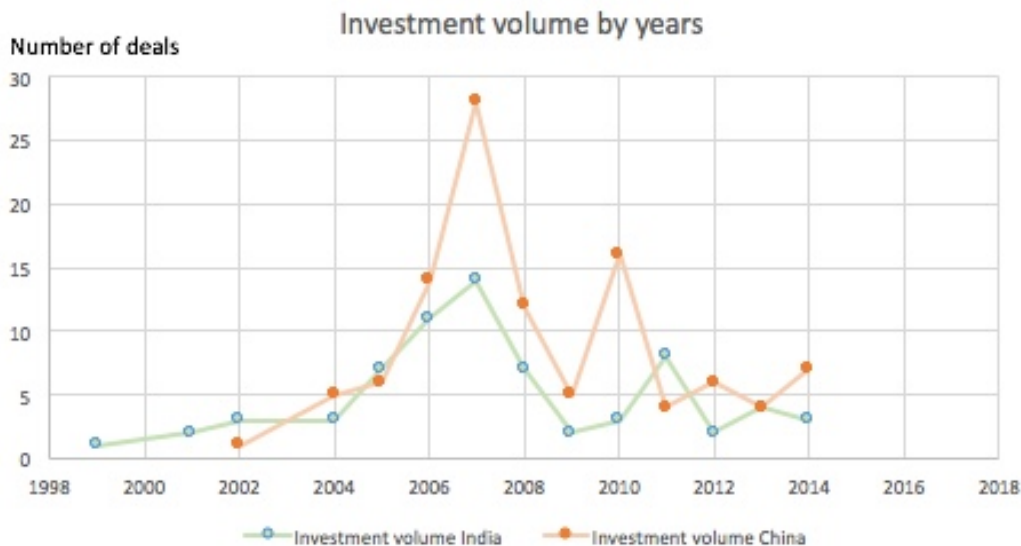


Figure 15: Investment volumes by year in India and in China. source: Preqin

In a more global perspective, the Indian investment transactions seem to follow a more linear pace with fewer peaks and extreme values than China. The Elephant country seems as such to better align its buyout industry to the global aggregate standard. Indian numbers only outperformed their Chinese peers in two years, namely 2005 and 2011. Otherwise, both countries seem to follow the same cycle, with a small time-lapse starting in 2010. Then Indian transaction volumes differ from China's.

5.3.2 Holding Period

By computing the difference between the investment and exit dates, I have gathered the monthly and yearly holding periods for each investment. Different results are expected given the type of private equity. Globally, the average holding period increased from 4.4 years in 2007 to 5.9 in 2015, or by more than a year and a half which is huge considering the time period. Research could help understand the way financial markets and conjuncture were responsible for this increased time for investment. However, if the holding period increased globally, it is even more pronounced in Asia, where it increased by 2 years, surging from 3.6 to 5.6. Over the last decade, the average holding period for US buyouts only exceeded 5 between 2010 and 2015, with the last year highlighting the lower result of the past 5 years. A similar trend may be observed in the EU, with a growing trend until 2015 where the holding period declined to the 2011-level. In Asia, the average holding period continued to increase throughout the years and does not seem to show any sign of slowdown.

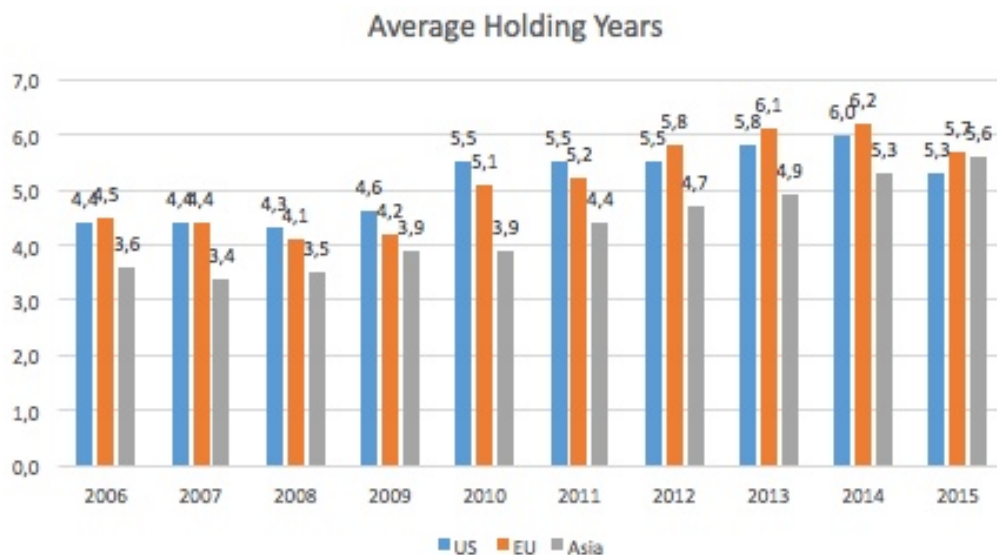


Figure 16: Average global holding periods by geographic area. source: Preqin, Exit report (2016)

The following table highlights the average yearly holding periods of the two countries in respect with the three major investment types. Surprisingly, investment periods in China are lower than their Indian peers in every domain. This can be explained by the greater exit opportunities that the Chinese market offers. However, it is quite interesting to stress that the Indian buyout holding period is the smaller among the country's other PE sources, while in China it is by far the largest. This can be explained by the fact that Chinese PIPEs and Growth Capital transactions, find it easier to exit investment through a secondary sale or IPO than in India. On average, investments in the Dragon economy take one year less than in the Elephant one to exercise, and this despite larger investment amounts.

	India	China
Investment type	Average yearly holding period	Average yearly holding period
Buyout	4,43	4,10
Growth Capital	4,86	3,28
PIPE	4,61	3,92
Total général	4,61	3,62

Figure 17: Average holding years by investment type in India and in China. source: Preqin

Appendix B discloses new information on the average holding periods given the Buyout Industry Classification. Telecoms & Media require the longer holding period in both countries with 5.06 and 5.23 years in India and in China, respectively. They are closely followed by Business Services with 4.75 and 4.94. India's lowest holding periods regard the Infrastructure as well as Energy & Utilities (1.75 and 3.54 respectively, but these sectors also represent the ones with the smaller transactions number, which could affect the significance of the point), while the Chinese lowest ones are represented in the Real Estate (2.13), Healthcare (3.07), and Materials (3.12) sectors.

Overall, this variable seem to prove that investments in China require less time to offer a successful exit. Only the Business Services sector highlight longer average holding periods in China, but with a smaller standard deviation, which means that observations disclose fewer extreme figures than in India.

5.3.3 Invested Amount

The invested amount provides information on the size of the different deals. This variable can be linked to the investment years, as well as different sectors, and number of investors. The following table retraces the size of each three major investment types, as well as the average amounts. As I had expected, the buyout activity provides the larger average deal sizes, in both countries.

Investment type	India			China		
	Number of investment transactions	Aggregate investment amount	Average investment amount	Number of investment transactions	Aggregate investment amount	Average investment amount
Buyout	66	3.219,37	59,62	108	20.569,65	289,71
Growth Capital	95	3.297,85	37,48	253	7.116,90	35,06
PIPE	96	4.258,47	50,10	44	8.263	202
Total général	257	10.775,69	47,7	405	35.949,56	152,21

Figure 18: Aggregate and average deal sizes in India and in China. source: Preqin

Unsurprisingly, the average global deal size in terms of dollars, is higher in China than it is in India. For the private equity industry in general, Chinese deals are on average \$100mn bigger than the Indian ones. However, average Chinese buyout deals amount to \$289.7mn, considerably higher than the \$59.6mn for the average Indian deals. They are nearly six times bigger. As the economy size can disclose it under the fourth hypothesis, the Chinese economy is also around five times bigger than the Indian one. Further documentation will be provided under the 'return variable'. Growth Capital average deal sizes are roughly the same for the two countries, and Indian PIPEs which represent half of the country's PE market represent a quarter the average size of the Chinese market, though with more than twice the number of recorded transactions. Control acquisitions (buyouts) clearly represent the larger investment amounts, which is in line with the theory.

Investment year	India		China	
	Investment aggregate amounts	Investment average amounts	Investment aggregate amounts	Investment average amounts
1999	8,62	8,62		
2001	91,00	45,50		
2002	240,00	80,00	26,00	26,00
2004	9,71	9,71	510,37	170,12
2005	192,61	38,52	421,10	210,55
2006	479,44	53,27	6.244,12	520,34
2007	738,43	52,75	1.999,63	124,98
2008	151,33	30,27	1.203,88	133,76
2009	243,00	121,50	380,00	190,00
2010	32,00	16,00	2.433,66	221,24
2011	409,51	58,50	545,45	136,36
2012	31,41	31,41	600,30	150,08
2013	127,39	42,46	1.396,72	698,36
2014	139,27	46,42	4.514,09	902,82
2015	250,00	250,00		
2016			150,00	150,00
Total	3.143,71	53,28	20.425,32	283,69

Figure 19: Aggregate and average deal size in India and in China by year. source : Preqin

The table summarizes the aggregate and average deal values per year for each of the two countries. Not a single year showed investments that exceed the billion-dollar-threshold in India, while 6 years were counted in China, among which 2006 closed the year with \$6.2bn worth of investments. Actually, the astonishing amount takes into account the \$2.5bn investment of the US investment bank Goldman Sachs to the Chinese giant ICBC bank. Only one year did not reach the \$100mn investment in China, compared to 5 in India. As far as the average values are concerned, there is also a strong dominance for China as except for 2002, every single year delivered higher average investment amounts than in India. Even in average amounts, China exceeded the \$100mn worth of investments every year but 2002. This also favors China as a more attractive market when available deals enable greater investments. Nonetheless, for smaller investors, India offers cheaper opportunities, for which returns are not to be ashamed of. Further explanations are provided in the "return variable".

5.3.4 Type of Exit

The type of exits is maybe the most important determinant to analyse the robustness and attractiveness of an LBO market. Henry R. Kravis co-founder of the private equity behemoth KKR said on September 22th, 2011 at a Bloomberg Dealmakers Summit : *"Once you buy a company, you are married. You are married to that Company. It's a lot harder to sell a company than it is to buy a company. People always call*

and congratulate us when we buy a company. I say, 'Look, don't congratulate us when we buy a company, congratulate us when we sell it. Because any fool can overpay and buy a company, as long as money will last to buy it'. Our job really begins the day we buy the company, and we start working with the management, we start working with where the company is headed." This quote perfectly reflects the importance of the exit strategy. As funds and investments have a limited lifetime, it is capital to think about the most appropriate way to exit an investment before even completing the investment transaction. By contrast to venture capital or sometimes growth equity who favor IPOs as a way to exit an investment, exits in leveraged buyout deals ought to be dominated by strategic sales. Secondary buyouts should also be sensitively represented, both as the investment and the exit type. Indeed, many companies are first purchased as a growth capital, and then repurchased as a buyout once it becomes larger and more mature.

Exits disclose more accounts than investments because several single investments have experienced multiple exits at different time periods and distinctive exit routes.

Exit Type	India	China
IPO	17	35
Merger	2	6
Private Placement	17	46
Sale to GP	27	18
Sale to Management	1	1
Trade Sale	29	52
Unspecified Exit	2	11
Restructuring	/	1
Total général	95	170

Figure 20: Buyout exit types in India and in China. source: Preqin

From by databases, Trade Sales represented the most favored exit routes for both countries. Buyers are most often competitors operating in the same industries and willing to strengthen their dominance by purchasing "cleaned" companies from private equity groups. Sales to GPs or secondary sales seem to be favored as well in India. This must be the result of smaller companies and investments that are purchased by different companies in function of the amount they are willing to invest. Moreover, it may also be a strategy to invest unspent capital at lower risks. In China, however, the second most favored exit route is dominated by private placements, which allow companies to be purchased by a small number of investors, including usually large banks and pension/mutual funds. Finally, IPOs come in the third position in both

countries. It ought to be interesting to examine the exit type by year as turbulent financial markets must have had several consequences on the exit strategy, especially in China. China was expected to disclose high IPO numbers. Appendix E show that IPOs are very flat in India, with many years encompassing 1 IPO and very few years hosting 2 or 3 IPOs. Over the most recent years, private placement and sales to GPs seem to be the most favored exit routes, while trade sales were more represented a decade ago. This may highlight a changing point in PE strategies and maybe a stronger appetite for private equity companies to invest in secondary buyouts.

As of China, only 13 out of the 35 IPOs in buyout investments have occurred since 2013 when the main stock market reopened. The number is considerably higher when all investment types are included (as shown in Appendix C). Conversely, the number of private placement sensitively decreased since 2013 compared to a decade ago. Although the number of exits has doubled in the Indian buyout market over the past 5 years, the number of Chinese buyout exits seems to have flatten. The increasing number of secondary sales in India is encouraging for the future of their buyout market. Sales to GPs in China are hardly encouraging, and the decreasing number of private placements worsens future expectations. However, the active trade sale strategy may indicate that Chinese industries are concentrating which is benefiting for the buyout industry.

The two countries also show various results when the primary sectors are included. Indeed, as disclosed in the Appendix F & G, IPOs in India are focused on the Industrial and Business Services industries, while IPOs in China are active in several industries with a small preference for Industrials as well. Private placements follow the same trends in India (i.e. favoring Industrials and BS), whereas the attribution is less pronounced in China with several industries such as Telecoms & Media, Materials, Industrials, Consumer & retail, and BS benefiting from this exit strategy. Finally, trade sales are mostly used in Telecoms & Media and Industrials in the Elephant market, while China favors them in Consumer & Retail, Food & Agriculture, and Industrials.

5.3.5 Number of Investors

It has been proven that several private equity groups investing together in a company are likelier to materialize a greater return. The two first tables regard the Chinese buyout market. The one on the left highlights the number of transactions by investor. First interest phenomenon to acknowledge is the number of 74 investor companies. Compared to the 110 transactions, it means that each company would be responsible for nearly 1.8 transactions. However, the market is more concentrated as the 5 largest investors provided 53 transactions, or nearly a third of the total amount. The two largest PE groups (by number of deals in the sample) invested in 17 deals each. The two corporates are two industry's behemoths: Bain Capital and the

Carlyle Group. A couple of other groups are responsible for half a dozen transactions on their own without taking into account deals signed by multiple investors. 43 companies invested in only one transaction and 11 in 2. It will be interesting to compare them with India and take into account the returns and deal sizes for each 'group' of companies.

Number of transactions by companies	Number of companies
1	43
2	11
3	9
4	4
5	2
6	2
7	1
17	2
Total général	74

Number of Investors in a single transaction	Number of transaction
1	51
2	12
3	5
4	4
7	1
9	1
Total général	74

Figure 21: Number of investors in China. source: Preqin

The panel on the right highlights the number of investors in a single transaction. As for instance, 51 transactions were operated by a single company, mostly international. A huge investment required 9 investors, while a second one assembled 7 investor for a transaction. All the investing-companies names are disclosed on the Exhibits. Over the 74 deals, 23 required the alliance of several PE buyout companies in order to share information, expertise, and seek larger returns. It is more common for PE groups to share investments in emerging economies where information is more difficult to gather. Moreover, Chinese buyout companies take also place in multiple-company-deals so that they can benefit from their capital and knowledge, while bringing local information and local corporate governance.

The two following tables regard India. Here, there are 54 companies for the 95 investments. The two most active companies are only responsible for 13 deals together, compared to 34 in China. The 5 most active companies signed 17 deals. The market looks much more open but also fragmented than the Chinese one. Moreover, companies also tend to engage in more individual transactions, as only 4 deals were designed by more than 2 investors. The smaller deal sizes might explain this preference to invest in a deal alone.

Number of transactions by companies	Number of companies
1	36
2	11
3	4
4	3
5	1
8	1
Total général	56

Number of Investors in a single transaction	Number of transaction
1	43
2	9
3	3
4	1
Total général	56

Figure 22: Number of investors in India. source: Preqin

5.3.6 Sectors

LBOs are most favored in matured industrial industries, with companies delivering established cash flows, products, markets and benefiting from a large historic of revenue record. The industries are very often concentrated or in the concentration phase. Such industries usually regard Telecoms and Media, Industrials, Infrastructure, Utilities, etc. Here, as stated in the following table, most transactions in India are in line with the theory and regard mature industries such as Telecoms & Media, Industrials, Business Services, and Consumer & Retail. I would have expected much more transactions on the Infrastructure industry, but the related companies might probably be owned by the state. In China as well, most favored industries are the same as the ones in India, with the addition of Materials (which is also a mature industry), and to a smaller extent Food & Agriculture. Due to legal restrictions, few Infrastructure and Energy-related companies are present in the table.

Sector	India			China		
	Investment transactions	Investment aggregate amounts	Investment average amounts	Investment transactions	Investment aggregate amounts	Investment average amounts
Business Services	16	1.020,94	72,92	13	9.113,38	1.012,60
Clean Technology	2	229,04	114,52	3	260,00	260,00
Consumer & Retail	8	137,45	27,49	20	1.700,03	130,77
Energy & Utilities	2	136,77	68,39	6	443,88	88,78
Food & Agriculture	6	122,12	24,42	11	2.928,37	366,05
Healthcare	6	165,34	27,56	8	444,76	88,95
Industrials	16	611,40	40,76	24	1.296,42	108,04
Information Technology	6	260,00	86,67	7	379,60	54,23
Infrastructure	1					
Telecoms & Media	8	460,65	65,81	8	3.017,20	431,03
Materials				9	841,68	168,34
Real Estate				1		
Total	71	3.143,71	53,28	110	20.425,32	283,69

Figure 23: Deal volumes and values by Buyout Industry Classification in India and in China. source: Preqin

Only one Indian industry, namely Business Services topped the billion-dollar-investment throughout the years, and Industrials was the only other one to reach \$500mn. In China, however, all industries but five (Clean Technology, Energy, Healthcare, Materials, and IT) failed to exceed the billion-dollar-investment. All five of them are considered as strategic industries and foreign ownership is highly restricted up to a particular threshold, which is unattractive for a buyout investment. BS in China discloses a huge amount because of the investments in the Financial Services, such as the participation in ICBC by Goldman Sachs. As far as the average investments are concerned, Clean Technology is the only industry in India to top \$100mn, whereas only 3 fail to reach it in China. This strengthens the views that the Dragon buyout market is more attractive than the Indian one. The following and next variable will provide some evidence on returns by sector in order to assess whether these larger investments are truly worth it.

5.3.7 Returns

The last internal variable I would like to test, and at least as important as the exit strategy, is the exit amount. The following table highlights the investment and exit amounts for each investment type, so that I can compare all of them. I also added the net return in order to get an overview of the capital returned to investors. However, it is capital to bear in mind that these are gross returns and do not take any kind

of fees or taxation into account. Finally, I corrected the transactions for which one of the two amounts was missing, so that all the exit amounts are compared to their investment ones. And the results are surprising. It seems indeed that the Indian global private equity market, is more profitable than in China.

First, the private equity market as a whole is slightly more profitable in India, as it returned 3.11 times the initial investments compared to 3.07 times in China. And this, despite the smaller size of the market. Secondly, however, all of the three 'main' markets are more profitable in China. The buyout industry for instance, which interests us the most in this paper, is considerably more attractive in China with its average 3.82 rate of return (compared to 2.99 in India). More detailed information will follow below in order to determine which years or sector were the most profitable. Growth capital investments marked the biggest difference, with a tremendous 5.77 rate of return on a \$6bn investment, probably due to the larger size of the economy and the greater demand it must offer.

Investment type	India			China		
	Investment amount	Exit amount	Net return	Investment amount	Exit amount	Net return
Add-on	195,93	759,92	3,88			
Buyout	3.143,71	9.387,74	2,99	13.273,91	50.722,26	3,82
Growth Capital	3.297,85	10.271,02	3,11	6.029,58	34.760,99	5,77
PIPE	4.258,47	10.203,28	2,40	6.062,47	15.667,68	2,58
Public To Private				13.515,19	15.814,26	1,17
Recapitalisation				912,00	968,46	1,06
Restructuring				156,13	3.768,96	24,14
Total général	10.971,62	34.127,12	3,11	40.093,62	123.031,72	3,07

Figure 24: Private Equity returns in India and in China by investment type. source: Preqin

The next two tables compare the returns in function of the investment and exit years. To start with the investment years, we can observe that the best performing investments were those invested between 2004 and 2008 in India, with a rate of return exceeding 300% for each of the years. 2008 was the most profitably year for the country with a 707%-return. The last four years of the studied period offer returns of nearly 150%, which is very interesting considering the investments have been materialized within these four years, especially for the two last ones which disclosed a 2.58 and 1.8 rate of return after two years and one year, respectively. 2001 marks the most profitable investment year with a 58.9 return. Actually, only one transaction was recorded, with a value creation of \$30.7mn dollars. The transaction was about the acquisition of Excelsoft Technologies by Ascent Capital, which exited the investment with a trade sale. Only investments in one vintage, 2009,

failed to deliver a net return. A loss of 16% was recorded but it was the single year delivering a negative rate.

As of China, returns are less homogeneous than in India. First, there was only one year with negative returns (as in India), in 2014. Generally speaking, the most profitable vintages were ranging from 2002 to 2005 (the three first years of the studied period). 2013 as well was a good vintage, as many investments enabled to successfully exit when the stock market opened again. 2002 delivered a rate of return of 11, or more than 10 times the investment after 10 years. The acquisition highlighted China Mengniu Dairy Company Limited being purchased by a consortium including Morgan Stanley Private Equity Asia, CDH Investments, and, CGU CDC China Corporate Partners. Trade sale was also adopted as the exit strategy. However, 2004 was the most profitable year by delivering a 36.5 return on investment. One trade was responsible for that return. CMIA Capital Partners very successfully exited an investment in China Minzhong Food Corporation Limited (a food company).

Investment year	India			China		
	Investment amount	Exit amount	Net return	Investment amount	Exit amount	Net return
1999	8,62	40,20	4,67			
2001	91,00	207,10	2,28			
2002	240,00	763,51	3,18	26	287,69	11,07
2004	9,71	55,06	5,67	5,37	196,71	36,63
2005	192,61	704,72	3,66	421,1	12.548,78	29,80
2006	479,44	1.544,93	3,22	5842,12	16.821,97	2,88
2007	738,43	3.132,46	4,24	1177,23	3.735,36	3,17
2008	151,33	1.070,65	7,07	1030,88	5.840,73	5,67
2009	243,00	203,50	0,84	200	650,00	3,25
2010	32,00	173,78	5,43	1361,76	2.609,68	1,92
2011	409,51	494,21	1,21	545,45	2.328,68	4,27
2012	31,41	55,84	1,78	564	1.452,66	2,58
2013	127,39	132,71	1,04	100	2.700,00	27,00
2014	139,27	359,41	2,58	1850	1.543,16	0,83
2015	250,00	449,66	1,80			
2016				150	6,84	0,05
Total	3.143,71	9.387,74	2,99	13.273,91	50.722,26	3,82

Figure 25: Buyout returns by investment year in India and in China. source: Preqin

The following table now presents the same rates of return but according to the exit years. The new panel highlights the best years in terms of returns, not in terms of years with successful investments. Most

surprising, while there is still only one year with negative returns in India (2017), the number fell from 1 to none in China. Also unsurprising, one the worst Indian years in terms of returns occurred in 2008, at a time were the market was in a good momentum. Actually, four investments exited in 2008. 3 of them were successful and only the larger failed to break even. The selloff was about Citi Venture Capital International and IDFC getting rid of ShareKhan (a financial services company) through the sale to a GP (a secondary sale). The best year for the Indian market was 2009, with three very profitable exits. It is also possible to highlight a decreasing trend in Indian returns throughout the years, which may be linked to the recent distress in emerging financial markets 2016. The Chinese market for its part offers returns in the form of a 'W'. Of the five selloffs in 2007 (the best vintage), all 5 exited through an IPO, two were invested in mid-2007, two in mid-2006 and just one in 2005.

Exit year	India			China		
	Investment amount	Exit amount	Net return	Investment amount	Exit amount	Net return
2005	322,65	519,20	1,61			
2006	40,00	483,51	12,09			
2007	141,98	278,83	1,96	519,35	13.734,43	26,45
2008	127,43	131,40	1,03	150,00	835,00	5,57
2009	73,42	1.979,07	26,96	3.387,69	14.774,24	4,36
2010	135,57	751,85	5,55	1.882,07	3.465,50	1,84
2011	315,79	865,60	2,74	804,85	875,45	1,09
2012	393,07	577,96	1,47	67,10	702,14	10,46
2013	40,90	77,81	1,90	481,11	1.661,23	3,45
2014	449,90	1.005,33	2,23	906,22	2.429,81	2,68
2015	675,99	2.166,34	3,20	4.633,02	8.899,42	1,92
2016	185,98	344,10	1,85	442,50	3.345,04	7,56
2017	241,04	206,74	0,86			
Total	3.143,71	9.387,74	2,99	13.273,91	50.722,26	3,82

Figure 26: Buyout returns by exit year in India and in China. source: Preqin

This last panel highlights the returns by the Buyout Primary Industry. Quite surprisingly, the two most profitable sectors in China are the least favored by buyout transactions. Food & Agriculture is the only loss-making industry despite hosting the two most profitable Chinese deals. But these two deals were very small in absolute numbers, and two very large and unsuccessful deals made the whole sector unattractive. However, Materials, Business Services, Energy, as well as Industrials offer good opportunities. In India, there is also a loss-making sector, namely Energy. I would have expected other results for the Industrials sector

considering the huge investment amounts. When compared to China, India does not encompass a particular sector with tremendous returns. Its best-performing industry is Telecoms & Media, delivering a 6.07 rate of return. Consumer & Retail also returns attractive profits, but to a lesser extent.

Buyout Industry Classification	India			China		
	Investment amount	Exit amount	Net return	Investment amount	Exit amount	Net return
Business Services	1.020,94	3.296,40	3,23	3.947,57	24.936,33	6,32
Clean Technology	229,04	229,00	1,00	260,00	3.400,00	13,08
Consumer & Retail	137,45	673,67	4,90	1.296,73	4.014,15	3,10
Energy & Utilities	136,77	113,14	0,83	238,88	1.024,30	4,29
Food & Agriculture	122,12	290,29	2,38	2.855,37	2.820,44	0,99
Healthcare	165,34	551,61	3,34	408,46	1.611,82	3,95
Industrials	611,40	986,40	1,61	1.158,42	4.194,95	3,62
Information Technology	260,00	450,00	1,73	379,60	3.358,59	8,85
Telecoms & Media	460,65	2.797,23	6,07	2.515,20	4.280,04	1,70
Materials				213,68	1.081,64	5,06
Total	3.143,71	9.387,74	2,99	13.273,91	50.722,26	3,82

Figure 27: Buyout returns by Buyout Industry Classification in India and in China. source: Preqin

5.4 Fourth Hypothesis : macroeconomic factors reinforce the Chinese PE dominance

The fourth and last hypothesis highlights macroeconomic variables that could also impact the attractiveness of an LBO market. Data for the two first variables (economic growth and stock market performance), come from Thomson Reuters Datastream, while data on the nationality of the investors, come from my databases. For this last one, I computed manually a research to determine whether the investor company was international or belonged to one of the two studied countries. As a consequence of the use of external data, this fourth hypothesis impact ought to be limited.

To illustrate this particular subsection, Chevalier & Sannajust (2017) released a few months ago a paper on the LBO performance in emerging economies. They mostly worked on macroeconomic and governance variables to explain the performance of LBOs in Asia and Latin America. Their study includes 248 transactions from the two regions and proved through empirical evidence that macroeconomic and financial variables

were among the most important drivers of LBOs performance. They notably cite GDP growth, market return, and the unemployment rate to express the three main macroeconomic factors that drove value creation in the industry.

5.4.1 Economic growth

When compared to GDP, the Chinese buyout market looks also stronger, at 0.37% versus 0.18% for the Indian one. However, this is also a sign that the Indian market has more room to growth than the Chinese one.



Figure 28: Chinese and Indian GDP growth rates. source: Thomson Reuters Datastream

It is possible to see on this graph, that Chinese and Indian buyout transactions (by volume) follow the same trend path, as the economic cycle. The economy increased from 2000 to 2007, slid the two following years and increased again in 2010. Finally, economic growth decreased in 2011 and 2012 before picking up in India in 2013. Of course, all the years did not follow the exact same trend pace by year, but the general tendencies are present. There is just a small timeframe between both markets, as companies usually take 6 months to face the positive or negative impact of an economic cycle. En this is logical, like any other acquisition, LBOs are tied to economic cycles. The buyout activity consists in buying and selling companies. Companies' performance follows the general health of an economy (with a small timeframe), so private equity (and more specifically buyouts) also follow that performance. If the economy struggles in a financial distress, the companies operating in may survive thanks to external demand, but would still be severely affected by the sluggish performance of that economy. Finally, the PE group that owns these companies, will hardly successfully exit an investment in these conditions.

5.4.2 Stock Market Performance

The private equity industry is subjected to cyclical trends. I would like to understand whether the buyouts follow this trend at the same pace as that of the Western world or with a larger/smaller momentum. Considering the crisis and turbulences in the developed and emerging financial markets, I would like to understand if buyouts can act as a solution during tough times. Do they occur in periods of high growth, at the same time for the two countries?

For several years private equity and more specifically buyout investments returns have outperformed capital markets. The Private Equity Growth Capital Council (PEGCC) revealed on April 12th, 2016, its Benchmark performance update, which shows evidence that a PE benchmark including only buyout transactions outperforms the S&P500 index on at least three different timeframes, and with a considerable difference for the 10-year-timeframe.

Benchmarks	1Y	3Y	5Y	10Y
Preqin Performance Analyst (Buyout only)	16.3%	18.5%	16.9%	18.7%
S&P500 (including dividends)	7.4%	17.3%	17.3%	7.9%

Figure 29: Exit strategies from 2000 to 2010 in China and in India. source: Prahl, Cannarsi, Zeisberger (2011)

The following graph highlights the three main stock markets of the studied countries. The Shanghai SE Composite and the Hang Seng are Chinese, while the Sensex is Indian. There is a contradicting understanding between stock markets and private equity. First, poorly performing and unstable stock markets could well generate stronger capital inflows in the private equity industry, which rely less on external determinant than listed-stocks. But on the other hand, and this is probably the leading argument, the more stable stock markets are, the more investors will also have confidence in private equity. But more precisely, as it has already been expressed in this paper, exit strategies are by far the most important issues investors must deal with. With unstable stock markets, IPOs are unfavored, which has a significant impact on the buyout industry because of its lucrative and strong position. On the graph hereby, the Shanghai SE Composite index (HK) remains flat throughout the two decades increasing steadily by 181.43%, with just two peaks in 2007 and 2015. Its peer in Hong Kong is much more volatile, gaining 84.56% over the period. The 2008 and

early 2016 shocks have been terrible for the Index. Finally, the Indian Sensex Index increased by 785.57% throughout the period, making it the most attractive investment. Moreover, the Index pursued a steady increase with two corrections in the 2008 and 2016 shocks.

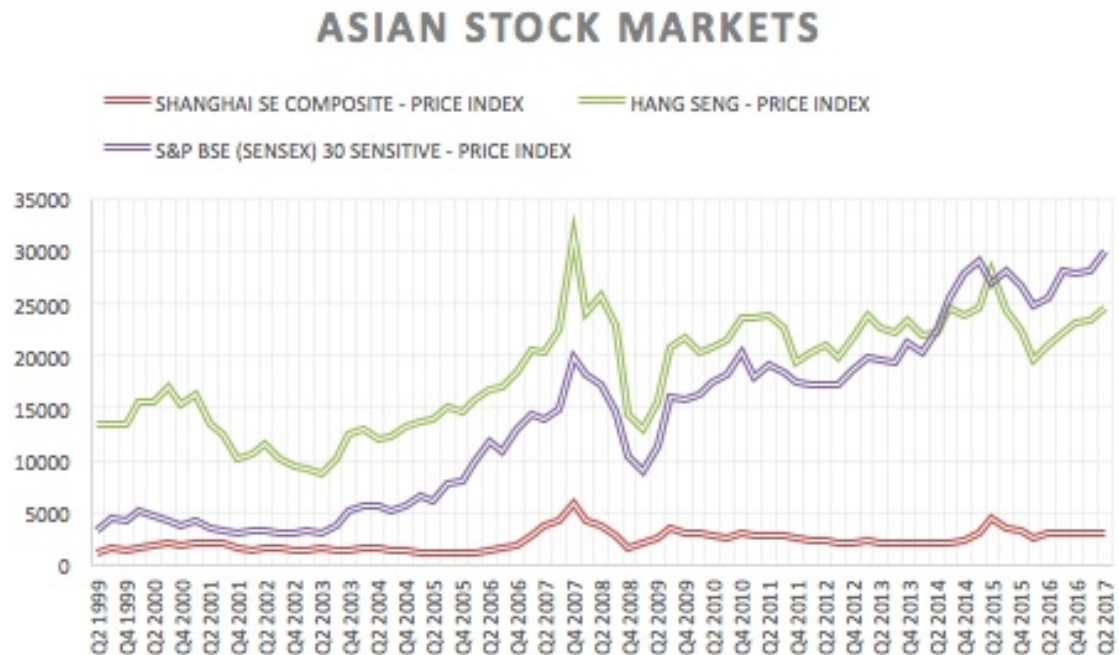


Figure 30: Stock market performance in India and in China. source : Thomson Reuters Datastream

5.4.3 Foreign vs Domestic Investor

The section on India (in the theoretical part) highlighted that deals in the Indian LBO market are more profitable and deliver stronger returns if the fund vehicle is run by both local and international managers.

Number of transactions by companies	Number of companies	Number of local companies
1	43	13
2	11	2
3	9	2
4	4	1
5	2	1
6	2	0
7	1	0
17	2	0
Total général	74	19

Number of Investors in a single transaction	Number of transaction	Number of local investors within transaction
1	51	14
2	12	1
3	5	0
4	4	0
7	1	2
9	1	2
Total général	74	19

Figure 31: Number of local investors in China. source : Preqin

Number of transactions by companies	Number of companies	Number of local companies
1	36	8
2	11	0
3	4	1
4	3	1
5	1	0
8	1	0
Total général	56	10

Number of Investors in a single transaction	Number of transaction	Number of local investors within transaction
1	43	6
2	9	1
3	3	1
4	1	2
Total généra	56	10

Figure 32: Number of local investors in India. source : Preqin

5.5 Conclusions

I would like to highlight in this subsection a comparison of the Chinese and Indian buyout markets based thoroughly on my observations. I will not use external figures as they have already been illustrated in the first part of the paper. I will focus on the analysis and discussion of the different variables I have tested through my hypotheses and, based on their results, I will try to advocate which of the two countries offers the better opportunities and why. In other words, this section highlights my opinion on the market which looks the more attractive in order to settle a new fund. Some theory will of cause be used to explain a few

trends and observations, but the only data used will be that of my database.

In the first section of this paper, I started by defining and introducing the LBO market. I explained that a standard investment vehicle (a fund) had an average ten-year-lifetime and was managed on average by a dozen general partners with an investment banking background. The five first years of the fund's life are called the 'investment phase', while the 5 remaining years are defined as the "exit strategy", which means seeking the investment through in order to capture the highest possible profit. Opting for the best exit strategy means two things: first, choosing the most suited exit type, and second, waiting for the right time. Several investments in the buyout history failed to deliver the expected returns because investors miscalculated the best time to sell the company. The buyout activity emerged in the US at the beginning of the 1980s and spread to Europe throughout the new century. Both markets still account for an aggregate 90% of the global buyout market, with a 45% share each. The Asian buyout market emerged much later, at the beginning of the new millennium. But as the data shows, very few transactions were recorded for that time.

China and India constitute the two largest emerging Asian private equity markets, and despite some disparities, they also share a bunch of common features. For example, they both follow 4 investment cycles, that match those of the global buyout industry. But before entering deep into these trends, I shall first describe the Asian private equity market in general. The Chinese private equity market looks, at first glance, more attractive than its Indian peer, because of its considerable larger market, worth \$88.7bn, compared to \$16.2bn. By volume as well, the market is larger with 635 recorded transactions over the whole studied period, against 581 for its Southern neighbor. All investment types, with the exception of PIPEs, disclose a greater activity in China, even though the value of the PIPE market as a whole is also larger in China. As for the buyout industry, despite relatively similar deal numbers (148 in India, and 171 in China), the Chinese market is much more impressive in terms of value, with a total number more than ten times that of India. This is why, I validated my first hypothesis that the Chinese market, looks more attractive for an investor, because of its greater number of opportunities.

Throughout the years, disparities have indeed emerged. As I mentioned, we can split the two-decade-studied-period into four distinctive investment cycles.

5.5.1 Early Days

The first one, called 'early days' concerns the first three to four years of the new century. While they marked three years of decline and sluggish activity in the global buyout market (due to the dot.com bubble and the

9/11 events), they also marked the emergence of the activity in Asia, though at a very small pace. Through the data I gathered, Chinese LBO transactions started as of 2002, compared to 1999 for India. Respectively 1 and 6 transactions can be accounted until 2004. In addition, no exit was recorded before 2005 in India or 2007 in China, which is normal considering the long holding periods defining that cycle. I therefore have no evidence of possible returns or profitability for the first phase. The slow emergence of private equity in Asia explains the limited data. A survey carried out by INSEAD in 2011 stipulates that trade sales were the most favored exit route until 2004. Stock markets at the time were not as sophisticated as they are today in emerging countries and IPOs were not that common. The small number of observations do not enable a pertinent comparison, but some interesting features may still be noticed.

Investment amounts are only available since 2002 in China with a single deal worth \$26mn. In India, deals topped at \$340mn over the period, with \$240mn invested in 2002 alone. The aggregate amount included 3 deals: 2 from the PE group General Atlantic worth \$100mn dollars each, and another one worth \$40mn operated by Warburg Pincus. Quite surprisingly, this period defined by very few deals encompasses some very profitable vintages for India, as exits from these transactions tripled the investments of 2002, doubled those of 2001, and more than quadrupled those of 1999. In absolute figures though, the returns are less impressive because of the relative small size of these investments. China as well experienced a nice period in terms of returns. Indeed, the Chinese buyout market benefited in 2012 from a 10-year-investment signed in 2002 which returned 11 times the transaction amount to investors. This helps us to understand, that in spite of the low activity during that cycle, exit transactions returned a lot of capital to investors. In private equity, years must not only consider the investment amount, but what these investments bring back to investors.

Due to the small number of transactions, it is irrelevant to discuss the sector's trends as only 7 transactions were recorded for both countries. The main point to keep in mind is the low activity in general, and the average small size of the deals, which, surprisingly, turned out to be highly profitable. As it was explained in the theoretical part of the thesis, few institutional investors were willing to invest in Pacific Asia, and even fewer in China because of the Tiananmen Square incident or in India because of the economic openness that only started in 1991. Confidence in these economies came at the beginning of the new century, and instead, investments flew at the time in the Southern and Tiger economies such as Hong-Kong, Singapore, Thailand, the Philippines, Taiwan and Korea. This lasted until the dramatic Asian currency crisis suddenly burst, hitting mostly the latter countries, and only to a lesser extent China and India. It is in that particular period that private equity investments started to flow in the two studied economies.

5.5.2 A Remarkable expansion

China and India witnessed on both sides remarkable expansions, due to their respective growth rate, an emerging middle class, infrastructure investments, unprecedented urbanization levels, as well as, increasingly, their private equity industries. Four factors enabled this boom: i) a strong economic growth and attractive macroeconomic factors which spurred confidence and defined new opportunities, ii) larger investments due to better capitalized funds, iii) a greater experience for general partners after the first investment wave, and iv), a first wave of exits with some highly profitable returns which contributed to increase enthusiasm over the region. These factors enabled to define the second period in our investigation period, which goes from 2004 to 2008, characterized by incredible growth in all investment and exit classes. The number of deals, for instance, grew in China alone from 1 in 2002 to 28 in 2007. In India as well, the market considerably increased, but to a slower pace, from 3 in 2002 to 14 in 2007.

The 2007 vintage highlighted a peak in the Indian private equity history, and neither volumes nor values have ever reached that figure again. The buyout industry reached \$1.57bn worth of investments in India and \$10.38bn in China. Here again, we can compare the massive difference in size between the two markets. However, the astonishing \$6.2bn invested amount in China in 2006 included a \$2.5bn stake by the US investment bank Goldman Sachs into the Chinese giant bank ICBC's IPO. For the story, the investment, which was exited in 6 times by private placements at different time periods, delivered an aggregate tremendous profit of nearly \$10bn, i.e. 3.8 times the investment. Another noticeable difference is the average investment size, which remained at a steady \$45mn in India, compared to \$200mn in China. As was documented in the theoretical part of the thesis, the Chinese economy encompasses many more large private companies than in India. For the record, the "Elephant" market hosts around 10,000 private companies with revenues under \$125mn, 270 companies under \$500mn and just over 30 private companies with revenues exceeding \$500mn, as compared to, respectively, 16,700, 7,600, and 780 companies in China. The difference comes from two distinctive causes: i) the overall size of the Chinese economy which is twice as big as the Indian, offering wider opportunities to expand, and ii) this traditional corporate culture in India, still dominated by family-owned companies, who tend to be smaller. This traditional culture also exists in China, but to a smaller extent, and Chinese corporates can in addition, benefit from a more homogeneous market. In this respect, for a given company, China is often compared to the US, while India would rather be considered as Europe. There are still enormous internal and cultural barriers that affect the Indian economy and prevent regional companies to expand at a national level.

As far as exits are concerned, the differences continued to be significant during this second period. India continued to favor trade sales, while China started a shift toward IPOs. The shift is much more pronounced

for the private equity industry in general, as IPOs became the prevalent exit route for Chinese investments. LBOs, however, seem to have kept a preference for trade sales but general enthusiasm toward the stock market was already clearly felt. Data in the Appendix provides evidence of the emergence of IPOs. On the 11 exits recorded in China, 7 were through IPOs and each of the four remaining transactions followed a different exit route. Over the 16 exits in India, 6 were IPOs, 7 trade sales, and 2 secondary buyouts. IPOs came in second place, but as the table in Exhibits shows, half of them occurred in 2005 and one per year thereafter.

From 2004 to 2008, two sectors seemed to attract most of the Indian investments, namely: Industrials and Business Services. Telecoms & Media, as well as Consumer & Retail followed. The four sectors attracted nearly 85% of the total investments during that period. As mentioned earlier, \$1.57bn were invested in India during the second cycle, returning around \$6.5bn, or 4 times the invested amounts. The four leading sectors generated \$5.8bn, equal to 89% of the second period total and more than half of the amount returned over the whole studied period. The market looks as such highly concentrated. In China, by contrast, the market was less condensed. Indeed, its two favoured sectors were Industrials and Consumer & Retail, followed by Materials and Business Services. But the four larger sectors account for only 57% of the Chinese market through that period. Nonetheless, these investments must have been very productive as they returned \$28.9bn of the total \$39.1bn return, or 74% of the returns. These were indeed productive investment years.

For returns that materialized during these years, the results are, however, mixed. Benefiting from the period of euphoria, China managed to deliver generous profits by returning 26.5 and 5.5 times its investments. India, for its part, failed to deliver such results and after positive signs in 2006, returned flat profits the two following years.

The last variable before closing this boom period, is the holding period. For both countries they have been shorter than in the first cycle. Among the leading sectors in each economy, Industrials and Consumer & Retail offer the shortest investment periods. In spite of being profitable, their general liquidity due to a large flow of transactions contributed to shorten holding periods, which enable buyout groups to fasten profits and investment cycles. Again, Chinese results are better than those in India, as the "Dragon" economy managed to recycle faster its investments.

The Chinese market started to develop its stock markets and as a consequence IPOs jumped to outnumber trade sales. The problem with trade sales in China, is the heavy legislation that prevents foreign or domestic companies from completely acquiring large corporates. The buyout market expanded much faster in China, and both average investments and returns were higher. Moreover, the Chinese market is less concentrated

as its four more attractive industries are only responsible for 57% of the investments, compared to 85% in India. None of the two countries hardly ever recovered from this peak.

5.5.3 The subprime crisis period

After the subprime crisis markets and economies experienced a sort of double dip: they first plunged in 2009, recovered in 2010, and then decreased again for the two following years. The private equity industry did not escape that unwanted phenomenon, as my data can show. 2009 was a catastrophic year for buyout investments. Only 5 transactions in China, and 2 in India were recorded. The global financial crisis more than halved PE investments in China. Leveraged buyouts were less impacted by the crisis, but early-stage transactions plunged and were responsible for the sluggish general figures. IPOs cooled as well, as over the 17 recorded exits for 2009, 5 were trade sales, 8 private placements, and only 2 IPOs. No IPO was recorded in India for that year, while trade sales and private placements were responsible for 5 out of the 6 exits. There is a general trend to favor M&A deals in terms of bad economic conjuncture, most often at the disadvantage of the seller. Many of them were considered indeed as hostile takeovers. Deals rebounded to acceptable levels in 2010, but just to slide again the year after. 2010 was a particular year for China. Indeed, the country's policymakers decided to open the stock markets to smaller companies in order to keep the pace with the fast growing demand. As a consequence of the IPOs generalization, huge introductions cooled and average earnings through IPOs decreased. The market matured and smaller returns were generated. In the meantime, China's appetite grew so fast that it became the biggest IPO market in the world. Buyout exits followed the trend, as 11 IPOs were accounted for that year. The amount is more than double that of trade sales which was the second route chosen by investors. The largest IPOs regarded companies from the Financial Services industry [data to insert]. IPOs fell again and remained flat for the two next years. Traditional trade sales and private placements largely dominated the exit routes. The same trend was highlighted in India. As a consequence, 2011 and 2012 experienced the two worst years of the studied period in terms of returns in China. Comparable figures can be interpreted in India, with 2013 being by far the worst year in terms of returns. However, this might be explained by the general elections in the country and general partners waiting for the nomination of the business-prone new Premier, Narendra Modi. 2014, the year of his election, was marked by a billion dollar return, driven by a general confidence in the market.

5.5.4 Flat rebounds

The last period of our study highlights very few investment transactions, but experienced several exits. Unsurprisingly, there are very few investment transactions and the ones recorded are those which materialized

within a year or two. It is thus irrelevant to discuss new deals in this cycle, except to understand through which exit route a deal can successfully be exited in such a short period. 2014 and 2015, both closed by returning respectively one and two billion dollars to investors in India. These two years account for a third of the whole studied-period returns. In China as well, the three last years delivered nearly \$15bn, with a 2016 returning 7 times its investments. And this, despite the rough environment in the Chinese stock markets. Chinese IPOs considerably rebounded when the market opened again in 2013, but an even stronger increase in trade sales marked its dominant position. In India, secondary buyouts emerged in the last cycle, mostly driven by the incentive to invest record amounts of unspent capital, due to low investment opportunities.

5.5.5 General discussion and conclusions

The conclusion from the four cycle analysis shows that the Chinese buyout market has clearly dominated in most tested variables. The first hypothesis can undoubtedly be validated as considering China as the current most attractive buyout market. It offers more opportunities, both in terms of deal volumes and deal values. The aggregate and the average deal amounts are much larger in China. This can be explained by two distinctive factors: internal drivers, which were presented under the third hypothesis, and macroeconomic drivers, which were documented in the fourth. Both hypotheses were validated. The following paragraphs intend to further explain the validation of these hypotheses. Unfortunately, as it is mentioned in the limits, I am not able to distinguish which among the two variables (internal or macroeconomic) better influence the attractiveness of a buyout market. They are all complementary as an attractive market is only reached through investment opportunities coupled with sophisticated capital market and a good economic conjuncture. It would require another study, based on a quantitative approach and several other markets to be able to statistically determine the significance and weight of each variable. The purpose of this study was not to disclose statistical evidence, as in addition, only few transactions are currently available. The purpose was to define variables relevant to a buyout market and the way they impact its attractiveness.

The second hypothesis, which highlights the same question but for the near future has not been validated. I previously thought indeed, based on my first readings, that the Indian market was likely to outperform its Chinese peer in a near future, but I cannot validate this hypothesis. Based on a statistical model that extrapolated the recorded observations, China is still given as a dominant player in the next decade. Although a convergent trend in transaction volumes might indicate that, eventually, India could start closing the gap, the difference is still significant. Therefore, settling a new fund in India today instead of China, would result in a huge opportunity cost. Based on my readings and the economic distortions between the two countries, the Indian market will require at least a decade to offer equal opportunities as the Chinese,

which is actually the lifetime of a fund that could be launched in China. As the Chinese market matures and its economy is shifting from an export-growth model to a more stable internal-consumption-driven one, this will most likely lead to a period of corporate restructuring and industry concentration and PE-backed buyout groups might well seize this opportunity.

The third hypothesis aimed to validate that internal variables such as the holding period, investment and exit amounts (of which the net return can be computed), the sectors, the exit type and the number of investors both in the market and in a single transaction could explain the Chinese dominance in the buyout industry. Based on the observations from my database and literature theory, I was able to validate this hypothesis. None of these variables favored India as an absolute more attractive market, while a few of them could provide mitigated results. Average investment amounts, for instance, clearly favor China because of their larger amounts. If we suppose equal rates of returns (which we actually do not need to suppose as they are already greater in China), the profits are much higher in China. Indeed, returning twice a \$150mn investment delivers a higher profit than returning twice a \$50mn amount. However, investment amounts do not grow exponentially and the Chinese ones, despite still benefitting from some room to grow, will turn out to flatten at some time. By contrast, deal sizes in India still benefit from an ocean to grow.

Another mitigated internal factor is the number of investors. Despite its larger market, the Chinese buyout industry is also subject to a greater competition, as 74 PE groups were recorded in the dataset against 56 in India. Among these, 59% of investors in China were responsible for one or two transactions, compared to 84% in India. 2 PE groups, namely the Carlyle Group and Bain Capital were responsible for 14 transactions each in China. The greater concentration of investors may be beneficial in order to enhance some local experience, knowledge and expertise. However, due to the larger investment sizes in China, more investments require multiple investors. This might be beneficial for gathering more information, especially if the group of investors mixes local and international companies, but it also means that profits have to be shared and usually require large administrative costs. Furthermore, all the companies must agree on the exit strategy to adopt. This explains the mixed results for that variable. –I am currently working at computing returns for single vs multiple investors–.

Finally, internal variables are not responsible for everything. You may have a good investment, but without a bullish market most investors will fail to exit on a profit. Choosing the right exit type and sector may be a thing, but choosing the right exit time is a much harder task. For IPOs or trade sales alike, time characterized by confidence and euphoria makes the difference. However, how can an investor be sure that the momentum will last or that the stock market will remain bullish for a couple of weeks? An attractive

market is defined by returns, and returns are mostly driven by getting the timing right. To complete this task, I coupled my data with three distinctive investment periods described by M. Prah, A. Cannarsi, and C. Zeisberger in their 2011 INSEAD paper on 'Private Equity Exits in China and in India'. The fourth hypothesis, (a graph to come), shows the correlation between Chinese exits and the performance of the main local benchmark, i.e. the Shanghai Composite Index. On the graph figuring in hypothesis 4, it is already possible to notice the four cycles. There is a bigger correlation for IPOs than for trade sales, which may depend on other factors than the stock market performance. However, except for hostile takeover, few large M&A deals were signed in bearish periods. There is also less correlation in India, which is more largely dominated by trade sales than IPOs. As an asset class, the performance of private equity is directly correlated to the performance of the economy. Leveraged buyouts consists in buying and company with a high potential on a cheap and sell it a few years later on a profit. Without economic growth, the company will hardly expand. Furthermore, buyouts and more specifically leveraged buyout are highly dependent on debt levels. The cost of debt is another factor to be taken into account, and relies for its part on economic growth and financial as well as political stability. To sum up, the Chinese buyout-backed exit flow is in line with the performance of its main stock exchange, while this correlation is less felt in India. It is possible to notice a small timeframe between the turning points of both countries, which helps me understand that the Chinese market is more reactive than its Indian peer.

6 Conclusions

6.1 Limits and Further Research

Now that the theoretical and analytical parts have been developed, it is important for me to stress a few limits that my paper faces. First, my data and the sample may not entirely represent the reality due to a lack of available pertinent data. Most of my figures come from the Preqin database, a global leading consulting company of Alternative Assets. I gained access to the database while attending an internship in a European global bank. As exhibit X may indicate, I selected all the available data for which investment and exit types were available. I therefore allowed all types of investments: buyouts, growth, pipe, merger, public to private, recapitalisation, restructuring and distressed debt, ranging from January 1, 1995 to late 2016 that have fully or partially exited. I also selected all types of exits: IPO, merger, private placement, recapitalization, restructuring, sale to GP, sale to management, trade sale, write-off, and unspecified exits, which for the latter, might include several bankruptcies. Finally, I only chose focused funds (China or India), partial and total exits, certain types of industries (business services, clean technology, consumer and retail, energy and utilities, food and agriculture, healthcare, industrials, information technology, materials, real estate, telecoms and media), as well as the name of the investor company (which provided me information on the number of investors and their nationality). Nonetheless, a number of blanks remain in my database, such as the absence of a single Chinese buyout investment in 2007 that would already have been exercised. Another limit regards the lack of investment and exit amounts for some transactions, which may considerably impact the size of each industry and the average investment amount.

Secondly, the paper may also be subject to another non-negligible limit. Indeed, in order to compare exit determinants such as the date, type, or amount, I decided to use only investments that have already, at least partially, been exited. The consequence is that thousands of transactions are currently active and may severely impact the investment determinants, as well as sector- and investor-related factors. Trying to focus my work on achieved investments, I decided not to use these transactions and as such to keep the successful ones. It would be very interesting to gather data on all these unexited-yet investments and to study their impact on the chosen variables. I am wondering of the different trends that may appear.

Finally, this paper is based on a rather qualitative methodology and a deductive approach. Indeed, I chose variables that I wanted to test with real figures in order to study the attractiveness of two very large and different countries. It would, however, be interesting to gather the same data on 'n-1-1' countries and statistically study the significant of each variable as well as their weight in determining the attractiveness of each country. For such as a computation, which would therefore be based on a quantitative approach, I

would need a number of countries superior by two units to the number of variables, of which a third would represent attractive buyout markets such as the US or Western European countries, a third for less attractive countries (mostly emerging or Mediterranean EU countries) and finally, the last third ought to include unattractive markets in order to study quantitatively the attractiveness of the two Asian countries compared to standards, and the significance of the variables. Since I have been accepted for a complementary master in Belgium, I would be very interested to compute this extended study.

6.2 Conclusion

It was very interesting for me to work on this thesis. First, because I discovered a large amount of data about the buyout industry and its main features from a general point of view. And second, because I was far from realizing the outcomes I just described. I already knew that the Chinese economy was far larger than the Indian, and I guessed that its buyout industry ought to be larger as well. However, due, on the one hand, to the ownership restrictions still prohibiting large acquisitions in China, the size of its state-owned enterprises, which still account for 75% of the country's total revenues, and, on the other hand, the Indian willingness to rely on its private sector to boost growth, I thought that the buyout industry in the two countries would be of relatively equal size with an Indian market likely to outperform the Chinese Dragon within the decade.

But the outcome was very different, with a Chinese buyout industry dominating in almost all variables. The difference might partially be explained by distinctive corporate cultures. The Chinese market is still dominated by 150,000 state-owned enterprises, which are mostly known for their ability to grab a disproportionate share of the country's resources (such as half of the bank loans) and their responsibility in amounting corporate debt levels. Although private companies are considered as more productive, they fail to gather the share of needed resources to expand and take a dominant position in specific industries. However, despite SOEs dominance, there is still an ocean of mid- and large private companies waiting for regulations to be eased in order to become opportunities for the private equity industry. The large period dominated by growth capital will sooner or later shift toward a new phase driven by buyouts. And the reason is pure economics. In a fast growing emerging economy, local businesses expand fast and private equity is mostly driven through growth investments to help companies with established products and markets to grow. But at a threshold, where the economy shifts from an export-growth model to a more stable internal-consumption growth model, a new wave of corporate restructuring and industry concentration is awaiting. This coming period will reflect the huge transformation period that defined the US economy in the mid-1980s and 1990s with a 'cleaning' of the large corporates and conglomerates. Buyouts started to emerge at that time in the US and are very likely to pick up in China as well.

In India, by contrast, the market is still largely dominated by family businesses. Therefore, their size remains relatively small as they act more locally than their Chinese peers. This is also a consequence of the Indian economy, which is more fragmented than in China. Companies from the South find it much more difficult to establish an office in the North, than it is the case for a Chinese company to expand, for example, from Beijing to Guangzhou. Moreover, these family businesses are hardly for sale due to a local culture that sees the selloff as a sign of business failure. Due to the cultural link between companies and families, few Indians decide to sell their business, despite their profitability. Fortunately for the buyout industry (attention, tu prends position ici, est-ce ce que tu veux faire ?), Indian owners who are currently retiring , meet difficulties to train their heirs and sustain the company's expansion. This is why mentalities are changing slowly and a first wave of selloffs might well arise in the country.

On the other side, it is important to bear in mind that the two countries started the liberalization of their economies with a difference of two-decades. From 1974, when China slowly opened its economy, to 1991 when India started hers, nearly twenty years passed with double-digit growth figures in China. Throughout these years, millions of people joined the cities, million others joined the middle class, and businesses started to grow from a local to a regional perspective. This differentiated timeframe also explains the smaller investment amounts in India and the fewer deal opportunities offered by its market. Growth capital and PIPE investments will continue to propel the Indian private equity industry and buyouts will require another few years before emerging.

This is why, in order to answer the question about which market looks the more attractive and worth of settling a new fund, I would choose China for the coming decade, before moving to India. At that time, I expect the Chinese buyout industry to have matured, offering steady deals with high valuations but lower returns. By contrast, I would expect the Indian buyout market to gradually live up to the challenge, by hosting opportunities offering deals averaging hundreds of millions of dollars and attractive returns.

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8 Appendix

A Illustration regarding the deal volume & value issue

A	C	D	F	G	H	I	K	L	M	N
BuyoutID	Firm	Investment Date	Investment Type	Deal Size (\$mn)	Investors (Entry)	Exit Date	Exit Type	Exit Value (\$mn)	Value Creation (\$mn)	Buyout Industry
40905	ABG Shipyard	31/05/05	Buyout	32,18	IL&FS Investment N	28/11/05	IPO	34,98	2,8	Industrials
40905	ABG Shipyard	31/05/05	Buyout	32,18	IL&FS Investment N	1/11/10	Private Place	28,35	-3,83	Industrials

This figure highlights the issue regarding the smaller number of deal volumes and values. The two lines represent the same investment, but exited at two different time periods and through different exit types. Therefore, two lines have been settled in the database. Without removing the duplicate, two transactions for a total investment amount of \$64.32mn would be noticed.

B Holding periods by Buyout Industry Classification in India and in China

Sectors	India		China	
	Moyenne de holding period yearly	count	Moyenne de holding period yearly	Count
Business Services	4,75	16	4,94	13
Clean Technology	4,21	2	4,11	3
Consumer & Retail	4,13	8	3,64	20
Energy & Utilities	3,54	2	4,52	6
Food & Agriculture	4,17	6	3,99	11
Healthcare	4,26	6	3,07	8
Industrials	4,43	16	4,21	24
Information Technology	3,79	6	3,38	7
Infrastructure	1,75	1		
Telecoms & Media	5,06	8	5,23	8
Materials			3,12	9
Real Estate			2,13	1
Total général	4,43	71	4,10	110

C Chinese exit strategies in the country's private equity industry by exit year

Exit years	IPO	Merger	Private Placement	Recapitalisation	Restructuring	Sale to GP	Sale to Management	Trade Sale	Unspecified Exit	Write Off	Total général
2007	15		6			2		1	1		25
2008	7	1	4				1	4	3		20
2009	17	1	14			2		8	2		44
2010	38	1	16		1	3	2	12	2	1	76
2011	33	2	21			3		13	8		80
2012	22		27	1		6		12	7	1	76
2013	6		32		1	2	2	20	10	1	74
2014	37		23			3	1	19	9		92
2015	36	1	19		1	7	2	23	1		90
2016	7	3	12			8		12	2		44
2017	3		5			1		5			14
Total général	221	9	179	1	3	37	8	129	45	3	635

D Chinese exit strategies in the country's buyout industry by exit year

Exit years	IPO	Merger	Private Placement	Restructuring	Sale to GP	Sale to Management	Trade Sale	Unspecified Exit	Total général
2007	5				1				6
2008	2	1	1				1		5
2009	2	1	8				5	1	17
2010	11		4		1		6	1	23
2011	2	2	8		3		7	1	23
2012			10		3		4	1	18
2013	1		9				4	3	17
2014	5		2		2		7	3	19
2015	5	1	1	1	5	1	10		24
2016	1	1	2		3		6	1	14
2017	1		2				2		5
Total général	35	6	47	1	18	1	52	11	171

E Indian exit strategies in the country's buyout industry by exit year

Exit years	IPO	Merger	Private Placement	Sale to GP	Sale to Management	Trade Sale	Unspecified Exit	Total général
2005	3							3
2006	1						1	2
2007	1					4		5
2008	1			2		3		6
2009		1	2			3		6
2010	3		1	1		1		6
2011	2	1	1	1		3		8
2012	1		2	4		4	1	12
2013			2	2		1		5
2014	1		4	5		3		13
2015	3			7		2		12
2016	1		4	4	1	3		13
2017			1	1		2		4
Total général	17	2	17	27	1	29	2	95

F Indian exit strategies by Buyout Industry Classification

Étiquettes de lignes	IPO	Merger	Private Placement	Sale to GP	Sale to Management	Trade Sale	Unspecified Exit	Total général
Business Services	4		9	7		4		24
Clean Technology				1		1		2
Consumer & Retail	2		1	5		3		11
Energy & Utilities						2		2
Food & Agriculture	1		1	4		2		8
Healthcare	1			2		4		7
Industrials	5		6	3	1	5	2	22
Information Technology	2			2		2		6
Infrastructure	1							1
Telecoms & Media	1	2		3		6		12
Total général	17	2	17	27	1	29	2	95

G Chinese exit strategies by Buyout Industry Classification

Étiquettes de lignes	IPO	Merger	Private Placement	Restructuring	Sale to GP	Sale to Management	Trade Sale	Unspecified Exit	Total général
Business Services	4	1	13		4	1	4		27
Clean Technology							3		3
Consumer & Retail	4	2	6	1	7		7	3	30
Energy & Utilities	3		4				3		10
Food & Agriculture	4		2				7	2	15
Healthcare	3	1			1		3		8
Industrials	6	1	7		4		15	2	35
Information Technology	4		1				3		8
Materials	4		6				4	2	16
Real Estate	1		1						2
Telecoms & Media	2	1	7		2		3	2	17
Total général	35	6	47	1	18	1	52	11	171

H Indian investment amount by Buyout Industry Classification and Investment Year

Buyout Industry Classification/ Investment Year	1999	2001	2002	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Investment Amounts India
Business Services		0,5	40,0		27,7	191,1	331,8	100,7		17,0	33,0			29,0	250,0	1020,9
Clean Technology									18,0		211,0					229,0
Consumer & Retail				9,7		116,2							11,5			137,5
Energy & Utilities											30,0		106,8			136,8
Food & Agriculture						81,7				15,0	25,4					122,1
Healthcare					27,8		66,0						9,1	62,4		165,3
Industrials		90,5			91,3	90,4	146,0	4,0			110,0	31,4		47,9		611,4
IT			200,0				60,0									260,0
Telecoms & Media	8,6				45,8		134,6	46,6	225,0							460,7
Total général	8,6	91,0	240,0	9,7	192,6	479,4	738,4	151,3	243,0	32,0	409,5	31,4	127,4	139,3	250,0	3143,7

I Indian exit amount by Buyout Industry Classification and Exit Year

Buyout Industry Classification/ Exit Year	1999	2001	2002	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Exit Amount India
Business Services		31,2	483,5		142,0	690,0	714,6	565,5		105,0	40,0			75,0	449,7	3296,4
Clean Technology									29,0		200,0					229,0
Consumer & Retail				55,1		608,6							10,0			673,7
Energy & Utilities											6,7		106,4			113,1
Food & Agriculture						77,0				68,8	144,5					290,3
Healthcare					186,5		263,0						16,3	85,8		551,6
Industrials		175,9			198,9	169,3	79,8	5,1			103,0	55,8		198,6		986,4
IT			280,0				170,0									450,0
Telecoms & Media	40,2				177,5		1905,1	500,0	174,5							2797,2
Total général	40,2	207,1	763,5	55,1	704,7	1544,9	3132,5	1070,7	203,5	173,8	494,2	55,8	132,7	359,4	449,7	9387,7

J Chinese investment amount by Buyout Industry Classification and Investment Year

Buyout Industry Classification	2002	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2016	Investment Amount China
Business Services			410	2607,7	654,9	275,0								3947,6
Clean Technology						260,0								260,0
Consumer & Retail				160,7	152,2			28,9	375	500		80		1296,7
Energy & Utilities				50,0		88,9		100,0						238,9
Food & Agriculture	26	5,4		252,0		202,0		600,0				1770		2855,4
Healthcare					83,0	80,0			95,5				150	408,5
Industrials			11,1	412,8			200,0	502,8		31,8				1158,4
IT					73,5	125,0		6,2	75,0		100			379,6
Materials					213,7									213,7
Telecoms & Media				2359,0				124,0		32,2				2515,2
Total général	26,0	5,4	421,1	5842,1	1177,2	1030,9	200,0	1361,8	545,5	564,0	100,0	1850,0	150,0	13273,9

K Chinese exit amount by Buyout Industry Classification and Exit Year

Buyout Industry Classification	2002	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2016	Exit Amount China
Business Services			12437,8	9969,6	1814,0	715,0								24936,3
Clean Technology						3400,0								3400,0
Consumer & Retail				967,7	602,1			260,5	924,7	775,0		484,2		4014,2
Energy & Utilities				511,7		294,7		218,0						1024,3
Food & Agriculture	287,7	196,7		150,0		937,1		190,0				1058,9		2820,4
Healthcare					100,0	165,0			1340,0				6,8	1611,8
Industrials			111,0	1272,1			650,0	1623,3		538,6				4195,0
IT					137,7	329,0		127,9	64,0		2700,0			3358,6
Materials					1081,6									1081,6
Telecoms & Media				3951,0				190,0		139,0				4280,0
Total général	287,7	196,7	12548,8	16822,0	3735,4	5840,7	650,0	2609,7	2328,7	1452,7	2700,0	1543,2	6,8	50722,3