

SPECIAL COMMENT

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Public-Private Partnerships
Global P3 Landscape

A region-by-region round-up

Table of Contents:

THE LANGUAGE OF P3S	2
EUROPE: IT'S NOT JUST ABOUT THE ECONOMY	4
NORTH AMERICA: A MEETING IN THE MIDDLE	6
SOUTH AMERICA: GROWING STOCK OF PROJECTS, LIMITED CAPITAL	12
THE ASIA-PACIFIC REGION: EMERGING REGULATORY FRAMEWORKS AND A LACK OF CONSISTENT RISK ALLOCATION CONSTRAIN THE MARKET	15
APPENDIX	18
MOODY'S RELATED RESEARCH	22

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Insights on Global Infrastructure Expansion is our new research series addressing the growing global need to expand and revive infrastructure and the related credit and capital-market implications for various sectors, industries and governments. The series will include a mix of in-depth credit analysis and foundational research.

Governments around the world are using public-private partnerships, or P3s, to develop and maintain public infrastructure. No matter where—Europe, North America, South America or the Asia-Pacific region—two inter-related trends are at work that could cause P3 activity to expand: the need to upgrade, replace or build out essential infrastructure assets and the inability of governments to finance these current and future infrastructure investments.

Here is our take on the major themes:

- » **Europe:** Against a backdrop of austerity measures, the P3 pipeline in Europe remains subdued. And concerns are growing in the public sector that P3s represent an increasing privatization of public services—particularly in the UK, the most mature P3 market in the region.
- » **North America:** Late to develop its P3 availability-payment market, the US is able to benefit from lessons learned in the UK and Canada, and to some extent Mexico. The US has the potential to become the largest P3 market in the world, given the sheer size of its infrastructure.
- » **South America:** With so many projects, investors can be more selective now than in the past. But while some projects have met with success, such as Brazil's demand-risk airport concessions, which garnered over \$16 billion for five airports, others have run into trouble.
- » **The Asia-Pacific region:** Outside the mature markets of Australia and India, P3s have been slow to develop in the Asia-Pacific region. Emerging regulatory frameworks may be subject to an elevated risk of political interference, and strong legislative frameworks to enforce P3 contracts are lacking in some countries.

The Language of P3s

The use of public-private partnerships and private-finance initiatives has grown over the past 20 years following the adoption of the model in the UK, Canada and Australia in the 1990s. This early adoption provides other countries with templates to use as they develop their own P3 markets.

Still, the term P3 is defined differently in each country. P3s in all countries fall along a broad spectrum, with the availability-payment model at one end, the demand-risk model at the other and hybrids in between. Availability-payment P3s include private-finance initiatives, or PFIs, which first appeared in the UK. Transportation projects, such as roads and bridges, can use either model. Social infrastructure projects, a term that includes hospitals, schools and prisons, for example, primarily use the availability-payment model.

What are P3s? In its most basic form, a P3 is a contractual partnership between a public-sector governmental entity and a private developer to design, build, finance, operate and maintain an infrastructure asset for a specific period. At the end of the contractual period, the asset reverts back to the government to operate and maintain. The government generally maintains ownership of the asset throughout the contract term.

What are availability payments? Once an asset is built to the specifications required by the government and the government accepts the project, the private developer is entitled to payments from the government as long as the asset is made available to the public at the standard required by the government. Availability payments are sized to cover operating and maintenance costs as well as debt-service costs and equity returns.

Also important, availability payments are not subject to swings in demand, such as traffic levels in the case of toll roads, for example, and are adjusted only for lack of performance or availability to the public. The payments are usually subject to annual appropriation by the sponsoring government.

P3 availability-payment projects carry higher risk in the early years of construction, usually commensurate with Baa-level credit risk. They carry lower risk when the project reaches a steady state of operation, in line with A-level credit risk. While both the availability and the demand-risk models are partnerships between a government and a private developer and have construction and operating risks, the demand-risk model carries volume and price risk for the private sector.

What is demand risk? In this model, the government grants the private developer the right to collect fees from the public for the use of a road, a bridge, a subway, an airport. This right is sometimes called a concession, since the government is conceding the asset to the developer for a defined period. The private developer takes on revenue risk under this fee-for-service model, because it relies on fees for use of the asset to pay for operations and to pay back debt issued to build the asset.

However, the risks inherent in this model give developers a higher incentive to complete a project early in order to start collecting revenue. With an availability-based project, there is little incentive to finish a project ahead of schedule because the amount and timing of availability payments from the government are set in advance.

There are also hybrid P3s. For example, a toll road receives availability payments from the government, but the payments are subject to volume-risk adjustments related to the underlying asset's demand profile. There are also other hybrid structures and new, evolving P3s that incorporate elements of both the

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availability-payment and demand-risk models, a growing trend as the P3 model is applied to new asset classes and in new jurisdictions.

In both P3 models, normally the government engages the private sector through a bidding process to design, build, finance, operate and maintain infrastructure assets under a long-term project agreement. Once the asset is built to government specifications, the risk profile changes depending on the type of P3.

When referring to a P3 in the UK or Canada, it is well understood that the majority of P3s are primarily availability-payment P3s. P3s in Latin America have typically been developed as demand-risk projects. In the US, demand-risk P3s have dominated the market, but now availability-payment-based P3s are gaining a bit of traction because the private sector has been unwilling to take revenue risk for some projects and governments are recognizing the value of the availability model. Europe and parts of the Asia-Pacific region, including Australia and India, mostly use availability-payment P3s but have pursued demand-risk projects as well.

About our methodological approach. We outline our approach to rating availability-payment P3s in two methodologies, one for the [construction phase](#) and another for the [operating phase](#). At financial close, the lower of the two ratings applies.

Our approach to rating demand-risk P3s varies by asset type. We have different methodologies for demand-risk toll roads, ports, airports, solid-waste projects, power projects, as well as a general project finance methodology. While each demand-risk P3 methodology includes assessments of construction and ramp-up or commissioning risks, if present, the focus of our approach is to evaluate the project's fundamental long-term operating performance.

About this report. In this report, we focus on availability-payment P3 projects in the transportation, social, defense, and water and wastewater sectors. We generally exclude the power, energy, mining and telecom sectors. Energy-related projects do not typically use the availability-payment model. Many energy projects are primarily private investments in a specific project with limited government involvement. We classify each country's availability-payment P3 market as either mature or expanding, based on the criteria below. Each country may not satisfy every factor, but most factors apply.

EXHIBIT 1

Mature and Expanding Availability-Payment P3 Markets

	Mature	Expanding
	UK, Canada, Australia, India, Chile	US, Brazil, Peru, Mexico, Colombia
Regulatory Framework	The framework is established, enforceable, tested and widely understood.	Authorizing legislation is in place and enforceable but yet to be fully tested, or legislation is being clarified, expanded or passed for the first time.
Project History	Projects are built, operating and entering initial rehabilitation cycles.	Projects are mostly in the construction and procurement phases, with some in operation.
Project Pipeline and Type	The pipeline is predictable across multiple asset classes, like social, transportation, defense and environmental projects.	The pipeline is growing, with projects primarily in the transportation sector at first, expanding to social infrastructure and others.
Project Contracts	Project contracts are relatively standard and widely understood.	Project contracts are modeled after others and are not standardized; long-term enforceability may be uncertain.
Investor Base and Capital Market	Investor base is large, deep and sophisticated.	Local P3 investor base is growing; there are varying levels of capital-market sophistication among market participants, or projects may receive significant development-bank financing.

Source: Moody's Investors Service

Europe: It's not just about the economy

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Against a backdrop of austerity measures, the P3 pipeline in Europe remains subdued. And while fiscal austerity has massive importance on how many P3s are pursued in Europe, ideology is another big part of the P3 debate.

Concerns are growing in the public sector that P3s represent an increasing privatization of public services—particularly in the UK, the most mature P3 market in the region.

Still, there are pockets of activity across Europe. The Netherlands and Belgium are more active right now, highlighted by deals like the billion dollar A1/A6 Schiphol-Amsterdam-Almere Road PPP Phase I project and the Zaanstad Prison project in the Netherlands, which both closed in 2013. The half of a billion dollar [Via A11 N.V.](#) (A3 stable) P3 road project in Belgium closed in March 2014.¹

P3s in Europe span the spectrum of asset classes, from hospitals to bridges. Transportation projects have been procured on an almost entirely availability-payment basis, such as the [Societe de la Rocade L2 de Marseille](#) (Baa2 stable) project in France, reflecting the difficulties associated with financing greenfield transport projects exposed to ramp-up and ongoing volume risks. That said, there is a modest revival of new demand-risk toll road P3s in Europe, including the A45 motorway in France. In contrast, the volume of future social infrastructure projects may be more modest than in the past, with limited schools and hospitals programs in the UK, France and Germany.

Specific European policy targets have also influenced respective P3 pipelines. For example, the UK has pursued P3 projects in the waste sector in order to deliver against landfill targets. While this has provided impetus to this sector in the UK, the UK government has scaled back support in the past few years as progress toward these targets has accelerated.

The “value for money” debate. Opponents of the P3 model highlight the relative costs of procuring physical infrastructure and associated services under the P3 approach versus the more traditional public-sector-led model. The value-for-money debate is a difficult one to prove or disprove because data are somewhat limited, but opponents argue that P3 projects tend to incorporate higher levels of contingencies and recoveries of expensive bid costs and that they give equity investors the opportunity to reap a windfall when they sell their ownership interests in project companies.

To some extent, national governments have tried to mitigate these problems by retaining risks that are difficult for the private sector to price efficiently, streamlining the procurement process and introducing robust equity-gain share provisions. Nevertheless, the political dynamics of the value-for-money debate have constrained the appetite to pursue new P3 projects in important markets such as France and the UK.

How P3s in Europe have been financed. Historically, P3s in Europe were largely financed by long-term bank debt or monoline-wrapped bonds. But several factors have challenged the ability of banks to finance European P3s. Among them are proposed changes to capital regulations and acute funding shortages at times. There has been a general realization that banks are not ideally placed to hold long-term assets on their balance sheets.

¹ A number of projects discussed in this report are unrated.

In response, the European P3 procurers are placing an emphasis on attracting institutional investors on the grounds that they are natural providers of long-term debt, attracted by the potential premium for the illiquid nature of the assets. Modifications to European insurance-company capital requirements have also encouraged insurance companies to hold investment-grade-rated long-term assets that match their long-term liabilities. Long-dated debt capacity from the banking sector is also increasing, further underpinning this trend.

While the demands vary among this diverse set of investors, generally P3s have been more recently structured to target stronger investment-grade ratings in the A range. This requires the introduction of stronger financing structures, with a significant focus on stronger construction liquidity packages to mitigate construction risk. Signs of growing demand for transactions structured in the Baa range are emerging. In part this reflects institutional investors becoming more comfortable with associated credit risks and their desire for yield in a market where credit spreads are compressing.

The UK came first

The P3 market in the UK is the largest and most mature. The UK had 665 operational P3s through March 2013, according to Infrastructure UK, a unit of the UK Treasury, and almost all of them are availability-payment projects. A limited number of shadow toll roads—whereby government payments are tied to traffic volume and users don't pay tolls directly—have a limited degree of demand risk. Although there is a large number of existing P3 projects and PFIs, the project pipeline is visibly smaller: 21 projects were in procurement in March 2013, compared with 39 in March 2012 and 61 in March 2011, according to Infrastructure UK.

P3s started in the UK in the early 1990s with roads and hospitals, followed by schools and more recently waste projects. More than 725 projects have reached financial close since the 1990s, one of the highest numbers in any one country around the world.

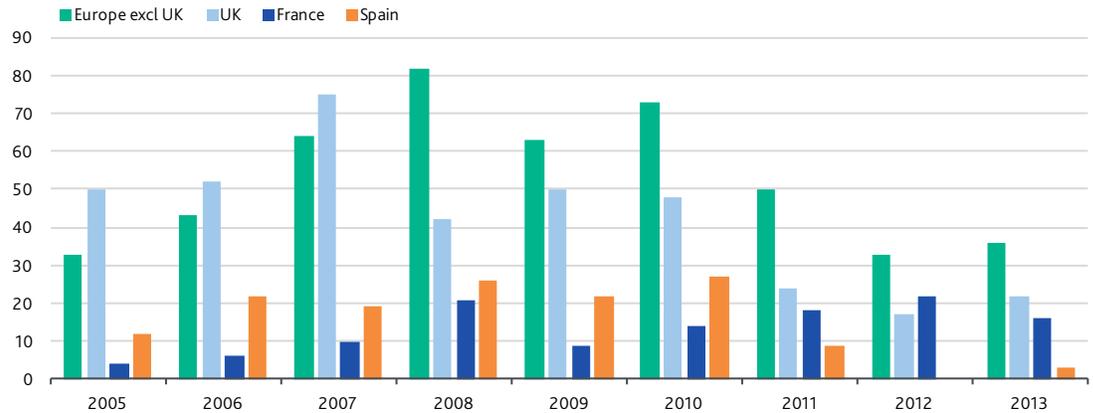
A large number of projects were canceled in 2010, owing to fiscal austerity measures taken by a new government focused on cutting spending. The new government also had a different political philosophy, prioritizing infrastructure that supports the economy over social infrastructure. This led to a structural shift downward in the number of P3/PFI projects reaching financial close thereafter (please see Exhibit 2 on the next page), given a reduction in the project pipeline.

Outside the UK, the project pace also declines

Excluding the UK, Europe had over 500 new and primarily availability-payment P3s reach financial close from 2002-13, according to Infrastructure Journal. Just over half of these projects are in Spain and France, and most of the others are in Portugal, Italy, Germany, Belgium, the Netherlands and Ireland. The pace of projects has declined since the recession, as seen in Exhibit 2 (next page), which follows the trend in the UK.

Until 2008, the number of P3 projects reaching financial close in the UK exceeded the rest of Europe. The UK project pace has been on a par with France for the past three years, hovering around 15 to 20 projects a year, while the pace of new Spanish P3s has lagged behind pre-recession numbers.

EXHIBIT 2

In the UK, the Number of Done Deals Surpassed the Rest of Europe until 2008

Note: Infrastructure Journal dataset parameters for transactions include P3s and project financings only for primary financings or additional facilities in the transportation, transit, social, defense, water and wastewater sectors.

Source: *Infrastructure Journal*

North America: A meeting in the middle

P3s in North America are different by nation. In Canada, the most mature P3 market in the region, P3s are almost exclusively availability-payment projects. In contrast, P3s in Mexico have been primarily concession-based with demand risk.

In some ways, the US is in the middle. The country has a history of demand-risk P3s in multiple sectors. The availability-payment model is only now developing and taking hold in the transportation sector with social infrastructure well behind, but catching up. Some US projects incorporate elements of both P3 structures through a hybrid model.

Late to develop its P3 availability-payment market, the US is able to benefit from lessons learned in the UK and Canada, and to some extent Mexico. The US has the potential to become the largest P3 market in the world, given the sheer size of its infrastructure and its growing urban populations.

Many US states have yet to authorize the use of P3s for transportation projects, the classic beginner market for P3s. Virginia, Florida, Texas, Indiana and Colorado are leading the charge, while P3 authorizing legislation has failed in New York and Kentucky. That said, the momentum of states authorizing the use of the P3 model has notably increased over the past five years: 33 states and Puerto Rico have P3 authorizing legislation for transportation projects, and 39 states have some form of P3 authorizing legislation, either for transportation or social infrastructure P3 projects.²

² According to the National Conference of State Legislatures; please click [here](#).

In Canada, the project pace is steady

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Canada's mature P3 market will likely keep to a steady pace of about half a dozen to a dozen projects in each of the next few years, driven not so much by the provinces' fiscal positions but by a track record of on-budget and generally on-time projects.

Canada has over 75 operational P3s, most of them availability-payment projects. Another 35 are in the construction phase and just over 28 are in various stages of procurement, according to the Canadian

Council for Public-Private Partnerships (please see Exhibit 3 next page). Although the pipeline is relatively small, its quality and predictability mean that many global players on the equity and construction sides are competing for the projects.

Central to the development of this market, Canadian P3s have so far delivered public infrastructure on budget for the government, and generally on time. An August 2013 report from the Conference Board of Canada indicates that 35 of the 42 projects the board surveyed were completed on time or early, and 40, or 95%, were completed no more than six months late.³ We are not aware of any defaults or terminations.

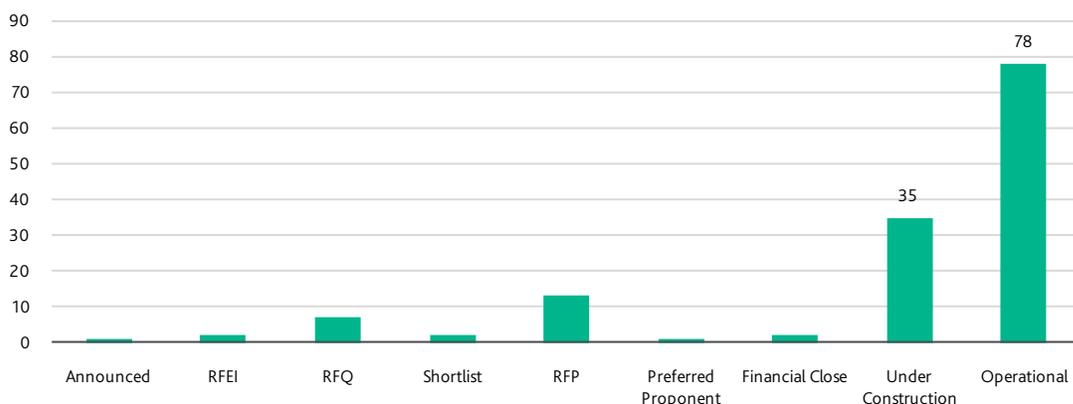
Early on, most Canadian P3s were in the healthcare and road infrastructure sectors, which is typical of how P3 markets develop. Now projects span a wider range of sectors, including light rail, airports, power generation and transmission, and water and waste water. Of the 30 or so projects in procurement (excluding those where financial close is imminent), more than half are in the traditional healthcare and transportation sectors.

Seven projects are in the environmental or energy sectors, which can entail new risks that need a careful analysis. For instance, the waste-water sector is highly regulated and, as a result, the payment mechanism may include substantial deductions to the monthly payment made by the procuring authority if certain quality standards are not met. In the energy sector, transmission-line projects usually span several dozen if not hundreds of kilometers and thus environmental-assessment approvals, right of way and accessibility risks are part of the risk analysis.

Larger projects will test the market's appetite for construction risk. Investors in Canada are comfortable buying debt with P3 construction risk, even without monoline insurance or a government guarantee. Traditionally, the sweet spot for debt investors has been projects that carry a rating in the A category (or are unrated), with only a couple of exceptions so far, including [Collectif Santé Montréal S.E.C.](#) (Baa2 stable). A sign of investors' comfort has been the ability of P3 projects to attract funding despite ever-reducing amounts of liquidity and security during the construction phase.

³ No data are publicly available to indicate whether the delay was a constructor delay or a government delay.

EXHIBIT 3

Canada: A Mature Market with More than 75 Projects in Operation

Notes: RFEI stands for request for expression of interest; RFQ stands for request for quotation; RFP stands for request for proposal. Preferred proponent means a proposal has been accepted by the procuring authority but commercial or financial close are pending. Selected P3 models are a combination of design, build, finance, maintain, operate, own, rehabilitation projects (DBFM, DBFMO, DBFMOO, DBFO, DBFR, DBMO) and build-finance-maintain projects.

Source: Canadian Council for Public-Private Partnerships, August 2014

But the trend toward larger projects, such as Montreal's Champlain Bridge, will push the boundaries of how little security and liquidity are needed to back the projects during construction. Construction companies have limits on their letters of credit, bonding capacity and parental guarantee capacity and will try to minimize their use as much as possible while still de-risking a project enough to attract financing. Insurance companies are developing new products to address this liquidity issue.

The upshot is that many trends are at work right now. Among them are strong demand for infrastructure debt, high competition for projects, simpler projects that can easily be financed with minimal liquidity and security, and larger projects that will test construction companies' ability to post sufficient liquidity and security. All told, these trends will put more pressure on construction companies, equity investors and financial advisors to relax and reduce the amount of liquidity, security and risk protection available to support P3s during construction.

How P3s in Canada have been financed. We expect that government contributions to P3s will continue to be material and that rated bonds, short-term bank debt and private placements will be sources of financing. Smaller projects are done by way of private placements and short-term bank facilities. Larger projects typically include a rated bond component. This model has been stable now for several years, and we do not see many radical changes ahead.

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In the US, the pipeline gears up

The P3 market in the US is expanding for availability-payment P3s. Aided by supportive legislation and public-policy initiatives, more P3 availability-payment projects are reaching financial close or are in procurement than ever before.

But once this wave of availability-payment P3s reaches financial close, the pipeline of new availability-payment P3 projects may slow given fewer projects are in early procurement now (i.e., the request for qualifications stage).

While the yearly number of availability-payment P3 projects reaching financial close will remain in the single digits for several years, a more reliable, albeit small, P3 project pipeline is emerging. About nine new availability-payment P3 projects are in advanced procurement stages, according to InfraDeals, and all are scheduled to reach financial close in the next 12 to 18 months. If including demand-risk P3s, this figure is higher. P3 project bankers and sponsors are building specialized P3 procurement teams that are forming relationships with state financing agencies and state transportation departments, as well as with the regional divisions of several large multinational construction companies.

With one exception, all of the availability-payment P3 projects procured to date have been in the transportation sector, specifically roads, bridges, tunnels and rail. The Long Beach Courthouse in California is the only social infrastructure availability-payment P3 project completed in the US so far, with a few new social infrastructure projects in procurement now. The Long Beach Courthouse, the I-595 managed lane project and the Port of Miami Tunnel in Florida are the only operating availability-payment P3 projects in the US. A few projects are under construction with commercial operations expected soon, including the Presidio Parkway in California and the [Denver Transit FastTracks](#) (Baa3 stable) light rail project in Colorado.

The social infrastructure market is gaining momentum and could propel the next wave of US P3 availability-payment projects. These social-infrastructure projects will continue to be in the justice and education sectors, with water and waste-water P3 projects to follow. P3 water-related projects completed to date have incorporated elements of the availability-payment model, but most have been procured under lease concessions. In this model, the private sector leases the asset after providing an upfront payment to the government, similar to projects in Latin America.

The passage of the Water Infrastructure Finance and Innovation Act (WIFIA) will help lay the groundwork for further development of water P3s. But there is a long road ahead before a firm pipeline of P3 water projects emerges.

Behind the development of the US market is supportive public policy. Under pressure to keep fiscal spending in check, governments want more for every dollar invested. They also want to insulate long-term maintenance and capital investment from the political cycle, since capital spending is typically cut during times of austerity, reducing the asset's useful life. As more state and local governments pass, clarify and expand their P3 authorizing legislation, we expect that more projects will begin procurement and that the project pipeline will grow.

How P3s in the US have been financed. Low-cost financing in the form of tax-exempt private activity bonds (PABs) and federal Transportation Infrastructure Finance and Innovation Act (TIFIA) loans is stimulating the US P3 market. These long-term, low-cost sources of financing help balance the cost-of-funds debate between tax-exempt municipal bonds and taxable bonds or bank loans issued for P3s. Low market interest rates, a weak supply of infrastructure debt and high investor demand have pushed the price of taxable bonds and bank loans close to tax-exempt rates for some P3 projects, depending on

the credit profile. The [I-4 Mobility Partners](#) project in Florida, rated (P)Baa1, stable, is a good example as it has short-term bank debt and short- and long-term TIFIA loans.

EXHIBIT 4

Project	State	Sector	Sub-Sector	Financial Close Date	Amount USD (m)
US Availability-Payment P3s that Have Reached Financial Close					
I-4 Mobility Partners	Florida	Transport	Roads	5 Sept 2014	\$ 2,300
I-69 P3	Indiana	Transport	Roads	24 Jul 2014	\$ 370
Goethals Bridge P3	Port Authority NY/NJ	Transport	Bridge	8 Nov 2013	\$ 1,500
Ohio River Bridges - East End Crossing	Indiana	Transport	Bridges, Roads, Tunnels	28 Mar 2013	\$ 763
Presidio Parkway Doyle Drive	California	Transport	Roads	14 Jun 2012	\$ 362
Long Beach Courthouse	California	Social	Justice	20 Dec 2010	\$ 495
Denver FasTracks Eagle P3	Colorado	Transport	Light Rail	12 Aug 2010	\$ 1,637
Miami Port Tunnel	Florida	Transport	Tunnel	15 Oct 2009	\$ 860
I-595 Roadway Improvements	Florida	Transport	Roads	4 Mar 2009	\$ 1,760
US Availability-Payment P3s Scheduled to Reach Financial Close in the Next 12 to 18 Months					
Portsmouth Bypass	Ohio	Transport	Roads	Shortlisted	\$ 605
Pennsylvania Bridges Project	Pennsylvania	Transport	Bridges	Shortlisted	\$ 1,000
Indianapolis Courthouse	Indiana	Social	Judicial	Shortlisted	\$ 500
Long Beach Civic Center	California	Social	Accommodation	Shortlisted	\$ 200
Purple Line	Maryland	Transport	Light Rail	Shortlisted	\$ 2,200
Illiana Expressway (Illinois)	Illinois	Transport	Roads	Shortlisted	\$ 1,000
Illiana Expressway (Indiana)	Indiana	Transport	Roads	Shortlisted	\$ 300
Houston Justice Complex P3	Texas	Social	Accommodation	Shortlisted	NA
Michigan Rest Areas	Michigan	Social	Other	Shortlisted	NA

Notes: Amounts are in millions of US dollars; NA stands for not available.

Source: *InfraDeals*

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In Mexico, the availability model enters the scene

The P3 market in Mexico is expanding for availability-payment projects, despite a 20-year record of concession-based projects. According to InfraDeals, over the past 10 years the transportation sector has dominated the P3 project space, accounting for \$25 billion, or 71%, of projects reaching financial close. Toll roads, bridges and tunnels lead the way with \$21 billion, or 60%, of the \$35 billion total (see Exhibit 5).

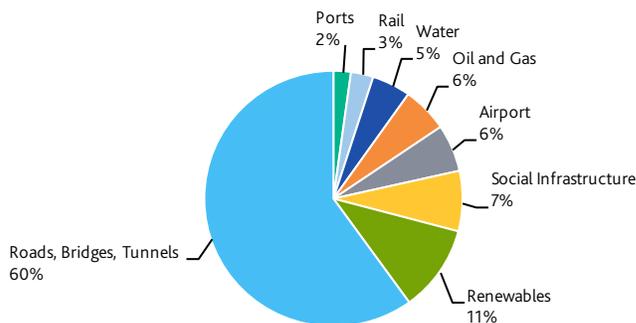
But two developments could change this mix. First, Mexico's government announced in May a new \$587 billion National Infrastructure Program for 2014-18. According to the program, some 50% will be invested in energy-related projects and about \$80 billion of the energy investments will come from private parties via P3s.

Second, a 2012 law is prompting investors to use the P3 structure more broadly, expanding the model to social infrastructure, such as prisons and hospitals, and to water-treatment plants. The law provides investors with a transparent bidding process, longer terms and clearer step-in and compensation rights, among other features that help in assessing and allocating risks. A number of Mexican states have passed or are currently debating P3 laws in line with the federal law, a positive for the project pipeline.

How P3s in Mexico have been financed. Concession-based projects issue bank loans or sell medium-to-long-term cross-border bonds, typically with tenors shorter than the granted concession lives in order to provide a cushion in the event of future revenue shortfalls. A mix of multilateral-bank financing, national and regional development bank loans, and government grants and payments also finance the projects. With the liberalization of the energy policy in the country, we expect more opportunities for international investment to arise.

EXHIBIT 5

Mexico: Concession-Based Toll Roads Take the Largest Piece of the P3 Pie



Source: InfraDeals data since 2003

South America: Growing stock of projects, limited capital

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Driven by significant infrastructure gaps, several countries, including [Brazil](#) (Baa2 stable), [Chile](#) (Aa3 stable), [Colombia](#) (Baa2 stable) and [Peru](#) (A3 stable), have announced multibillion-dollar infrastructure plans over the next few years, some of which will be financed with P3s.

Infrastructure investment is fundamental to the continued development and long-term economic growth of Latin America. The growing and urbanizing population in Latin America has led to a lack of adequate public services in many areas, hindering economic activity and long-term growth.

In Brazil and Peru, the P3 market is expanding. Chile's more mature market stands apart because Chile has the highest sovereign rating in the region and a relatively predictable and stable government that sets it apart from most of Latin America.

P3s are not new to South America, where the demand-risk concession model has been used since the 1990s. In Brazil, P3 terminology and models reflect the historical development of the sector. Both demand-risk and availability payment P3s require the government entities' support, either by guaranteeing a level of demand or making availability payments to the private partner. In contrast, concessions do not have any government support. This is an important distinction in the local market, since Brazil has both a concession law and a P3 law. A demand-risk P3 has a concession, but a concession is not necessarily a P3 in Brazil, because it does not have government support. Brazil passed the P3 law in 2004. Common demand-risk concessions, where the private sector takes 100% of the demand-risk, are regulated under a separate common concession law dating back to 1995. The pace of P3 development in Brazil continues to be impacted by funding constraints at the government level. The 2000 Fiscal Responsibility Law has curtailed spending and borrowing of public sector entities, limiting their ability to support demand-risk and availability-payment P3s.

Peru has had formal P3 legislation in place since 2008 and has since modified its P3 regulation to improve the planning and development of projects. For its part, Chile's P3 legislation dates back to 1996. Some countries such as Peru and Chile grant concessions at the federal level. Others, such as Brazil, also have state- and municipal-level P3 programs, adding a level of complexity and heterogeneity among projects.

Transparent regulatory frameworks and institutional strength are the driving forces behind successful P3s. Government intervention can undermine the sanctity of contracts. As a result of past experiences, countries have recently revised their P3 regulations or introduced measures to promote infrastructure investment. As more and more projects come to market, the learning curve will accelerate.

Both the demand-risk and availability-payment models have been used in the region, with demand-risk being the most prevalent, in particular for transportation projects such as tolled highways. Availability-payment P3s have also been used to build hospitals and prisons, as well as tolled highways, but to a lesser extent than the demand-risk model.

With the abundance of infrastructure projects on the horizon, investors can be more selective. Some projects have met great success, such as Brazil's demand-risk airport concessions, which garnered over USD16 billion for five airports. Others have received no bids, such as Brazil's demand-risk federal highway, BR-262, or were met with lower-than-expected interest, such as Lima's Metro Line 2, which ultimately had just one bid.

Generally, as the credit quality of sovereigns improves, the potential for availability-payment P3 projects will grow. The highest steady-state rating for a mature availability-payment P3 project in operation has typically been one to two notches below the sovereign or sub-sovereign rating. Most availability-payment P3s benefit from the creditworthiness of the sovereign or sub-sovereign. Brazil, Chile, Colombia and Peru all have investment-grade ratings. Of the four, Chile has the highest rating and has had an investment-grade rating the longest, since 1994. Other countries such as Colombia and Brazil have had a shorter record of continuously improving credit profiles. Given improved offtaker credit quality, we are seeing growth in availability-payment P3s.

Colombia also has announced a USD121 billion national development plan that will focus on the energy, mining, transportation, communications and housing sectors. It is creating a national infrastructure fund to support investments in its road construction program, which the country is launching largely under the P3 format. Colombia has also passed a law that facilitates unsolicited proposals, requires payment schedules based on work completion, and includes penalties for cost overruns.

How P3 projects in Brazil, Chile and Peru have been financed. Multilateral and bilateral development banks as well as national and regional development banks and export credit agencies continue to be important sources of financing or providers of financial and political risk guarantees for infrastructure projects in the region. Local banks and domestic debt capital markets are also an important source of funds, depending on the country as they are at different stages of development. For some larger projects, the cross-border loan and bond markets also provide an important source of financing. However, the secondary market is limited, which hinders financing activity.

In Brazil and Peru, the market is expanding

In Brazil, over USD20 billion in transportation-related demand-risk concession projects have reached financial close since 2012, and over 18 are in the pre-launch phase, according to Empresa de Planejamento e Logística, the government entity responsible for planning and logistics.

In 2011, Brazil announced a national infrastructure plan of USD121 billion over the next 30 years. The country's need for infrastructure improvements spans all asset classes from roads and bridges to social infrastructure projects. Systemic underinvestment in infrastructure has created gaps not only in basic public services such as water and sanitation but also in the transportation sector, be it ports, highways, airports or rail—all of them important for the nation's economic growth.

Demand-risk concessions, where the private sector bears all the revenue risk, have been used in Brazil since the 1990s, and the government has granted concessions at both the federal and state levels. Similar to the US, not all states in Brazil have P3 regulations in place, with a growing number of states devising P3 legislation.

Transportation-related demand-risk concessions have been widely deployed for state and federal highways, and more recently for mass transit, including the metro systems of Sao Paulo and Rio de Janeiro. Several other states, such as Bahia, Minas Gerais and Ceara, among others, have projects under way.

Brazil's national development bank, BNDES, has historically been the most active and lowest-cost provider of financing for infrastructure projects. This is unlikely to change but given the large amount of expected spending, the government is interested in using concessions and P3s to build hospitals, prisons, roads and other government-related projects. In order to develop the debt capital market, the federal government in 2011 created tax-exempt infrastructure bonds to encourage the financing of

infrastructure projects and attract investors. Further, BNDES has altered some of its lending requirements, such as allowing for collateral-sharing, in order to encourage investment in infrastructure debentures.

Projects in Brazil continue to garner interest from investors despite low economic growth and government intervention, a recent example of which includes toll-rate-setting in the state of Sao Paulo. Also, some uncertainty was created by government actions with respect to the renewal of generation and transmission concessions (for more, please read "[Three key ways that the Brazilian regulatory frameworks are negatively impacting infrastructure issuers](#)").

Economic and population growth, coupled with a positive track record of stable legal and regulatory frameworks, and healthy public finances have driven the availability-payment P3 markets in the states of [Minas Gerais](#) (Baa3 stable), [Sao Paulo](#) (Baa2 stable) and [Rio de Janeiro](#) (Baa2 stable). The 2014 FIFA World Cup led to the construction of 12 arenas at an estimated total cost of BRL8 billion and three were developed in partnership with the private sector, which committed about BRL800 million.

The P3 model has also been chosen for urban mobility projects in preparation for the 2016 Summer Olympics in Rio de Janeiro. An example is the 2013 award of a 25-year light rail concession to a consortium in which [Invepar](#) (Ba3 stable) holds a 24.4% stake. This light rail project will connect the Rio de Janeiro port area with the financial district and the Santos Dumont airport downtown.

In Peru, about nine P3-related projects amounting to USD12.3 billion have reached financial close since 2012, according to Peru's Private Investment Promotion Agency, ProInversion. As of July 2014, there were nine P3-related projects totaling over USD 595 million in the pre-launch phase, excluding Lima Metro Line 2.

Like other Latin American countries, Peru has announced a large infrastructure-spending plan, totaling USD17.7 billion for 2014-16, which will span the transportation and public-services sectors. The country has been conducting partnerships with the private sector since the 1990s, with formal P3 legislation in place since 2008. In 2012, the country also announced the creation of a P3 fund for hospitals and schools.

Peru has been able to use the availability-payment method in greenfield projects and has accessed the cross-border market by issuing US-dollar-denominated debt through a payment scheme involving certificates of payment from the government, based on construction-completion milestones and certificates of payment during the operational phase. This structure has provided added security to investors during the construction phase and eliminated demand risk during the operating phase. We initially rated [Irsa Norte Finance Ltd](#) (A3 stable) in 2006, the government's first major P3 project at the time, while it was under construction.

The upgrade of Peru's credit rating to A3 in July is a positive development for the country's P3 market because it signals improved government stability. This is important because the government is the source of funds for availability-payment projects, the most prevalent P3 model in Peru.

One of the largest projects to date under the availability-payment scheme is Lima's Metro Line 2. Ultimately, only one consortium submitted a bid, for USD5.66 billion. The government is expected to pay USD3.8 billion for the construction and maintenance of the project. As more and more projects come to market, the government will need to discern which ones are best-suited for the availability-payment model and which ones are best-suited for the demand-risk model.

Financings for P3 projects in Peru have included combinations of availability payments, partial guarantees from multilateral financial institutions, and local-currency and US dollar-denominated long-term debt.

Chile stands apart

Chile's new administration recently announced the Inclusion, Development and Infrastructure government plan of USD18 billion over 2014-21, encompassing airports, urban and interurban roads, public transit, and water projects. Of the total, USD9 billion will be considered for P3s, primarily for transportation-related projects. The president also intends to create a national agency to advise government ministries and city governments on P3 project development.

Chile has a mature P3 market, with a strong and developed local investor base. Several P3-related projects either have been recently refinanced or changed ownership, denoting the more mature aspect of the transactions. [Autopista del Sol](#) (Baa2 stable) and [Autopista Los Libertadores](#) (Baa2 stable), whose ownership changed from OHL Chile to Abertis Infraestructuras S.A. in 2012, are two examples.

Chile still has the highest sovereign rating in the region (Aa3 stable), and its relatively predictable and stable government sets it apart from the rest of Latin America. But against this picture, the new administration canceled six hospital concessions started under the previous administration, preferring to use public funds to finance these projects. Although this is creating some uncertainty about the future of hospital concessions, past success in other P3 segments should pave the way for continued investor interest. As an example, more than 10 investment groups have responded to a request for qualifications for the expansion of Santiago's airport, a USD700 million project expected to be granted early next year.

The Asia-Pacific Region: Emerging regulatory frameworks and a lack of consistent risk allocation constrain the market

Outside the mature markets of Australia and India, P3s have been slow to develop in the Asia-Pacific region. Emerging regulatory frameworks may be subject to an elevated risk of political interference, and there is a lack of strong legislative frameworks to enforce P3 contracts in new markets. Consistent risk allocation between the government and private sectors in contractual documents may also be lacking. All of this leads to a slow pipeline of deals and less interest from investors given the lack of benchmarks and liquidity.

The P3 markets in the Philippines and China are expanding with deal flow accelerating in the Philippines under the current administration and its P3 center. China has recently started to promote P3s, with 80 projects to be offered to the private sector in this format, according to Infrastructure Investor. In the past, China has used demand-risk P3s in the water and toll road sectors.

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In Australia, the trend is toward bigger, but fewer, projects

According to Infrastructure Australia, more than 100 projects valued at about AUD65 billion have been delivered through the P3 framework. Infrastructure Australia has also reported that the average deal size of P3 projects increased to AUD1.2 billion in 2008-11 from AUD570 million in 2004-07. A trend toward larger project sizes, but fewer projects, has continued.

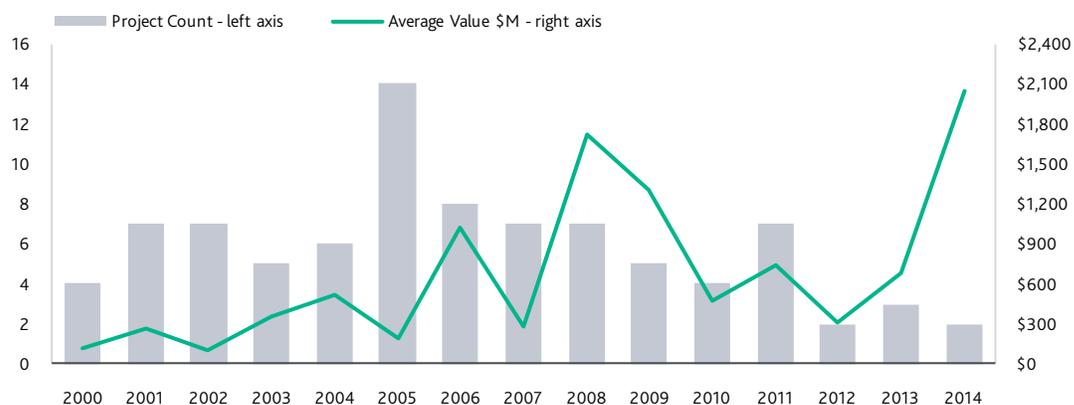
Projects range from social infrastructure, such as schools, hospitals and rail stations, to toll roads. Most are sponsored by state-government-guaranteed authorities. As such, project agreements are not standard, despite the number of projects delivered under the P3 framework in Australia.

How P3s in Australia are financed. Since 2008, effectively all new P3 projects in Australia have been financed in the bank market through shorter-dated bank loans. A number of projects from the 2006-07 vintage will also require refinancing of their bullet capital-market instruments used to fund construction. As such, improved access to the long-dated capital markets and development of a liquid P3 bond market would support the P3 market.

EXHIBIT 6

In Australia, Project Size Is Rising But Project Count Is Declining

Australian P3s Reaching Financial Close by Year and by Average Value (in AUD millions)



Note: Dollar amounts are in millions of Australian dollars.

Source: Infrastructure Australia

India faces financing challenges

In its 12th Five Year Plan (2012-17), the government of India outlined the need to spend \$1 trillion on infrastructure. In order to fulfill this, the government intends to use P3s as one of the ways to raise as much as \$150 billion of private investments.

Currently, about 1,400 projects amounting to \$115 billion are in the P3 pipeline, according to India's Department of Economic Affairs, a part of the Ministry of Finance. Of the 1,400 P3 projects, about 49% are in the construction phase, 30% are in the operating phase and the remaining 21% are in the bidding phase.

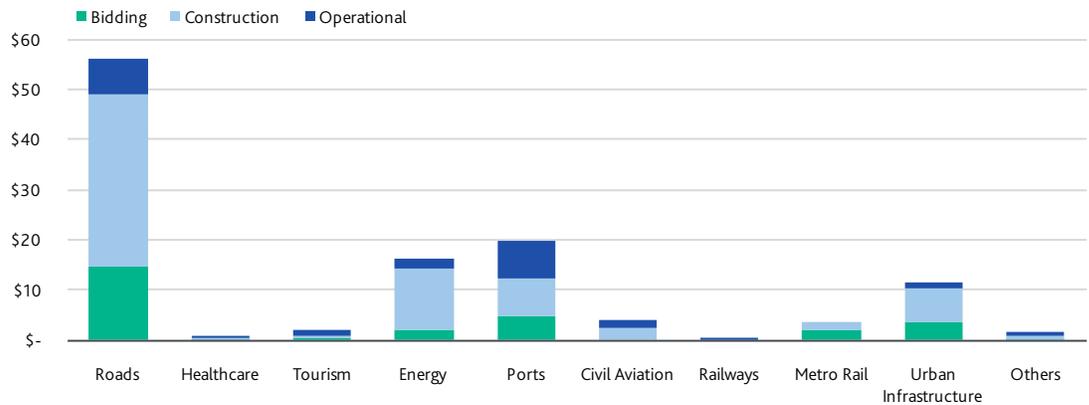
The pipeline of P3s favors transportation projects. Of the \$115 billion, \$56 billion will be spent on road and highway projects, about \$20 billion in the ports sector and about \$16 billion on energy-related projects. However, P3s continue to be used in other sectors, such as railways, power transmission and distribution, education, health, and urban infrastructure.

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EXHIBIT 7

In India, the P3 Pipeline Favors Transportation

(in US billions)



Note: Dollar amounts are in US billions.

Source: Government of India, Department of Economic Affairs

India's P3 story gained traction with the success of the National Highway Development Program (NHDP), instituted by the National Highway Authority of India in 2000. Under this program, 50,000 kilometers of highways are now in various stages of development. Although the P3 framework was used in India even in the early 1990s, the NHDP introduced the concept of annuity concessions, the term used in India for availability payments.

Recently, the government has taken steps to streamline the P3 process. In 2011, the government released a draft of the National P3 Policy, which aims to assist central and state government agencies and private investors seeking P3 opportunities. It also set up a P3 appraisal committee to streamline the appraisal and approval process. The government has also developed P3 toolkits, including model bidding documents, to improve the decision-making process.

However, there are several challenges to the successful execution of P3s in India, including the lack of an independent P3 regulator, inadequate knowledge of the project development process and a scarcity of financing sources.

How P3s in India have been financed. Bank loans are the go-to source of financing P3s. Unlike in the US, India's bond market is not robust enough to support the financing of P3s. Therefore, the private sector heavily depends on banks to raise debt. However, these banks have limited balance-sheet capability and are also constrained by sector exposure limits and asset-liability mismatch problems.

In order to relieve commercial banks of the exposure limits, the India Infrastructure Finance Company Limited (IIFCL) in 2010 introduced a take-out financing scheme. This scheme enables the IIFCL to take over whole or part of a lender's debt outstanding. The IIFCL, along with IDFC Ltd. and Infrastructure Leasing & Financial Services, are the three infrastructure-focused financing institutions that provide financing for P3s. Other means of financing P3s include multilateral agency loans and government grants, including a so-called viability-gap funding scheme, through which the government provides financial support.

Appendix

Moody's-Rated Public-Private Partnerships

Region	Issuer Domicile	Issuer Name	Rating	Outlook	P3 Type	Asset Type
Asia-Pacific Region						
AUSTRALIA	AUSTRALIA	Darwin Cove Convention Centre Pty Limited	A3	STA	Availability	Convention Center
AUSTRALIA	AUSTRALIA	Axiom Education Pty Limited	A2	STA	Availability	Education
AUSTRALIA	AUSTRALIA	JEM-ADI Pty. Ltd.	Aa3	STA	Availability	Govt & Defense
AUSTRALIA	AUSTRALIA	Ancora (OAHs) Pty Limited	Baa1	STA	Availability	Healthcare
AUSTRALIA	AUSTRALIA	Ancora (RCH) Pty Ltd	Baa3	STA	Availability	Healthcare
AUSTRALIA	AUSTRALIA	Civic Nexus Finance Pty Ltd	A1	STA	Availability	Healthcare
AUSTRALIA	AUSTRALIA	JEM (CCV) Pty Limited	Aa3	STA	Availability	Healthcare
AUSTRALIA	AUSTRALIA	JEM (NSW Schools II) Pty Limited	A1	STA	Availability	Healthcare
AUSTRALIA	AUSTRALIA	JEM (Southbank) Pty Limited	A3	STA	Availability	Healthcare
AUSTRALIA	AUSTRALIA	Mildura Base Hospital Pty Limited	Aaa*	STA	Availability	Healthcare
AUSTRALIA	AUSTRALIA	Novacare Solutions Partnership	A1	STA	Availability	Healthcare
AUSTRALIA	AUSTRALIA	Plenary Health (Casey) Finance Pty Ltd	A2	STA	Availability	Healthcare
AUSTRALIA	AUSTRALIA	Plenary Justice (SA) Pty Ltd	A3	STA	Availability	Healthcare
AUSTRALIA	AUSTRALIA	Plenary Living (LEAP) Finance Pty Ltd	A1	STA	Availability	Healthcare
AUSTRALIA	AUSTRALIA	Praeco Pty Limited	Baa2	NEG	Availability	Healthcare
AUSTRALIA	AUSTRALIA	RWH Finance Pty Ltd	Baa2	NEG	Availability	Healthcare
AUSTRALIA	AUSTRALIA	Western Liberty Group Finance Pty Ltd	Ba2	NEG	Availability	Healthcare
AUSTRALIA	AUSTRALIA	Reliance Rail Finance Pty Ltd	B1	POS	Availability	Rail Rolling Stock
AUSTRALIA	AUSTRALIA	Broadcast Australia Finance Pty Ltd.	Baa2	NEG	Demand-risk	Communications
AUSTRALIA	AUSTRALIA	Adani Abbot Point Terminal Pty Ltd	Baa3	STA	Demand-risk	Transportation
AUSTRALIA	AUSTRALIA	Aurizon Finance Pty Ltd	Baa1	STA	Demand-risk	Transportation
AUSTRALIA	AUSTRALIA	Aurizon Holdings Limited	Baa1	STA	Demand-risk	Transportation
AUSTRALIA	AUSTRALIA	Aurizon Network Pty Ltd	Baa1	STA	Demand-risk	Transportation
AUSTRALIA	AUSTRALIA	DBCT Finance Pty Ltd.	Baa2	STA	Demand-risk	Transportation
AUSTRALIA	AUSTRALIA	NCIG Holdings Pty Ltd.	Ba2	POS	Demand-risk	Transportation
AUSTRALIA	AUSTRALIA	Newcastle Coal Infrastructure Group Pty	Baa3	STA	Demand-risk	Transportation
AUSTRALIA	AUSTRALIA	Wyuna Water Pty Limited	A3	STA	Demand-risk	Water
Central America						
DOMINICAN REPUBLIC	DOMINICAN REPUBLIC	Aeropuertos Dominicanos Siglo XXI, S.A.	B1	STA	Demand-risk	Airports
PANAMA	PANAMA	ENA Norte Trust	Baa3	STA	Demand-risk	Roads
PANAMA	PANAMA	Panama Canal Railway Company	Ba2	STA	Demand-risk	Transportation
<i>*Debt was assumed by the State of Victoria (Aaa stable)</i>						
Europe, the Middle East and Africa						
BELGIUM	BELGIUM	Via A11 N.V.	A3	STA	Availability	Roads
FRANCE	FRANCE	Societe de la Rocade L2 de Marseille and FCT Rocade L2 Marseille	Baa2	STA	Availability	Roads
FRANCE	FRANCE	FCT France Broadband Infrastructures	Baa2	STA	Demand-risk	Communications
IRELAND	IRELAND	DirectRoute (Limerick) Finance Limited	Baa3	STA	Availability	Roads

SPAIN	Autovia de la Mancha S.A.	B2	POS	Availability	Roads
SPAIN	Autovia de Los Vinedos, S.A. (AUVISA)	Caa1	NEG	Availability	Roads
SPAIN	Autovia del Camino S.A.	Ba2	NEG	Availability	Roads
UNITED KINGDOM	Alpha Schools (Highland) Project plc	A3	POS	Availability	Education
UNITED KINGDOM	Catalyst Higher Education (Sheffield) plc	Baa1	STA	Availability	Education
UNITED KINGDOM	Discovery Education PLC	A2	STA	Availability	Education
UNITED KINGDOM	Ellenbrook Developments plc	A3	STA	Availability	Education
UNITED KINGDOM	Holyrood Student Accommodation Plc	Baa3	STA	Availability	Education
UNITED KINGDOM	InspirED Education (South Lanarkshire) plc	A3	STA	Availability	Education
UNITED KINGDOM	UPP Bond 1 Issuer PLC	Baa1	STA	Availability	Education
UNITED KINGDOM	AirTanker Finance Limited	Baa1	STA	Availability	Govt & Defense
UNITED KINGDOM	Aspire Defence Finance plc	Baa1	POS	Availability	Govt & Defense
UNITED KINGDOM	Exchequer Partnership (No.2) Plc	A1	STA	Availability	Govt & Defense
UNITED KINGDOM	Integrated Accommodation Services PLC	A1	STA	Availability	Govt & Defense
UNITED KINGDOM	RMPA Services PLC	A2	STA	Availability	Govt & Defense
UNITED KINGDOM	S4B (Issuer) Plc	Baa3	STA	Availability	Govt & Defense
UNITED KINGDOM	Solutions 4 North Tyneside (Finance) plc	Baa3	STA	Availability	Govt & Defense
UNITED KINGDOM	Sustainable Communities for Leeds	Baa3	STA	Availability	Govt & Defense
UNITED KINGDOM	BY Chelmer plc	Baa1	STA	Availability	Healthcare
UNITED KINGDOM	Capital Hospitals (Issuer) plc	Baa2	POS	Availability	Healthcare
UNITED KINGDOM	Catalyst Healthcare (Manchester) Financing	Baa2	POS	Availability	Healthcare
UNITED KINGDOM	Catalyst Healthcare (Romford) Financing plc	A2	STA	Availability	Healthcare
UNITED KINGDOM	Central Nottinghamshire Hospitals plc	Baa1	STA	Availability	Healthcare
UNITED KINGDOM	Consort Healthcare (Birmingham) Funding plc	Baa3	NEG	Availability	Healthcare
UNITED KINGDOM	Consort Healthcare (Salford) plc	A2	STA	Availability	Healthcare
UNITED KINGDOM	Consort Healthcare (Tameside) plc	A2	STA	Availability	Healthcare
UNITED KINGDOM	Consort Healthcare (Mid Yorkshire) Fund Plc	Baa3	STA	Availability	Healthcare
UNITED KINGDOM	Coventry and Rugby Hospital Company Plc (The)	Baa1	STA	Availability	Healthcare
UNITED KINGDOM	Criterion Healthcare PLC	A1	STA	Availability	Healthcare
UNITED KINGDOM	Derby Healthcare plc	Baa1	POS	Availability	Healthcare
UNITED KINGDOM	Dudley Summit PLC	A3	NEG	Availability	Healthcare
UNITED KINGDOM	Endeavour SCH PLC	A1	STA	Availability	Healthcare
UNITED KINGDOM	Healthcare Support (Newcastle) Finance plc	Ba3	DEV	Availability	Healthcare
UNITED KINGDOM	Healthcare Support (North Staffs) Finance plc	Baa3	STA	Availability	Healthcare
UNITED KINGDOM	Hospital Company (Dartford) Issuer Plc (The)	A1	STA	Availability	Healthcare
UNITED KINGDOM	Hospital Company (QAH Portsmouth) Limited	Baa1	STA	Availability	Healthcare
UNITED KINGDOM	Hospital Company (Swindon and Marlborough)	A1	STA	Availability	Healthcare
UNITED KINGDOM	HpC King's College Hospital (Issuer) PLC	A2	STA	Availability	Healthcare
UNITED KINGDOM	NewHospitals (St. Helens & Knowsley) Finance	Baa1	STA	Availability	Healthcare
UNITED KINGDOM	Octagon Healthcare Funding plc	A2	STA	Availability	Healthcare
UNITED KINGDOM	Peterborough (Progress Health) plc	Baa1	STA	Availability	Healthcare
UNITED KINGDOM	United Healthcare (Bromley) Limited	A2	STA	Availability	Healthcare

UNITED KINGDOM	Walsall Hospital Company Plc	A3	POS	Availability	Healthcare
UNITED KINGDOM	Worcestershire Hospital SPC Plc	A1	STA	Availability	Healthcare
UNITED KINGDOM	Amev Lagan Roads Financial plc	Baa2	STA	Availability	Roads
UNITED KINGDOM	Highway Management (City) Finance plc	Baa1	STA	Availability	Roads
UNITED KINGDOM	Merseylink (Issuer) PLC	Aa1*	STA	Availability	Roads
UNITED KINGDOM	Stirling Water Seafield Finance Plc	Baa2	STA	Demand-risk	Water

*Debt is guaranteed by The Lords Commissioners of Her Majesty's Treasury under the UK Guarantees Scheme.

North America

CANADA	Access Justice Durham Ltd	A2	STA	Availability	Courts & Prisons
CANADA	Acces Recherche Montreal L.P.	A3	POS	Availability	Healthcare
CANADA	AHA Access Health Abbotsford Ltd.	A1	STA	Availability	Healthcare
CANADA	AHV Access Health Vancouver Ltd.	A1	STA	Availability	Healthcare
CANADA	Collectif Sante Montreal S.E.C	Baa2	STA	Availability	Healthcare
CANADA	Access Roads Edmonton Ltd.	A2	STA	Availability	Roads
MEXICO	Mexico Generadora de Energia S. de R.L.	Baa2	STA	Demand-risk	Power
MEXICO	Autopista Monterrey Caderyta	Ba1	STA	Demand-risk	Roads
MEXICO	Banco Invex S.A. Fideicomiso 1302	Baa3	STA	Demand-risk	Roads
MEXICO	Carretera de Cuota Constit. y Ref. La Venta	Baa2	STA	Demand-risk	Roads
MEXICO	Consortio del Mayab, S.A. de C.V.	Baa3	STA	Demand-risk	Roads
MEXICO	Fideicomiso IDEAL de Carreteras (FIC)	Baa1	STA	Demand-risk	Roads
MEXICO	Grupo Nacional de Autopistas (GANNA)	Baa3	STA	Demand-risk	Roads
MEXICO	IDEAL	Baa3	STA	Demand-risk	Roads
MEXICO	Libramiento de Matehuala Toll Road Mexico	Baa2	STA	Demand-risk	Roads
ST. MARTIN	Princess Juliana Int'l Airport Op Company N.V.	Baa2	STA	Demand-risk	Airports
UNITED STATES	Denver Transit Partners LLC	Baa3	STA	Availability	Rail
UNITED STATES	I-4 Mobility Partners	(P) Baa1	STA	Availability	Roads
UNITED STATES	Aerostar Airport Holdings, LLC	Ba1	RUR	Demand-risk	Airports
UNITED STATES	Poseidon Resources (Channelside) LP	Baa3	STA	Demand-risk	Desalination
UNITED STATES	Baltimore Hotel Corporation, MD	Ba1/Ba2	NEG	Demand-risk	Hotel
UNITED STATES	Boston Industrial Development Fin. Auth., MA – Boston Crosstown Center Project	Caa3	STA	Demand-risk	Hotel
UNITED STATES	Denver Convention Center Hotel Authority, CO	Baa3	STA	Demand-risk	Hotel
UNITED STATES	Downtown Phoenix Hotel Corporation, AZ	Ba1/A2	STA	Demand-risk	Hotel
UNITED STATES	Middlesex County Improvement Authority, NJ – Heldrich Hotel	Caa1	STA	Demand-risk	Hotel
UNITED STATES	Overland Park Development Corporation, KS	Ba1	STA	Demand-risk	Hotel
UNITED STATES	San Antonio Convention Ctr. Hotel Fin. Corp. TX	Baa2	STA	Demand-risk	Hotel
UNITED STATES	St. Louis Conv. Cent. Headq. Hotel	Ca	NEG	Demand-risk	Hotel
UNITED STATES	TX Med. Ctr. Ctrl Htng. & Cooling Svcs. Corp.	Aa3	STA	Demand-risk	Power
UNITED STATES	UMM Energy Partners LLC	Baa3	STA	Demand-risk	Power
UNITED STATES	Union County Utility Authority, NJ	Baa2	NEG	Demand-risk	Solid Waste
UNITED STATES	Metropistas	Ba1	RUR	Demand-risk	Roads
UNITED STATES	NTE Mobility Partners LLC	Baa2	STA	Demand-risk	Roads

UNITED STATES	NTE Mobility Partners Segments 3 LLC	Baa3	STA	Demand-risk	Roads
UNITED STATES	Route 460 Funding Corp of VA	Baa3	NEG	Demand-risk	Roads
UNITED STATES	SH 130 Concession Company	Caa3	NEG	Demand-risk	Roads
UNITED STATES	LBJ Infrastructure Group LLC	Baa3	STA	Demand-risk	Roads
UNITED STATES	Toll Roads Investors Partnership II, L.P.	Ba2	STA	Demand-risk	Roads
UNITED STATES	Brooklyn Arena Local Development Corporation	Baa3	STA	Demand-risk	Stadium
UNITED STATES	Jets Stadium Development, LLC	Baa3	STA	Demand-risk	Stadium
UNITED STATES	Louisville Arena Authority, Inc.	Ba3	STA	Demand-risk	Stadium
UNITED STATES	Queens Ballpark Company LLC	Ba1	STA	Demand-risk	Stadium
UNITED STATES	Yankee Stadium LLC	Baa3	STA	Demand-risk	Stadium
UNITED STATES	Carousel Center Project	Baa3	STA	Demand-risk	Mall
UNITED STATES	New Jersey Econ Develop Auth - Jersey Garden (Kapkowski-Elizabeth) Mall PILOTS	Ba2	STA	Demand-risk	Mall
UNITED STATES	Ports America Chesapeake Inc.	Baa3	STA	Demand-risk	Port
South America					
ARGENTINA	Aeropuertos Argentina 2000 S.A.	Caa1	STA	Demand-risk	Airports
CHILE	Autopista Del Sol	Baa2	STA	Demand-risk	Roads
CHILE	Autopista Los Libertadores	Baa2	STA	Demand-risk	Roads
CHILE	Ruta del Bosque S.A.	Baa3	STA	Demand-risk	Roads
CHILE	Ruta del Maipo Sociedad Concesionaria S.A.	Baa3	STA	Demand-risk	Roads
CHILE	Ruta del Maule Sociedad Concesionaria S.A.	Baa2	STA	Demand-risk	Roads
CHILE	Sociedad Conces Vespucio Norte Espress S.A.	Ba1	STA	Demand-risk	Roads
CHILE	Sociedad Conces, Autopista Vespucio Sur S.A.	Baa2	POS	Demand-risk	Roads
CHILE	Sociedad Concesionaria Autopista Central	Baa1	STA	Demand-risk	Roads
CHILE	Sociedad Concesionaria Costanera Norte S.A.	Baa1	POS	Demand-risk	Roads
CHILE	Sociedad Concesionaria Rutas del Pacifico	Baa1	STA	Demand-risk	Roads
CHILE	Inversiones Alsacia S.A.	Caa3	RUR	Demand-risk	Bus system
PERU	IIRSA Norte Finance Limited	A3*	STA	Sovereign Guarantee	Roads
PERU	Interoceanica IV Finance Limited	A3*	STA	Sovereign Guarantee	Roads
PERU	Peru Enhanced Pass-Through Finance Limited	A3*	STA	Sovereign Guarantee	Roads

*Rating based on Peru sovereign guarantee
Source: Moody's Investors Service

Moody's Related Research

Rating Methodologies:

- » [Operating Risk in Privately-Financed Public Infrastructure \(PFI/PPP/P3\) Projects, December 2007 \(106479\)](#)
- » [Construction Risk in Privately-Financed Public Infrastructure \(PFI/PPP/P3\) Projects, December 2007 \(165887\)](#)

Special Comments:

- » [Insights on Global Infrastructure Expansion: Not All Government Infrastructure Funding Mechanisms Are Created Equal, June 2014 \(171101\)](#)
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