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SPRING 2018

THE FUTURE OF PRIVATE EQUITY

DEMAND FOR INVESTMENTS CREATES NEW ALLIANCES AND UNEXPECTED COMPETITORS

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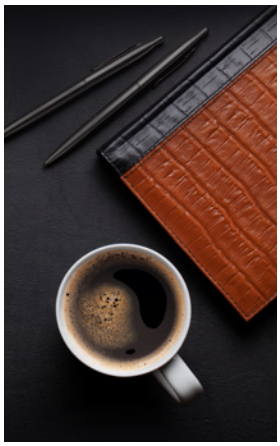


DEPARTMENTS

leadoff

OWNERS, ACTIVISTS, CUSTOMERS, GOVERNMENTS ARE DEMANDING MORE FROM YOUR COMPANY

Middle-market companies are having an impact far beyond their size and are seeing reactions once aimed at multinational corporations: internal social initiatives, boycotts or stakeholder actions from dissatisfied parties. Companies of all sizes are promoting their ethical standards and making them part of the buying process. Some companies are remaking the landscape of US cities, investing at every level from temporary popup stores to major private investments to housing to transit.

Investors are pursuing these firms like never before, requiring top managers to balance stakeholders and definitions of success. Profits aren't enough. In this issue of ThinkSet, we explore what's next in global commerce. Private equity investors own huge segments of the economy, and billions of investable dollars are poised for new opportunities. Fundraising has outpaced investment, leaving dry powder (available investable funds) at an all-time peak seeking long-range returns from huge infrastructure projects and global megadeals.

MANAGING DATA FROM MULTIPLE POINTS OF VIEW

Many organizations are challenged by coordinating their operational story to have a 'single view of the truth.' We have more data and technology tools than ever before in business. Still, the data doesn't tell everything. It's critical to get consistent, provable facts to drive smart strategic decisions and evaluate their impact. And don't underestimate the power of enthusiasm.

When the MIT Human Dynamics Laboratory identified the group interactions of high-performing teams, research found that communication, more than any other factor, predicted success. Specifically, the more energy with which people communicated and greater number of interactions outside of formal meetings indicated higher levels of performance. Robots and reports can't deliver data with the same level of passion or conviction.

As a company grows, top management and board members need to address communication gaps that arise. Savvy managers take steps to keep building personal interactions where they strengthen teams.

Managing change is another vital skill. The tide is changing now for companies to prove they are trusted guardians of client data, with severe penalties for failure—both regulatory fines AND losses in the marketplace from demanding investors and angry consumers.

Next-generation technologies, like blockchain or 5G wireless, are opening up growth possibilities. That's where nimble, smaller companies will excel, and investors will move quickly. It's up to you to see if your company, top executives and board members are managing for today's numbers or tomorrow's dynamic future.

PHILIP ROWLEY
Executive Director & Chief Revenue Officer

Data Breaches Take Various Forms

Patching leaks from your house to the courthouse

Peggy Daley

Even companies with redundant data-security systems have blind spots for the social or nontechnical ways that corporate details are at risk. Projects that emphasize physical security—new purchases and monitoring of usage patterns—win funding and attention, while more mundane threats barely get a thought.

It starts with remembering to lock the server room door.

Consider that petty thieves made off with $2.8 million in the Great Brinks Robbery of 1950 by using a piece of plastic to pick a lock. In 2014, the Sony Pictures hack was made possible thanks to logins and passwords stored in an unencrypted file labeled "Passwords."

Companies need to start with the basics, such as training employees to spot and report suspicious activity. Just as the color-shifting ink or the 3D security strip next to Ben Franklin's portrait can betray a counterfeit $100 bill, employees should know the telltale marks of fraudulent emails or spoof websites.

It may seem counterintuitive that the higher you go up the corporate hierarchy, the greater the need is for data-security training and situational awareness. Bad habits and weak passwords are just part of the story.

If an intrusion is suspected, everyone should be prepared with the proper steps for escalating questions and reporting to department heads, the IT brain trust or even outside technical experts.

Importantly, incident responders need to take a team approach to cast a wide net, probing to discover whether other departments or locations are affected and to discuss when to alert law enforcement agencies.

Protocols should be set up and practiced in tabletop exercises, so that everyone knows whom to call. Fire drills are common on corporate campuses.

Data-protection drills or breach responses need to be practiced as well.

It starts with remembering to lock the server room door.

MULTIPLE POINTS OF FAILURE, FAR FROM YOUR OFFICE

Departing employees with seniority or access to trade secrets are another weak spot.

High-value data needs to be segregated, and unusual behavior (login failures, downloading or deletion activity) must be monitored to spot or predict removal of company assets.

If an employee suddenly quits, the HR manager's first priority has to be to forensically preserve all data on her company-issued devices to protect secrets and establish an electronic paper trail to lay the groundwork for legal action in case workplace rules have been violated.

Locking down confidential data also becomes more challenging when the normal course of business requires you to ship sensitive information to a law firm, outside accountant or PR agency.

Executives mulling takeover bids or IPOs tend to clue in lawyers at an early stage. While confidentiality is a time-honored tradition in the legal profession, many law firms are late adopters of technology and may have limited internal IT resources.

The most notorious legal hack is the Panama Papers case. In 2015, more than 11 million documents relating to more than 200,000 clients were swiped in one go from a Panama-based law firm that catered to offshore entities.

Litigation files are another treasure hunt for data thieves. Data-protection standards in class-action lawsuits are murky, for instance, making personal or customer details produced in the discovery process tempting for cybercriminals. Expert witnesses may be permitted to sift through these datasets, creating another overlooked weakness. You never know who else may be looking at your documents and what their security understanding is, especially for people with no corporate loyalties.

Companies need to hold their lawyers, accountants or consultants to the same data-integrity standards that they apply in house. Big banks or retailers often send lengthy questionnaires on IT security to consultants bidding on a contract, followed by a rigorous on-site inspection and the signing of confidentiality pledges.

Data protection starts with fundamentals. Ignoring basic security protocols or understanding other weaknesses is as futile as hiding the silver in your home's closet but leaving the front door wide open.

Peggy Daley is a managing director for Berkeley Research Group in Chicago, specializing in data security, investigations and analytics.

The New Business of Trust

DATA-BREACH PREVENTION AND PROTECTION, NOT JUST CRISIS RESPONSE

A corporate golden rule of "Do unto others as you would have others do unto you" has added two crucial words from customers to 21st-century businesses:

"or else."

The new imperative is to treat the data of others the way you'd like to be treated, or face regulatory penalties, client defections or marketplace shaming. One estimate says that half of US companies hold information about European residents and will be required to comply with the European Union's General Data Protection Regulation (GDPR), set for May 25, 2018.

These companies are vulnerable to the GDPR's huge potential fines if they fail to make data storage fully secure and compliant and the use of personal data transparent to consumers. Legal and business experts are bracing for the first case that tests enforcement.

Perhaps an even better reason to overhaul data privacy is a competitive benefit of retaining customer trust, along with operational improvements that come from data-security transformation.

Proactive executives are combining technology, ethics and transparency to gain a market edge, says Lisa Loftis, a data governance expert for SAS Software. Lead users aren't waiting for regulations to set their future course; they're seeking an edge now.

"If we look at where businesses are falling down in terms of their thought process, 75% of affected US businesses and 61% of UK businesses don't think GDPR is going to affect them," she says. "But GDPR will have significant impacts, felt well beyond companies that fall directly under its jurisdiction. Every company that does business with either end consumers or B2B needs to be thinking seriously about data governance. As consumers start to see what noncompliance looks like, we believe they will start expecting all companies they do business with to comply, regardless of whether they are legally obligated to do so."

Culture is lagging behind technology in ethics and corporate transparency, so the closest standard to date is what could be called the "Golden Data Rule": companies treating personal data as if it were their own.

Angry end-user customers are cancelling accounts or boycotting businesses in viral social media campaigns that escalate quickly over complaints. Companies are selecting partners based on security, responsiveness and compliance performance. Even use of technology is fair game, for example, as activists are calling on Samsung, Nintendo, Apple and other device makers to offer solutions to the claimed addictive nature of gaming and digital devices.

The 2017 "Risk: Value" report by NTT Security found that 25% of US companies with European resident consumers were aware that GDPR would affect them, the lowest awareness level of all markets measured. Roughly the same number of companies from Australia (26%) and Hong Kong (29%) reported comparable figures.

Ethical practices are hard to buy from an IT vendor, so many companies turn instead to systems and software that claim to police compliance requirements or digital behaviors.

Data governance starts with communication, Loftis says, and a consistent culture that values information and secures it as much as possible from theft or abuse. Securing IT equipment and files is just the engineering of process.

Yet only a quarter of affected US businesses even know that they need to respond, and fewer companies overall have strategies in place to get their data in order. Fines or penalties are not the primary worry for executives. Rather, they worry most about the brand damage of "being the first to be called out," according to Anne Buff, manager for advisory business solutions at SAS.

GOVERNANCE VS. SECURITY

Securing data files, servers and access is the physical system—the bank vaults and access controls of the digital age. Security is the "what," but governance is the "how." The corporate commitment has to be ongoing, consistent and part of the culture, says Amy Worley, global chief privacy and records officer for Merz Pharma GmbH & Co. KGaA, a multibillion-dollar business spanning 28 countries.

Worley was an asset protection litigator and corporate privacy advisor in private practice before joining Merz in 2016. In today's environment, having policies isn't enough, she says. Companies need to demonstrate a commitment to compliance through education, awareness and, if necessary, disciplinary consequences for employees who fail to follow policies.

"The privacy bar in the US is not used to this type of omnibus approach to privacy," Worley says. "There can sometimes be too much of a focus on regulation avoidance and not enough on how to operationalize requirements in a way that does not impede the business. In fact, done right, a good privacy policy adds real business value."

The field of US data governance began to create industry standards from legal cases in the mid-1990s, adding legal precedent to state-level laws that created dozens of inconsistent standards.

"I would not want to be a newly appointed privacy officer in a company right now if I did not have a background in privacy law. In the GDPR world, privacy is not something you should dabble in, especially in a multinational business," Worley says. Her extensive experience in records management and corporate privacy law gives her a better understanding of why it matters to clients and to the core business.

BUILDING TRUST BY DOING THE RIGHT THING

Robert Hichens

Instead of merely responding to new compliance requirements, companies need a bigger-picture view to show they want to "do the right thing" for all stakeholders.

SOME RECOMMENDATIONS >

- Conduct a data-mapping/inventory exercise to determine where and how your company's most sensitive and proprietary data—especially personal data—is used.
- Simplify the rules for the business and develop a data-handling "playbook" to establish a common and normalized set of guidelines to meet obligations and requirements for company's most sensitive and proprietary data. Whether it's GDPR, SOX or HIPAA or the need to protect company strategic plans or product designs, there should be just one playbook.
- Take advantage of your biggest resource—your employees—and change the culture around data privacy and protection. Develop and launch a unique internal awareness campaign to engage and solicit employee support around their role as a "human firewall" in protecting sensitive and proprietary information.

Robert Hichens is a managing director for Berkeley Research Group in Houston, specializing in information governance and security.

The reality is that business values are completely different than human, consumer values."

"You miss tremendous opportunities for business efficiencies if you don't know where all your data is and how it's shared," she says. "Some businesses may find they get accidentally better at managing their data assets while consciously trying to comply with GDPR."

Merz is a specialty healthcare company that focuses on aesthetic medicine and neuroscience. The more than 100-year-old, family-owned company is approaching global privacy compliance as an opportunity to collaborate across all 28 countries and better understand its corporate data holistically.

Loftis says the broader business stakes are illustrated by the national Customer Care Measurement & Consulting (CCMC) "Customer Rage" survey, which showed "an alarming rate of negative emotions associated with the customer service provided by American companies." It found that 91% of customers experienced frustration with customer service in 2017, and 64% were "angry" as a result of negative service interactions.

The current level of dissatisfaction could eclipse the penalties under GDPR, which could reach as much as 6% of global corporate revenue. GDPR's timing has added a sense of urgency because specific requirements include:

- The right of individual consumers to rapidly access their personal data from any company
- A method to learn to know how a consumer's data is being used and to object to certain uses
- A process to request correction or even deletion of data with proof of action

Businesses will need to demonstrate that their storage of personal data for EU residents is secure, that they have appropriate governance and controls in place and that they use the data only in a permitted way; and to show a rapid, appropriate response to demands for deletion and to security breaches.

NEW DEFINITION OF TRUST AND CORPORATE ETHICS

A December 2017 PwC DigitalPulse report says that declining consumer trust in companies is being driven partially by concerns over the storage and use of personal data, with only 15% of consumers believing that their data is used for their benefit, and 85% unprepared to deal with brands if they are worried about their data practices.

For SAS, which has customers in 148 countries using its customer intelligence and analytics solutions, the company culture has multiple views and a guiding principle: Data is an ingredient. It can be used with permission to deliver benefits only through trust and use cases that a company's clients agree are ethical.

Buff says the challenge of matching ethical behavior to shifting values and expectations has to occur before compliance with new regulations, so that companies don't find themselves constantly seeking legal loopholes or making excuses.

"The reality is that business values are completely different from human, consumer values," Buff says. "When it comes to data use, businesses are looking for greater intelligence about our business, our products, our consumers and ultimately our delivered value. When it comes to sharing and distributing data, we're looking at establishing partnerships or driving new revenue models. But when we look at it from a consumer perspective—that's not what they care about. They are interested in transparency and trust and security. Sure, they want value as well, but from a totally different perspective."

Rowan Philp reports on global business from Boston. He was chief international correspondent for South Africa's largest newspaper, The Sunday Times, and has held fellowship programs at the Washington Post and MIT/Knight Science Journalism program.

THE FUTURE OF PRIVATE EQUITY

DEMAND FOR INVESTMENTS CREATES NEW ALLIANCES AND UNEXPECTED COMPETITORS

Michael Athanason and Federico Jost

KKR's Americas XII fund attracted a record $13.9 billion in commitments in 2017, reflecting a generation's growth in private equity—a long way from its first fund, in 1978, which raised $30 million.

In 2017, private equity (PE) broke all previous records, raising $435 billion, despite challenges to put all that money to work. We are in the midst of an environment of high valuations and fierce competition coming not only from other general partnerships (GPs) but also from corporate strategic investors and limited partnerships (LPs).

PE industry expert Preqin LLC estimates that $970 billion in 'dry powder' held by PE fund managers is the most ever recorded. Many investors question whether fund managers will be able to generate the same returns they have historically delivered given competitive factors seen and yet to be seen. The saying ""Too much money too few deals" has become a common phrase at industry gatherings in recent years.

The asset class has progressed even more in the past two decades, weathering several crises—from the dot-com bubble's burst to the 2008 global financial crisis—yet valuations of private holdings have seen unprecedented appreciation.

Let's look toward the next stages of private equity through the lens of a few maturing trends and try to forecast what's next.

SEISMIC SHIFTS IN LP BEHAVIOR

Since 2012, LPs have allocated large sums to private equity seeking better yields than those in the public equity and debt markets. Larger LPs, such as Teacher Retirement System of Texas and CalPERS, have started to rationalize their portfolios and concentrate their investing activities in large and well-known GPs, including Apollo Global Management and The Blackstone Group. This is a marriage of convenience.

Through this union, GPs have gathered more capital with less effort, while LPs can streamline their investment and monitoring processes. In short, LPs are able to make commitments between $100 million and $1 billion, instead of their traditional $20 to $100 million, which means fewer funds to manage. Large GPs developed valuation-monitoring teams that were able to provide all the (ad-hoc) data to LPs for their reporting needs. Finally, LPs concentrated their relationships in return for the option to be invited to future co-investment opportunities, which can lead to better returns via lower management fees.

With giant GPs and LPs fusing their strategies and relationships, the middle-market GP field has opened opportunities for smaller LPs to enter into alternatives investing and to invest into funds that generally provide returns that are above those of larger managers. This middle market of growth and emerging companies is where all the hard-won value mining and corporate restructuring is happening, and the returns are there to show it.

In 2016-17, LPs also favored more timely and aggressive strategies. Private debt and venture capital (VC) saw an increase in LP investment, primarily due to market dynamics and large returns in the VC space. Fund managers, such as Oaktree Capital, Ares Management and Apollo (leaders in the private-debt space), have become 'go-to' lenders for many companies. Their returns have been stable and better than those of other non-private debt lenders in the market.

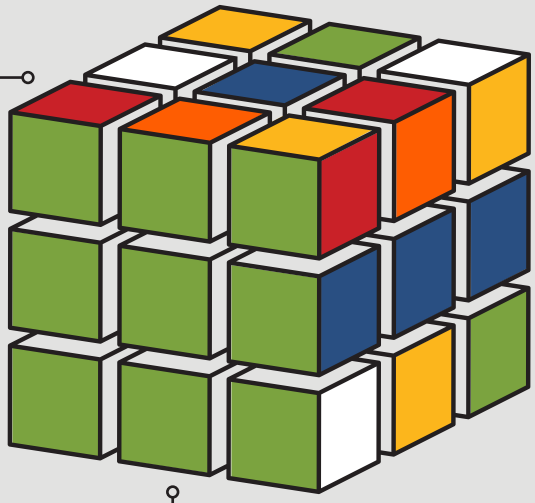
Some larger players are viewed as the Death Star, and there is no shortage of rebels.

PE Competition AND Cooperation

Who's participating? Depends on the day and the deal

Deal investment often require a combination of LP and GP partners – organizations playing different roles depending on the estimated return, timeframe, amount invested, asset class and other factors. LPs and GPs compete for some investments and cooperate on others. Some LP partners even own stakes in GP managers.

The amount of investable PE money is nearly $1 trillion as of 2018, adding pressure to find returns, inflating purchase prices or increasing the challenge of meeting investment goals.



Limited partners include pension funds, sovereign wealth funds, college endowments and "family offices" of high-net-worth individuals.

General partners are larger players such as hedge funds, private equity giants and national sovereign wealth funds and global investment companies such as Blackstone Group or Softbank that coordinate LP involvement. As the leading partners in transactions, they can dictate terms and select who participates.

VC firms, such as Founders, Scale Ventures and Sequoia Capital, have benefited from notable exits from unicorns that delivered sizable returns, such as Airbnb, Facebook, HubSpot, Box, Instagram and LinkedIn. We expect LP investment into private debt and venture capital to continue, with demand even increasing until market dynamics change.

LPs MOVING TOWARDS GP – BY ACQUIRING THEM OR MIRRORING THEM

By 2005, some LPs started investing in GPs, or working as their own deal manager. This trend later slowed and even reversed, as LPs including CalPERS sold off their manager interests in hedge funds. In 2017 and early 2018, there was a strong resurgence in activity as more LPs acquired stakes in PE and hedge fund managers.

The attractiveness of this investment approach is to capitalize on returns GPs generate for themselves, to strengthen the relationship with a manager, to obtain better terms than in the market and sometimes to set up an investment platform and move to active direct investing in the future. Investing in GP stakes can generate above-average returns if the investment is valued properly at all times – at both entry and exit..

Finally, lets pull back the curtain on the ultimate game. LPs have been increasing their allocations to direct and co-investments – collaborating and even competing with GPs.

Preqin's 2012 survey on co-investments reported that 37% of the LPs responding to the survey were actively and opportunistically co-investing. By 2015, 50% reported active or opportunistic co-investing, and another 22% were considering co-investing. According to Brian Gildea, managing partner at Hamilton Lane, a global private investment management firm, "LPs are interested in co-investing on the basis that it will improve returns through lower overall costs, create faster and more targeted deployment of capital and allow them to have fewer overall relationships."

LPs are now increasing their allocation to direct investments. Co-investments continue to grow and can be supportive of GP investment strategies, as they provide multiple sources of funds to make investments. At the same time, it may present a new challenge for GPs as some of the investors in their funds may be competing to acquire some of the assets those very funds are attempting to buy.

Increasing competition for the same assets in a market of high valuations backed by so much 'dry powder' can result in assets becoming more expensive than desired and, as a consequence, lower returns in the private equity space. LPs can offer higher prices for investments because they cut out the middle man (the GP), and they have lower return target and more patient return horizons.

Stephane Etroy, CDPQ's Head of Private Equity comments: " In the past few years, we, at CDPQ, have shifted our strategy to do more direct investing

P.26 THE VISUAL - FACTS AND FIGURES ON PE INDUSTRY TRENDS. >

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PUBLIC-PRIVATE PARTNERSHIPS

From the statehouse to City Hall, investment funds are helping governments deliver faster results

Ben Nolan and John Fenn

Private investment in the US is changing the ways that infrastructure projects get delivered. Roads, bridges, tunnels and streetlights are increasingly popular investment targets for private equity infrastructure funds. Highways, water treatment facilities and even parking meters are being taken off municipal and state budgets and are being installed and managed by infrastructure PE funds and financed by pension fund investors.

Public-private partnerships (P3) emerged in the 1990s, initially in the European Union and Australia, as a new way of getting civic work done with higher levels of value and speed, reduced risk and more rapid financing. Traditional contract procurement by government agencies is starting to look old-fashioned. Lengthy deliberations, mandatory low-bid contracts and bond payments are competing against newer, more flexible models.

US state legislatures are hurrying to create enabling rules for this new form of financing. State and local officials understand that private investments will flow first to those jurisdictions with optimal legal and oversight rules—thus clarifying the opportunity for fair financial returns.

Some entities, including Puerto Rico, Florida, Texas and Georgia, have created state- and territory-wide agencies to assist local municipalities with technical, financial and legal services, which are essential in the process of reviewing and implementing P3 projects. These expediting functions are attractive to private capital that is eager for returns but not patient with the vagaries of government as usual.

We now see an emerging transactable balance between a 'pull' from states that need investment after years of lower tax revenues and budgets hit hard during recession years and a 'push' from investors looking for opportunities to invest.

Pennsylvania legislators turned to a P3 model to speed repairs on the state's highway bridges, doing more work simultaneously than would have been possible through a standard contracting process. Private companies have created—or taken over—new toll roads in Texas and Virginia, operating contracts for commuter trains in several states and waterworks facilities.

Contracts to build, finance, operate and maintain infrastructure assets are growing in both dollar volumes and complexity. Puerto Rico was an early mover to adopt P3. In 2009, Luis Muñoz International Airport was a $2.6 billion P3 project. Following suit, in 2016 New York City's LaGuardia Airport adopted a P3 process to finance a much-needed $4 billion redevelopment project.

A privately financed highway in northern Florida.

LISTEN TO MORE FROM BEN NOLAN ON THINKSET PODCAST EPISODE #10 - PUBLIC-PRIVATE PARTNERSHIPS

The White House's $1.5 billion infrastructure plan is not going to be financed by Congressional and state spending packages—only enabled. If Congress can provide federal support to the P3 arrangement, then infrastructure investors are poised to funnel billions of dollars into these projects

This is a well-tested model that has matured to the point where it will be a win-win for America. All the government needs to do is to set the ground rules and get out of the way.

Ben Nolan is a managing director for Berkeley Research Group, based in Florida, who has more than 30 years' experience in construction management.

John Fenn is a managing director at Berkeley Research Group, based in New York, who oversees infrastructure valuations

because we generate better returns net of fees for our pensioners. Another reason is, as a long-term investor, we deploy capital directly when we believe that we have a strong alignment of interest with entrepreneurs or with the companies we invest in, and with whom we'll have a partnership for 10+ years."

Direct and co-investment strategies require specialized skills that are difficult to develop. Some large LPs have spent years building dedicated teams that execute proprietary deals. Examples abound in real estate, real assets (such as timber, farmland) and, of course, infrastructure, ranging from roadways and bridges to water services. Infrastructure is such a popular direct investment by all types of LPs that "infrastructure GPs" are well familiar with LP competition on deals.

Will the same thing happen to private equity GPs? Maybe not, because PE opportunities are spread across all industries and geographies. However, the effects of LP direct and co-investment expansion will certainly be felt by GPs when it comes to competing for big deals.

LP direct investing takes commitment and confidence. It's not for the fainthearted. There is concentrated risk in these big-ticket investments, and the risk needs to be actively managed. Just like with GP investments, this means careful due diligence – financial, operational and commercial, along with rigorous valuation to get deal pricing correct.

Few LPs can maintain multi skilled teams needed to accomplish this oversight. Instead, they use small teams of portfolio managers that, in turn, choose specialist external diligence, consultancy and valuation teams to manage all these functions that were previously underrepresented in the LP staffing model. The Canadian pension fund investment model is the global benchmark. They employ experienced deal makers and support teams to manage investment processes, but also hire consultants who have deep experience in niche industries.

"The global breadth of our investment perspective requires our partnership with firms who can offer us expertise on demand," says Mark Hannoush, head of operational due diligence at Ontario Teachers' Pension Plan.

GPs and LPs will continue to face challenges. They'll need to plan and execute strategies to make sure their investment process is in line with their mandate and that external advisors are aligned to support their investment strategies. If all this works out, they should be able to generate stronger returns despite a more competitive environment.

Michael Athanason is a managing director of Berkeley Research Group, based in New York, and leader of the Corporate Finance Fund Services team

Federico Jost is a managing director of Berkeley Research Group, based in New York, and oversees portfolio and transaction valuation assignments for GPs and LPs.

The New Company Town

EMPLOYERS PAY FOR TRANSIT, HOUSING, SCHOOLS TO ATTRACT WORKERS TO URBAN CENTERS

Tam Harbert

It isn't easy to attract and retain workforce talent, and it's harder still to lure millennials, who make up the largest segment of the workforce.

Cleveland, Detroit, Buffalo, NY and Hartford, Conn. are doing it with help from corporate leaders. Site selection is being driven by talent, and city buzz is drawing millennials significantly, even far from hotspots like Miami, Chicago or Los Angeles.

The number of 25- to 34-year-olds with four-year college degrees living in large cities is growing at 19%, nearly five times faster than the overall population growth, according to think tank City Observatory.

Companies are giving up isolated suburban campuses, says Brian Swett, American cities leader at Arup, a global engineering and consulting firm. He cites the recent move of General Electric's headquarters from Connecticut to Boston's Seaport District to be closer to university research, ecosystem partners and other assets.

"That's the beating heart of the company," he says. "They wanted to be where the action is."

New Localism involves networks of public, private, civic and other leaders coming together to steward the local urban economy.

Other companies are locating in outer-ring cities, such as Kansas City, Mo. or St. Paul, Minn., where vacant buildings are cheap and living costs low. They are working with city governments and civic and philanthropic leaders to revitalize downtowns and nearby neighborhoods.

"What corporations want—quality schools, safe streets, efficient infrastructure, quality of place—they can't deliver on their own," says Bruce Katz, Centennial Scholar at The Brookings Institution and coauthor of the book *The New Localism: How Cities Can Thrive in the Age of Populism*.

New Localism involves networks of public, private, civic and other leaders coming together to steward the local urban economy. These networks are working from the bottom up, rather than seeking top-down government solutions. After years of declining tax revenues at the state and federal levels, government funding is limited and will be scarcer after the 2017 federal tax reform takes effect, says Katz.

"The (2017) tax bill essentially ripped out billions from cities because they devalued the tax credits that cities use to invest in historic preservation, affordable housing and economic development," he says. "So where's the money going to come from? It's going to come from local corporate and civic wealth."

Companies are using small amounts, often less than $5,000, to retain or attract recent graduates. That can make a difference to someone paying off college debts or working toward a down payment on a home, says Jeff Antonelli, a director at Berkeley Research Group, who specializes in talent development.

"Columbus, Ohio is a perfect example of a city that has a vibrant community life and major asset in Ohio State University as a resource that helped revitalize downtown," Antonelli says. "Civic leaders like Nationwide Insurance and Cardinal Health all want to keep their young, new hires for an extra year or two, and a few thousands dollars shows goodwill and can prevent talent drain."

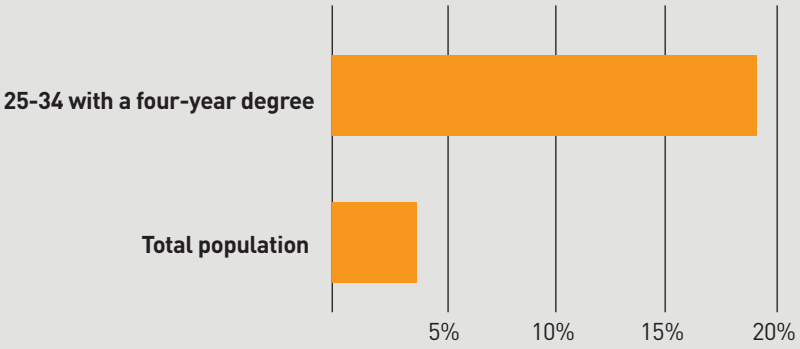
By strategically moving into smaller towns and cities seeking a cost advantage, companies

Newark, NJ has been home to Prudential Financial since it was founded in 1875. The company has committed more than $1 billion to the city over the last decade.

PRUDENTIAL PUTS ITS MARK ON NEWARK, NEW ORLEANS AND OTHER US CITIES

Ommeed Sathe (center) of Prudential Financial at a construction site where his company's investments are at work.

POPULATION CHANGE IN LARGE CITIES 2012-2016



also gain an outsize voice in local developments and may even steer workforce training geared to the local economy and needed future skills.

Employers recognize it is a collaborative role, says Peter Kasabach, executive director of New Jersey Future, a nonprofit land-planning and policy organization.

"Increasingly, corporations see it as in their own self-interest to be an integral part of a place," he says.

Prudential Financial, for instance, was founded in Newark, NJ, in 1875. Its headquarters remain there, and it has taken a leading role in rebuilding the city's downtown. Ommeed Sathe runs the company's social impact investments, a portfolio of $700 million, 30% of which is spent in Newark, with a dual goal: financial return and social good.

"This company feels a strong kinship with the city and has been a part of the civic fabric of Newark for a long time," says Sathe. "Our strategy is not about investing in just one segment. We want our investments to provide benefits to a broad range of constituencies, and that tends to create a whole series of positive ripples."

The company built a new 20-story skyscraper to house its global investment management business. Nearby, it invested $50 million to refurbish and redevelop the Hahne & Co. department store, a 1901 Art Deco building listed on the National Register of Historic Places, but empty since 1987. The new development has 160 apartments, 40% of which are set aside as affordable housing.

Rutgers University's Department of Arts, Culture and Media is also a tenant, along with an arts and culture center run by the university. Retailers includes a Whole Foods and space for local community entrepreneurs. More than 60% of the jobs in the retail space go to locals, Sathe adds.

"It's a real intentional effort to make sure that what we're doing is not just highly appealing to our own employees, but also highly necessary for the community," says Sathe.

Prudential also donated $2 million to rehabilitate a local park, which now hosts cultural events and farmer's markets. Another champion is the CEO and founder of Audible.com, Donald Katz, who shares the enthusiasm for advancing the city. He offered Audible employees a rental subsidy to encourage them to move to downtown Newark, is expanding Audible's presence and helped found Newark Venture Partners to incubate tech companies there.

Models of city-company links range from a proposed "smart city" community with networked smart infrastructure planned by Alphabet Inc. on a 12-acre property in Toronto to "shared-gain" programs in areas offering job training to high schoolers to prepare them for the needs of local employers.

Downtown Cincinnati had been declining for decades, until a 2001 riot following a police shooting prompted the local business community to take action. In 2003, the Cincinnati Center City Development Corporation (3CDC) was founded to partner with the city's leadership to invest in real estate and local infrastructure.

Initially funded entirely through corporate contributions, 3CDC's mission was to create great civic spaces, build high-density mixed-

ON THE MOVE

Study tracks professional workers using LinkedIn

Urban studies Prof. Richard Florida examines the annual migration patterns of workers using the changing locations in LinkedIn profiles. Florida has written books about the technology-powered "Creative Class" workforce. He teaches at the Rotman School of Management at the University of Toronto.

His research identified cities that saw the largest number of relocating workers and had the greatest outflows, according to self-reported data from LinkedIn users.

GAINS - 2017

1. Denver, CO
2. Seattle, WA
3. Austin, TX
4. Las Vegas, NV
5. Charlotte, NC

LOSSES - 2017

1. Hartford, CT
2. Providence, RI
3. Pittsburgh, PA
4. Norfolk, VA
5. Chicago, IL

use developments, preserve historic structures, improve streetscapes and create diverse, mixed-income neighborhoods supported by local business. The organization has teamed with employers like Kroger and Procter & Gamble to restore Washington Park and Fountain Square, a city landmark, and revitalize Over-the-Rhine, a historic neighborhood near downtown.

"These companies aren't just contributing leadership, but also becoming patient, long-term investors," says Bruce Katz.

In some cities, individual CEOs dominate the headlines by investing.

Maryland native Kevin Plank, CEO of Under Armour Inc., is investing to redevelop a section of South Baltimore called Port Covington. The project calls for new homes, offices, retail stores, parks and a new campus for the company. The $5.5 billion project is jointly owned by Goldman Sachs and Sagamore Development Company, Plank's private real estate firm.

"It's one of the biggest urban redevelopment projects in America," says Stockton Williams, executive vice president of the Urban Land Institute, a Washington, DC-based research center focused on land use and real estate development.

Tony Hsieh, CEO of Zappos, used an estimated $350 million of his own money to make downtown Las Vegas a mecca for entrepreneurs. According to the Downtown Project website, the venture stems from the belief that "if you accelerate co-learning, collisions and connectedness in the city's urban core, productivity, innovation, growth and happiness will fall into place."

The project has invested $200 million in real estate, $50 million in small businesses, $50 million in education and $50 million in tech startups.

In Detroit, Dan Gilbert, founder of mortgage company Quicken Loans, has become the poster boy of urban redevelopment. Since moving his company to Detroit in 2010, he's started other businesses that invest heavily in the city.

Bedrock Detroit, his real estate development firm, has spent more than $5.6 billion in acquiring and developing more than 100 commercial properties in Detroit's downtown. Rock Ventures, his umbrella company for business and real estate investments, collaborates on planning, designing and managing Detroit's public spaces. Gilbert also is vice chairman of an initiative to build a streetcar system to improve the city's transportation infrastructure.

All this investment by companies and cities reflects how the site-selection equation has shifted. Corporate executives used to choose location first then recruit employees, but today, Swett says, they start with "critical operations where you can find the right talent because they want to live there."

In 2015, millennials surpassed Generation X as the largest cohort of US workers – 53.5 million people. Or roughly 1 in 3 workers.

Source: Pew Research Center

Tam Harbert is an independent journalist based in Washington, DC. She writes about business, technology and public policy.

Slow Going in Cyber Insurance

Prevention and awareness improves security, reduces risks and starts with people on the front lines.

Robert Hichens and Olivia Obineme

Data thieves had a banner year in 2017.

Despite an estimated $90 billion spent in 2016 on information security, the largest data breach of Social Security numbers occurred at Equifax Corp., and the US Securities and Exchange Commission was another victim.

Gartner's estimate of security spending is expected to rise, reflecting the growing size and frequency of ransomware, ordinary network vulnerabilities and simple IT miscues. Insurance-industry risk mitigation products are known as cyber risk insurance, cyber security insurance or just cyber insurance.

US adoption rates are slow compared to other types of insurance. A survey by research and consultancy Ovum reported that 50% of US firms do not have insurance against cyber security losses. Among those without insurance, 27% said their firms have no plans to take out such coverages.

Creating a culture of awareness and a "human firewall" is one way to improve security, classify data to spot vulnerabilities and measure your results.

Companies haven't been good stewards of customer data, and it's less about competitive edge than the pain of being found in noncompliance.

MAKING PEOPLE THE SOLUTION

Preventing data loss rather than insuring for an eventual incident makes data and network security a companywide culture where everyone looks out for each other. Unlike the office refrigerator or coffee pot, everyone uses the IT network and shares responsibility for its health.

It takes a broad approach to protecting an organization's digital assets. Executive teams need to start with a policy person, like a chief privacy officer, who is an attorney and analyst who understands the rules.

Then, a chief information security officer will enforce rules and navigate technology to make it effective. A third step designates an individual leader or team to engage your workforce with goals of:

- Improving employee motivation for compliance and governance initiatives
- Showing employees that they are valued and can contribute, giving that work meaning
- An ongoing, "uniquely better" approach that has management support

A 2013 data breach cost Target Corp. an estimated $300 million, although insurance carriers have shouldered most of that expense.

Be sure to measure and share results reinforcing the culture and provide a metric for comparison to show specific improvement. For example, showcasing departments or offices that report the most phishing attempts via email.

Companies haven't been good stewards of customer data, and it's less about competitive edge than the pain of being found in noncompliance. In the US, the Federal Trade Commission and, sometimes, the Department of Justice take action that can lead to consent decrees that last for years. That risk will increase with GDPR and other new regulations that may impose severe penalties.

Saving the day before an incident could also reduce insurance premiums by proving your company is a better risk. Knowledge of your operational data really is powerful.

Consider Target Corp., after it suffered a headline-making breach disclosed in 2013. It was estimated that

the personal data of 100 million customers had been exposed. At the time, Target had $100 million in cyber insurance from several underwriters with a $10 million deductible. More recent estimates put Target's costs for that breach at more than $300 million. While costly and embarrassing for Target, insurance carriers bore the heaviest load.

In today's cybercrime environment, taking on a policy as part of overall risk mitigation strategy can be a sound investment. What scenarios should you plan on insuring against? Start by evaluating products and coverages and examining what your organization views as the associated costs and possible effects on stakeholders.

Costs can include downtime and lost productivity, and even the cost of the ransom itself. It is critical to ask potential underwriters what would be covered or excluded in a ransomware attack.

Robert Hichens is a managing director for Berkeley Research Group in Houston, specializing in information technology and security.

Olivia Obineme is a multimedia reporter based in Chicago.

PREPARE FOR THE AFTERMATH

Things to consider

A data breach that exposes customer information could bring high fees and reputational damage. Associated costs of a breach can include expensive legal fees, as litigation is common once a breach has been discovered and disclosed. The size of your organization is also a factor.

A 2017 Ponemon Institute report found that companies with data breaches involving fewer than 10,000 records spent an average of $4.5 million on resolving a breach. Companies with a loss or theft of more than 50,000 records spent $10.3 million.

Beyond the value of a breach or cyber-event, consider the public relations costs, decline in business and uncomfortable conversation with shareholders or board members. These can be lengthy and complex incidents with long-tail implications.

Locating and classifying your organization's data is one step toward improving security as a culture. It will create uniform definitions of data as:

SECRET

CONFIDENTIAL

INTERNAL ONLY

PUBLIC

There may be other categories, depending on shared files or partner relationships. This exercise can also identify differences between locations or global definitions that vary by country and local laws.

Is Your Platform Burning?

Leading companies are switching to new models

Stephanie Woerner

Reinventing a corporation requires much more than a digital shift.

Business models that supported earlier generations are becoming obsolete, and new strategic plans for securing clients and revenue are emerging.

The MIT Sloan Center for Information Systems Research interviewed 144 CIOs about their transformation initiatives to help them deal with increasing digitization in the economy.

A key question was to define the percentage of revenues under threat in the next five years. The answer was 28% on average—greater in some industries or sizes of company—meaning that nearly one-quarter of today's income is at risk.

Business models that supported earlier generations are becoming obsolete, and new strategic plans for securing clients and revenue are emerging.

For large companies (with $7 billion in revenue or more), the threat level was higher, with as much as 46% of revenues in jeopardy, creating greater urgency. One differentiator is whether a company has direct customer knowledge or operates farther from the end user or user needs. Another factor is business design: is the company a value chain, or is it operating in an ecosystem?

Four operational business models define a company's primary revenue drivers. Companies can operate across several models, but many are migrating to those with the best defenses and long-term growth potential.

The models are:

- Supplier includes mutual funds, manufacturers, parts providers or companies that sell through others.

- Omnichannel companies such as banks, retailers and insurers own the customer relationship to solve problems.

- Modular Producer is part of an ecosystem, such as PayPal or auto parts companies, with a key competency of being able to plug and play with other companies' platforms.

- Ecosystem Driver operates at least one platform that other companies piggyback onto and controls key aspects of its own future. Examples include Aetna Inc. and Fidelity Investments that manage market share by matching needs with providers and extracting rents from multiple aspects of a transaction, including metadata.

Walmart Inc. spent decades as a Supplier, often not knowing details of the retail customer who could buy anonymously from stores using cash. It is shifting to an online/offline blend and a data-informed Omnichannel model.

A pivot by Aetna Inc. shifted the company from being a Supplier of insurance to being an Omnichannel company in 2010 and an Ecosystem Driver in 2015. It first became a clearinghouse center for medical information serving patients and doctors. It then acquired a web-based platform for searching symptoms and medications. That service-driven knowledge reduced emergency medical visits, while recording details of over 50 million annual user sessions.

In its expansion of Omnichannel, USAA chose to focus on key life events such as buying a house, car or insurance for milestones such as birth of a child. That expanded the company's offerings and service to its audience of military families. Another choice was to partner with a car-shopping provider, TrueCar, Inc., to help create an integrated car-buying experience. Bundling purchase, financing, insurance and services created a major organizational change, but also a more future-oriented model.

Responses to surveys we conducted in 2013 and 2017 showed that the biggest move was among Supplier companies. It is hard to make the transformation to Ecosystem Driver. Fast-moving technology platforms represent both a threat and opportunity. That is especially true for modular producer firms that need to be technology agnostic to work with different systems and customers.

Profit and growth are highest for ecosystems—a key reason why companies want to get closer to their end-user customer.

Stephanie Woerner is a research scientist at the MIT Sloan Center for Information Systems Research. She studies enterprise-level organizational change caused by digitization and associated governance and strategy implications. She is coauthor, with Peter Weill, of the book What's Your Digital Business Model? Six Questions to Help You Build the Next-Generation Enterprise, *coming in May 2018.*

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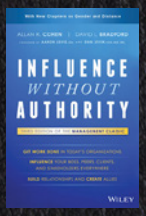

Influence Without Authority

Professors Allan R. Cohen of Babson College and David L. Bradford of Stanford University's Graduate School of Business update their book for the era of videoconferencing and distributed global teams in this third edition. It includes case examples and their advice on improving workplace communication and relationships.

Purchase on Amazon

White House Outlines Reforms to Lower Drug Prices

BRG Managing Director John Kelliher discusses the recommendations for lowering drug prices and reducing price controls. In this Feb. 9, 2018 article, the author examines the regulatory changes proposed by the White House Council of Economic Advisors that would affect prices for Medicare, Medicaid and the impact of reimbursement rates.

Read Online

MEET

April 9-10 | New York City

BRG Restructuring Conference

The conference is expressly designed for stakeholders from across the healthcare continuum, including financial institutions, private equity firms, and their professionals as they take advantage of these opportunities.

It offers a unique opportunity for leaders to meet, discuss, and learn methods to identify the forces driving dislocation in healthcare and likely future risks in order to develop an investment strategy to address the opportunities that present themselves in industries in transformation.

Learn more about the event

April 23-25 | Washington, DC

American Bankers Assn. Government Relations Summit

Bankers, state and federal officials and service providers connect to discuss America's banking and regulatory institutions.

May 7 | New York City

Class Action Money and Ethics Conference

Robin Cantor, a BRG managing director, serves as co-chair for the Class Action Money and Ethics Conference. This second annual daylong conference deals with issues affecting legal advisors and litigation.

Learn more about the event

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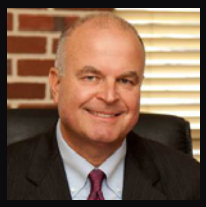

Ben Nolan - Public-Private Partnerships
Episode 9

The ongoing evolution of public-private partnerships (P3) in US infrastructure is a topic BRG Managing Director Ben Nolan knows from decades of construction experience. His conversation with Eddie Newland ranges across the financial investment and operational aspects of highway, bridge/tunnels, airports and other projects. Many US states and Puerto Rico are leading the way on P3, enabling private investment in public works.

Dr. Allen Jacobs - Bitcoin and the Future of Cryptocurrency
Episode 10

Go beyond the Bitcoin hype and pop culture headlines with BRG Managing Director Allen Jacobs. He explains how future transactions could be changed by cryptocurrency, including digital regulation, potential business models for frictionless transactions using distributed blockchain cryptography and options for global regulation.

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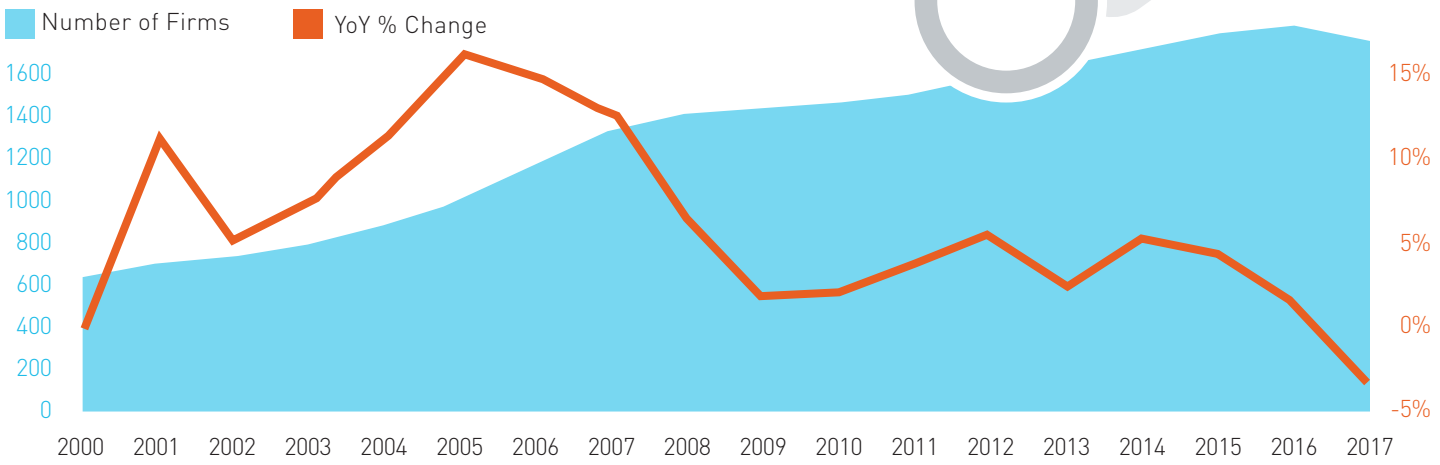
THE VISUAL

Global Private Equity - By the Numbers

A growing number of investors, a massive amount of capital and worldwide pressure to deliver returns are just some of the factors changing the private equity and global investment landscape.

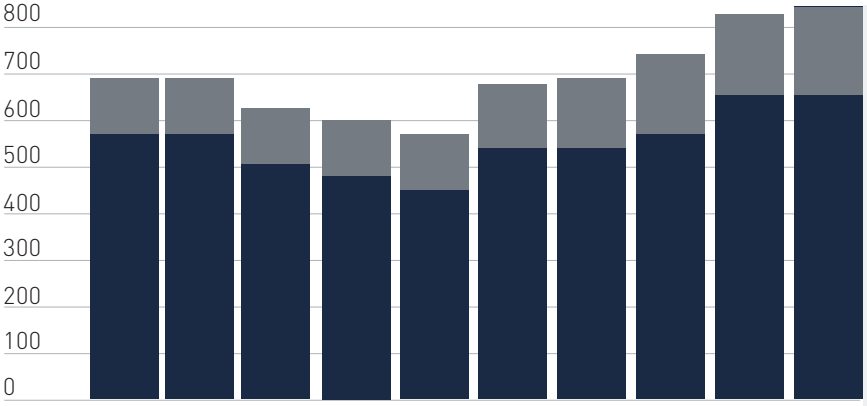
Active US PE firms by year



Source: Pitchbook

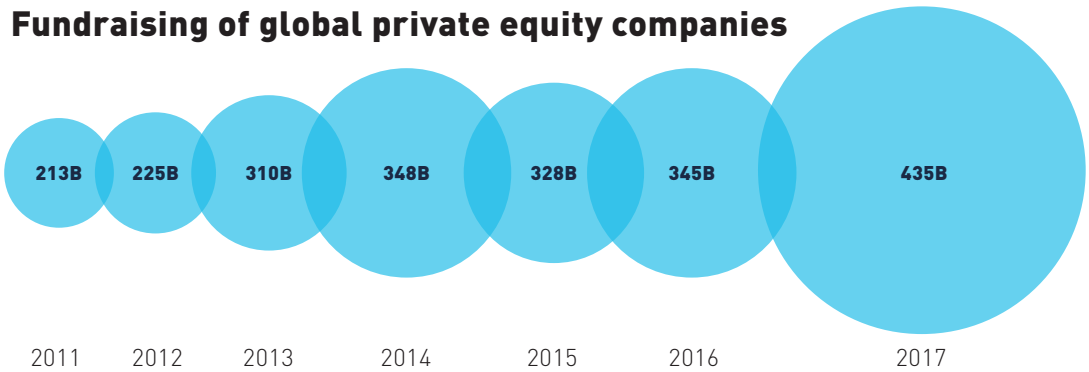
Private equity dry powder by fund type

2008-2017
($billion)



Source: Toptal

Fundraising of global private equity companies



Sources: Statista, BRG

DRY POWDER: *Refers to funds already raised or committed by investment firms, but not yet invested. Companies and individuals also hold dry powder in reserve to cover future obligation besides investment or acquisitions.*