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US infrastructure deals 2012: A supply and demand imbalance

February 2013

At a glance

More infrastructure deals were completed in the US in 2012, but they fell short of satisfying growing investor demand.

Power and energy will likely provide continued strong investment opportunities in coming years, especially for storage, contracted transmission, and regulated distribution assets.

Public-private partnerships remain spotty, but investors feel encouraged by positive signs in 2012 that show P3s may be gaining traction in the US.

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Welcome

We are pleased to release ***US infrastructure deals 2012***, a look at infrastructure investment activity and trends in the US last year, as well as the outlook for 2013 and beyond. We provide data on investment deals by sector and project types, results of a new PwC survey of infrastructure investors, and expert commentary from executives at leading infrastructure funds and pension funds.

Our research indicates that:

- Demand for US infrastructure investments is outpacing the number of deals, leaving some investors disappointed but no less interested in infrastructure assets.

- Power and energy will continue to offer the most promising areas of opportunity, especially as shale gas reshapes the US energy market.

- Investors are optimistic that the number of US public-private partnerships will grow over the next few years, encouraged by recent success stories and new infrastructure initiatives in Chicago and other areas of the US.

US infrastructure deals 2012 provides a summary of our insights and observations. We welcome the chance to provide you with more detailed information and guidance about any of the issues presented here.

Kind regards,

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More deals in 2012—and hopes for even more in 2013

"It has been a pretty competitive market in the US, and I think it will remain so because the US is perceived as being somewhat of a safe haven, particularly when compared with Europe."
—Holly Koeppel, co-head of Citigroup's Citi Infrastructure Investors

Investors can't seem to get enough these days, when it comes to infrastructure deals. While the number of US deals increased in 2012, there still were too few to satisfy growing demand.

The limited number of deals certainly disappointed some funds and institutional investors, but it didn't diminish their appetite for the stable, predictable cash flow and attractive risk-adjusted returns that many infrastructure investments promise. "The year has been a mixed bag, sort of fair to middling," says Mark Weisdorf, the head of J.P. Morgan Asset Management's Infrastructure Investments Group. "The interest in infrastructure investing is definitely growing more quickly than the opportunities in the US—and may continue that way in the near term."[1]

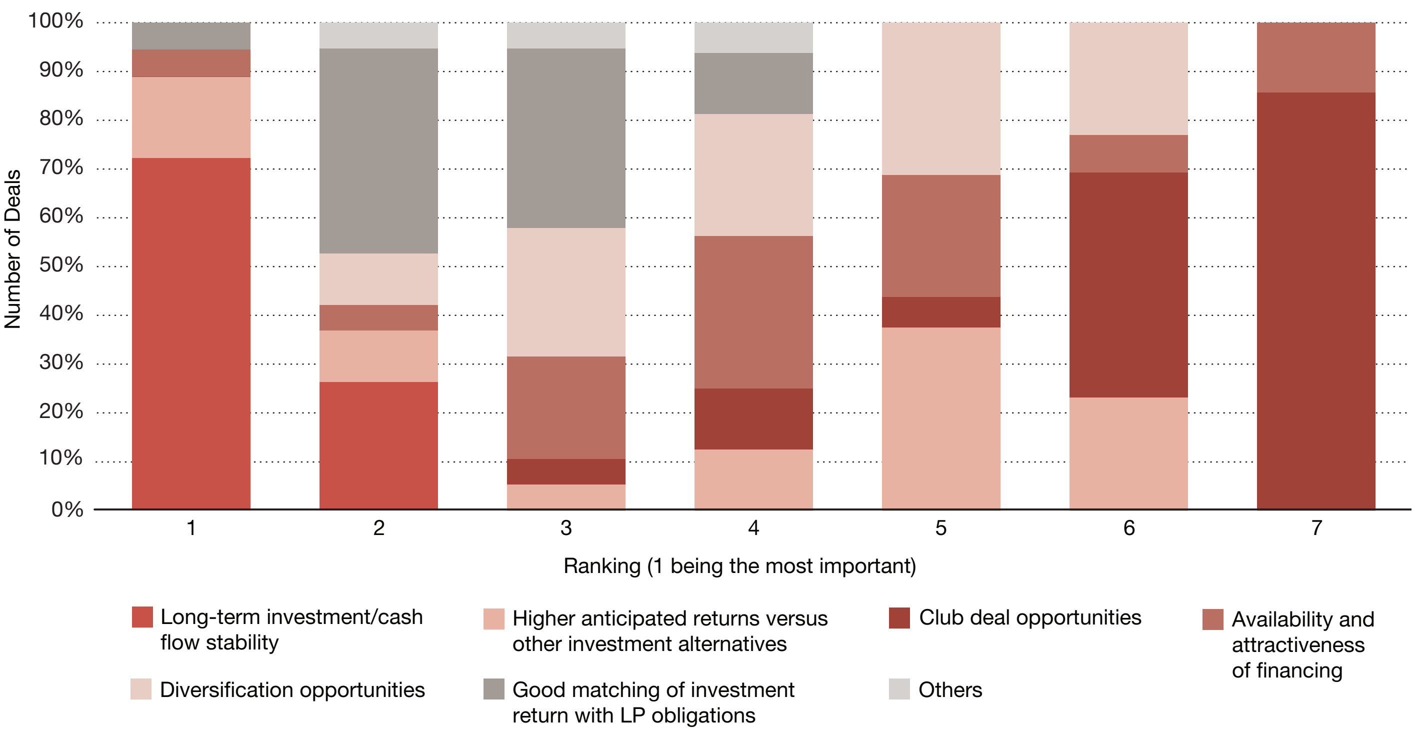
A PwC survey of the infrastructure investor community found that 41% of respondents rate their interest in infrastructure investments higher than last year, half say it's the same, and only 9% say it's less.

The number of US infrastructure deals rose to 37 in 2012 from 25 in 2011, according to Infra-deals.com data and PwC analysis. Power and transportation projects accounted for nearly three-quarters of all deals. Most deals involved brownfield projects (27), followed by greenfields (8), and refinancings (2).

Most investors remain hopeful that more deals will be closed in 2013 than last year, but they don't expect competition for the projects to be any less intense. "It has been a pretty competitive market in the US, and I think it will remain so because the US is perceived as being somewhat of a safe haven, particularly when compared with Europe," says Holly Koeppel, co-head of Citigroup's Citi Infrastructure Investors.[2]

What factors make investing in an infrastructure project most appealing right now?

By far, the most significant driver behind infrastructure investing is long-term investment/cash flow stability. Good matching of investment returns with LP obligations is also valued, albeit less so. Other answers showed mixed preferences. Club deal opportunities were not seen as important relative to the other drivers.

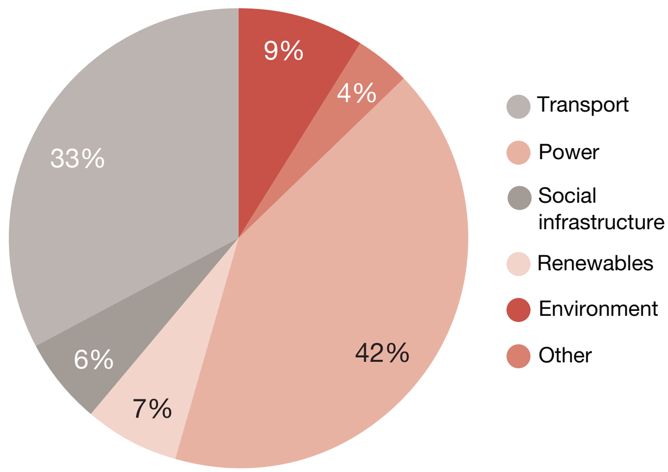


Source: *PwC US Infrastructure Deals Survey, December 2012*

Because the competition for deals was high, investors found that some infrastructure assets ended up being priced too high for their funds. Yet in the current low-interest-rate environment, infrastructure projects generally still offer appealing rates of returns, along with predictable cash flow, protection from inflation, and relatively low risk.

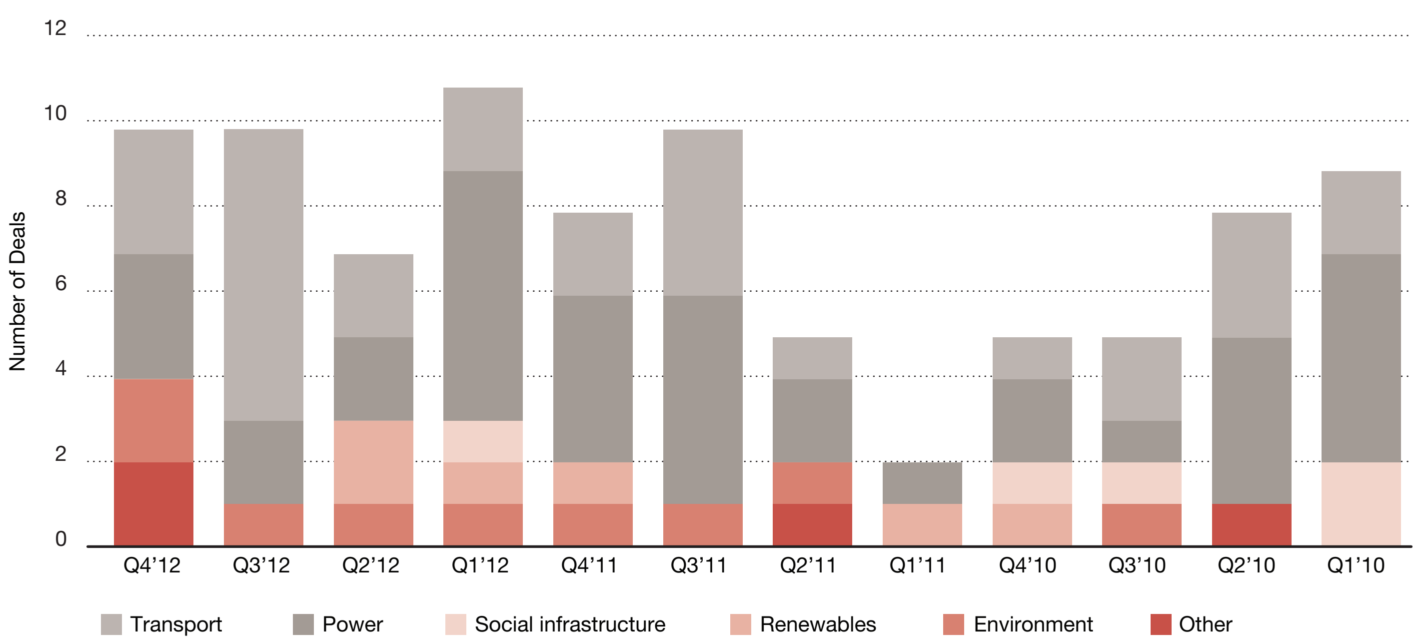
"I think there are a lot of funds, large and small, that would like to potentially invest in infrastructure, but they're struggling to figure out the best way to do it and are dipping their toes in the water," says Felicity Gates, co-head of Citigroup's Citi Infrastructure Investors.[3]

US infrastructure deal volume by sector (2010–2012)



Sources: *infra-deals.com, viewed December 18, 2012, and PwC analysis*

US infrastructure deal volume by sector and quarter (2010–2012)



Source: *infra-deals.com, viewed December 18, 2012, and PwC analysis*

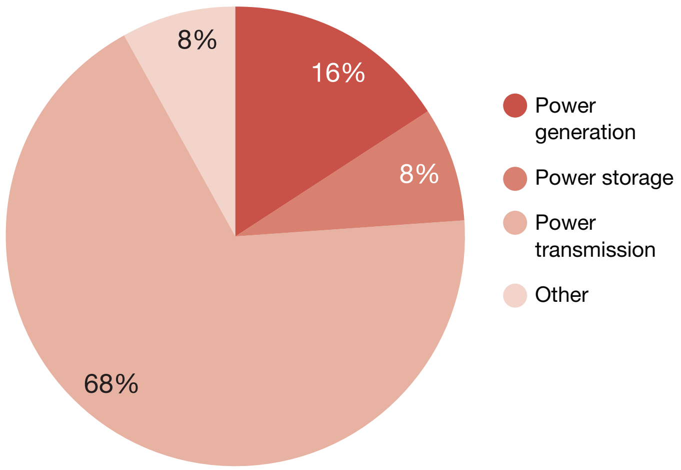
Generating deals in energy and power

In the energy sector, much of the activity has been in assets for gathering, storage, and transmission. Certain investors are seeing opportunities in building infrastructure to capitalize on the push to produce more shale gas, but this can be limited to investors not requiring yielding assets during the construction phase.

One of the largest deals of the year was Williams Partners' $2.4 billion acquisition of Caiman Eastern Midstream, giving it a significant footprint and providing growth opportunities in the natural gas liquids-rich portion of the Marcellus Shale.

"We've got a focus on energy, where there's clearly a heavy investment need in the US right now," says Alex Darden, a partner at EQT Partners. "Whether it's oil and gas, where you're looking at needs for gathering, processing, and long-haul transmission, or electricity transmission lines or utilities themselves, there's just a ton of investment needed in those sectors." For example, EQT announced in December a definitive agreement for its infrastructure fund to acquire Westway Group Inc., a bulk liquid storage provider, for about $419 million.[4]

US power deals break-out



Sources: *infra-deals.com, viewed December 18, 2012, and PwC analysis*

Some infrastructure investors are partnering with energy transmission, pipeline, and storage companies to invest in the development of transportation and processing operations. "The master limited partnership (MLP) market finds it difficult to take greenfield risks because of its need to return dividends to shareholders," says Peter Allison, managing director of content at Inframation Group, a provider of information for the infrastructure investment community. "Now, the opportunities for infrastructure investors in the midstream space tend to be around partnerships that involve the build-out of assets to deal with required capacity."[5]

Some investors jumped into the power market for the first time in 2012. For example, Carlyle Group's infrastructure fund acquired Cogentrix Energy from Goldman Sachs Group. Cogentrix includes five coal and solar power projects, as well as a development pipeline of gas and renewable power projects. "This brings us a management team, as well as a set of power plants, that really puts us in a position to be a very meaningful investor in the North American power generation space," says Aaron Gold, a principal with Carlyle Group's Global Infrastructure Buyout fund.[6]

The California Public Employees' Retirement System (CalPERS) made its first direct investment in US infrastructure in 2012, acquiring an equity interest in the Neptune electric transmission line connecting New Jersey with New York's Long Island. The appeal was the transmission line's essential nature, long-term value, and stable cash flows, according to Todd Lapenna, portfolio manager for CalPERS. The pension fund has allocated 2% of its total portfolio, or about $5 billion, for infrastructure investment and has invested slightly over $1 billion so far. "We have a keen interest in all four main infrastructure subsectors—power, energy, water, and transportation—but in the US, most of the opportunity thus far has been in power and energy," Lapenna says.[7]

Renewable energy "is something everybody thinks is a good thing, but it's very hard quite often to get your head around the numbers."

—Felicity Gates, co-head of Citigroup's Citi Infrastructure Investors

Balfour Beatty Infrastructure Partners made runs at some energy assets that didn't lead to completed deals, says partner Jeff Neil. But the firm remains very interested in energy projects, especially those requiring capital expenditures and renewal to improve reliability and reduce bottlenecks, such as opportunities to modernize older transmission and distribution systems.[8] Balfour isn't alone in its interest in projects needing capital infusions. The PwC survey found that 86% of respondents view such energy investments positively.

For some investors, one appealing factor in energy transmission is the transparency of federal regulation. "This transparency takes a lot of uncertainty out of the regulatory regime, reducing risk," Neil says. "There are also some states—for example, Texas—that also are intent on very transparent and consistent regulation, making them attractive to investors."[8]

Investor interest in renewable energy continues, but with reservations due in part to uncertainty about regulation and incentives.

"We still have the same issues with the scalability for a lot of technologies, and with how much and for how long subsidies will be required," says Gates of Citigroup. Renewable energy "is something everybody thinks is a good thing, but it's very hard quite often to get your head around the numbers."[3]

Neil says there is also the question of whether states will continue to put pressure on utilities to increase the share of renewables in the energy mix. "While the cost per kWh of certain renewable energy seems to be trending down, in most cases it does look expensive when compared to fossil-fuel-fired generation," he says. "The recession definitely put a strain on ratepayers that public utility commissions are reacting to."[8]

Top 10 M&A deals 2010–2012

#	Target	Type	Visibility	Sector	Subsector	Size value (USD$M)	Financial close date
1	Caiman Eastern Midstream Sale	Brownfield	TransactionAndAsset	Power	Energy Transmission	2,400	30-Apr-12
2	Chesapeake Midstream Partners (CHKM) Acquisition	Brownfield	TransactionAndAsset	Power	Energy Transmission	2,000	2-Jul-12
3	Veolia US Solid Waste Business Disposal	Brownfield	TransactionAndAsset	Environment	Waste	1,900	25-Sep-12
4	RailAmerica Sale	Brownfield	TransactionAndAsset	Transport	Rail	1,400	1-Oct-12
5	Houston Fuel Oil Terminal Co (HFOTCO)	Brownfield	TransactionAndAsset	Power	Energy Storage	1,300	2-Nov-11
6	Appalachia Midstream Services Acquisition	Brownfield	TransactionAndAsset	Power	Energy Generation	865	29-Dec-11
7	Colonial Pipeline Partial Sale (16.6%)	Brownfield	TransactionAndAsset	Power	Energy Transmission	850	1-Jan-12
8	Colonial Pipeline Company (23.44% sale)	Brownfield	TransactionOnly	Power	Energy Transmission	845	8-Oct-10
9	I-595 Acquisition (50%)	Brownfield	TransactionOnly	Transport	Roads	800	7-Dec-11
10	Landmark Aviation	Brownfield	TransactionOnly	Transport	Airports	654	25-Oct-12

Source: *infra-deals.com, viewed December 18, 2012, and PwC analysis*

On the water front

"There's significant capital investment required across the US in the water and wastewater sector, especially in the dry states of the South and Southwest that are attracting more people."

—Mark Weisdorf, J.P. Morgan Asset Management's Infrastructure Investments Group

While investors remain interested in water, the fragmented nature of that industry in the US makes it harder to find a business of sufficient scale to attract them. "Until you have some degree of consolidation in the US, you're not going to see investment in water on a substantial scale," says Allison of Inframation Group.[5]

But there were a few notable deals in 2012. KKR's infrastructure fund and United Water, a subsidiary of the France-based water company Suez Environnement, teamed up to acquire a 40-year water and wastewater concession from the Bayonne Municipal Utilities Authority in New Jersey, making an initial payment of $150 million and committing to additional funding of $157 million over the life of the contract.

J.P. Morgan acquired its partner's interest in SouthWest Water in 2012 and hopes this year to "do some expansion investing in the water and wastewater sector," Weisdorf says. "There's significant capital investment required across the US in the water and wastewater sector, especially in the dry states of the South and Southwest that are attracting more people."

He sees opportunity to increase the company's investment in regulated water and wastewater systems in places like California and Texas—through acquisitions to bring efficiency, and through expansion to service a growing customer base. In those states, he says, regulators are familiar with and receptive to private-sector ownership of water systems. In states where few, if any, water systems are operated by the private sector, concession-based agreements are more likely than outright ownership by private investors.[1]

Public-private deals remain elusive

"These processes take a substantial commitment of time and money from investors, so you want to be comfortable that within the realm of reasonableness there will be a transaction, and with Ohio State, that's what people got."

—Aaron Gold, Carlyle Group's Global Infrastructure Buyout fund

Allison characterizes the US public-private partnership (P3) market, which is largely transportation-related deals, as "patchy but positive." Inframation noted an uptick in deals in 2012, including the $2.1 billion Midtown Tunnel project in Virginia, the $940 million 1-95 Hot Lanes project in Virginia, and the $365 million Presidio Parkway project in California.[5]

In the PwC survey, 55% of the respondents said they had participated in P3 deals, while 59% hope to in the future. But for now, P3s are a state-by-state, municipality by municipality issue, with such states as Florida, Virginia, Ohio, Illinois, California, and Texas, more inclined to commit to P3s. In some states, government officials remain wary of P3s because of political concerns and lingering negative public perceptions of private investment in key public assets.

Ohio produced both good and bad news for investors in 2012. They had been anticipating a P3 for the Ohio Turnpike, but the state decided not to proceed at the end of the year. Still, investors were encouraged by the successful $483 million Ohio State University lease and concession agreement for its parking operations with QIC Global Infrastructure of Australia and its operating partner LAZ Parking of Hartford, Conn. The project is being hailed as a model deal because it was structured in a way that gave investors confidence that the transaction would be completed. That is especially important given the fact that some public entities in the US have canceled projects after investors spent time and money to bid on them.

"These processes take a substantial commitment of time and money from investors, so you want to be comfortable that within the realm of reasonableness there will be a transaction, and with Ohio State, that's what people got," says Gold of Carlyle Group, which bid on the parking project.[6]

Koeppel of Citigroup also considered the Ohio State parking project "an excellent example of a deal that was well structured for both sides. It's one that makes sense for the users of the facility in terms of certainty around how much their pricing is going to go up in the next decade, and for the buyers in terms of certainty of cash flow because it's pretty tough to get a spot there. I'm an alum, so I know firsthand how valuable parking is."[2]

Now, other universities are considering parking deals, having come to the conclusion that their job is to provide an education to their primary stakeholders and that a private investor may be able to operate parking facilities more efficiently. Koeppel believes the Ohio State parking model could be "extrapolated to other facilities in a university on a larger scale. There's no reason why if it works for parking, it wouldn't work for dormitories."[2]

Investors were also encouraged in 2012 by road and airport P3s in Puerto Rico, and they are watching possible renewed efforts to privatize Midway Airport in Chicago. Some investors believe that ports on the Eastern seaboard could provide investment opportunities as well, as they position themselves for the expansion of the Panama Canal, which will enable mega-size ships to pass through and travel up the coast.

"We've been in the process recently of engaging with the Port of Virginia on their plans and needs to expand capacity," says Weisdorf of J.P. Morgan. "But these ports are not your typical infrastructure in that they are not as monopolistic as, say, an airport. They are competing with each other for volume because ships can call all along the Eastern seaboard."[1]

Top 10 P3 deals 2010–2012

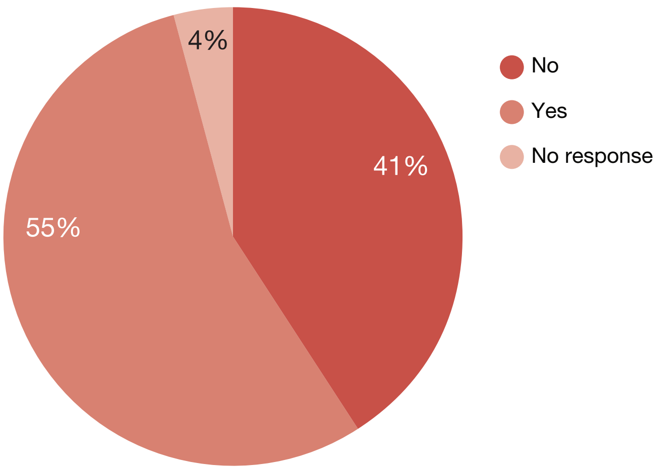
#	Name	Type	Visibility	Sector	Subsector	Size value (USD$M)	Size currency	Financial close date
1	I-635 (LBJ Freeway) (Texas)	Greenfield	TransactionAndAsset	Transport	Roads	2,600	USD	22-Jun-10
2	Midtown Tunnel Project (Virginia)	Greenfield	TransactionAndAsset	Transport	Bridges and Tunnels	2,100	USD	13-Apr-12
3	Denver FasTracks Eagle P3 Light Rail Project	Greenfield	TransactionAndAsset	Transport	Light Rail	1,637	USD	12-Aug-10
4	U.S. Route 460 Corridor Improvements (Virginia)	Greenfield	TransactionAndAsset	Transport	Roads	1,400	USD	20-Dec-12
5	Puerto Rico Highway Package Phase One (PR-22,PR-5)	Brownfield	TransactionAndAsset	Transport	Roads	1,136	USD	21-Sep-11
6	I-95 HOV/HOT Lanes Project (Virginia)	Greenfield	TransactionAndAsset	Transport	Roads	940	USD	31-Jul-12
7	Long Beach Courthouse (California)	Greenfield	TransactionAndAsset	Social Infrastructure	Accommodation	495	USD	20-Dec-10
8	Ohio State University (OSU) Parking Facility	Brownfield	TransactionAndAsset	Transport	Car Parks	483	USD	21-Sep-12
9	Presidio Parkway / Doyle Drive Concession (San Francisco, California)	Greenfield	TransactionAndAsset	Transport	Roads	365	USD	14-Jun-12
10	Western Group Housing Privatization Project (multiple states)	Greenfield	TransactionAndAsset	Social Infrastructure	Accommodation	362	USD	9-Mar-12

Sources: *infra-deals.com, viewed December 18, 2012, and PwC analysis*

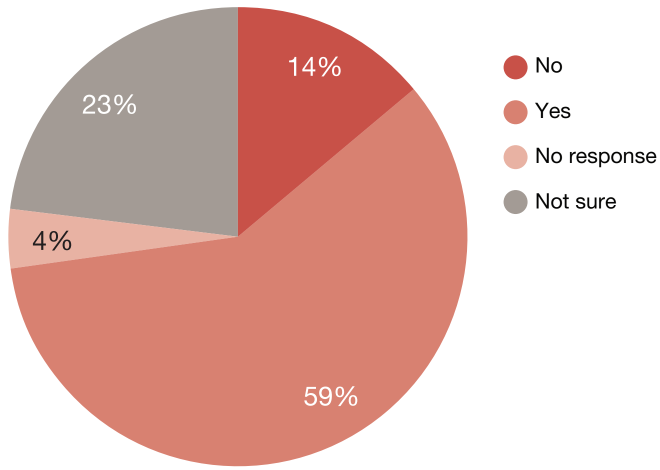
Have you participated in public-private partnerships? And would you like to participate in public-private partnerships?

Only about half of respondents have indicated they have participated in P3s. Of those that have, all but one would definitively like to continue to do so.

Have you participated in P3s?

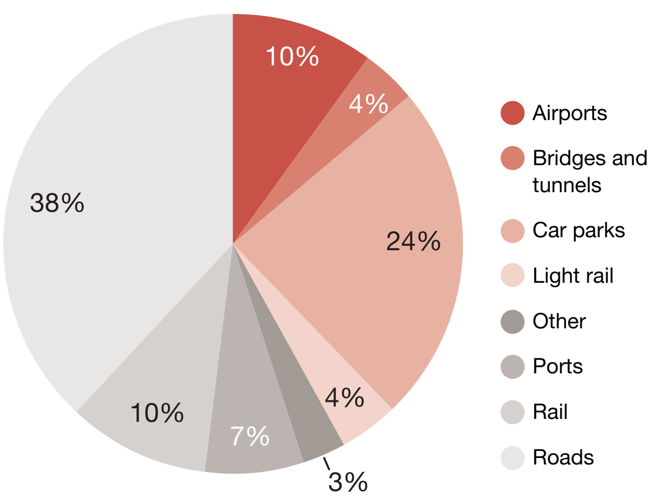


Would you like to participate in P3s?



Source: *PwC US Infrastructure Deals Survey, December 2012*

US transport deals break-out



Sources: *infra-deals.com, viewed December 18, 2012, and PwC analysis*

Cautious optimism sets the tone for 2013

Investors agree that interest in infrastructure and competition for projects will remain high. With plenty of capital available, the only question is whether the number of potential deals will increase.

Investors agree that interest in infrastructure and competition for projects will remain high. With plenty of capital available, the only question is whether the number of potential deals will increase. Half of the respondents to the PwC survey say investment opportunities in infrastructure will remain about the same as last year, but 36% expect to see more.

Weisdorf believes institutional investors will increasingly look to infrastructure to "de-risk" portfolios and reap higher returns than fixed-income investments offer. He says many US pension plans have allocated less than 1% of their investments to infrastructure, compared with the typical 5% to 10% in Canada, Australia, and some European countries. "So when you have such a low allocation to infrastructure and you're looking for higher income or lower volatility, or both, then infrastructure is the natural place to go," he says.[1]

Most investors believe that power and energy will be the most fruitful area for investment, followed by transportation projects. There also could be more opportunities over the next few years because investors may bring deals to the market as loans come due on some infrastructure transactions from 2007 and 2008. "A lot of people have been able to negotiate extensions and other adjustments to reduce this mountain of maturing debt," says Gold of Carlyle Group. "But you can't extend forever; at some point, you'll need to transact."[6]

Budget pressures could make governments more amenable to private investment this year. "I think low interest rates have helped states and municipalities do what they need to do within their own budgets," says Anthony Edwards, investment director at Industry Funds Management. "If we see big cuts in government budgets, then that could be an opportunity for private capital."[9]

But it's hard to predict how quickly such opportunities might arise, he says. "People have been making predictions for many years now. In my mind, P3 might as well be called politics, politics, politics." Indeed, in the PwC survey, political risk and regulatory concerns were cited as the major impediments to private investment in infrastructure projects.

Some investors believe that slowly but surely the public will come to accept P3s, as they see more successes. "I think if people can look at these as partnerships between the government entity, the operator, and the public, there can be movement," says Darden of EQT Partners. "I think as people start to look at these as opportunities to have better service and better functionality of the underlying assets, as opposed to just a way to fund budget shortfalls and pension gaps, you'll continue to see movement."[4]

Respondents to the PwC survey said they believe greater political support and more public discourse on the benefits of private investment are among the most important ways to stimulate even more private-sector interest in infrastructure deals.

Among the positive steps taken in 2012 was the creation of the Chicago Infrastructure Trust, which intends to leverage private-sector resources with initial capitalization, bond financings, and grants. Individual projects will repay both the trust and the private investors, depending on how each project is structured.

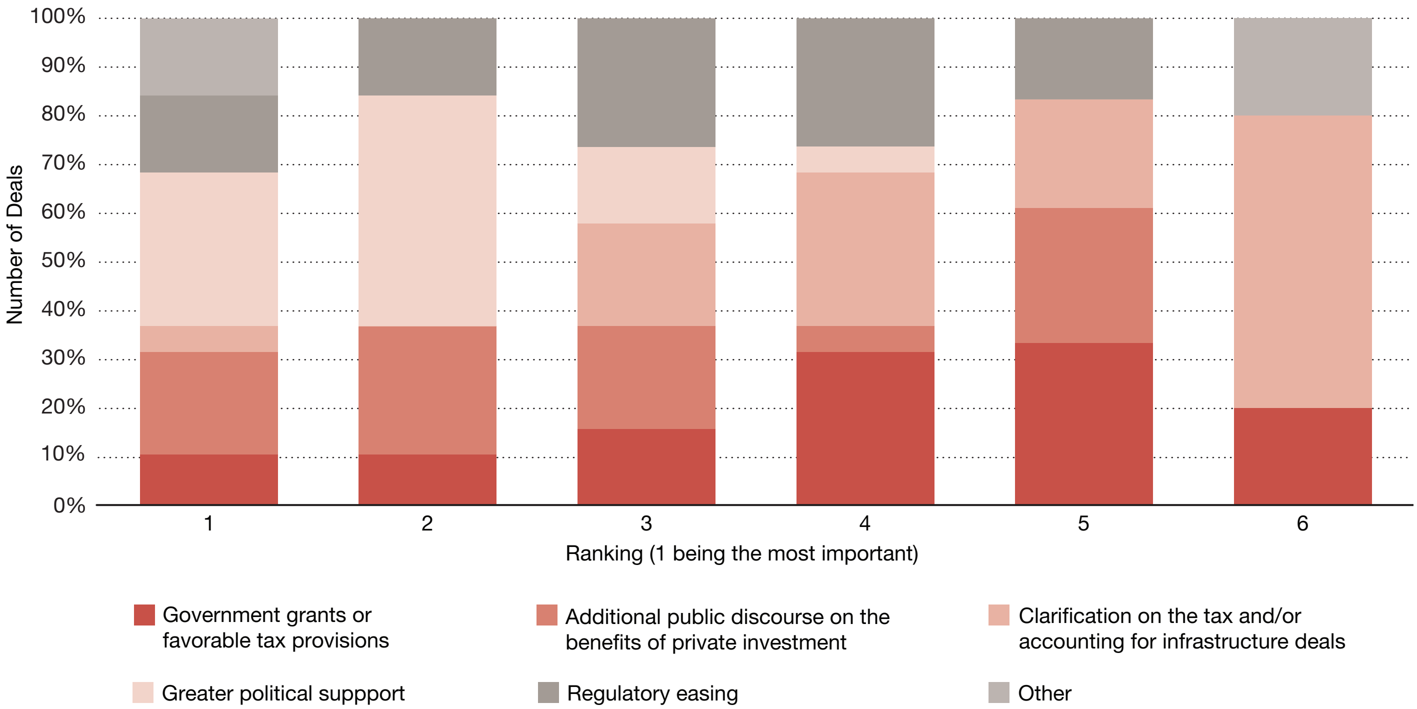
"If we can find a way to allow tax-advantaged municipal bond financing to be married up with private capital, that could be the ideal solution to municipal and state infrastructure, as opposed to privatization," Koeppel says. It's "kind of a middle ground. In theory, that is one of the opportunities for the Chicago Infrastructure Trust."[2]

Lapenna of CalPERS notes another good sign in the launch of the West Coast Infrastructure Exchange, a partnership of California, Washington, Oregon, and British Columbia to explore innovative methods to finance and facilitate development of infrastructure in the region. "It's an effort between states to create a think tank and house some expertise to help government assess what the right opportunities are for privatization," he says.[7]

While Gates of Citigroup is also encouraged by increased dialogue between government officials and private investors about infrastructure needs, she remains cautious about the expected volume of deals in the near term. "There's been more openness about considering alternative forms of funding including private-sector investment, but not an enormous amount of concrete action," she says. "I think there will remain a trickle of deals in the US. I expect the trickle will grow over time, but it's long-term. I don't expect to see a flood anytime soon." [3]

In the US, what can be done to stimulate more private interest in infrastructure deals?

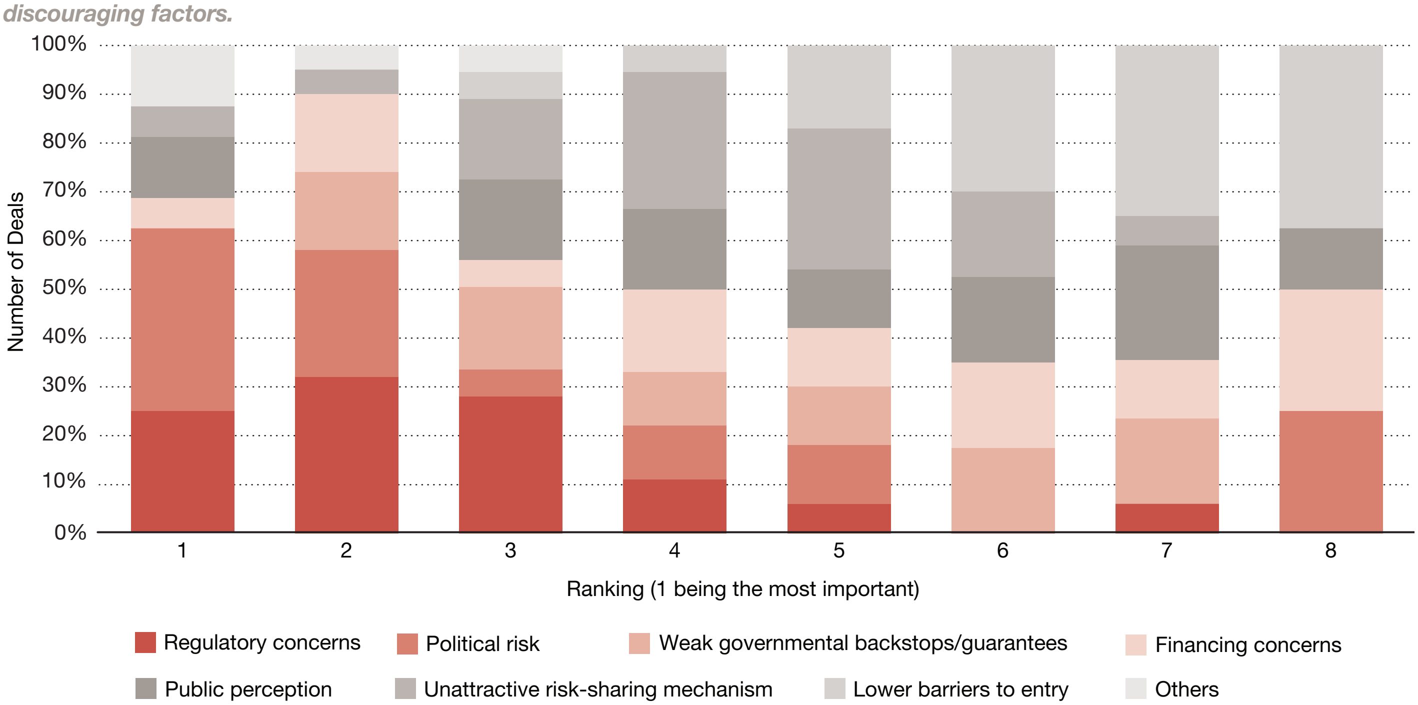
While respondents differed in their opinions, greater public support and additional public discourse were the most highly ranked choices.



Source: *PwC US Infrastructure Deals Survey, December 2012*

What issues are discouraging private investors from participating in infrastructure projects?

While respondents differed in their opinions, regulatory concerns and political risk are generally seen as the strongest discouraging factors.



Source: *PwC US Infrastructure Deals Survey, December 2012*

Summary viewpoint

Although they fell short of satisfying growing investor demand, the increase in infrastructure deals in the US in 2012 is certainly good news. Given the current state of the infrastructure market, we believe power and energy will likely provide continued strong investment opportunities, especially for storage, pipeline, contracted transmission, and regulated distribution assets. While public-private partnerships remain spotty, we feel encouraged by the positive signs in 2012 that showed P3s may be gaining traction in the US. Time, government support, and investor patience will determine the future of the US infrastructure deals market.

Endnotes

1. Interview with Mark Weisdorf, the head of J.P. Morgan Asset Management's Infrastructure Investments Group, on December 14, 2012.

2. Interview with Holly Koeppel, co-head of Citigroup's Citi Infrastructure Investors, on December 14, 2012. Ms. Koeppel's views are her personal views and do not necessarily reflect the views of Citi or its affiliates.

3. Interview with Felicity Gates, co-head of Citigroup's Citi Infrastructure Investors, on December 12, 2012. Ms. Gates' views are her personal views and do not necessarily reflect the views of Citi or its affiliates.

4. Interview with Alex Darden, a partner at EQT Partners, on December 28, 2012.

5. Interview with Peter Allison, managing director of content at Inframation Group, on December 18, 2012.

6. Interview with Aaron Gold, a principal with Carlyle Group's Global Infrastructure Buyout fund, on December 12, 2012.

7. Interview with Todd Lapenna, portfolio manager for the California Public Employees' Retirement System (CalPERS), on December 18, 2012.

8. Interview with Jeff Neil, a partner at Balfour Beatty Infrastructure Partners, on December 10, 2012.

9. Interview with Anthony Edwards, investment director at Industry Funds Management, on December 6, 2012.

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