



Healthcare in the Emerging Markets A Compelling Private Equity Opportunity

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EXECUTIVE SUMMARY

This paper discusses observations and recommendations about the emerging markets healthcare space derived from Siguler Guff's 10+ years of investment and operational expertise within the sector. Our experience and research concludes that emerging markets healthcare presents an attractive investment opportunity that is well-suited for private equity investors. We analyze the challenges that global private equity investors face when attempting to increase their exposure to emerging markets healthcare beyond a certain threshold (historically, approximately 8-10% of their portfolios).¹ We believe that investors who selectively increase their exposure to the sector can benefit significantly, particularly those who can be early movers.

The healthcare industry in the emerging markets has been growing rapidly and is reaching a scale that merits specific focus. We define healthcare broadly as all businesses within healthcare delivery, services, diagnostics, medical devices, and pharmaceuticals and life sciences. Within the BRIC countries, the healthcare market is capitalized at more than \$850 billion and compounds at a rate of 9.1%, significantly greater than the aggregate GDP growth rate of those countries.² When combined with other emerging and frontier markets (including Africa, Southeast Asia, Latin America, and parts of the Middle East and Turkey), the emerging markets healthcare industry represents more than \$1.3 trillion and is growing at a rate of 6.8%.² The size of the healthcare industry in the emerging markets is still a fraction of that in the developed markets, given that the emerging markets are relatively underdeveloped. For example, healthcare in the U.S. alone is a \$2.9 trillion industry.² This comparison illustrates the strong growth potential of emerging markets healthcare during the next 10-20 years.

In addition to size, the fragmentation of the industry across the emerging markets makes it attractive to investors. Healthcare in the emerging markets is comprised of at least 50-60 distinct sub-sectors and is driven by a localized practicing doctor model. These factors offer attractive opportunities for consolidation at discounted valuations. Interestingly, operating margins across most of the industry sub-sectors are surprisingly high, making them appealing when compared to similar businesses in the developed markets. This seems to be driven by a burgeoning emerging middle class willing to pay for high-quality medical services (healthcare in the emerging markets is commercial pay-based, with low insurance penetration). Additionally, the availability of low cost skilled labor and products in these markets keeps overall costs fairly low. Finally, the healthcare sector has proven to be defensive and reasonably immune to regulatory risk, demonstrating resilience during periods of global and local downturns.

We believe that private equity investment vehicles are best-suited to leverage the emerging markets healthcare investment opportunity, as it is both difficult and expensive to gain sector exposure through listed equity investments. Public indices in the emerging markets are significantly underweight in their exposure to healthcare. Such a scarcity has led to fairly rich valuations among listed healthcare companies. Further, even in markets where highly priced listed companies exist, they tend to be concentrated in certain sub-sectors. For example, listed healthcare companies are concentrated in the pharmacy and diagnostics sub-sectors in Brazil, and in the pharmaceuticals sub-sector in India and China. As a result, investing in public healthcare companies provides limited diversification for investors.

¹ Source: Siguler Guff estimates.

² Sources: World Bank data and Siguler Guff estimates, 2012.

Healthcare companies in the emerging markets need both capital and expertise, especially in the areas of capital allocation, infrastructure scale-up and the expansion of talent pools. This expertise can best be delivered by active private equity investors. Given the fragmented nature of the industry, there is a significant valuation arbitrage that creates investment opportunities for mid-sized private equity investors. Finally, continued, strong interest from strategic global and regional healthcare buyers to scale their businesses in the emerging markets has provided exit opportunities for early investors. According to Cambridge Associates data, healthcare private equity returns have outperformed overall private equity returns by a significant margin.

Despite the opportunities, there are specific structural limitations that make it difficult for typical private equity investors to increase their exposure to emerging markets healthcare. There are a limited number of high-quality fund managers that focus exclusively on healthcare. While there are over 300 healthcare-focused funds in the U.S., there are only 10-15 across the emerging markets.³ The majority of these managers tend to be narrowly focused on specific sub-sectors, have insufficient track records, or new and inexperienced teams. Most emerging markets healthcare investments have been made by sector-agnostic private equity funds, in which healthcare represents approximately 8-10% of the portfolio.⁴ Nevertheless, sector-agnostic funds face their own set of challenges, including difficulty managing specific sector exposure and limited ability to provide expertise to operationally enhance specialized businesses.

We argue that global private equity investors need to be more active in order to capture upside in this opportunity. We recommend that private equity investors take a multi-faceted approach that involves the following actions: (a) focus on select, specialized healthcare funds; (b) actively work with sector-agnostic fund teams to increase healthcare exposure; (c) increase co-investment and direct deal flow in sub-sectors and geographies of interest; and, (d) identify other pools of capital that provide specific exposure to select sub-sectors and/or geographies (which may take the form of joint ventures, secondary transactions or pledge vehicles).

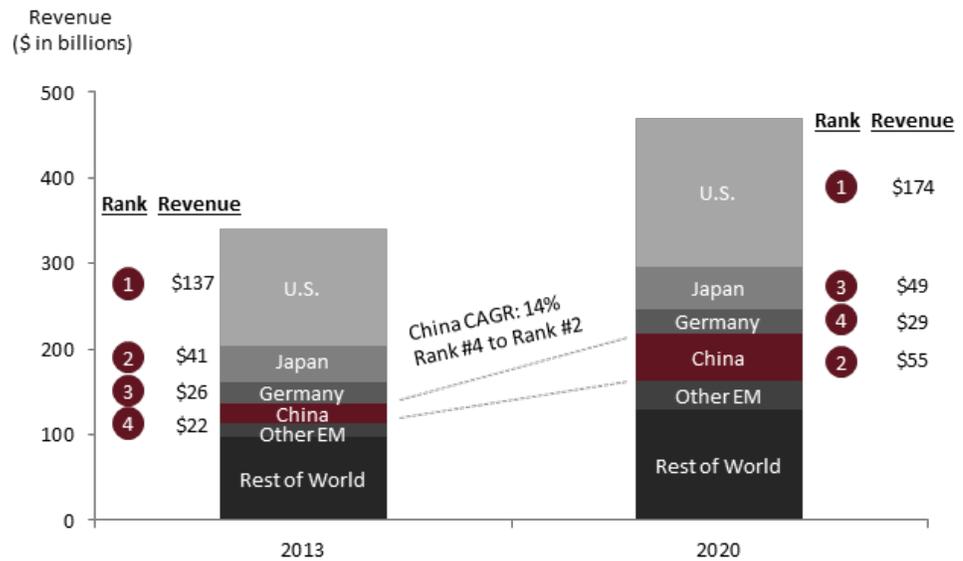
³ Source: Preqin, April 2014.

⁴ Source: Siguler Guff estimates.

EMERGING MARKETS HEALTHCARE IS A LARGE, PROFITABLE AND RAPIDLY GROWING SECTOR

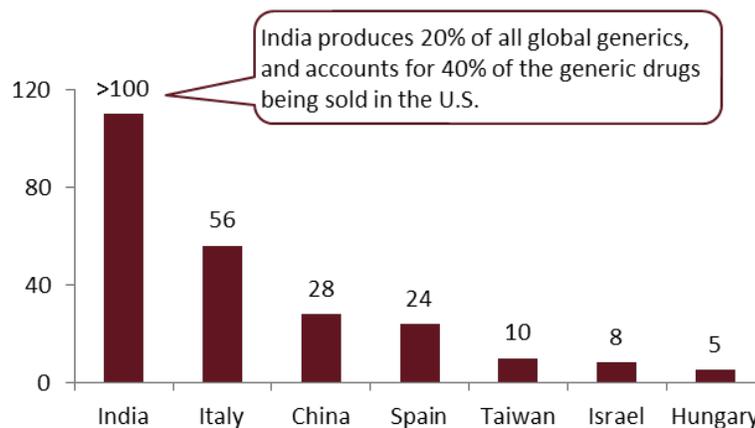
The emerging markets healthcare sector is large. Within the four BRIC countries, the healthcare market is capitalized at more than \$850 billion.⁵ Across the broader emerging markets, healthcare is estimated to be a \$1.3 trillion industry.⁵ The emerging markets healthcare sector is quickly approaching the size of Europe's healthcare market. In fact, in certain sub-sectors, the emerging markets ranked among the fastest-growing countries in the world. For example, as shown in Exhibit 1, the Chinese medical devices market was ranked the fourth largest in the world in 2013, and is expected to become the second largest in the world by 2020. In the generic pharmaceutical market, as shown in Exhibit 2, India has the largest number of FDA-approved plants outside of the U.S. In fact, India produces 20% of all global generic pharmaceuticals⁶ and 40% of the generic drugs sold in the U.S.⁷

Exhibit 1: Medical Devices – Evolution of the Global Market



Source: BCG analysis. Notes: Revenues based on manufacturers' sales. Other emerging markets include Brazil, Russia, India, Turkey, and Southeast Asia.

Exhibit 2: U.S. FDA-Approved Plants by Country



Source: Crisil Research, *Bulk drug exports to scale up in the regulated markets (December 2008)* for India; ICICI Securities, *Indian Pharma Sector: Sector Update (December 2008)* for Italy, China, Spain, Taiwan, Israel and Hungary.

⁵ Sources: World Bank data and Siguler Guff estimates, 2012.

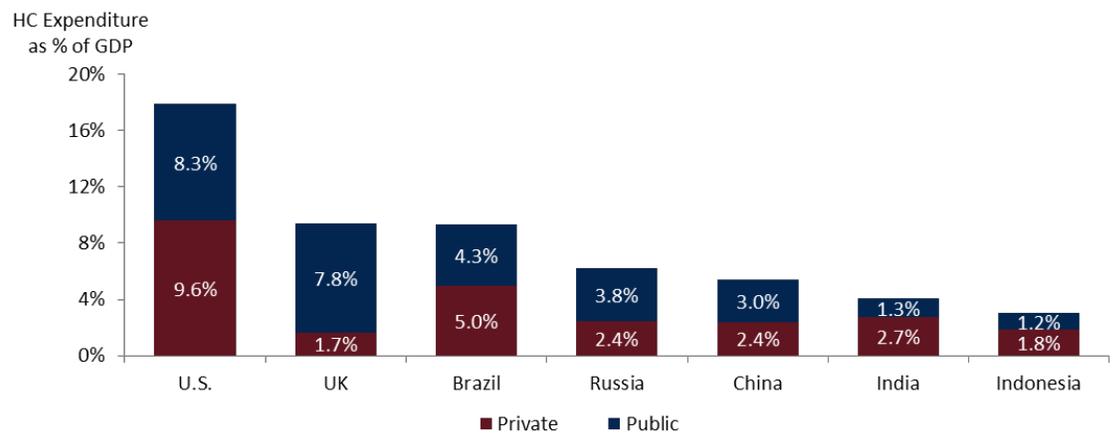
⁶ Source: Ministry of External Affairs, government of India: *Indian Pharmaceutical Industry – Affordable Access to Healthcare for All*, August 2014.

⁷ Source: Wall Street Journal: *Why More Indian Generic Drugs Will Make Their Way to the U.S.*, June 2014.

It is important to note that the low cost of healthcare and healthcare-related services in the emerging markets distorts the real size of the industry. In terms of volume, the number of healthcare-related services performed in these markets dwarfs those in developed markets. If pricing were to increase to levels comparable to those in the U.S., the size of those markets would substantially increase. For example, while India's domestic market is the world's fourteenth largest pharmaceutical market in value, it is the third largest in volume, despite the fact that less than 30% of the population has access to modern medication.⁸

A cursory review of the data, let alone a visit to a reputable private or government-run hospital in an emerging market with a long line of patients waiting outside, is enough to convince one of the dire need for healthcare infrastructure in these countries. As shown in Exhibit 3, healthcare expenditure as a percentage of GDP in the emerging markets significantly lags behind that in developed markets. A similar gap is apparent in healthcare infrastructure development within these markets. This signals continued growth in the emerging markets, limited only by the constraints of capital and technical knowledge.

Exhibit 3: Healthcare Expenditure as a Percentage of GDP



Source: World Bank, 2012.

The number of middle-income households in the BRIC economies with annual disposable income of more than \$10,000 now exceeds the U.S., and is contributing to the demand for healthcare services.⁹ Given the lack of physicians, nurses and medical infrastructure, governments across the emerging markets are struggling with a supply-demand mismatch, and are actively seeking private capital to fund capacity increases and quality improvements. This has created a supportive regulatory environment and a large market opportunity for private investors, which we believe will persist over the next 10-20 years.

Furthermore, the chronic health issues and diseases in the emerging markets are increasingly similar to those in developed markets. There is an evident trend of lifestyle-driven disorders such as cardiac diseases, asthma, diabetes, cancer and behavioral issues. Treatment for these disorders is often lengthy and leads to long-term patient-treatment relationships, which makes the economics of treatment attractive to pharmaceutical and hospital businesses. Lastly, according to the International Diabetes Federation, the number of diabetes patients in China and India between the ages of 70 and 79 is expected to increase to 252 million by 2020, nearly four times the estimated 64 million diabetics in the U.S. at that time. Additionally, according to data aggregated by SAP, 75% of cancer-related fatalities between 2014 and 2050 will occur in the emerging markets. According to The World Health Organization, the emerging markets will also account for approximately 80% of global fatalities from chronic diseases.

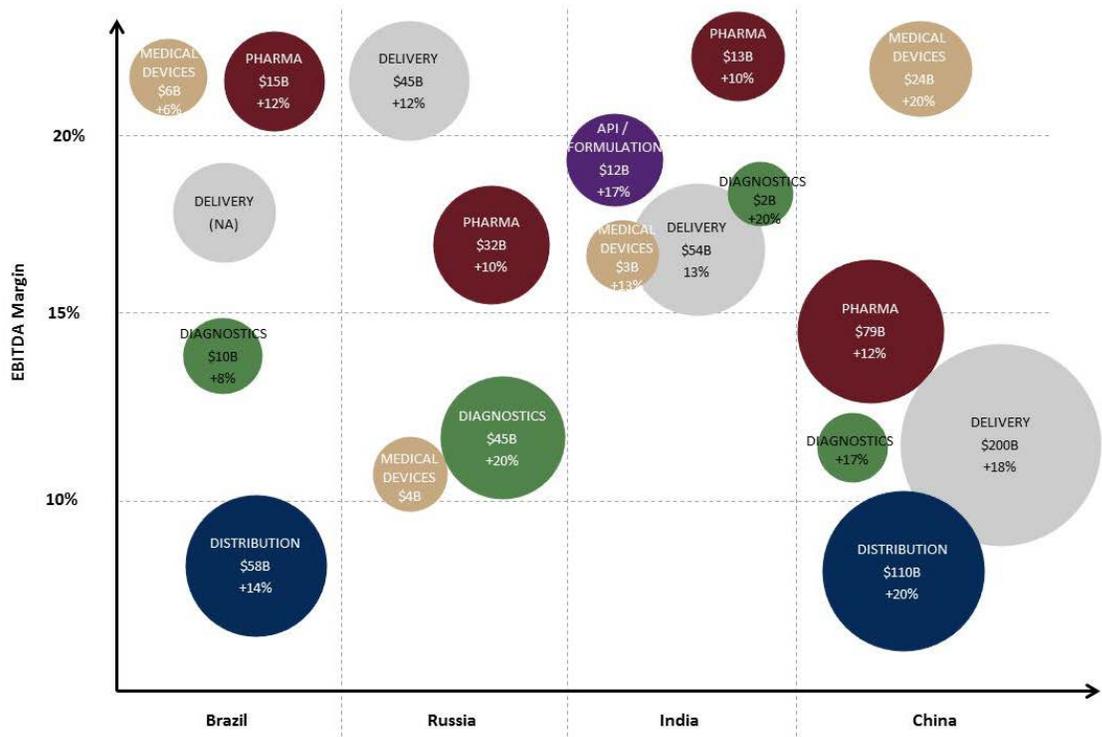
⁸ Source: Emerging Markets Today and Tomorrow: *Insights on Healthcare, Pharmaceuticals and Future Trends in the BRIC Landscape*, April 2012.

⁹ Sources: Euromonitor and Morgan Stanley Research, 2013.

EMERGING MARKETS HEALTHCARE PROVIDES VALUATION ARBITRAGE, CONSOLIDATION AND BITE-SIZED INVESTMENT OPPORTUNITIES

Much like in the developed markets, emerging markets healthcare tends to be a very fragmented and localized industry. According to Siguler Guff's estimates, there are at least 50 formal sub-sectors within the healthcare domain, which vary across different markets. Given the doctor-driven care model practiced in most markets, there is a further fragmentation by geography and practitioner. Exhibit 4 compares market size, EBITDA margins and growth across key healthcare sub-sectors in the BRIC economies.

Exhibit 4: BRIC Healthcare Overview by Sub-Sector



Source: Information is based on Siguler Guff estimates, industry research, due diligence figures and underlying portfolio exposure from 2012 to 2014. In some cases, Siguler Guff has extrapolated data forward. Note: Size of the bubbles are indicative of estimated market size. Bubbles contain the following data points: name of industry vertical, estimated market size and estimated market growth.

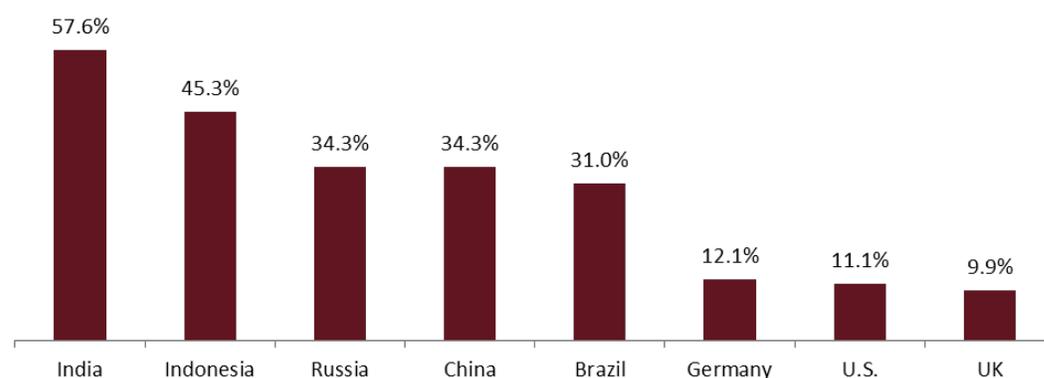
This market fragmentation creates significant valuation arbitrage and consolidation opportunities for knowledgeable investors. Deeper knowledge of the sub-sectors within individual geographies can help investors avoid sectors that may face local regulatory hurdles or global competition.

Healthcare in the emerging markets is a profitable industry, with margins equal to (and in some cases, unexpectedly higher than) comparable businesses in many developed market economies. While there are differences across sub-sectors and countries, as shown in Exhibit 4 above, strong companies across sectors generate robust EBITDA margins and growth rates. Various factors contribute to this higher profitability. First, there is a large, growing, and increasingly wealthy, middle class that is willing to pay for quality healthcare services that governments have not managed to deliver in the past. Second, unlike in the developed markets, the emerging markets are predominantly self-pay markets with negligible penetration from insurance providers. Even in countries where there is government or corporate healthcare coverage, service is typically poor and covers private treatment of only a handful of diseases. Finally, healthcare businesses in the emerging markets are able to leverage the low manufacturing and labor costs, generating

significantly higher profit margins for investors. For example, the cost of manufacturing labor in India is 4% of that in the U.S.¹⁰ and the cost of conducting a clinical trial in India is 50% lower than in the U.S.¹¹

In the developed markets, profitability in the healthcare sector has attracted strong government and payor action in terms of competitive pricing and regulation. In contrast, governments in the emerging markets have been unable to develop healthcare services and infrastructure themselves and, therefore, look to the private sector for support. As a result, regulatory reforms have been fairly benign for healthcare companies. Moreover, as healthcare revenues are primarily generated via out-of-pocket payments, as shown in Exhibit 5, the pricing power of healthcare businesses is significantly more stable than in developed markets.

Exhibit 5: Out-of-Pocket Expenditure as a Percentage of Total Healthcare Spending



Source: World Bank, 2012

PRIVATE EQUITY IS THE BEST APPROACH TO INVESTING IN EMERGING MARKETS HEALTHCARE

As shown in Exhibit 6 below, public indices in the emerging markets have minimal exposure to healthcare, as compared to other industries.

Exhibit 6: Breakdown of Industry Exposure by Emerging Markets Public Indices¹²

	<u>Brazil</u>	<u>India</u>	<u>Russia</u>	<u>China</u>	<u>MSCI Frontier</u>
Consumer	19%	20%	4%	8%	11%
Energy & Utilities	26%	26%	55%	21%	13%
Financial	30%	17%	17%	54%	50%
Healthcare	1%	6%	-	2%	3%
Industrial	3%	5%	-	9%	3%
Information Technology	3%	19%	-	1%	-
Materials	16%	4%	14%	4%	6%
Telecom	3%	3%	10%	1%	14%

¹⁰ Source: Bureau of Labor Statistics.

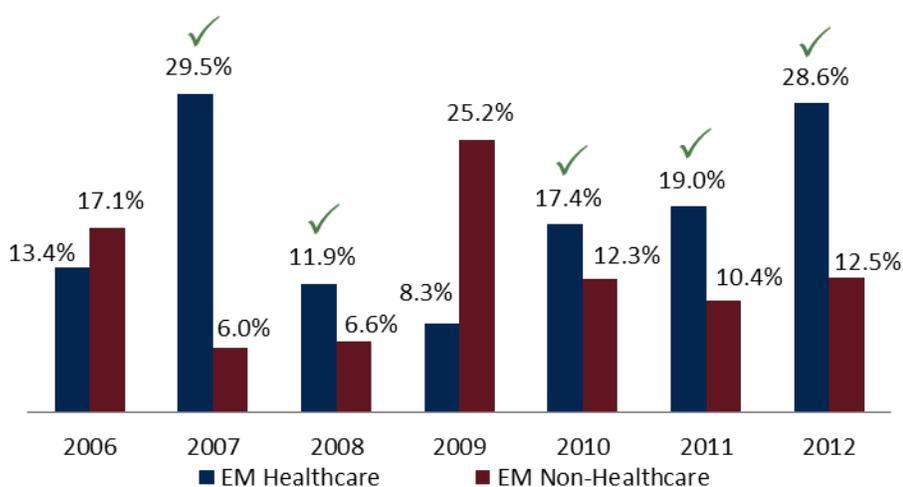
¹¹ Source: PwC: *Global pharma looks to India: Prospects for growth*.

¹² Source: Bloomberg, July 31, 2014. Indices for Brazil, India, Russia, and China include Bovespa, BSE-Sensex, RTS, and Shanghai Stock Exchange, respectively.

Even in markets where private healthcare investments are accessible to investors, companies tend to be concentrated in the same sectors, thus increasing sub-sector risk. This limited availability has significantly driven up valuations for high-quality, listed healthcare companies. Average entry multiples for private healthcare transactions reflect deep discounts when compared to multiples for publicly traded companies, despite control premiums paid at the time of acquisition. This difference reflects both the scarcity of publicly traded healthcare companies across the emerging markets, as well as the valuation arbitrage opportunity created by a fragmented private market landscape. Data from Capital IQ suggests that the median trailing twelve-month EV/EBITDA exit acquisition multiples for private hospitals in India, private pharmaceutical companies in China, and private laboratory diagnostics companies in Brazil are lower than their publicly traded peers by 35.1%, 14.8% and 58.9%, respectively.

As shown in Exhibit 7 below, private equity growth and buyout investments in the emerging markets healthcare space have significantly outperformed other sectors in five out of the seven vintage years from 2006 to 2012. Additionally, Siguler Guff's empirical observation across multiple fund managers indicates that their healthcare investments have generated significantly higher multiples on invested capital as compared to other sectors within their respective portfolios.

Exhibit 7: Emerging Markets Private Equity and Venture Capital IRRs (2006 – 2012)



Source: Cambridge Associates, April 2014.

Most healthcare investment opportunities require capital for expansion or operational improvements, all of which have three to five-year return on capital cycles. Such investments are well-suited for long-term investment vehicles, making private equity an ideal approach to accessing emerging markets healthcare deal flow. Emerging markets healthcare businesses also look for guidance on scaling and managing capital investments, and developing talent pools. Active private equity investors can often provide such guidance.

Typically, across most emerging markets, there are only a handful of high-quality healthcare assets with strong cash flows, experienced management teams and decent track records. In addition, strategic buyers have shown increasing interest in global healthcare assets as they are keen to build out their emerging markets businesses. These factors together have led to an overhang of demand from corporate strategic buyers that are willing to pay large premiums for good healthcare assets. This also creates an exit environment for private equity investors who have built strong healthcare portfolio companies across various healthcare sub-sectors.

GLOBAL PRIVATE EQUITY INVESTORS NEED INNOVATIVE STRUCTURES TO INCREASE THEIR HEALTHCARE EXPOSURE

While the thesis and benefits of investing in emerging markets healthcare is evident to global institutional investors, many struggle to materially increase their exposure to the sector. We think

that there are significant structural barriers that limit investors from increasing their allocations to emerging markets healthcare.

According to Preqin, there are nearly 600 private equity managers in the BRIC countries and only 13 that have a specialized healthcare investment strategy.¹³ In contrast, there are more than 300 healthcare-focused private equity managers in the U.S.¹⁴ At present, most emerging markets are not large enough to support adequate depth of deal flow for specialized healthcare funds. As a result, more than 90% of all healthcare deals in the emerging markets are executed by sector-agnostic funds.¹⁵ According to Siguler Guff's estimates, healthcare accounts for approximately 8-10% of sector-agnostic funds' portfolios. Additionally, these funds have fundamental challenges – they manage their portfolios to avoid overexposure to any particular sector and generally struggle to provide meaningful operational or strategic improvements to underlying companies, especially within more technical sub-sectors. Thus, while the average institutional investor likely has some level of healthcare exposure through these sector-agnostic funds, we believe that the 8-10% allocation that these funds offer to investors is insufficient.

RECOMMENDED APPROACH TO THE EMERGING MARKETS HEALTHCARE INVESTMENT OPPORTUNITY

Over time, we believe that global institutional investors should create strategies that enable them to target this attractive investment opportunity. Similar to the past trend in private equity, where early entrants enjoyed outsized returns compared to later investors, we think that there is a three to five year window for early movers to capture a larger share of the emerging markets healthcare opportunity before valuations and activity in the space become too aggressive. While each institutional investor will have its own unique preferences, processes and limitations, we believe that a combination of the following approaches is the best way to increase exposure to this attractive sector:

- a) *Focus on select, specialized healthcare funds.* This approach is appropriate for investors initiating their activity in the space; however, investors must manage the risks associated with many sector funds, including relatively new teams and limited track records. As discussed earlier, there are very few specialized healthcare funds, so investing in these funds may not materially move the needle for an institutional investor looking to increase its allocation. Most specialized funds tend to be focused on a niche sub-sector where they have expertise, taking higher execution risks with small companies and thus missing out on the broader or larger opportunities.
- b) *Actively work with handpicked sector-agnostic fund teams with healthcare experience to increase healthcare exposure.* This option is attractive since more than 95% of all healthcare deals are currently executed by sector-agnostic funds. However, investors must screen potential candidates based on track record as well as ability and/or desire to increase their activity in the healthcare space. Also, investors need to develop strong relationships and maintain active dialogues to review the sub-sectors or types of deals that are possible with this model.
- c) *Increase co-investment and direct deal flow in sub-sectors and geographies of interest.* A fairly active approach, this is best-suited for investors who already have a local presence, intermediary and promoter networks, and an understanding of the healthcare space.
- d) *Identify other visible pools of capital that provide specific exposure to select sub-sectors and/or geographies (which may take the form of joint ventures, secondary transactions or pledge vehicles).* We would advise investors to structure these investments opportunistically over time.

¹³ As of April 2014.

¹⁴ Source: Preqin, April 2014.

¹⁵ Source: Venture Intelligence, April 2014.

In conclusion, emerging markets healthcare is an attractive space, worthy of increased exposure for global institutional investors. It is a large, growing, and profitable market with a strong track record that is best approached through private equity investment vehicles. However, a plain vanilla approach of investing with GPs is inadequate to capture this opportunity. We believe that a combination of the approaches noted above, tailored to a specific investor's objectives, risk appetite and limitations, is the best strategy to target the enormous opportunity in emerging markets healthcare.

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