Infrastructure finance – surviving the credit crunch

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talking points

PRICEWATERHOUSECOOPERS

Contents

Foreword

A lot has changed in the few short months since we first published this opinion piece in July.

Listed infrastructure funds' share prices have declined on the back of concerns about the transparency of the underlying funds, their levels of indebtedness (in particular the refinancing of short-term debt), reduced operating revenues and the financial stability of sponsors and fund managers. Despite these difficulties, assets like Angel Trains and Belfast airport changed hands, although the mega-deal that was the Pennsylvania Turnpike sale failed to complete.

The debt markets have all but dried up. The liquidity crunch that started with the housing market – wiping out the short-term commercial paper funding market and also claiming the CLO and CDO securitisation market – left banks with little source of liquidity and froze the interbank market. Governments across the world have stepped in to provide liquidity to banks, including full or partial nationalisation. The list is a veritable 'who's who' of the project finance market: RBS, Lloyds/HBOS, Dexia, Depfa, ING, Fortis.

In addition, even though Lehmans was not a large infrastructure lender, their failure had an impact on liquidity as many lenders lost money on deposits and counterparty derivative positions. The US Government has also rescued and nationalised AIG with a two tranche financial injection – firstly $85 bn, then $38 bn (how does one actually spend $85 bn in the space of a few weeks?). This action provided a critical underpin to the CDS market where AIG were a dominant force.

There are some early signs of improving markets conditions, with interbank lending rates crawling downwards on the back of government guaranteeing interbank lending. Regrettably this has not yet had any material impact on infrastructure finance liquidity. Also, Lloyds TSB Corporate Markets is reported to have sold a €1 billion project finance-backed CLO structure to a single institutional investor.

The outlook for the near term remains grim. Few deals will close. Many deals have already been put on ice. The long term health of the infrastructure finance market is reliant on the return of institutional debt markets. Bank debt is simply insufficient and inefficient as a source of long term finance and further government intervention is pointless. Expect attention to be focused on how to attract pension fund and insurance company debt back into the infrastructure finance markets in 2009. Only then will pricing stabilise and liquidity return.

Richard Abadie
Head of Infrastructure Finance
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Introduction

Across the globe, governments are increasingly turning to the private sector to fund critical infrastructure developments. Whether in the energy, environmental, transport or social infrastructure sectors, the private sector is funding the infrastructure assets which provide core public services. Growth in private lending has increased almost five-fold in the last 10 years. At a time when governments face financial constraints due to high levels of borrowing and taxation, and should be increasingly turning to the private sector to meet the infrastructure funding gap, the financial markets are in turmoil due to the credit crunch.

What is the credit crunch, how has it affected the infrastructure markets, and what is the outlook for the future?

One year on from the beginning of the credit crunch, this opinion piece explores some of the issues surrounding the infrastructure marketplace and considers likely outcomes of the credit crunch on the future of the market.

Background: the global infrastructure market

The drivers for infrastructure investment may vary from country to country but demand continues to rise. While the world's developed economies such as the UK and the US are facing the need for significant investment to upgrade or replace ageing infrastructure, emerging economies such as India and China are aggressively focused on building new infrastructure to facilitate economic growth and prosperity.

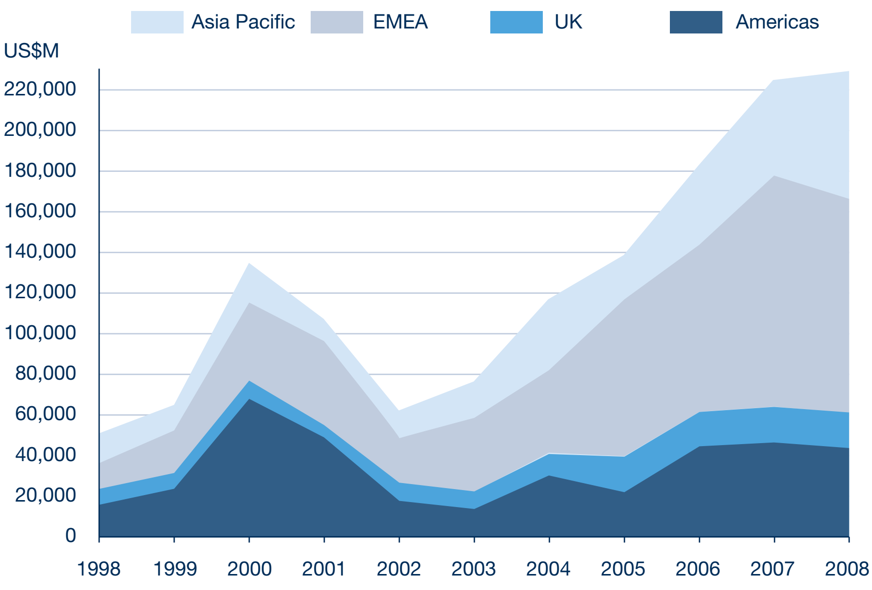
The OECD estimates that the required investment in road, rail, telecoms, electricity and water infrastructure will reach US$71 trillion by 2030, without even taking into account seaports, airports and social infrastructure; this represents approximately 3.5% of global GDP to 2030.[1]

The growing demand for infrastructure worldwide, in both developed and emerging economies, continues to put intense pressure on public budgets, especially in countries with fiscal deficits. Higher energy prices as well as demographic, social (healthcare, pensions) and environmental concerns also add to the strain on public finances.

Traditional forms of government public funding and procurement continue to dominate the infrastructure market. However, the proportion of public spending on infrastructure in the developed economies has steadily fallen and governments face political and financial constraints on their ability to raise taxes and increase debt. Government treasuries are being squeezed as they are geared-up close to breaking point, and taxes are at high levels.

There are few sources of funding that governments can access to finance significant infrastructure investment. The OECD report *Infrastructure to 2030* suggests that the use of private finance to address the infrastructure backlog is growing. This growth in private finance funding infrastructure can be seen in Figure 1.

Figure 1: Global project finance volumes



Source: Compiled from data from Thomson Reuters.
Data for 2008 has been estimated by extrapolating data through July 2008 into the full year

1 OECD, 'Infrastructure to 2030' report, 2007

The finance going into building or refurbishing infrastructure ultimately comes from the private sector, whether in the form of borrowings by government or by private lending directly to infrastructure companies. The challenging question is: how it will be repaid? Repayment is either through taxation or user charges, or through even more public borrowing. The source of repayment is down to a policy decision by government – whether they believe repayments are more equitable coming from the wider taxpayer base or the narrower user base.

The full tariff impact of comprehensively investing in a country's infrastructure is one that cannot and should not be fully borne by users in the early years. Government intervention through direct or indirect financial support during this time is necessary until tariff levels increase to the point where infrastructure charges are sufficient to repay the ongoing finance and operating costs of the assets. Regrettably, many governments – often for short-term political reasons – are unwilling to implement sustainable user charges or support projects through their early years.

The credit crunch

At a time when governments are, or should be, looking for private finance to fill the gap left by government underinvestment, the world's financial markets have been hit by the credit and liquidity crunch.

> *"Credit crunch" is where there is a sharp reduction in the availability of finance or a sharp increase in the cost of finance.*

The collapse of confidence in the banking sector that followed the crisis in the US sub prime property market sent shock waves across the entire global financial community, with total losses estimated to reach over US$500bn. There are conflicting views as to whether a correction is working its way through the markets, but the upturn may take longer than anticipated.

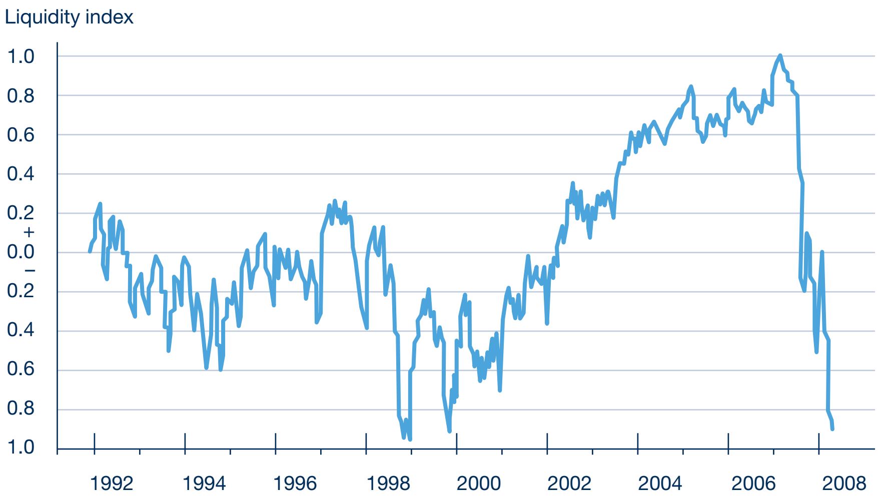
Changes to the ways banks approached lending were summarised by the UK House of Commons Treasury Select Committee: *"Traditionally, banks have operated under an 'originate and hold' banking model, so-called because banks held loans to maturity. Many banks have now moved toward an 'originate and distribute' model, where loans are made but then sold to investors"*[2]. While diversifying risk for the originators, the model has resulted in a contagion in the financial markets that few could have contemplated.

The result has been a domino effect across financial markets, leading to large write-downs, a credit squeeze, a dramatic fall in asset prices, and a slowdown in world growth. The situation has been made more difficult by price volatility in both currencies and commodities, with rising oil and food prices adding to the anxiety.

The uncertainty of the impact on individual banks has led to the reluctance of banks to lend to each other in the inter-bank markets, requiring central banks to step in to provide liquidity to the system – and in extreme scenarios to rescue banks that would otherwise have failed due to a run on deposits, as can be seen in Figure 2 below.

One year on, the problems continue with significant uncertainty as to the value of collateralised debt obligations on the balance sheets of banks, for example, Merrill Lynch selling their US $30bn portfolio at 22% of par.

Figure 2: Liquidity index



Source: Bank of England, Financial Stability Report, April 2008

2 UK House of Commons Treasury Committee 'Financial Stability and Transparency' report, February 2008

Evolution of the infrastructure finance markets

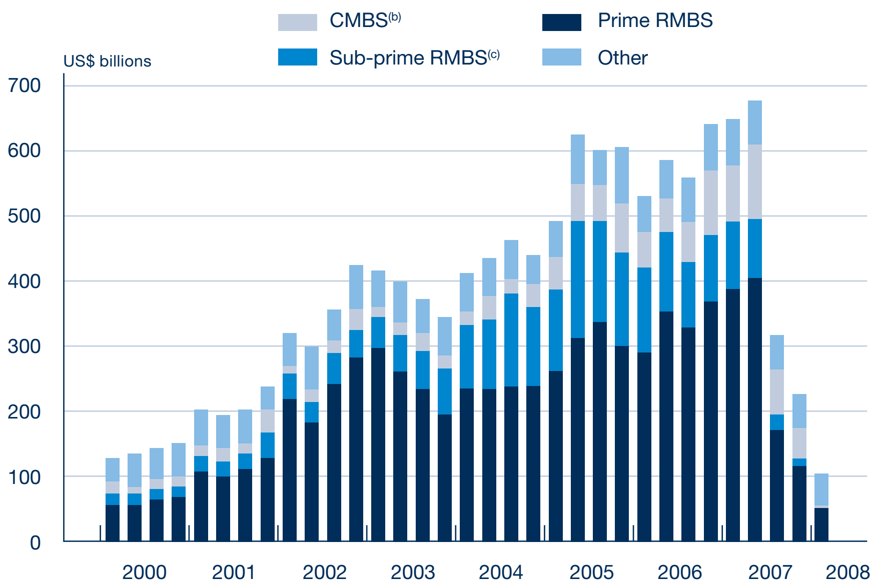
For many years infrastructure was considered the unattractive end of the debt markets – due to the perceived high risk arising from the long life of the asset, and the consequent difficulty in forecasting revenues and costs related to the asset.

This started changing in the 1990s when project finance teams began focusing on infrastructure as a dedicated asset class rather than as a poor cousin of the energy markets. Early deals were characterised by short tenors relative to the life of the underlying asset or contract, with high margins and cover ratios.

The entrance of the capital debt markets into infrastructure provided increased competition with bank debt and consequently more competitive costs of finance. It also brought with it the era of highly structured, often off-balance sheet, finance vehicles and instruments. SPIVs/conduits (special purpose investment vehicles), CDO (collateralised debt obligations), CLO (collaterised loan obligations), CDS (credit default swaps), GIC (guaranteed investment contracts) and the like had most borrowers scrambling for their advanced finance textbooks.

In the early 2000s, an increasing number of large project finance lenders aggressively cut back on their project and infrastructure finance lending business or amalgamated them into their wider leverage finance business. This led to the now well-practiced strategy of "originate and distribute", often cycled through the dedicated securitisation structures. For context, Figure 3 above shows the growth, and decline, in ABS issues which provided critical liquidity to the mortgage market.

Figure 3: Global issuance of asset-backed securities



Source: Bank of England, Financial Stability Report, April 2008

These were initially used to de-monetise a bank's balance sheet but then took on a life of their own as they became conduits for banks to originate business, take a fee, and then sell on the exposure.

The complexity of these structures was driven by increasingly intricate mathematical models that allowed rating agencies to convince themselves, and investors, that the structures were low risk. Some of the banks that created the structures even began to believe the hype that surrounded them and started holding them as low-risk assets on their balance sheets.

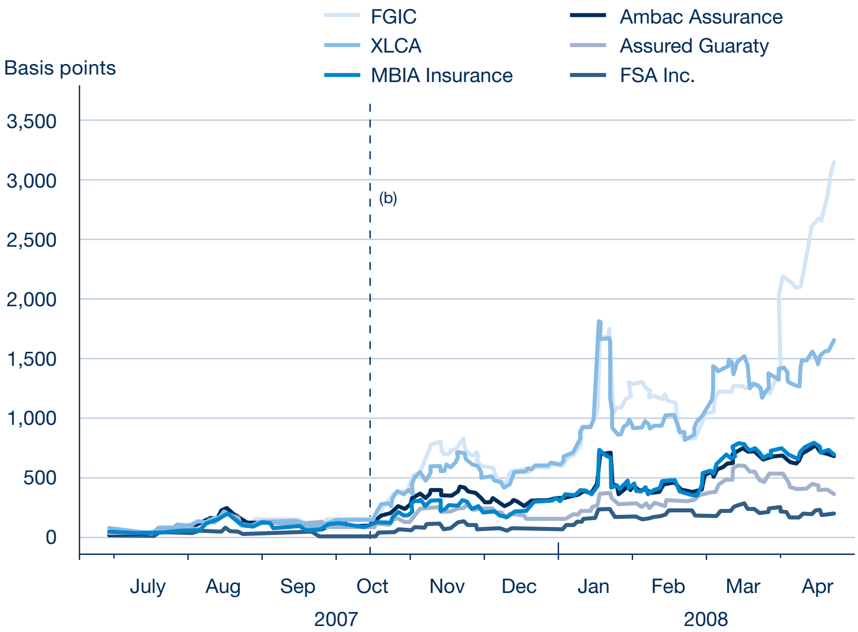
Impact of the crunch on infrastructure funding

The graph in Figure 1 on page 2 shows that current global project finance volumes are on track to match 2007 and be ahead of 2006. This is welcome news to those active in the infrastructure sector and demonstrates the partial resilience of the sector to the turmoil in the wider market. Nevertheless, one has to dig below the surface of the raw data to better understand the conditions in the market.

The European infrastructure finance market has predominately been a bank market with the bond markets playing a small but important role on some primary transactions and a larger role in the secondary (refinancing, securitisation) markets.

In Europe the infrastructure finance bond market has had a symbiotic relationship with the monoline insurance market. Monoline insurers guaranteed the repayments to bond holders in return for a fee, reducing overall project costs and broadening the bond investor base. The almost universal downgrading of the monoline insurers from their previously lofty AAA status (see Figure 4 for changes in CDS on monolines), has resulted in only one wrapped infrastructure bond issuance since the credit crisis started. As there is no immediate prospect of the downgraded monolines being upgraded to AAA status, the bond markets remain off-limits to infrastructure finance borrowers.

Figure 4: CDS on Monolines



Sources: Markit Group Limited, Thomson Datastream and published accounts.
(a) Data to close of business on 22 April 2008. (b) October 2007 Report.

The infrastructure finance bank lenders have brought back some of the long-forgotten "boiler-plate" aspects of syndicate lending – structural and pricing market flex; pass-through of bank cost of borrowing; market disruption events; low hold levels; arranging on a best endeavours basis – with project financiers and investors alike opening up dusty training manuals to remind themselves what the terms mean and what they were used for. The views of syndicate desks now dictate lending decisions.

The markets have regressed from pre-credit crunch peaks, although many bankers have been arguing for several years about the almost suicidal pricing seen on infrastructure debt transactions. One senior UK banker regularly gave presentations comparing the pricing, structure and security of the debt in 2004 to that in 2000, noting the material change in the market and questioning where it would lead. His concerns were justified and the bubble of cheap credit has now burst.

Non-economic infrastructure

Terms have deteriorated slightly for those infrastructure transactions where government pays the private sector for services delivered (like the UK Private Finance Initiative). In highly rated countries, debt margins and fees have increased from the c60-80bps (basis points) level to 100-150bps. Other terms like cover ratios, tenors and security packages have not changed significantly. In lower rated countries, credit margins have widened as underlying country risk premiums have widened. Lenders often perceive non-economic infrastructure transactions to be quasi-government credit and therefore price them accordingly. Such deals are likely to see an improvement in terms ahead of economic infrastructure transactions, if and when markets improve.

Economic infrastructure

Where the borrower is reliant on user-charges to fund its business, lenders have become significantly more cautious. Economic infrastructure finance raising is likely to be challenging for some time to come and the business risk of these transactions is certainly higher. In particular, the impact of the credit crunch on users' discretionary spending will influence revenues.

Examples of the impact include:

- lower landing fees for airports as most major airlines (e.g. BA, American, US Air, Delta, United) announced around 10% flight cuts due to lower demand (and Oakland International Airport delayed its expansion); and
- lower fuel taxes and toll revenues for both government and road operators as road users cut back on journeys (e.g. the US Federal Highways Administration announced that vehicle miles travelled on US public roads dropped 3.7% year-on-year to May 2008).

Funding for large brownfield monetisations (like the Pennsylvania Turnpike at $12bn+) are finding credit margins are well above 200bps and tenors are relatively short. New greenfield demand-linked transactions are likely to incur similar margins. Also, unlike non-economic infrastructure contracts, gearing levels are dropping with increased calls on equity (and higher cover ratios) as lenders seek to recapture ground they feel they lost in the heady heights of the exceptionally competitive pre-crunch markets.

Borrowers in pre-crunch projects and businesses now face the awkward challenge of how their forecast demand levels compare with actualised demand and how shortfalls impact on debt covenants. Whether, and to what extent, reduced demand causes losses to investors and lenders will be dependent on the robustness of the financial structures. This will be particularly challenging for those borrowers that raised short-term finance with a view to refinancing once the project had entered operations. They may face the double hit of worse than forecast debt terms and revenues, or even be unable to refinance at all.

Market capacity

The liquidity constraints referred to earlier have certainly impacted the appetite of lenders into infrastructure.

Pre-credit crunch, large banks were willing to enter into sole-underwrite positions at a fixed price on large infrastructure deals. Now these same banks want one or more co-underwriters and require market flex (a right for lenders to increase interest rates) on pricing (and sometimes other terms). Credit committees want much higher comfort that they will be able to sell down debt through the syndication markets, to avoid holding significant debt on their balance sheets. Some borrowers are responding by asking banks to "club" together ahead of financial close to remove the risk of changes in terms that may otherwise arise from the market flex process.

This will be the reality for some time as there are no signs of a return to pre-crunch "underwrite and syndicate (without market flex)" deals. Either "club and hold" or "underwrite and syndicate (with market flex)" deals will remain the norm, with hold levels across Europe for strongly rated banks in the £40m-£50m range.

Infrastructure equity

Much of the debate to this point has focused on infrastructure debt. However, a commentary on the infrastructure finance market would not be complete without some comment on infrastructure equity. Infrastructure assets tend to be highly leveraged, with equity ranging between 5-40% of the total funding. Non-economic – and therefore lower risk – infrastructure requires equity in the 5-15% range whereas on economic infrastructure it is often higher.

In recent years, institutional interest in infrastructure has seen a tremendous number of new funds created by banks, fund managers and private equity groups in which institutional investors can participate. These funds are focused on economic infrastructure and have joined several core Australian and Canadian funds that have been investing in infrastructure since the 1990s. The size of the infrastructure fund market has been estimated at between US$250bn-$300bn but could be more.

These funds have been raised against an undertaking of yielding a certain return to investors. These returns may be impacted by reduced demand and higher interest rates arising from the credit crunch. The precise impact will be different across the funds, dependent on the volatility of demand and funding costs. Those funds, for example, that have relied on short term leverage to boost returns, will face a particular challenge when refinancing. Similarly, any funds that were looking for short term exit strategies, rather than the more obvious long term play that infrastructure represents, will find that exiting into today's market is a costly choice.

Both fund managers and investors may see a reduction in profitability over the next couple of years, however, the long term fundamentals of their investments remain unchanged.

A reason for optimism

Investors and lenders are attracted to the infrastructure asset class as (amongst other benefits) the sector offers:

- core services that customers cannot do without;
- high barriers to entry due to the significant investment required in capital assets to provide the related services; and
- revenues linked to inflation and reasonably predictable cash flows.

These fundamentals do not change. While demand may change due to macro or microeconomic events, the business risk remains relatively low. However, the financial risk of the infrastructure business is largely driven by the borrower; it is therefore reasonable to expect short term reductions in profitability and possible debt restructuring where borrowers have overlaid excessive financial risk over the long term fundamental business risk.

The outlook for infrastructure financing: *Back to the future*

Infrastructure finance has shown itself to be more resilient to the credit crunch than many other markets, boasting a good track record of well structured deals supported by stable assets.

Fundamentally, the appetite for infrastructure finance remains strong, especially for core, stable operating infrastructure. This is evidenced by a growing pipeline of new projects (especially in emerging markets) and a rise in the number of infrastructure funds.

The credit crunch and global economic slowdown will continue to dampen activity in all financial markets, and the infrastructure sector will be no exception.

While there are widespread concerns about GDP growth and interest rates, the long term health of the infrastructure finance markets is dependent on the return of the institutional debt markets to the infrastructure sector. Until then borrowers, and consequently users and taxpayers, will continue to pay higher prices for private finance. Good deals with appropriate risk apportionment and strong commercial structures will continue to find finance.

While some borrowers as well as many government procurers refer to terms reverting back to the height of the market, it is a naïve notion to expect the markets to revert to the low pricing obtained in the first half of 2007. Such conditions are unlikely to be seen again, or at least not in the average career-span of most infrastructure financiers.

Contacts

Head of Infrastructure Finance Advisory

Richard Abadie
+44 (0)20 7213 3225
richard.abadie@uk.pwc.com

About the author

Richard Abadie is the global head of PricewaterhouseCoopers' Infrastructure Finance Advisory business. He has over 10 years experience working on privately financed infrastructure transactions and has advised governments and developers on transport, environmental and social infrastructure PPP projects globally. He spent two years on secondment at the UK Treasury where he led the PPP team, and also worked for a South African contractor, was a director of an international toll road operator and is a qualified accountant and Chartered Financial Analyst.

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PricewaterhouseCoopers is a leading provider of advisory services to the public and private sectors on the financing, procurement, privatisation and commercialisation of infrastructure projects around the world. We have over 500 people globally specialising in infrastructure finance advice. We have provided advice on over 400 signed projects with a private financing requirement in excess of US $89 billion. We are consistently ranked amongst the leading global financial advisors in various infrastructure sectors.

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