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The changing landscape for infrastructure funding and finance

A Deloitte Research study

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Introduction

Policy makers are still sorting through the wreckage following the financial tsunami that roiled the world in 2008 and the ensuing global recession, the deepest in generations. The infrastructure sector is not immune. In fact, it could be argued that infrastructure is uniquely disadvantaged in the current climate. At this point only one thing is certain: the landscape for infrastructure funding and finance has been dramatically altered and could remain so for at least the near term.

Two trends are emerging. First, governments are using increased infrastructure spending as an economic stimulus tactic. Second, tightened credit markets are posing an obstacle to raising debt finance for infrastructure delivery models — public or private — that depend on high levels of up-front capital repaid over the long term through user fees or general taxation.

This article discusses these trends and the impact of each on infrastructure funding/finance, particularly with respect to the prospects for public-private partnerships (PPPs) in the United States and around the world.

Figure 1 portrays the emerging contours of the new infrastructure funding/finance landscape, outlining conditions on both sides of the market: the "demand" for infrastructure funding/finance and the "supply" of funding/finance on the part of the public and private sectors.

Figure 1. How the infrastructure landscape has changed in the wake of the credit crisis

'Pre-credit crisis' trends	Emerging trends
Demand	**Demand**
• Limited public money for infrastructure	• Infusion of public money for infrastructure
• High construction costs	• Falling construction costs
• Fiscal dynamics encouraging governments to explore alternative delivery models	• Fiscal distress solidifying interest in alternative delivery models
Supply	**Supply**
• Well-functioning debt capital markets and international project finance loan market	• Challenged debt capital markets aided by new borrowing instruments
• Highly geared capital structures and attractive equity returns	• Price and tenor constraints in international project finance loan market
• Dominance of active equity investors and emergence of infrastructure funds	• Variability in equity returns
	• Impairment of some active equity players balanced by continued growth in infrastructure funds

Source: Deloitte

On the demand side

Infusion of public money for infrastructure. After a period of underinvestment in public infrastructure, the 2009 American Recovery and Reinvestment Act (ARRA) directs substantial public funding to transportation, energy and IT infrastructure, schools and federal building modernization, among other areas. Investing in public works to stimulate economic activity is hardly a US phenomenon. Around the world, infrastructure investment has become a significant component of a number of economic stimulus packages developed to respond to the global recession. The European Union has committed upward of $200 billion to infrastructure. Further east, India is investing around $30 billion in upgrading the country's infrastructure, while China has announced that half of its $585 billion stimulus package will go to infrastructure. While the sizable influx of government stimulus dollars will not come anywhere close to eliminating the "infrastructure deficit," stimulus funds should certainly help improve the condition of infrastructure badly neglected over the past few decades.[1]

Falling construction costs. As of March 2009, investment spending (which includes construction) was down 12 percent in the United States, and over 20 percent in several Asian and Middle East markets, with worldwide construction activity levels not expected to return to their 2008 peak until at least 2011.[2] Due to diminished global demand (for both residential and nonresidential construction), commodity prices have fallen globally, and other construction prices have fallen in some jurisdictions.[3] With new stimulus funds now available for infrastructure, government leaders can take advantage of lower construction costs while providing a needed boost to employment. An estimated $50 million project at Baltimore's BWI Airport, for example, will be built for $8 million less than original estimates in part because of increased competition among contractors.[4]

Low prices, however, may only be a temporary phenomenon. The need to spend new government funds quickly could actually send construction costs in the other direction if demand outstrips capacity in local and regional markets. Another distortion could occur if contractors adopt a "low-bid" strategy and subsequently recoup the discount through change orders. Governments should be aware of these risks and develop strategies to mitigate them through careful staging of capital programs and aggressive contract management.

Changing shape of the demand for PPPs. It is too early to tell for certain whether the infusion of public money will dampen or stimulate governments' demand for public-private partnerships or other creative financing solutions. During the first wave of stimulus spending in the United States, for example, the emphasis is on fast delivery and job creation. In later waves, attention will likely turn back toward achieving the goals that various PPP models were intended to satisfy: more infrastructure, delivered better, faster, and cheaper.[5]

More public subsidy does not have to mean less private capital. In fact, it could actually foster the reverse: better project economics, better credit and more private capital put to work. If the hundreds of billions in planned infrastructure spending in the stimulus packages can be leveraged with private funds, then stimulus dollars can generate an even more profound impact on nations' economies.

Indeed, there are many viable options for integrating stimulus funds into PPP project structures. In many countries, PPPs have been successfully executed for projects that required public subsidy to be viable. In those cases, government funding was used to "write down" particular project costs (capital and/or operating) or risk elements either up front or over the entire project life cycle. Such an approach could be used to leverage the stimulus funding.

In addition to writing down particular project costs, jurisdictions are increasingly looking for innovative ways to make projects viable by involving multiple public sector entities, both within and across jurisdictions. Public-public-private-partnerships, or "P4s," are starting to emerge as a way to get projects off the ground by combining multiple levels of public support. For instance, a new energy-from-waste project being developed in Staffordshire in the United Kingdom is a collaborative effort of a number of local governments that are banding together to achieve economies of scale that will make the project viable. Meanwhile, the United States has for decades employed public-public partnerships to develop and finance infrastructure through the creation of joint powers agencies, multistate authorities, regional development agencies and other vehicles.

American Recovery and Reinvestment Act of 2009 and PPPs

The ARRA will impact the infrastructure sector in two ways: the act increases federal spending on projects; and it expands the instruments available in the US municipal bond market to help ease recent tight credit conditions. We review each of these developments in turn.

Increased federal spending on infrastructure. While ARRA spending will increase infrastructure investment, the focus on speedy job creation is likely to direct the bulk of the money toward more traditional delivery and maintenance projects and away from new innovative and transformative infrastructure projects and delivery mechanisms. Specifically, the combination of "use it or lose it," "shovel-ready," and maintenance-of-effort provisions means that the money will need to be spent on projects that are near the end of or past the permitting stages and that can obtain financing within the next 12 months. Except for a few PPP projects that have been mothballed or delayed, it is unlikely that most PPPs will be able to meet these timelines. Coupled with the additional time and effort that state and local governments are spending to ensure compliance with the heightened accountability standards, the result is that most infrastructure developers simply do not have the increased up-front time required to fashion innovative delivery mechanisms in order to use ARRA funds in PPPs.

It is important to note, though, that while the ARRA may slow down PPP activity in the short term, the act could serve to accelerate it in the long term. As we have indicated, the amount of money being spent on stimulus falls far short of what is required. Using stimulus funds to "catch up" on deferred maintenance may free up budgetary and other resources in the future, helping to pave the way for development of new infrastructure through more innovative delivery mechanisms.

Changes in municipal bonds. The ARRA includes a number of provisions designed to broaden the base of investors in municipal bonds, thereby increasing private investment in infrastructure. While many of the newly created instruments are expansions or refinements of previous programs, one, Build America Bonds (BABs), represents a significant shift in the way municipal debt is structured. Historically, interest earned on municipal bonds issued for most governmental purposes has been exempt from federal income taxation. This implicit subsidy has lowered the cost of capital for state and local governments. However, it has also limited the investor base to parties for whom exemption from federal taxation has value — US taxpayers.

BABs are federally taxable bonds offered by municipalities in which the federal government makes the subsidy "explicit" by providing a reimbursement of 35 percent of the bond interest payable, either to the municipal bond issuer (in cash) or to the municipal bond holder (in the form of a tax credit). To date, all BABs interest reimbursements have been remitted to the municipal bond issuer. (The bond holder tax credit option is believed to be less efficient as a subsidy mechanism.) BABs, as taxable instruments widely salable beyond the traditional confines of the US municipal bond investor base, have the potential not only to broaden the investor base but also to impact the discussion on infrastructure financing, as the federal subsidy becomes more transparent.

American Recovery and Reinvestment Act of 2009 and PPPs (cont.)

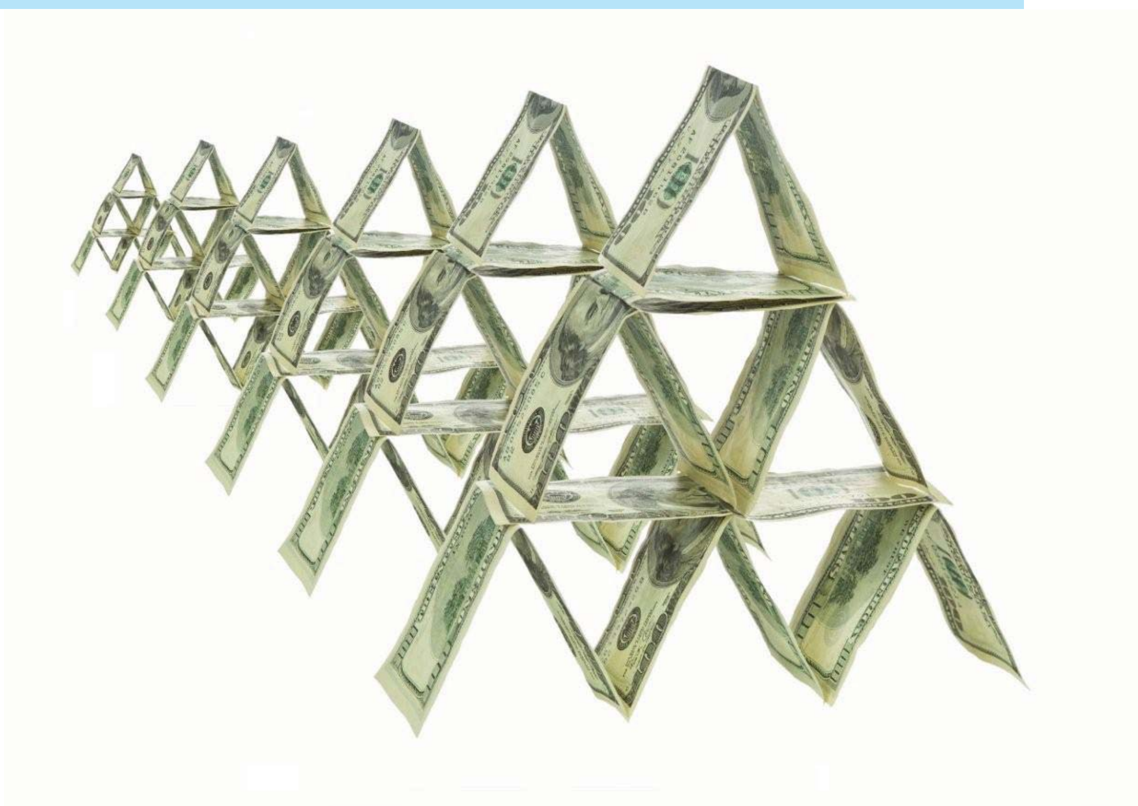
While BABs are unlikely to be used for PPPs because of the nongovernmental nature of the use of proceeds in PPP structures, there are two other ARRA municipal bond provisions that could prove directly beneficial to PPPs.

Private activity bonds (PABs) have been exempted from the alternative minimum tax (AMT), making such bonds fully tax free.

This exemption applies to PABs issued in 2009 and 2010, as well as to new PABs issued to refund bonds issued between 2004 and 2009. Use of PABs in PPP capital structures has been impeded by the application of AMT. The exemption will both lower the cost and broaden the investor base for PABs, making the US debt capital markets a more attractive source of financing alongside the traditional project finance loan market.

The secretary of transportation has been given a $1.5 billion allocation for Transportation Investment Generating Economic Recovery (TIGER) discretionary grants for transportation, of which up to $200 million can be used to support the Transportation Infrastructure Finance and Innovation Act of 1998 (TIFIA) program, for up to $2 billion in estimated new TIFIA loans.

TIFIA credit support has become an increasingly important component of US PPP financing strategies, partly in response to credit market conditions. In many recent deals, the advantageous price of a TIFIA credit facility has been a key driver of a successful bid. But renewed interest in TIFIA has led to a situation where loan authority is being rapidly depleted, and so this increased capacity should be well received and rapidly utilized.



On the supply side

Tightened credit markets. Financing markets are improving, but they may remain less attractive than usual for the near term. In this context, financing markets include both government bond markets such as the US municipal bond market (where infrastructure capital is traditionally raised), and the international project finance loan markets that provide capital for many PPPs.

While many market participants view infrastructure as an attractive defensive asset class during this recessionary period, the dynamics of the credit markets, particularly with respect to the tenor of debt, have moved in the opposite direction. As a result, deal volume is down. Transactions that are being executed are taking more time, incurring higher costs and relying more heavily on official funding from institutions like the European Investment Bank and TIFIA. While several sizable, precedent-setting transactions (the UK's M25 and Florida's 1-595) have closed recently, several others (Chicago Midway Airport and Florida's Alligator Alley) have not proceeded in part because of conditions in the financing markets.

The table below highlights the range of capital structures executed recently for major infrastructure projects in the United States. As shown, gearing levels vary widely, with one transaction completed on an all-equity basis, and two transactions in the more traditional high 80 percent debt range.

A number of governments are proactively trying to ensure that the credit crisis does not stall needed infrastructure projects. The UK government has decided it is better to provide additional government-backed debt finance than to delay projects or restructure scores of scheduled PPP transactions. Toward this end, the UK Treasury announced in February 2009 that it will lend directly to those Private Finance Initiative (PFI) projects that cannot on their own raise sufficient debt finance on acceptable terms. Across the EU, the European Investment Bank has increased lending to ensure that significant deals are executed. Similarly, the US Department of Transportation will expand its TIFIA credit program for infrastructure (see nearby box).

Variability in equity returns. In principal, the great variety of PPP structures makes it difficult to generalize about equity returns in the infrastructure market. For example, in some PPP structures, reduced gearing can lead to lower equity returns. In others, it can have the opposite effect. The difference lies in the nature of the revenue supporting the structure. For example, in availability payment–style structures where debt costs are passed through to a government payor, equity returns are stable or rising; in availability payment–style structures where revenues are fixed, equity returns are stable or declining. That said, growing competition in the sector should put pressure on returns over time, which could prove problematic for some market participants who achieved early dominance.

Table 1. A look at the capital structure of recent U.S. PPP deals

Transaction	Date	Value ($millions)	Debt ($millions)	Debt/equity ratio
Texas SH130	3/08	$1,360	$1,190	87/13
Virginia Capital Beltway	6/08	$1,930	$1,180	61/39
Chicago parking meters	2/09	$1,150	None	0/100
Florida I-595	3/09	$1,670	$1,460	87/13

Potential flight to quality. On the plus side of the equity equation, there is likely to be an eventual "flight to quality," with investors seeking sound prospects in the infrastructure sector, particularly if other asset classes remain severely impaired. This is particularly relevant for pension funds, since long-term infrastructure projects are a good fit for pension fund liabilities. Over the past several years, billions of dollars have migrated to infrastructure funds — the total value of which now far exceeds the likely equity component of PPP projects in the pipeline (see table 2).

Table 2. Infrastructure investors

Strategic buyers/ concessionaires	• Traditionally, operators, developers or contractors in the infrastructure sector • Often benefit from sector operational expertise, which can enhance the value of their bids • Long-term investment strategy	• Abertis • ACS • Acciona • Aecom • Bombardier • Bouygues • Brisa	• Cintra/Ferrovial • FCC • Global Via • Hochtief • Kiewitt • Laing • OHL	• Sacyr • Siemens • Skanska • Transurban • Veolia • Vinci • Zachry
Infrastructure funds	• Private or listed equity funds focused on infrastructure investments • Strong liquidity awaiting investment opportunities • Lower equity returns than for financial sponsors • Typically look to take part in a consortium • Medium- to long-term investment strategy • Fund sizes are smaller than for financial sponsors	• ABN-Amro • Alinda Capital • AMP Capital • Borealis • Carlyle • Challenger • CII • CPP Investment Board	• Colonial • Commonwealth • EQT • GIP • Goldman Sachs • Hastings • Industry Funds Management • JP Morgan	• KKR • Macquarie • Meridiam • Morgan Stanley • Ontario Teachers' • Prudential • RREEF • UBS
Financial sponsors	• Private equity funds with shorter exit strategy • High equity returns (+20%) may limit ability to bid competitively, but have been achievable in certain opportunities • Normally look for short-term investments with a clear exit strategy • Typically look to take part in a consortium • Fund sizes range from $6bn to $16bn	• Apollo • Bain Capital • Blackstone • Clayton, Dubilier & Rice	• KKR • MDP • Providence Equity	• Thomas H. Lee • TPG • Warburg Pincus

In summary

Infrastructure funding and finance is in a period of flux. On both sides of the equation — supply and demand — there are positive and negative influences resulting from the credit crisis and governments' responses to it. How those influences will settle out over time remains to be seen, but it is clear that infrastructure needs remain pressing the world over and that governments will struggle to meet them, particularly on the heels of a global economic downturn that will have deleterious fiscal impacts.

Given that dynamic, there should be an ongoing role for the private sector in the development of infrastructure and the public services delivered through it. The credit crisis may have temporarily changed the economics of public-private partnerships as financial transactions, but it has only served to highlight the need for new approaches to solving the world's infrastructure problem.

Endnotes

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[5] See "Closing the Infrastructure Gap: The Role of Public-Private Partnerships," Deloitte Research, 2006 for more information on the benefits of PPP models.

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