GLOBAL HEALTHCARE PRIVATE EQUITY REPORT 2015

in collaboration with the Healthcare Private Equity Association

BAIN & COMPANY

For the third year in a row, the Healthcare Private Equity Association (HCPEA) is proud to collaborate with Bain & Company on the research for this report. The Healthcare Private Equity Association is a nonprofit trade association 501(c)(6) whose mission is to support the reputation, knowledge and relationships of the healthcare private equity community. Our member firms are committed to building successful enduring healthcare businesses that "do well" while "doing good." HCPEA's 50-plus members are among the best known, most respected private equity firms, and they employ more than 300 investment professionals throughout the United States and Canada. With $400-plus billion under management, our members represent one of the largest portfolios of privately held healthcare-related businesses encompassing services, products, diagnostics, distribution, pharmaceuticals and IT, among other segments.

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Due diligence. We help support better deal decisions by performing due diligence, assessing performance improvement opportunities and providing a post-acquisition agenda.

Immediate post-acquisition. We support the pursuit of rapid returns by developing a strategic blueprint for the acquired company, leading workshops that align management with strategic priorities and directing focused initiatives.

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Welcome letter

Dear Colleagues,

Welcome to Bain & Company's fourth annual *Global Healthcare Private Equity Report*. Here, we review the significant trends of the past year and look at some of the most compelling prospects in the healthcare space for private equity (PE) investors in 2015.

Healthcare continues to be an attractive but challenging area for PE investment. In 2014, investors of all sizes faced steep valuations, thanks to strong financial markets, strategic buyers' deep pockets and the large number of healthcare investors competing to put dry powder to work. In fact, the average buyout deal size nearly doubled compared with 2013. The shortage of large-scale assets of more than $1 billion persisted; however, there was an uptick in midsize buyouts, and competition for these assets was fierce. Some auctions for strong assets saw multiple bidders drop out due to steep price expectations. As a result, investors seeking to put their capital to work continued to turn to earlier-stage deals at lower check sizes as well as buy-and-build strategies.

Despite the difficulties, healthcare offers some undeniable strengths that keep PE interest in the space high. Conditions for exit remain strong for some of the same reasons that valuations are high: strong public equity markets and hungry strategic buyers. In fact, 2014 was a record-breaking year for healthcare IPOs in the US. Furthermore, while strategic buyers have been acquiring assets to add new growth engines to their portfolios, they have been divesting noncore assets, creating attractive carve-out opportunities for PE. Finally, the desire to reduce healthcare spending in regions across the globe continues to fuel interest in assets that help reduce the cost to deliver healthcare.

Many of the trends we saw in 2014 were consistent with those of previous years. Activity occurred across sectors, spanning services and products as well as "healthcare heavy" and "healthcare light" segments. A few trends that did stand out—namely the number of larger deals in medtech and in Europe—were mainly the consequence of the availability of assets rather than a shift in investors' sentiment. There were some new trends in the emerging markets as a result of local market conditions. In China, for example, new investor-friendly government regulations spurred activity in the provider and medtech segments; macro uncertainties in India tempered healthcare investments; and renewed interest from PE investors in Brazil resulted in one of the year's largest healthcare deals.

We hope you enjoy Bain's report on PE in the healthcare space. As always, we look forward to continuing our dialogue and working with PE clients around the world.

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1. Healthcare private equity market 2014: The year in review

Section highlights

- Deal value hit a three-year high, but deal count fell, and there still weren't enough large-scale assets to satiate investor demand
- Activity in Europe picked up significantly, thanks to four large deals
- Medtech saw a spike in deal value due to several large corporate carve-outs
- Investors stuck with the same strategies that had served them in previous years

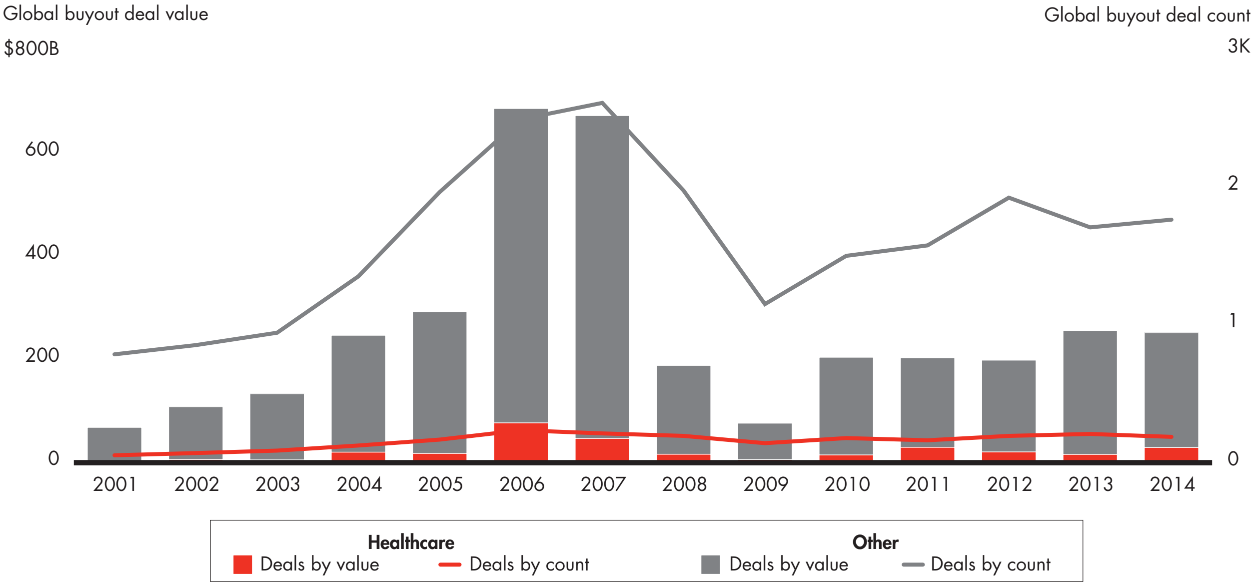
Healthcare is an industry in transformation. It faces the new reality that the high, noncyclical growth rates it has enjoyed in the past are unlikely to continue, given global pressures to contain healthcare costs. This recognition triggered unprecedented M&A activity among corporate healthcare firms, which bolstered their portfolios with growth assets, shed low-growth assets and tried to take advantage of financial opportunities such as tax inversions. As a result, strategic M&A activity reached an all-time high of nearly $380 billion, even after adjusting for deals that were canceled after announcement.

For PE firms interested in healthcare, the year was mixed. Globally, the value of new healthcare buyout investments hit a three-year high at $29.6 billion, nearly doubling 2013's level, despite the number of deals declining by 10%, to 188 *(see Figure 1)*. Two very large deals of more than $4 billion and an increase in the number of midsize deals between $500 million and $1 billion drove much of the increase in deal value; however, similar to 2013, only five deals broke the $1 billion mark, making 2014 another challenging year for large funds looking to put their dry powder to work *(see Figure 2)*. In addition, strong public equity markets and hungry strategic buyers continued to drive high valuations, which priced out some investors and even led to aborted auctions when sellers' high valuation expectations were not met. The brighter side of that trend was a robust exit environment, with the number of exits in 2014 matching 2013's record levels. In fact, there were some strong exits for 2006–2007 boom-year vintage assets, although some assets still remain caught in the exit overhang.

By region, Europe was strong, turning in 4 of the top 10 deals of the year. However, even investors in Europe were frustrated by the lack of large-scale assets; only three deals in the region broke the $1 billion mark. Similarly, North America was strong by the numbers but sobering by sentiment, with a persistent shortage of large, well-priced assets to meet the demand of bigger investors. Activity in the Asia-Pacific region was mixed: China was a bright spot following the passage of favorable regulations for foreign investors, but activity in India was tempered relative to 2013.

By sector, medtech and related services was the clear leader, as large corporate carve-outs helped deal values soar to nearly five times the level seen in 2013. Diagnostics continued to be the most popular medtech segment, with high activity in developed markets as well as China. Activity in biopharma and related services was down by value and number over 2013; subsectors that did see notable activity were contract outsource organizations (CXO), over-the-counter (OTC) manufacturers and generics manufacturers. Provider and related services activity was strong, with significant interest in multisite provider assets and emerging markets.

Figure 1: Overall PE investment was flat while capital deployed in healthcare grew significantly



Notes: Excludes add-ons, loan-to-own transactions and acquisitions of bankrupt assets; based on announcement date; includes announced deals that are completed or pending, with data subject to change; deal value does not account for deals with undisclosed values
Sources: Dealogic, AVCJ, Bain analysis

Figure 2: Only five healthcare deals broke the $1 billion mark in 2014

Target	Acquirer(s)	Sector	Country	Deal size
MultiPlan	Starr Investment Holdings; Partners Group Holding	Payers and services	United States	$4.4B
Ortho-Clinical Diagnostics	The Carlyle Group	Medtech and services	United States	$4.0B
Siemens Audiology Solutions	EQT, Santo Holding	Medtech and services	Germany	$2.7B
Sebia International	Montagu Private Equity; Astorg Partners; existing management	Medtech and services	France	$1.9B
MEDIAN Kliniken	Waterland Private Equity Investments	Providers and services	Germany	$1.3B
Medpace	Cinven	Biopharma and services	United States	$915M
Healogics	Clayton Dubilier & Rice	Providers and services	United States	$910M
National Veterinary Associates	Ares Management	Providers and services	United States	~$900M
DomusVi Dolcea Participations	PAI Partners; Intermediate Capital Group; existing management	Providers and services	France	$871M
Intermédica Sistema de Saúde	Bain Capital	Payers and services	Brazil	$860M
			Total	**$18.7B**

Note: Sum may not equal the total due to rounding
Sources: Dealogic; AVCJ; Bain analysis

Many of the investment strategies from prior years persisted in 2014. Investors pursued product and services assets in "healthcare heavy" and "healthcare light" segments. Some funds were able to secure "gem" assets, or assets with strong leadership positions in their core markets, although many of them came at a steep price. Investors also pursued carve-outs, which in some cases gave funds the opportunity to deploy their turnaround capabilities. In light of the shortage of mega-deals, some funds continued to move down-market, making investments in early and sometimes venture-stage assets. Finally, buy-and-build strategies remained popular in 2014, with many firms building out previously acquired platform assets and a few firms buying new platforms.

2. Geographic trends

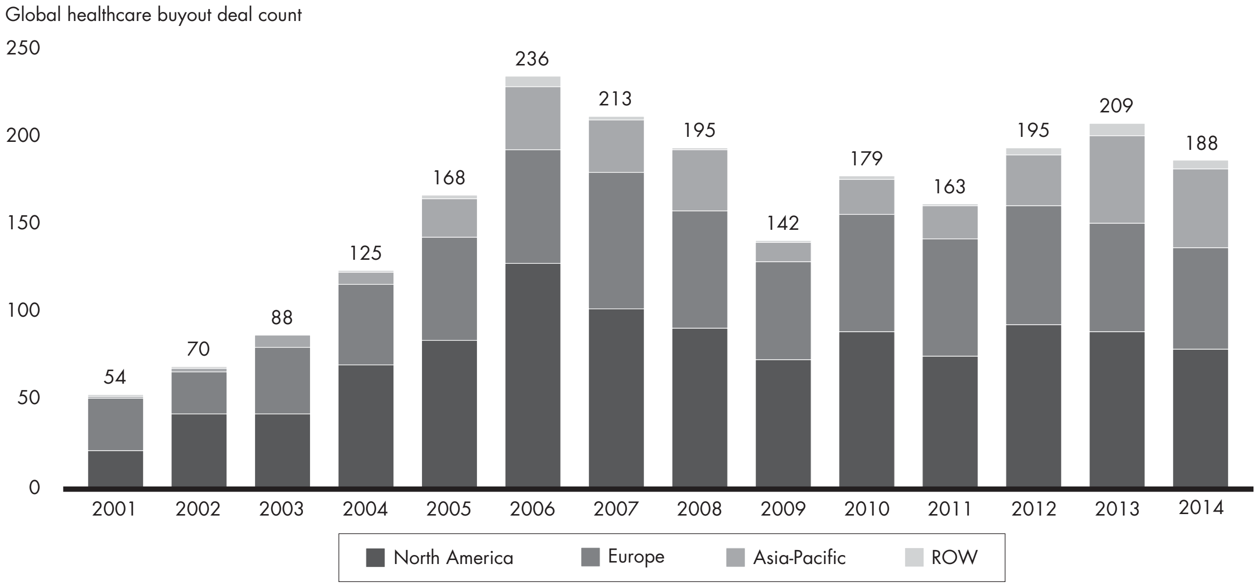
Section highlights

- Provider and related services remained the most popular segment by deal count in all regions
- Deal count was down in all regions, although deal value was up
- Largest deals of the year were concentrated in Europe as well as in North America; Brazil contributed a top deal
- The Asia-Pacific region saw strong activity in both developed and developing markets

As in previous years, the bulk of healthcare PE investment flowed into North America and Europe. South America also made a showing on the top 10 list, thanks to Bain Capital's approximately $860 million (R$2 billion) acquisition of health insurance operator and healthcare provider Intermédica Sistema de Saúde. In fact, the depreciation of the Brazilian real and a decrease in valuations drew many PE investors back to Brazil. The Asia-Pacific region was stable in 2014 after a strong 2013.

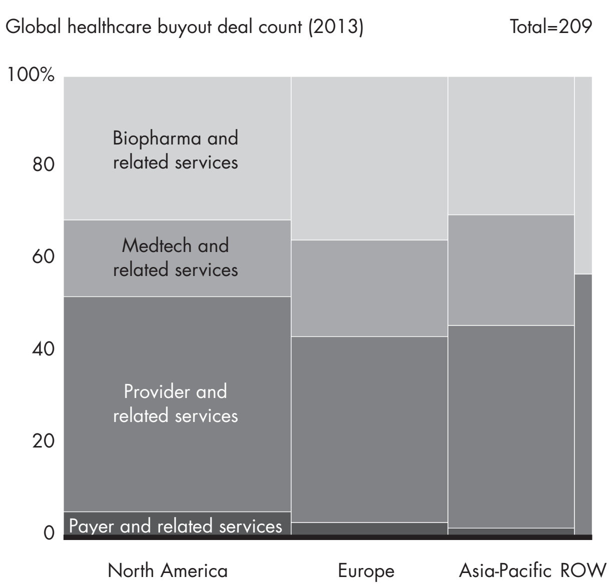
The volume of buyout deals was down in all regions *(see Figure 3)*, although deal value was up. In line with historical trends, provider and related services assets drove the majority of activity globally. One notable shift in 2014: Deal value and volume in the medtech sector were up in both Europe and North America, largely at the expense of the biopharma sector *(see Figure 4)*. Medtech was also popular in China, largely because of regulatory changes.

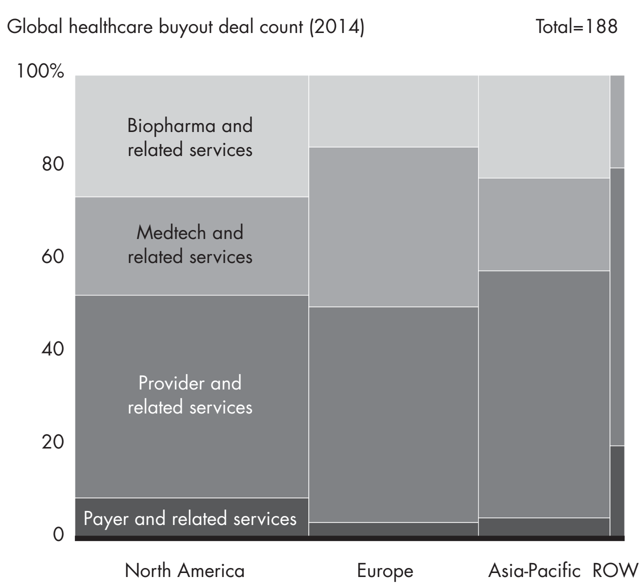
Figure 3: Deal count was down slightly in all regions despite the growth in deal value



Notes: Excludes add-ons, loan-to-own transactions and acquisitions of bankrupt assets; based on announcement date; includes announced deals that are completed or pending, with data subject to change; geography based on the location of targets; ROW stands for rest of the world and includes transactions made in Central and South America, Africa and the Middle East
Sources: Dealogic; AVCJ; Bain analysis

Figure 4: In all regions, the most active sector was provider and related services; medtech activity was also strong, especially in Europe





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Sources: Dealogic; AVCJ; Bain analysis

North America

Section highlights

- New care and payment models, catalyzed by reform, spurred investment activity
- Two mega-deals boosted investment totals, but attractive large-scale assets were still scarce
- Exit conditions stayed strong, with healthcare IPOs comprising almost 40% of all debuts
- Investments were built on many of the same themes as in previous years

Macro environment

As in years past, the investments in the US represented the vast majority of healthcare PE activity in 2014. The implementation of the Affordable Care Act continued apace during the year, prompting some of the investment activity. For example, several funds invested in healthcare-related information technology (HCIT) firms focused on new models for payment and for population health management, both of which were catalyzed by reform. And, though private exchanges are more of an indirect result of reform, there was M&A activity around this growing trend, including Aetna's acquisition of exchange vendor bswift.

Altogether, six themes will continue to underlie the investment landscape:

- Continued focus on cost management
- Integrated care delivery models that focus on outcomes rather than volume
- Emerging payment models
- Shifting care to lower-cost sites and models
- Higher consumer power, engagement and expectations
- Focus on wellness and prevention

These trends will create opportunities in segments such as data and analytics, population-related businesses and supplemental insurance products as well as stoke interest in historically popular segments like lower cost sites of care. Some of these opportunities have already started to play out in both the PE and strategic activity discussed in this report. As the landscape evolves, both PE and strategic investors will need to define where they can generate the most value and consider where the most value may come from partnerships.

A robust US stock market meant a 47% increase in the value of IPOs in 2014 compared with 2013. Healthcare was the most active vertical, accounting for almost 40% of those IPOs. Corporate mega-mergers in healthcare also made headlines, although not all of the deals have come to fruition.

All of these factors—combined with a high amount of PE dry powder creating very crowded auctions—contributed to generally high valuation multiples across the board.

Sectors and themes

Healthcare buyout activity in North America totaled $15.6 billion across 80 deals in 2014, up in value but down in count from $9.8 billion across 90 deals in 2013. Much of the uptick came from two mega-deals: the $4.4 billion purchase of MultiPlan led by Starr Investment Holdings and Partners Group, and The Carlyle Group's approximately $4 billion purchase of Johnson & Johnson's (J&J) Ortho-Clinical Diagnostics (OCD) business. These were the only deals worth more than $1 billion during the year in North America.

A variety of investment themes played out in North America in 2014, most in line with existing trends. Led by MultiPlan, the payer space was active. As we discuss in the section on payer trends, investors were especially attracted to assets involved in network building as well as assets geared toward cost containment. There was one prominent play on healthcare exchanges: Great Hill Partners' stake investment in bswift, which was subsequently sold to Aetna less than a year later. In the provider space, multisite assets were popular, with groups of clinics in wound care, animal health, physical therapy and oncology trading during the year. Highlights of these themes include Clayton Dubilier & Rice's (CD&R) $910 million purchase of Healogics, which operates roughly one-third of all wound care centers in the US; Ares Management's approximately $900 million acquisition of National Veterinary Associates, the largest consolidator of non-branded, independent freestanding veterinary hospitals in the US; Harvest Partners' purchase of 80-clinic Athletico Physical Therapy in May 2014, which then bought Accelerated Rehabilitation Centers in December to become one of the largest physical therapy providers in the Midwest; and Canadian Pension Plan Investment Board's (CPPIB) $325 million investment in 21st Century Oncology Holdings, which operates the largest network of cancer treatment centers in the world.

Several assets related to population health management and value-based care traded during the year, including both provider assets as well as HCIT solutions. General Atlantic invested $125 million in Alignment Healthcare, which serves payer and provider organizations with clinical care coordination, risk management capabilities and IT enablement. Symphony Technology Group acquired MDdatacor, which offers data integration and analytic solutions that enable payers and providers to integrate and analyze patient data. Great Point Partners invested in Orange Health Solutions (now Citra Health Solutions), primarily to support its acquisition of MZI HealthCare, and the offerings of the combined companies will help providers better manage patient and payment risks.

The US behavioral health segment, which has been popular among investors for many years, continued to see activity fueled by favorable regulations and the evolution of care delivery. For example, a notable deal in 2014 was the merger between Beacon Health Strategies and ValueOptions, financed by Bain Capital and Diamond Castle Holdings. The merger combined two industry leaders in the behavioral health management segment. The combined company will benefit from the growing needs of health plans during the era of the Affordable Care Act and the federal mental health parity law, especially as more plans and state governments look for best-in-class partners to help them with complex patient segments like the dual eligibles.

In the biopharma and medtech sectors, most of the activity in North America played on the global themes discussed in later sections of this report. Outside of the OCD carve-out, many of the medtech deals in the US were investments in early-stage companies. Within the biopharma sector, three of the year's largest deals involved US-based assets: Cinven's investment in Medpace and Golden Gate Capital's acquisition of Phillips-Medisize,[1] both in the CXO segment, as well as Pamplona Capital Management's stake in generic and OTC drugmaker Alvogen. Other biopharma deals spanned services (especially CXOs) and products (including ingredient suppliers, OTC drugmakers and early-stage biotechs).

There was some notable activity outside of the US as well. In Canada, there were a handful of deals, including CCMP Capital Advisors' acquisition of Jamieson Laboratories, which manufactures and distributes vitamins, minerals and supplements across Canada. In Mexico, General Atlantic took a stake in Laboratorios Sanfer, SA de CV, which manufactures and markets prescription and OTC medications.

Who is investing

Similar to prior years, a handful of the largest funds, including Carlyle, General Atlantic, CD&R, TPG and Canadian investors OMERS Private Equity and CPPIB, were active in healthcare. Given the dearth of $1 billion-plus scale deals and the crowded nature of many auctions, the larger funds continued the trend of investing down-market, acquiring and making stake investments in early-stage and middle-market assets. These investments continued to pressure middle-market funds.

1 Phillips-Medisize serves both biopharma and medtech customers with manufacturing capabilities for products such as drug delivery devices and surgical instruments, respectively; while many CXOs serve both biopharma and medtech companies, the data in this report counts them in biopharma services figures.

Europe

Section highlights

- There was strong growth in deal value over 2013, yet funds still had a significant amount of dry powder
- Deal flow for providers and services was steady but not growing
- Branded biopharma assets captured interest, but there was little deal activity given underwriting complexity
- Funds continued to invest in portfolio value-creation activities, including add-ons to fulfill buy-and-build strategies

Macro environment

Healthcare reforms continued to be high on the agenda throughout Europe, including efforts such as the ongoing medical devices directives. In addition, the European Commission made country-specific recommendations for healthcare reforms for 15 of its member states, focused on optimizing the hospital segment, strengthening primary care and rationalizing pharmaceutical spending; however, implementation is challenging and will take time. Even beyond these recommendations, cost containment is a major theme, with drug pricing and reimbursement rates as key targets. For example, Italy has significantly reduced drug prices in recent years, and during its EU presidency in 2014, Italy made a call for increased transparency and cooperation on price setting among all member states. France introduced a cost-effectiveness system for drug pricing in January 2014, complementing the existing Medical Benefit assessment and increasing complexity and pricing hurdles for pharma companies. Across the EU5 (Germany, France, UK, Italy and Spain), reimbursement rates for knee implants have been declining over the last five years. Throughout Europe, tenders have been growing in breadth (covering a larger number of procurement categories) and sophistication.

Layering additional complexity on pan-European regulatory changes, healthcare systems and reimbursement mechanisms not only vary significantly by country but also are subject to regulations dictated by the ever-changing local political environment. That can hinder private investment activity. In Sweden, for example, the center-left government elected in September 2014 is planning to introduce tighter regulation around the privatization of care. Consequently, Nordic-based PE funds have started to look for healthcare investment opportunities outside of the provider sector in Sweden, and outside of Sweden in general. In Southern Europe, particularly Greece, healthcare sector financial woes are a major challenge. Healthcare reform is a priority for the newly elected left-wing government in Greece, the Syriza party, but the path forward is still unclear. Many hospitals are facing losses, as the national Greek health insurance fund is behind on paying claims. Arrears for pharma companies have also reached millions; Pfizer's accounts receivable from European countries, for example, are estimated to exceed $900 million. With the uncertainty about how the Syriza party will address Greece's financial challenges, private investments, while badly needed, carry significant risk. In Central and Eastern Europe, Poland stands out as the largest healthcare and pharmaceutical market. However, private investment in healthcare is hampered by a healthcare system that is characterized not only by strict cost containment but also by hospital deficits and inefficiencies.

The largest EU economies—Germany, France and the UK—continued with their healthcare reforms without major surprises in 2014. Among these countries, France is under particular pressure to further cut healthcare spending, as it needs to bring the country's deficit back into line with EU budget rules. France set a healthcare cost reduction target of €10 billion for the 2015–2017 timeframe. After reducing pharmaceutical spending in recent years, France will likely increase its focus on reducing other components of healthcare expenditure, such as lab services pricing.

One bright spot is Italy, which is increasingly capturing PE investor attention. The country's public healthcare expenditures, which are low relative to other EU countries, declined in 2013 for the first time in over a decade. Payment conditions in critical regions, which historically have been a challenge, are expected to improve due to regulatory changes. As a result, healthcare PE investors are renewing their interest in the country, especially within the provider services and pharma services segments.

From a financial perspective, 2014 was characterized by a weakening euro, a theme that is likely to persist throughout 2015 and beyond. This trend poses a potential risk for international companies with significant euro-denominated revenues that report their financial results in a different currency. The risk of a breakup or partial breakup of the eurozone is growing, so investors should consider such scenarios when evaluating investments.

Deal screening in 2014 remained high given the ongoing availability of cheap money and large quantities of dry powder. However, deal count was insufficient to meet investor demand, highlighting the need to proactively identify and approach attractive targets; seek alternate approaches to buy-and-build to get to suitable asset sizes; and consider innovative deal structures to overcome underwriting challenges like branded pharma risk.

Sectors and themes

PE buyout investments in healthcare across Europe totaled $9.6 billion across 58 deals in 2014, compared with $3.2 billion across 62 deals in 2013. Six sizable deals—each topping $500 million—helped boost the total value, in contrast to a single deal worth more than $500 million in 2013.

Two of the larger transactions were carve-outs from global companies domiciled in Europe, highlighting one path to sizable buyouts amid the scarcity of attractive standalone targets. Siemens Audiology Solutions was acquired by EQT for $2.7 billion, with Santo Holding as a minority investor. EQT aims to grow the company by investing in product development and salesforce effectiveness. Montagu Private Equity acquired Rexam's healthcare businesses for $805 million, leaving Rexam to focus on its aluminum can business. The company's drug administration devices business is now called Nemera, and its pharma retail packaging business is known as Centor. Montagu had owned parts of Rexam's healthcare business—then known as Risdon Pharma—prior to selling it to Rexam in 2003. Montagu, with Astorg Partners, contributed to another large deal: It bought the in vitro diagnostics specialty company Sebia—which it had also owned before—from Cinven for $1.9 billion.

Despite the growth in deal value, only three European deals topped $1 billion, underscoring a pipeline that is insufficient to meet the demand of funds looking to put sizable amounts of capital to work. As a result, many funds continue to sit on large quantities of dry powder while others are pursuing buy-and-build activities with existing portfolio companies to put their money to work.

Providers

The other three large deals in Europe in 2014 involved regional healthcare providers, highlighting PE's continued focus on the provider segment as well as buy-and-build approaches. Median Kliniken, a leading provider of rehabilitation in Germany, was acquired by Dutch investor Waterland Private Equity Investments under a buy-and-build strategy. Waterland plans to merge Median Kliniken with RHM Group, another rehabilitation provider that has been part of Waterland's portfolio since 2011, and to pursue further add-on acquisitions. PAI Partners brought its buy-and-build expertise to DomusVi, a France-based nursing home operator, via an $870 million-plus investment. A consortium of Partners Group, Duke Street and Tikehau acquired Voyage Care, a UK provider of care for people with disabilities, from HgCapital for $600 million, with the stated goal of supporting the company's buy-and-build efforts.

CVC Capital Partners also pursued a buy-and-build approach with the acquisition of the Quirón hospital group, which CVC merged with its existing portfolio company idcsalud. The combined group will be the largest healthcare operator in Spain and among the top five in Europe. Additionally, CVC acquired a 55% stake of France-based private clinic operator Vedici from 3i Group, further building its presence in Europe's provider sector.

Smaller multisite provider assets were popular as well, including nursing homes, such as Colisée Patrimoine in France and Geriátricos del Principado in Spain, and specialist clinics, such as ophthalmology provider Groupe Point Vision in France. There was also increased interest in the animal health space, with deals in the Nordics, UK and France. For example, France-based CEVA Santé Animale, one of the world's top 10 animal health businesses, announced a new financing round with significant reinvestments from Euromezzanine and Sagard and new investments from Temasek Holdings and CDH Investments.

Looking ahead, the list of larger provider assets available for buyout will continue to shrink and government restrictions on private investments in some countries may grow, triggering even fiercer competition for the few viable assets. Funds should be prepared to work harder to win assets and be ready to pivot to other segments if they can't meet their investment goals in the provider space alone.

Medtech

Aside from the large Siemens Audiology and Sebia transactions, medtech deals were mostly smaller in nature. One notable acquisition was Montagu's $275 million purchase of DORC, a Netherlands-based provider of ophthalmology equipment and instruments. DORC, which is successfully competing with three large incumbents in the ophthalmology market, highlights the potential for smaller assets to serve as platforms.

Another remarkable 2014 medtech transaction—and an example of buy-and-build—was the investment of Permira in MESA, a pan-European provider of diagnostic imaging engineering services and asset management solutions; MESA will closely cooperate with Permira's Asteral, a leading UK provider of medical equipment solutions. Following Permira's investment, MESA has continued its inorganic growth path by acquiring service providers in Poland (MVS) and in Turkey (Spintech).

Biopharma

Within the biopharma and services space, the only sizable deal was Arkopharma, a France-based manufacturer specializing in phytotherapy and natural food supplements. Montagu acquired a majority stake in Arkopharma at an enterprise value of approximately $415 million. Other biopharma activity focused on early-stage assets subject to significant development risk. It was largely characterized by small stake deals, such as the $16 million investment in AM-Pharma by a group of venture funds led by Gilde Healthcare. AM-Pharma will use the raised capital to fund a Phase 2 trial for acute kidney injury and other development projects.

PE funds in Europe are exploring different investment models in biopharma. One involves investing alongside strategics, as the $14 million Series B financing for Enterome illustrated. Three PE funds and two strategic investors, Shire and Danone, supplied that capital to Enterome, which develops diagnostics based on profiling the human gut microbiome.

Overall, investors see biopharma as an increasingly attractive sector and are screening many potential opportunities within it. Consequently, funds are building their biopharma capabilities, given the significant need for deep industry and scientific expertise in this area.

Within the biopharma services segment, one growing area of interest involves supply chain management service providers. There is a growing demand for these types of services as supply chain management across different healthcare channels grows increasingly complex. Labeling and tracking technologies also present business opportunities, given the continued need for healthcare fraud prevention.

Who is investing

Both global and European healthcare PE funds were active in Europe in 2014. Of these, Montagu led the list, with four sizable investments in different sectors. Other active firms were EQT, with its large Siemens Audiology deal and a smaller animal hospital transaction; CVC, with two provider transactions; and Nordic Capital, with its GHD home-care purchase and the acquisition of AniCura (veterinary care). HgCapital still has a number of healthcare assets in its portfolio, but the firm has started to shift its focus away from healthcare segments other than HCIT.

European funds are also interested in investment opportunities in the Middle East and Africa as those economies grow, but there has been limited diligence activity to date. Given the lack of sufficiently large buyout targets, European funds will likely continue to focus on creating value in their existing portfolio companies for some time, rather than using dry powder in those regions.

Asia-Pacific

Section highlights

- 2014 was another record-breaking year, with a pivot toward deals in emerging Asia (China and India) vs. developed Asia, which prevailed in prior years
- An increasingly favorable regulatory environment, especially in China, fueled the momentum behind the provider and medtech sectors in 2014
- A mix of domestic and foreign funds was active in the market, though differences exist by country

Macro environment

Following a record-breaking year in 2013, healthcare PE buyout investments in the Asia-Pacific region in 2014 showed continued strength: 45 deals, worth $3.5 billion, were announced throughout the year, compared with 50 deals, valued at $3.2 billion, in 2013. Private investment in public equity (PIPEs) brought nearly $575 million of additional capital into the region, and minority growth investment activity remained strong. A key pivot also occurred in 2014, wherein emerging markets (China and India) saw a majority of the deal value vs. developed markets (Japan, Australia and Korea), which had prevailed in prior years.

The largest buyouts of the year were still in developed markets and followed some of the global trends discussed later in this report, but there were no $1 billion-and-up deals to match 2013. Baring Private Equity Asia purchased Bushu Pharmaceuticals, one of Japan's leading pharmaceutical contract manufacturing organizations (CMOs), from Tokio Marine Capital in a deal valued at more than $650 million. Regulatory changes in 2005 opened up the CMO market in Japan; however, it is still small compared with those in other countries, so PE investors see potential for growth. In Australia, a consortium including EQT, Caisse de dépôt et placement du Québec and GIC invested nearly $500 million in I-MED Network, Australia's largest network of radiology clinics, which should benefit from trends such as the aging population, rise in chronic disease and greater utilization of preventive medicine (including diagnostic imaging) to help reduce the cost of healthcare and improve patient outcomes.

In the emerging markets, investment activity was heavily influenced by regulatory changes and local market conditions. In China, government regulations encouraging private sector involvement in healthcare spurred a significant increase in activity in both the provider and medtech spaces. While India remained one of the most active countries in the region in 2014, transactions there slowed in contrast to 2013, as investors faced high valuations, inflation fears about the rupee, election uncertainty, and concerns about patent protections and manufacturing quality. Despite the slight slowdown in PE activity, strategic investors remained active, demonstrating continued enthusiasm for the healthcare delivery segment in India.

In some cases, strategic activity in the Asia-Pacific region hindered PE investment, largely by pushing up valuations. As in the last few years, strategic buyers were willing to pay significant premiums for assets in emerging markets, in part due to a desire to invest foreign income back into the region, rather than repatriate it and face taxes in their home countries.

Offsetting some of the pressures on PE activity, exit activity continued to demonstrate the value that can be generated in the region. One of the most notable liquidity events of the year was the IPO of iKang Healthcare Group, China's largest operator of medical exam and disease screening centers. It raised more than $150 million on the NASDAQ, at a valuation of nearly $1 billion, enabling a partial exit for investors NewQuest Capital Partners and GIC.

Sectors and themes

Providers

The provider sector was the most active in the Asia-Pacific region by both buyout value ($1.5 billion) and volume (24 deals). The majority of provider activity occurred in Japan, Australia, China and India. In Japan and Australia, activity was largely focused on clinics (including radiology and cancer care) and elderly services (including senior housing and hospice assets), whereas China and India saw activity across the primary to tertiary care spectrum.

In China, the government further opened up the provider space by allowing 100% foreign direct investment in hospitals in seven cities and provinces, including Beijing, Tianjin and Shanghai. The government is also encouraging multisite practice reform for physicians, which enables private providers to access physicians from the public system. In light of these reforms, after years of watching the provider sector in China and seeing the value-creation story in markets like India, financial investors started making moves in 2014. In April, the Fosun Pharma and TPG partnered to buy Chindex International, which operates China's United Family Healthcare hospitals and clinics, in a transaction that surpassed $450 million. In October, Hony Capital made a stake investment in Shanghai Yangsi Hospital and has indicated interest in further hospital acquisition. The hospital segment in China is seeing interest from large global hospital groups, as well as financial investors, not only as competitors for assets but also in forming partnerships. For example, investment firm Hillhouse Capital Group and the US-based Mayo Clinic hospital system created a joint venture to invest in China's hospital segment.

The mobile health segment in China also captured investor interest, building on the successful stories behind Internet-based companies like Alibaba and Baidu. There were minority-stake investments in several mobile health app developers by Temasek and others during the year.

In India, provider activity was tempered relative to 2013; however, the sector remained the most active for PE investment activity in the country. Several deals involved hospital operators: Olympus Capital Asia Investments and India Value Fund Advisors (IVFA), for example, invested $60 million in Aster DM Healthcare, an India-based company that runs hospitals across India and the Middle East. Investments in primary and specialty care continued, spanning primary care/GP clinics and dialysis to aesthetics. Healthcare delivery in India also captured strategic interest, with DaVita HealthCare Partners taking a stake in Express Clinics, a primary and urgent healthcare delivery chain operator based in India, and South African hospital operator Life Healthcare increasing its stake investment in hospital chain Max Healthcare.

Interestingly, companies that have developed cost-effective models for delivering healthcare in India are starting to expand into other emerging markets. For example, India-based hospital operator Manipal Hospitals is building a new tertiary care hospital in Malaysia, which is slated to open in 2015. Narayana Health, an India-based hospital operator backed by J.P. Morgan, PineBridge Investments and CDC Group, is building a heart hospital in the Cayman Islands in partnership with the US hospital system Ascension Health.

Southeast Asia continued to see interest in the provider sector, although investors still struggle with the right growth model (scale or scope) for assets to justify the high valuation expectations and to overcome the constrained infrastructure that has dampened activity. There was strong interest in Indonesia in particular, which is introducing a universal healthcare coverage plan. Rumors are swirling that the country may open the door to foreign specialist doctors to make up for the shortage of physicians that currently limits the growth potential of provider assets in the country. One deal that came to fruition in Indonesia was Standard Chartered Private Equity's investment of up to $50 million in the healthcare business of Emtek Group, a hospital chain that is growing through acquisitions and is building new medical facilities. Another deal of note is Asian Capital Alliance's investment in My Chau Pharmaceutical, which owns and operates a pharmacy chain in Vietnam's Ho Chi Minh City.

Medtech

Total medtech deal value in the Asia-Pacific region declined in 2014 over 2013. But whereas 2013 was characterized by one large deal (KKR's investment in Panasonic Healthcare), 2014 was characterized by strong activity in China, with values topping $100 million for several medtech deals. A number of factors contributed to this activity. For one, the Chinese government introduced the Innovative Medical Devices Special Licensing Procedure, a regulation to fast-track foreign manufacturers' entry into the Chinese market. Growth in the hospital segment also contributed to deal activity, driving demand for low-cost diagnostics and hospital equipment manufacturers, as we discuss in the Medtech section of this report (see page 20). Consider the following examples: FountainVest Partners took an approximately $260 million stake in Shanghai Kehua Bio-engineering, an in vitro diagnostics player; a consortium including Hony Capital, Goldman Sachs Capital and CPPIB invested about $180 million in the imaging player Neusoft Medical Systems; and a consortium including Carlyle took a stake in lab equipment manufacturer Haier Bio-Medical and Laboratory Products. There are exciting opportunities for PE investment in the Chinese medtech sector, and large-scale assets are starting to emerge in some segments; however, overall activity may lag investments in the provider sector due to transaction complexity and the fragmented base of companies in many segments. There was limited medtech activity in the region outside of China in 2014.

Biopharma

Interest in the biopharma product segment was tempered in 2014. Investors sat on the sidelines in China, waiting to see how the commercial model evolved in light of the recent graft scandals. Similarly, investor interest in India was tepid given concerns about manufacturing quality and loss of patent protection. Interest in the biopharma services segment, however, remained healthy. In the CXO space, Bushu Pharmaceuticals was by far the largest deal. Other CXO deals in the Asia-Pacific region included Warburg Pincus' stake investment in CMO Laurus Labs and IVFA's stake investment in CRO Syngene International. Among the few pharma assets that traded during the year: the co-investment of Hillhouse and CITIC Capital Partners in BeiGene, a Beijing biotechnology company that researches and develops anti-cancer drugs, and JD Capital's investment in Baoding Chinese Medicine, maker of traditional Chinese medicines.

The future

Looking ahead, we expect activity in the provider and medtech segments to continue to be robust as the demand for local healthcare grows, thanks to aging populations, the rise of chronic conditions, increasing affordability of healthcare and a policy environment that encourages private sector participation. We may see some activity in India's medtech segment, as the government opened it up to 100% foreign direct investment at the end of 2014.

However, without the deep base of electronic and industrial expertise that benefits the Chinese medtech players, it will likely take some time to develop. We also anticipate more collaboration between strategic and financial investors, especially in the Chinese provider sector. Activity in the pharma sector will likely remain tempered until the uncertainties surrounding it are resolved.

Who is investing

In China, domestic funds drove most of the deal activity. Foreign funds made selective investments, often with domestic co-investors. In India, domestic funds also accounted for the majority of PE investment, with various flavors of uncertainty resulting in far fewer co-investments from foreign funds than in the past. The large global funds and sovereign wealth funds also continued to be active players in the deal flow throughout the region.

3. Sector trends

Providers and related services

Section highlights

- Deal value more than tripled relative to 2013, fueled by a number of midsize deals
- Healthcare-heavy assets, including radiation oncology centers and nursing homes, comprised some of the larger deals
- Healthcare-light assets were also popular, especially HCIT assets

The provider and related services space remained the most popular healthcare sector for PE investors in 2014, representing nearly 50% of the year's healthcare buyout deal volume. Following a frustrating 2013 for larger investors, deal value more than tripled in 2014, to more than $8 billion. While there was only one $1 billion-plus deal during the year, eight deals in the $400 million to $1 billion range contributed to much of the increase. Notably, these transactions—as well as deal volume as a whole—were spread relatively evenly across North America, Europe and the Asia-Pacific region, thanks to the strong provider activity in China.

Many of the year's largest deals were healthcare heavy, involving assets with meaningful exposure to reimbursement risk. They spanned a variety of segments and geographies, but had the common link of being well-positioned players in the markets they serve. Larger healthcare-heavy deals include CD&R's $910 million acquisition of Healogics, the largest operator of outpatient wound care centers in the US; PAI Partners' approximately $870 million acquisition of DomusVi, the third-largest operator in France's fragmented nursing home market, along with existing management and mezzanine investor Intermediate Capital Group; and CPPIB's $325 million investment in Vestar Capital Partners-backed 21st Century Oncology Holdings, operator of the largest integrated network of cancer treatment centers and affiliated physician practices in the world. Other healthcare-heavy segments that saw investor interest included home health, hospice, concierge medicine, behavioral health, hospitals (especially in China) and animal health.

Investors also flocked to healthcare-light deals, which are more insulated from changes in reimbursement, when they could find reasonably priced assets. The year saw a number of investments in provider-oriented IT assets (discussed in the HCIT section) as well as activity among medical equipment distributors, animal health clinics and other segments more insulated from direct reimbursement risk.

Rehabilitation, which turned in some of the year's biggest deals, was also a popular segment. This segment includes assets at both ends of the healthcare-heavy vs. healthcare-light spectrum. Inpatient rehabilitation is generally at the healthcare-heavy end of the spectrum, as many of the revenues in this part of the segment are consolidated in the hands of government and commercial payers. Outpatient physical therapy is toward the healthcare-light end of the spectrum because payments are spread across government and commercial payers, workers compensation plans and even out-of-pocket patient payments, making them less exposed to changes in the reimbursement rates of a single player. The year's largest deal in the rehabilitation segment was Waterland's $1.3 billion acquisition of Median Kliniken, Germany's largest private sector chain of clinics providing inpatient and outpatient rehabilitation services. In another notable deal, Harvest Partners made a stake investment in Athletico Physical Therapy, which later bought Accelerated Rehabilitation Centers from OMERS to become one of the largest outpatient physical therapy providers in the Midwestern US.

In the US, population health management firms attracted significant investor interest, even though many assets are still relatively early stage. These assets operate in a broad and still-to-be-defined space that involves a series of steps from coordinating and integrating care to enabling new payment models. These assets encompass a wide range of products and services such as data analytics and HCIT; in-the-trenches changes to care delivery, information flow and incentive structures; and building new risk-taking capabilities. No winning model has yet emerged; however, some funds are placing bets on assets and management teams, confident they can adjust their models as the market evolves. Some examples: General Atlantic's $125 million investment in Alignment Healthcare, which manages and provides the healthcare for capitated patient populations, and Great Point Partners' stake investment in Orange Health Solutions (now known as Citra Health Solutions), which provides consulting and outsourced services to help providers better deliver value-based care. We expect this segment to be very active in the coming years, with both PE activity and a continued heavy dose of strategic activity.

Payers and related services

Section highlights

- Deal value was up significantly in 2014, led by two large deals
- Assets related to US healthcare exchanges, a key component of healthcare reform, generated interest but few transactions
- Most deals were based in the US, but one notable transaction came out of Brazil

The payer sector continued to capture investor interest in 2014, tallying 12 buyout deals worth $5.3 billion, up from 8 deals worth $3.9 billion in 2013. Two large deals—MultiPlan and Intermédica—drove the vast majority of this value, and most of the deal volume was concentrated in the US. Network businesses of various flavors were most popular within the sector; key areas of interest included group health PPOs, specialty benefits managers and other cost containment solution providers.

The $4.4 billion acquisition of PPO and analytics firm MultiPlan by Starr Investment Holdings and Partners Group from BC Partners and Silver Lake Partners was the largest deal of 2014. With more than 900,000 providers at the time of acquisition, MultiPlan serves as a complementary network for payers in noncovered areas and supports payers with value-added analytics. Another notable payer deal was MagnaCare, a New York- and New Jersey-focused network for self-insured employers, which was acquired from H.I.G Capital by Goldman Sachs Capital, Pamplona Capital Management and existing management. General Atlantic also made a sizable investment in CareCore National in January 2014, giving it a platform for a buy-and-build play. CareCore provides specialty benefits management for health plans, specializing in radiology, oncology and cardiology procedures. In December, it merged with MedSolutions, another specialty benefits management company, in a move that deepens the combined organization's focus on radiology benefits and broadens its purview into post-acute care.

While assets related to the US exchanges continue to garner significant interest from PE investors, available assets are scarce and the competition from strategics is strong. One deal that did close was Great Hill's $51 million minority stake in private healthcare exchange network company bswift in April. A few months later, top-five payer Aetna bought the company for $400 million.

A smattering of payer deals closed outside the US. The largest was Bain Capital's $800 million-plus acquisition of Intermédica, a Brazilian health insurance operator and healthcare provider. The investment reflects not just the resurgence of Brazil as a destination for PE capital but also the opportunities available within the country's healthcare sector. France, the UK and Japan saw some of the other non-US payer investments.

Biopharma and related services

Section highlights

- Both value and volume fell in 2014 due to the absence of large-scale deals
- CROs remained popular targets, with proven IPO potential
- Generics and OTC manufacturers led activity across product deals

After spiking to $7.6 billion and 68 deals in 2013, buyout activity in the biopharma and related services sector fell to $5.7 billion across 40 deals in 2014. The main reason for the decline was the absence of deals like the two $1 billion-plus deals—Madison Dearborn Partners' acquisition of Ikaria and KKR's acquisition of PRA Health Sciences—that marked 2013. In 2014, the largest deal was Cinven's $915 million acquisition of Medpace, a contract research organization focused on mid-cap pharma and smaller biotech players. Most of the deals in the biopharma and related services sector during the year were for assets focused on services or products with stable cash flows; although some funds looked at assets with pipeline risk, few of those deals came to fruition.

As in prior years, services firms attracted the most interest from investors, and they drove the majority of the year's deal value. Contract research organizations (CROs) were especially popular as investors tried to capitalize on the still-fragmented nature of the segment.[2] PE-backed CROs are also attractive because there is a well-traversed path to public debuts, led by the IPO of TPG-backed Quintiles in 2013 and followed by the 2014 IPOs of KKR-backed PRA Health Sciences and the Blackstone Group-backed Catalent. In addition to Cinven's acquisition of Medpace, other notable services deals included Montagu's $805 million acquisition of packaging assets from Rexam's healthcare business; Golden Gate Capital's $800 million purchase of Phillips-Medisize, which makes products

2 While many of these companies serve both biopharma and medtech companies, the data in this report counts them in biopharma services figures because biopharma companies tend to be their biggest customers.

such as drug delivery devices, single-use surgical devices and consumable diagnostic components; and GTCR's $480 million acquisition of Cole-Parmer Instrument Company, which manufactures and distributes specialty laboratory equipment, instruments and supplies to pharmaceutical and other clients.

On the product side, the generics segment drew a great deal of PE interest in 2014. The largest generics deal of the year was Pamplona's majority stake investment in Alvogen. One driver of the PE interest in this segment is that investors face less competition from potential strategic buyers than in other healthcare segments. In the US, generics manufacturers face revenue dips similar to the patent cliffs faced by their branded pharmaceutical counterparts when their post-patent exclusivity periods end. This volatility in revenue streams makes them less attractive to publicly traded strategic buyers.

The OTC segment, including vitamins, minerals and supplements, also captured the interest of PE investors. A major attraction point is its insulation from reimbursement risk, as most of the products are out-of-pocket expenses for consumers. In addition, there is a clear set of strategic buyers for assets that have been consolidated to sufficient size. Notable deals included Montagu's acquisition of a majority stake in Arkopharma and CCMP Capital's acquisition of Jamieson Laboratories.

Much of the remaining activity within biopharma was in the form of stake investments in small pharma and biotechnology firms. Although few investors are comfortable taking significant pipeline risk, some are working to find creative solutions that will meet their risk tolerance threshold and open up a new segment in which to deploy capital.

Medtech and related services

Section highlights

- Three large deals helped the medtech sector soar in popularity
- Value, growth and buy-and-build were investors' main strategies
- Increased activity in China propelled diagnostics as a top segment

The medtech sector gained traction with investors in 2014. Its 47 deals were worth more than $10 billion combined, representing more than one-third of all healthcare buyout deal value for the year, up nearly 5x over 2013 *(see Figure 5)*. Much of this deal value, however, was driven by the three largest deals of the year—J&J's sale of OCD to Carlyle, Siemens' sale of its Audiology business to EQT and Santo Holding, and Cinven's sale of Sebia to Astorg Partners and Montagu—which together represented $8.6 billion of deal value. Beyond these three deals, the medtech sector remained dominated by strategic buyers, with only smaller deals available to PE investors. The next largest medtech buyout with disclosed value was less than $300 million.

While the headline-grabbing mega-deals like Medtronic's $50 billion acquisition of Covidien are out of the range of PE check sizes, as in 2013, strategic M&A in deal sizes of interest to PE firms was also robust. Strategic buyers won assets that had drawn PE interest like Nobel Biocare and CareFusion, and they pushed up prices for attractive assets all around.

Figure 5: Medtech deal value was up considerably over prior years

Notes: Excludes add-ons, loan-to-own transactions and acquisitions of bankrupt assets; based on announcement date; includes announced deals that are completed or pending, with data subject to change; deal value does not account for deals with undisclosed values
Sources: Dealogic, AVCJ, Bain analysis, literature search

Where PE companies were able to win deals, they followed similar strategies to 2013: "value" plays for assets in low-growth markets disfavored by strategic buyers; "growth" plays for early-stage assets that are still too small to attract strategic interest; and carve-out plays for divested assets that need to be untangled from their parent company. The sale of OCD from J&J to Carlyle is an example of both a value play and a carve-out deal. Diagnostic equipment manufacturer OCD was growing at 1%, far below the double-digit growth of J&J's other medtech divisions. It was also a relatively small player in the diagnostic equipment market, unlike J&J's other units, which are usually first or second by market share. For those two reasons, it was an unattractive asset to J&J. For Carlyle, however, OCD's potential to grow in emerging markets and retain the loyalty of existing customers made it an attractive value investment.

From a segment perspective, investments continued to favor product deals over services deals. Assets in the diagnostics space were very popular, including both OCD and Sebia, as previously discussed. Other product segments that saw investment activity in 2014 include hearing aids, ophthalmic devices, respiratory equipment, physical assistance products, orthopedic implants and dental implants.

A notable new trend in 2014 was medtech deal activity in China. As discussed in the Asia-Pacific section, the support of the Chinese government is fueling the trend by allowing fast-track technology approvals for medtech products and by spurring private investment in the provider space, which is expected to increase demand for medtech products. Popular medtech segments in 2014 included diagnostics as well as supplies and equipment. Within diagnostics, investors are supporting the growth of an ecosystem of "open platform" in vitro diagnostics equipment and reagents, and "good enough" imaging products. These products target lower-tier hospitals, which want lower-cost alternatives to cutting-edge innovations, and they challenge the large global players who have historically been leaders in the Chinese diagnostics space.

HCIT

PE interest in HCIT assets was strong again in 2014, but deal activity was tempered due to a longstanding trend of high valuations, thanks to competition from strategics and strong financial markets. Frothy IPO markets also drove many VC-backed firms straight to IPO without passing through PE ownership, such as venture-backed firms Castlight Health and Everyday Health, which made their IPO debuts in 2014.

Revenue cycle management (RCM) was a popular segment in 2014. The largest deal with a disclosed value was Summit Partners' $550 million majority stake investment in ABILITY Network, a maker of software that helps providers process and manage Medicare claims. In addition, GTCR made an undisclosed investment in XIFIN, a leading RCM provider to diagnostic labs that also offers physician portals, patient portals and analytics to its lab customers, among other products.

Other notable deals targeting healthcare providers include Carrick Capital Partners' majority investment in the Procura Group of Companies, which provides software solutions for home health, hospice, private duty, community and aged care organizations across the US, Canada and Australia. Playing a theme of supply chain optimization, Thoma Bravo acquired Global Healthcare Exchange, which helps automate the purchasing and contracting process for providers, distributors, GPOs and suppliers, for an undisclosed sum. In the broader IT sector, Vista Equity Partners acquired Advanced Computer Systems in a deal valued at $1.1 billion; Advanced offers patient management software for healthcare providers as well as back-office systems and outsourced information technology services for businesses in other industries.

One of the few HCIT deals outside of the provider sector was Bridgepoint Development Capital's £42 million acquisition of Phlexglobal, which provides document management and other solutions to the global clinical research market. A notable payer services deal was the $1.2 billion merger of Advent-backed Connolly, which audits insurance claims payments for healthcare and retail clients, with iHealth Technologies, a healthcare analytics company that screens claims before they are paid and was backed by Goldman Sachs Capital Partners and Oak Investment Partners.

Although PE investments in HCIT were tempered in 2014, venture capital flowed abundantly into the segment. According to Rock Health, VC funding for US companies in the digital health space in 2014 was $4.1 billion, nearly equal to the total funding of the previous three years combined. Notable assets that received venture funding during the year were telemedicine company Teledoc, payer services asset MedHOK and respiratory digital therapy firm Propeller Health. The level of venture activity heralds a sizable pool of assets to capture PE interest in years to come, even if some go straight to IPO or strategic buyers without passing through PE hands.

4. Strategic activity

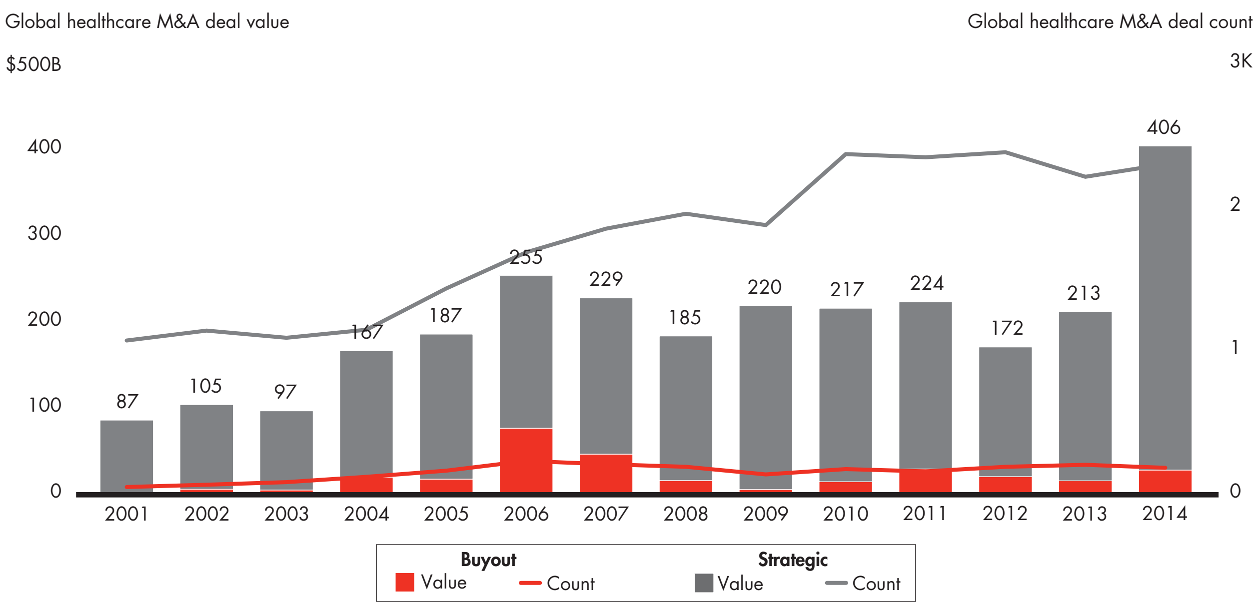
Section highlights

- Strategic M&A activity hit record levels in 2014 as healthcare companies acquired new growth engines and shed noncore assets
- Despite the distraction of mega-merger activity, strategic players remained active buyers in the $500 million to $5 billion sweet spot for large PE funds
- Biopharma and medtech sectors saw the bulk of activity, as in prior years

Healthcare M&A activity dominated the headlines in 2014—and for good reason. Strategic buyers drove total healthcare M&A to an all-time high of $406 billion, nearly twice the levels from prior years, not including several big deals that ultimately collapsed. Strategic buyers contributed more than $380 billion of that value, up from nearly $200 billion in 2013, on a 5% increase in the number of deals *(see Figure 6)*.

While tax inversions were popularly considered a key driver of this activity, several other factors helped fuel the trend as well: cheap capital (thanks to low interest rates and strong equity markets) and the need for large companies to find new growth engines in the wake of expiring patents and slowing healthcare expenditures.

Figure 6: Total healthcare M&A was significantly up in value over prior years due to strategic activity



Notes: Excludes spin-offs, add-ons, loan-to-own transactions and acquisitions of bankrupt assets; based on announcement date; includes announced deals that are completed or pending, with data subject to change
Sources: Dealogic, AVCJ, Bain analysis

Much of the increase in deal value hinged on three very large deals that created more than $140 billion in transaction value: Actavis' $65 billion acquisition of Allergan and $28 billion acquisition of Forest Laboratories, as well as Medtronic's $50 billion acquisition of Covidien. By contrast, the largest deal in 2013 was Thermo Fisher's $15 billion acquisition of Life Technologies.

Thematically, many of the year's largest deals were aimed at increasing scale in one of two ways: increasing breadth by bringing new product categories into the company, or increasing depth by acquiring products in the same categories as the acquirer. Medtronic's acquisition of Covidien is an example of increasing breadth, as there was limited overlap between the two companies' portfolios. Actavis' acquisitions of Forest Laboratories and Allergan was also a breadth play. The acquisitions brought new franchises in ophthalmology and Alzheimer's disease to Actavis. In contrast, the swap of assets between GSK and Novartis was a depth play. As a result of acquiring Novartis' vaccines unit, GSK will become the largest player in vaccines; by acquiring GSK's oncology portfolio, Novartis will solidify its second place position in the category, behind Roche. Similarly, Zimmer's $13.4 billion acquisition of Biomet bolstered its leading position in the hip and knee implant categories, and made the company a leader in the extremity category. Bain research shows that focus—defined as strong leadership positions within individual categories—rather than breadth is correlated with higher profitability in both biopharma and medtech (see the sidebar "The power of category leadership" on page 26).

As in prior years, the bulk of strategic activity was in the biopharma and medtech and related services segments. Provider M&A was tempered, with much activity taking place in the form of partnerships such as Ascension Health and Trinity Health's formation of a joint company to contract for managed care in Michigan. One notable provider M&A deal was in the post-acute space: Kindred Healthcare acquired Gentiva Health Services for $1.8 billion. Another notable deal is classified as retail M&A but has a healthcare component: Drugstore chain Walgreens completed its merger with KKR-backed Alliance Boots, creating a global retail pharmacy and wholesale distribution company.

Over the last decade, corporate buyers made an average of 50 acquisitions per year in the $500 million to $5 billion range that is attractive to large PE funds, and 2014 was on the high side with more than 60 deals. Many of those midsize assets piqued PE interest, but financial investors often lost out to the deep pockets and synergy potential of strategic buyers. For example, Kindred beat out another bidder—widely rumored to be a PE fund—to win Gentiva Health Services. Likewise, dental implant manufacturer Nobel Biocare captured the interest of PE shops before ultimately selling to Danaher for $2.2 billion.

Yet strategic players were not always adversaries of PE investors, and they sometimes proved to be valuable partners. In China, for example, Hillhouse formed a joint venture with the Mayo Clinic. The JV plans to leverage Mayo's expertise in patient care, medical research and education and Hillhouse's in-country expertise as it invests in the Chinese hospital market.

Strategic players also proved to be a valuable source of assets via carve-outs, yielding more than $8 billion of PE buyout deal value in 2014. Much of that activity was in the medtech sector, including J&J's sale of its OCD division, the largest carve-out announced in 2014 that went to a PE buyer. Siemens was another strategic player that drove carve-out activity in 2014, carving out three large parts of its healthcare business. While two—its microbiology and HCIT businesses—went to strategic buyers, a third business—audiology—went to PE investors EQT and Santo Holding, with Siemens retaining a €200 million stake in the business. EQT's stated goal is to grow the business and position it for an eventual IPO.

Medtech was not the only sector to see carve-out activity. In the pharma services space, Rexam, the British packaging maker, shed its healthcare business in two transactions in 2014. First, it announced the sale of two of its three healthcare divisions—the healthcare devices and prescription retail divisions—to Montagu for $800 million. Later in 2014, its remaining healthcare business—pharmaceutical containers—was sold to Berry Plastics. In the HCIT sector, Noridian Mutual Insurance Company (a Blue Cross Blue Shield of North Dakota affiliate) sold its MDdatacor unit, which provides a software-as-a-service model to help payers and providers manage patient information, cost management and regulatory compliance, to Symphony Technology Group.

We expect carve-outs to continue to be an important source of assets for PE buyers, especially for the larger funds seeking large-scale assets, and particularly while strategic players are busy digesting all of the M&A activity from 2014.

The power of category leadership

In 2014, Bain conducted new research showing that depth—not breadth—is correlated with higher profitability in both the biopharma and medtech sectors. Our analysis found that the most profitable companies in each sector were not the largest and that overall scale did not result in superior performance. Instead, the top performers were those companies that had established strong leadership positions in the biggest categories in which they play.

There are many reasons category leadership trumps size. Three major ones:

- **Deeper customer insights.** Category leaders often have stronger relationships with their customers, providing stronger customer economics and a better line of sight into unmet needs, allowing them to optimize innovation efforts.

- **Commercial strength.** Due to their large scale within the category, the sales and marketing groups of category leaders can get more bang for the buck with better brand recognition, higher account densities per region and greater share of voice with prescribers and purchasers.

- **M&A advantage.** Category leaders frequently have superior access to new assets related to the category. Their customer insights help them identify which products will resonate best with customers, and their commercial strength enables them to pay a premium.

These findings have profound implications for both PE and strategic firms. Even as strategic firms digest the assets they've acquired over the last few years, we expect them to continue pursuing asset swaps and divestitures in their quests for category leadership. PE players can play an important role by helping strategic firms untangle noncore assets. They can also aggregate and grow low market share assets to sizes and scales that make them attractive to strategic buyers (see the sidebar "How to identify potential carve-out candidates" on page 30).

More information on Bain's category leadership, including detail on the Category Leadership Index℠ metric that we use to quantify a company's leadership position across multiple categories, can be found at www.bain.com/medtechcli and www.bain.com/pharmacli.

5. Exit activity

Section highlights

- Exits in 2014 stayed strong, matching high volume seen in 2013
- Strong equity markets led to an increase in the number of healthcare IPOs during the year
- The number of sales to strategic buyers declined compared with 2013, but the value increased sharply

Exit conditions remained favorable in 2014, as the number of transactions in 2014 matched 2013, the previous highpoint of the decade *(see Figure 7)*. Of the 134 exits, strong equity markets made IPOs increasingly popular. In 2014, 38 buyout-backed healthcare companies went public, up from 31 the previous year, while sales to strategic buyers dropped from 70 in 2013 to 63 in 2014. Sponsor-to-sponsor transactions were stable at 33, compared with 32 the year before *(see Figure 8)*.

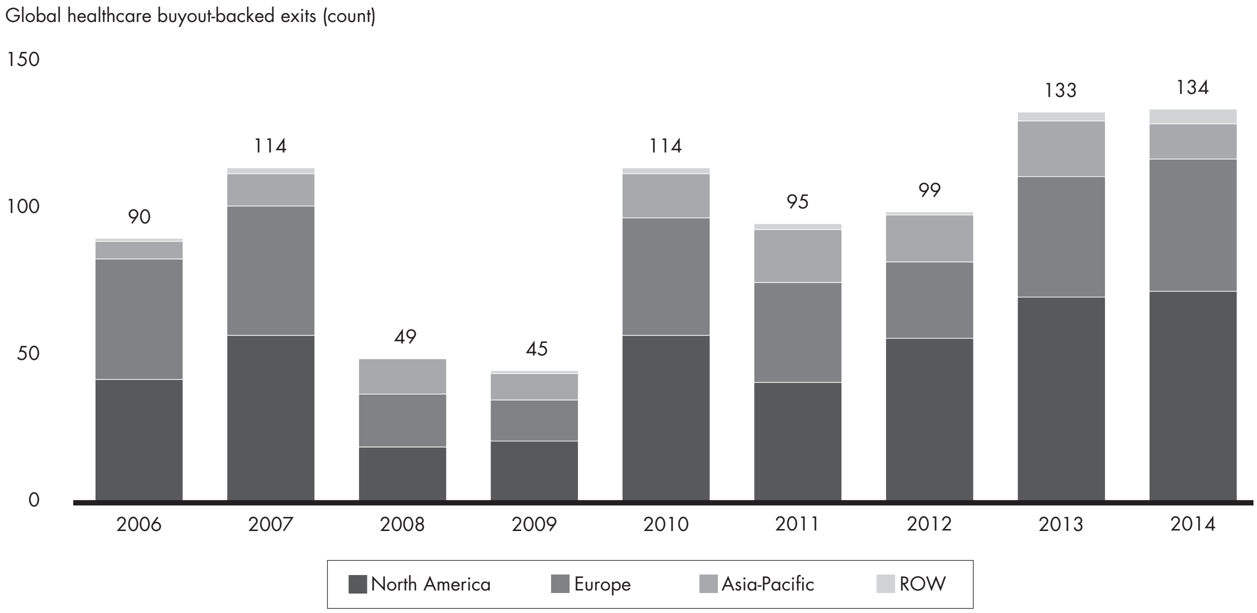
Across all industries, the US equity markets saw the highest number of IPOs. Healthcare companies played a major role in that growth. Notable buyout-backed IPOs of the year included IMS Health Holdings, backed by TPG, CPPIB and Leonard Green and Partners, which raised $1.3 billion in April; VWR International, backed by Madison Dearborn, which raised more than $500 million in October; and China-based iKang Healthcare, China's largest operator of medical exam and disease screening centers, which raised more than $150 million on the NASDAQ to enable a partial exit for investors NewQuest and GIC. In Australia, TPG- and Carlyle-backed Healthscope hospital and pathology lab operator raised A$2.25 billion in Australia's largest IPO since October 2010.

Sponsor-to-sponsor exits helped create many of the year's largest buyouts. MultiPlan, for example, was a $4.4 billion exit for BC Partners and Silver Lake, which bought the firm for $3.1 billion in 2010. Cinven sold Sebia for $1.9 billion (€1.4 billion) after buying it for €800 million in 2010. The $1.3 billion Median Kliniken deal was an exit for Advent, and the $910 million Healogics sale was an exit for Metalmark Capital and Scale Venture Partners.

Although sales to strategic buyers were down slightly over 2013, they are still an extremely important exit channel for PE-backed assets in all sectors. Despite the decline in deal count, the deal value of sponsor-to-strategic exits totaled more than $34 billion in 2014, up from more than $22 billion in 2013. A number of notable deals fell into this category. For one, Biomet, which was acquired in 2007 for $11.3 billion by Blackstone, Goldman Sachs Capital, KKR and TPG, was sold to Zimmer for more than $13 billion in 2014. In the biopharma sector, TPG-backed Aptalis went to Forest Laboratories in a $2.9 billion sale; after Forest was acquired by Actavis later in the year, TPG agreed to buy back the CXO portion of Aptalis' operations. TriZetto, a payer- and provider-focused HCIT firm, was sold by Apax Partners to Cognizant for $2.7 billion. In the provider sector, Hellman & Friedman–backed Sheridan Healthcare, a US-based provider of physician services to hospitals and ambulatory surgical facilities, was sold to AmSurg, a US-based operator of outpatient surgery centers, for $2.35 billion.

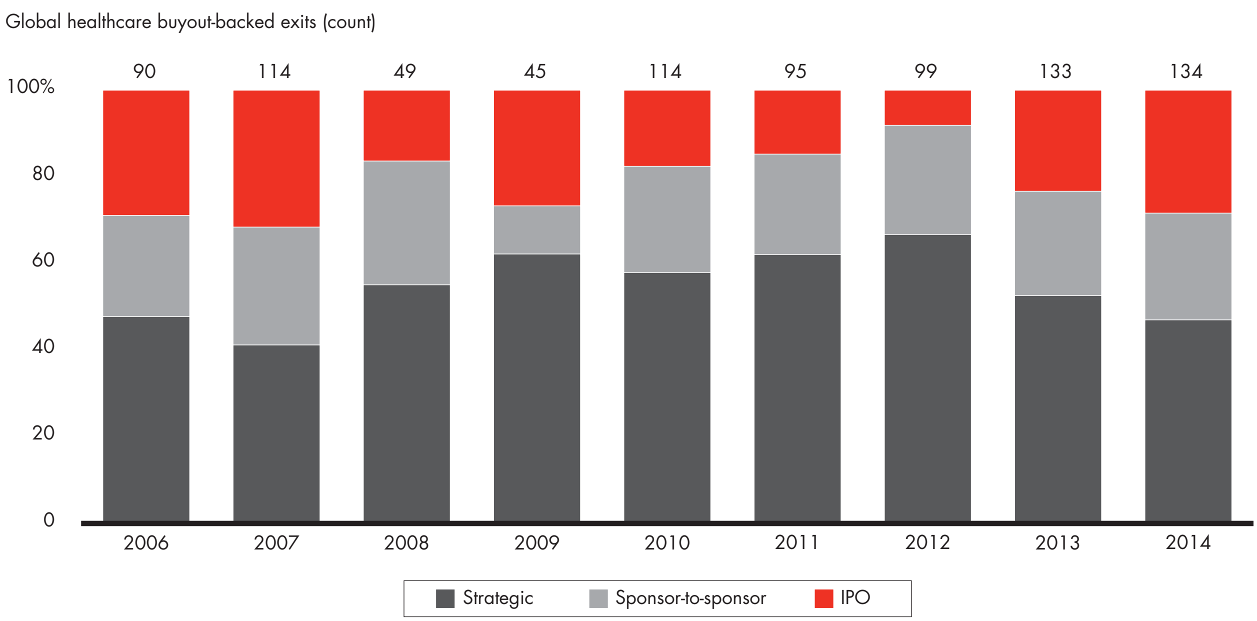
In 2015, we expect PE firms to keep taking advantage of attractive exit opportunities and to continue investing in portfolio value-creation activities to best position their assets for eventual exit. As an example: At the time of its IPO, VWR International had made more than $500 million of acquisitions while under Madison Dearborn's ownership and plans to continue rolling up fragmented assets as a public entity.

Figure 7: Exit activity remained robust in 2014



Notes: Excludes bankruptcies; rest of world (ROW) includes Central and South America, Africa and the Middle East
Source: Dealogic

Figure 8: IPOs gained share of exit activity in 2014



Note: Excludes bankruptcies
Source: Dealogic

6. 2015 and beyond

Looking ahead, healthcare will remain an important area of opportunity for investors. Consistent with prior years, we expect that investors will still need to work hard to win assets and generate superior returns due to high valuations that are almost certain to persist, a small pool of existing large-scale assets and heavy competition from strategic buyers.

There are, however, some positive dynamics that favor PE investors. Carve-out assets should continue to hit the market, as strategic firms keep on repositioning their portfolios for growth. This will create an attractive pool of assets for PE firms able to take on the complexities of a carve-out (see the sidebar "How to identify potential carve-out candidates" on page 30). Strategic partnerships should also offer interesting angles for PE firms, building on the partnership activity we saw in 2014. For example, Water Street partnered with Walgreens in a deal that merged Walgreens' Take Care Employer Solutions worksite health business with Water Street's CHS Health Services worksite health business. Similarly, MDP partnered with Walgreens on the carve-out of its home infusion business. In emerging markets, we see two types of partnerships:

- Domestic funds and foreign strategic partners combining to bring together the operational expertise of a strategic player with the local market expertise of a domestic fund; and
- Domestic strategic players and foreign funds combining to bring together the local market expertise of the strategic player with the capital and growth expertise of the foreign fund.

Another dynamic that favors PE investors: Many healthcare segments are still extremely fragmented, playing to classic PE strengths around buy-and-build strategies. In some segments, few assets with platform potential remain, but funds face excellent opportunities to build on existing assets. In other segments—especially those we call early stage—no platform assets yet exist, and funds have to be willing to get in early to create the platforms.

We expect a few themes to emerge over the coming years. For one, funds will aggressively pursue carve-out assets. Funds will also start to look beyond gem assets (typically, category leaders) and obvious turnaround situations to middle-of-the-road assets, where the path to category leadership is less clear and the value of operational improvements is harder to see. For these assets, leadership may require redefining a category in order to create a defensible niche and operational improvements may require complexity reductions deep within product lines and geographies. Securing this value will require a new level of focus and effort from both the investors and the management team.

We expect funds to continue to invest across a wide variety of segments. A few that are already capturing investor interest for 2015:

- Provider assets in emerging markets, especially China and India, spanning primary to acute to specialty care as investors become comfortable investing across the full provider spectrum;
- Population health management, driven by the changing healthcare landscape in the US;
- Next-generation behavioral health, where behavioral health clinics in the US take more of a role in managing the overall health of their populations;
- Dermatology, as growth in the aesthetics product portfolio enables clinics to further insulate themselves from reimbursement risk;

- Physical therapy, where consolidation by chains will likely accelerate;
- Retail health (e.g., dental and veterinary clinics), which continues to offer insulation from reimbursement risk as well as consolidation opportunities;
- CROs, where fragmentation persists despite the level of PE activity over the past few years; and
- OTC manufacturers, including vitamins, minerals and supplements, where there remains significant opportunity to "pre-consolidate" assets to bring them to sizes that are attractive to large strategic buyers.

The hunting ground for healthcare investors is still large, and the potential for strong returns remains. The most successful funds will focus on finding the assets that best fit with their investment strategies and work hard to bring those assets to full potential in order to earn superior returns on their investments.

How to identify potential carve-out candidates

Carve-outs are an important source of large-scale assets, but one big challenge facing investors that focus on them is lack of visibility into the pipeline of opportunities. Investors can feel as though they are at the whim of corporate portfolio operators and their timing for decisions about when to streamline operations or free up cash. But this doesn't have to be the case: A key application of Bain's Category Leadership Index℠ (CLI) tool, also discussed on page 26, is identifying assets ripe for divestiture from corporate portfolios.

The analysis starts by calculating the CLI score, which is the revenue weighted average of a company's relative market share in each of the categories in which it plays, for a strategic player and understanding how each business contributes to the overall CLI score. Are there low market share businesses in the portfolio? If so, these assets could be ripe for divestiture. Are there high market share assets that are small in the context of the overall portfolio? Are these assets being managed aggressively enough to maintain their leadership position? If not, there could be execution upside by carving them out into a standalone company that has better access to capital.

After running this analysis for all players in a market of interest, investors will find it easier to predict which assets might come onto the market. But there is no need to wait. Strategic players are increasingly open to exchanging ideas with financial investors and establishing creative ways to work with them.

The analysis shouldn't stop with sourcing assets, as it is also useful for identifying potential exit scenarios. Which players have gaps in their portfolios that could be filled with carved-out assets? Is there a collection of carve-out candidates that could be combined into an attractive portfolio? Where do the assets need to be in three to five years in order to be attractive to strategic buyers? Asking these questions up front makes it easier to map out a growth plan and make trade-off decisions as needs arise.

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