



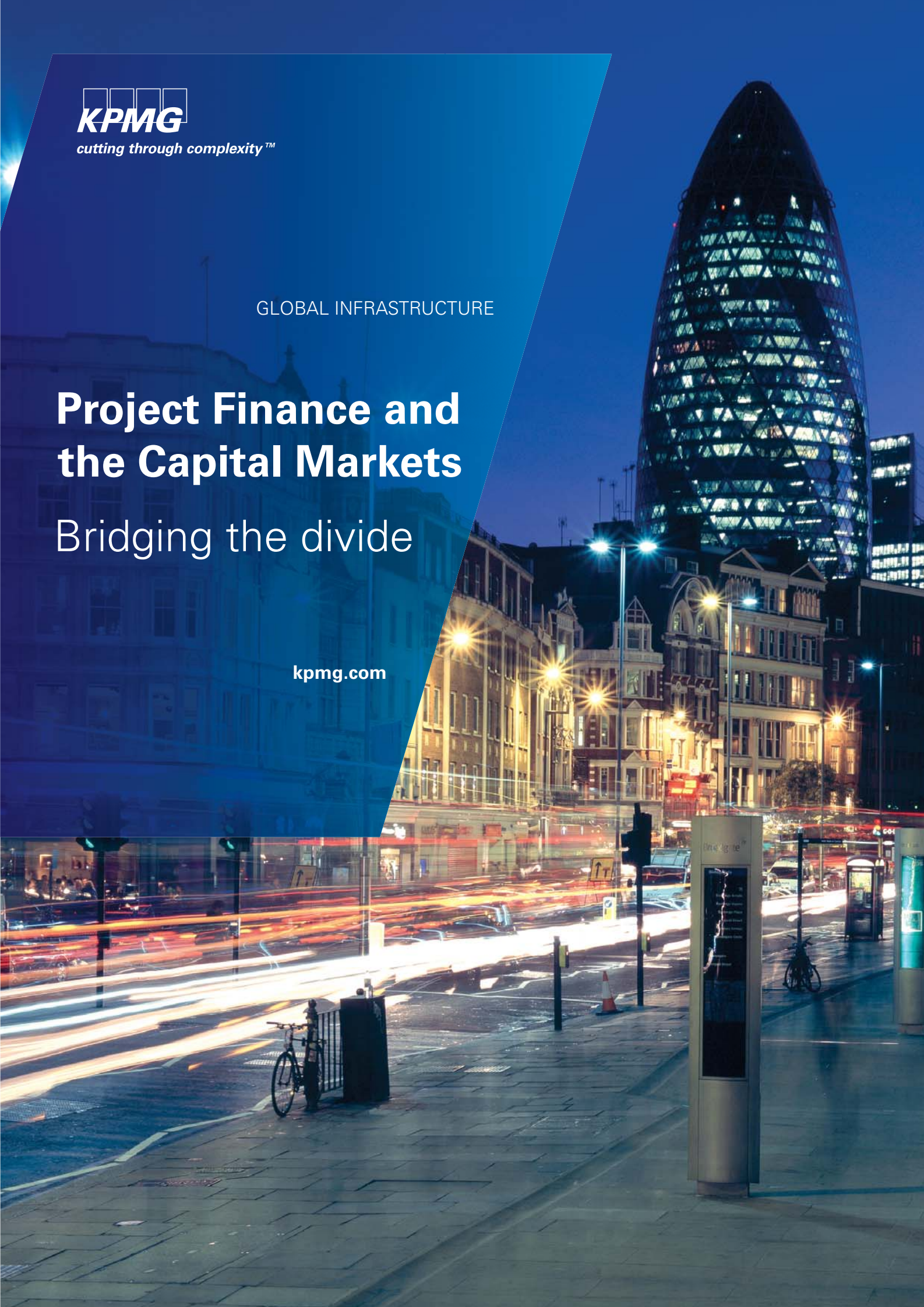
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GLOBAL INFRASTRUCTURE

Project Finance and the Capital Markets

Bridging the divide

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Project Finance and the Capital Markets – bridging the divide



Contents

Section 1	
Executive Summary	1
Section 2	
Introduction	3
Section 3	
The Hadrian's Wall Capital Product	7
Section 4	
Quantitative Analysis	9
Section 5	
Qualitative Considerations	13
Section 6	
Conclusion	17



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the more natural home for long term infrastructure assets is with institutional investors



Executive Summary

Despite the global banking crisis, the project finance market remains dominated by commercial banks. Whilst project finance lending has stood up well from a credit perspective, the liquidity of the market has been severely impacted. Long term lending remains an unattractive proposition for many banks and with the advent of Basle III the situation is unlikely to improve dramatically. Market commentators recognize the more natural home for long term infrastructure assets is with institutional investors but in the absence of the monoline insurance

industry, there remain a number of barriers to accessing the bond market for infrastructure projects. A number of potential solutions are being developed to address this challenge and one such product is that offered by Hadrian's Wall Capital ("HWC"). The purpose of this paper is to examine the barriers to accessing the debt capital markets for project financing and provide a qualitative and quantitative analysis of the HWC product as compared to the current project finance bank market.



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the global demand for infrastructure remains significant, US\$40 trillion over the next 20 years



Introduction

The rumours of the demise of project finance after the global financial crisis have proved to be unfounded. Project finance remains a key tool for financing infrastructure on a global basis. The global project finance lending volume for 2010 was US\$167bn, the second highest on record¹. However, the global demand for infrastructure remains significant, US\$40 trillion over the next 20 years². This is necessary to deliver essential energy, transportation, water and social infrastructure projects. Given the fiscal position of many Governments, project finance is seen as an important mechanism to deliver much of the infrastructure finance required.

Whilst project finance has demonstrated its robust credit characteristics, the market remains dependent on commercial banks. There remains an absence of any significant syndication market and liquidity is reduced. Many large international project finance transactions remain dependent on multilateral agency ie EIB or export credit agencies to provide significant liquidity. The maximum liquidity of the commercial bank market is estimated to be around a maximum of US\$2bn per transaction.

Whilst many commercial banks have reaffirmed their appetite for project finance within the infrastructure market, pricing remains at levels established post the collapse of Lehmans in 2008 and many banks remain averse to long debt tenors ie over 20 years. Furthermore, the impact of the recently announced Basle III capital regulations remains to be assessed but does little to provide any optimism around increased liquidity. It is challenging to see any drivers in the market that will reduce pricing or significantly increase bank market liquidity.

The long term infrastructure financing market sits more comfortably with natural long term institutional investors ie the pension funds and insurance

¹ Dealogic Project Finance Review - First half 2010

² OECD Estimate

companies, who seek a diversified portfolio of assets to match their long term liabilities. However, there are a number of key obstacles to accessing these capital markets which are examined in this paper.

This is not a new issue, when the UK PFI market developed over 15 years ago institutions such as Prudential, Norwich Union and Axa developed fixed income debt products for the market. Then the UK market was transformed by the rise of the monoline insurers. These were AAA rated entities providing credit insurance (known as “wrapping”), typically for BBB-/BBB rated projects, thereby enhancing the rating to AAA and enabling debt to be sold to a bond market with a voracious appetite, particularly for index-linked Sterling paper. The monolines provided credit structuring and monitoring skills that meant institutional investors did not have to invest in developing specialist in-house credit teams. The bond option offered borrowers a pricing arbitrage through the relative low cost premium charged by the monolines as well as offering long term fixed rate funding. The commercial banks responded to this challenge by competing on credit terms and this was one of the factors that led to a very aggressive bank debt market forced to accept long tenor financing, low pricing, tighter covenants (e.g. cover ratios) and reduced project liquidity (e.g. cash reserves replaced by stand-by facilities).

The plight and subsequent downgrading of the monolines is now clearly documented, although it is fair to say that the model applied to infrastructure financing was not particularly flawed. However, it did mean bond investors did not have to invest in credit and monitoring teams so little expertise developed within the institutional investors. It is widely acknowledged that the monoline model is unlikely to return in any meaningful way at least in the short term.

From 2008, during what should be more accurately described as the liquidity crisis in project finance, a number of products were mooted to reconnect to the institutional bond market. Many of these were senior debt funds, often developed from the remnants of the monoline industry. Attempts were then made to create unwrapped bond financing solutions. This has demonstrated a number of practical challenges;

- institutional investors in UK and Europe typically do not have in-house resource to structure or analyse a complex project financing;
- there is limited appetite from investors for low yielding debt at credit ratings in the BBB range; and
- project financing tends to require a high degree of monitoring during the term of the debt with institutional

investors requiring significant disclosure of project information. In particular, during the construction period there is often a high level of active decision making required arising from waiver requests or changes to technical specifications.

The most significant challenge is in the credit rating requirements of investors. Typically, project financing involves a significant level of construction and delivery risk. This tends to restrict the ability to achieve a high credit rating. The majority of historical UK PPP projects funded through the monoline bond market demonstrated an underlying rating of BBB-/BBB. Significant bond market liquidity only really exists for credit ratings at BBB+/- A- and above. To achieve this level of rating for a new build primary deal will typically require significant construction/delivery risk mitigation in the form of corporate and third party credit support through parent company guarantees, letters of credit or surety bonding. This is both unattractive and expensive for contractors and therefore inhibits the development of the project bond market.

To solve these issues, attempts are being made to access the bond market by alternative credit enhancement structures. One such product is being developed by Hadrian's Wall Capital.





The Hadrian's Wall Capital Product

The HWC product has been developed to offer an integrated debt package to a borrower through a single debt instrument provided at a spread over the appropriate Gilt. HWC will then tranche the debt into two sources, a senior piece (the "A Notes") and a subordinated piece (the "B Notes"). The A Notes will be issued as senior bonds to the capital markets and the B Notes will be placed with a fund managed by Aviva. The fund, through the B notes, will provide a "first loss" tranche of debt for a project. If we take the example of a PPP transaction where senior debt may be 85 percent of the total funding requirement, the concept is that the fund will provide say 10% of the funding requirement. Under any loss scenario this tranche would be impacted first. The A Notes, representing the remaining 75 percent, are therefore credit enhanced. The aim would be to take the total project debt with a rating of BBB-/BBB and use the fund to enhance the risk profile of the A Notes to at least BBB+ and therefore attractive to the capital markets.

The structure uses the principle of some real estate funds where the B Notes are the controlling creditor of the project unless the project performance falls below pre-defined thresholds, in which case the A Notes take control. This alleviates the need for bondholders to manage the project on a day to day basis unless the project is in distress. Once executed, the role of Hadrian's Wall Capital would be to provide a monitoring service for the investors to ensure they receive timely information.

It could be considered that the B Notes are, in effect, mezzanine debt, the important difference being that the total debt (A Notes and B Notes combined) is rated investment grade and whilst the loss given default of the B Notes is higher, the probability of default is equivalent to the usual senior debt position.

Fundraising is in process and the fund has currently secured Aviva as its core investor and fund manager. It is understood that the EIB is also considering an investment in the fund to support its role in unlocking other sources of capital for key infrastructure projects across Europe. The fund will be initially able to provide debt in Sterling and Euros.





Quantitative Analysis

So how does the pricing work out?

Prior to the financial crisis when the monoline industry competed with commercial banks, it was quite normal to analyse, qualitatively and quantitatively, the bank debt funding option against a monoline wrapped bond solution. This exercise was not always straightforward as pricing and tenor advantages of the bond solution were generally offset by higher cover ratios and liquidity requirements when compared to the bank option. In order to provide some context to the potential benefits of the HWC product, KPMG in the UK has modelled a hypothetical project financing comparison between a bank debt solution and the HWC structure.

We have assumed a large scale project on the basis that the key benefit of the HWC product is primarily to provide liquidity and the structure is unlikely to be cost effective for small deals due to the set-up costs. In the current market, small to medium size deals ie £50-200m are readily financed in the commercial bank market by a small number of banks with a willingness to offer long term amortising debt with a degree of tension in pricing. However, for financings in the order of £500m and above the number of banks needed increases. The requirement

to bring in more banks, who typically may have appetite for around £75-100m tickets, may mean the credit structure will be determined by the most risk averse or highest priced bank. This will have an impact in terms of increased pricing, reducing debt tenors and the need for Sponsors to take refinancing risk as cash sweep mechanisms are introduced (the “soft mini-perm” structure). HWC will be targeting infrastructure financings of £/€ 200m+.

Therefore, the project assumed for this exercise assumes a capital cost of £1bn. We have assumed it would be an availability based PPP with a low level of operating leverage (the ratio of operating cost to annual Unitary Charge being around 30 percent). The project might represent a standard road, accommodation or rail project as there is a large dataset of financed projects that demonstrate typical bank market credit requirements and also the requirements of rating agencies to achieve an investment grade rating. A concession of 30 years with a construction period of 4 years is assumed. The Unitary Charge is only partially indexed for the portion relating to variable costs such that the interest rate on the debt is fixed.

The key assumptions are detailed below:

Assumption	Bank Debt	HWC Structure	Comments
Funding requirement	£1.2bn	£1.2bn	
Gearing	88%	88%	Gearing is set by assumed cover ratio requirements
Tenor	28 years	28 years	In theory the bond market can extend to tenors up to 40 years. However, HWC may be unwilling to have a significantly higher risk profile to the bank solution
Total underlying rate	20 year LIBOR swap rate 3.85% Swap credit spread of 30bp plus MLAs All in rate 4.18%	Gilt All in rate 4.11%	Rates taken on same date for comparison (4/11/2010) update
Margin	2.5% during construction 2.25% during operation, increasing by 25bp every 10 years	2.1%	Bank debt pricing based on a broad range of medium-large availability based financings over the last six months HWC pricing based on assumed underlying bond spreads of G+100bp for BBB+ issue by reference to recent utility bond issues plus a premium of 50bp to reflect the lack of familiarity that investors have for the product resulting in assumed A notes funding of G+150bp. In order to achieve the return requirement for the fund (of 11-12%) the all-in rate will need to be around G+210bp
Arrangement Fee	2.0%	0.75%	Bond Lead Manager fee and HWC upfront structuring fee
Cover ratios	x 1.2x ADSCR 1.25 LLCR	1.2x ADSCR 1.25x LLCR	Assume bank debt solution for a large project would not reduce cover ratios to reduce overall price
Equity provision	Equity Bridge Loan supported by Letter of Credit	Equity injected at end of construction supported by Letter of Credit	
Drawdown	Staged during construction	Upfront and funds placed into a GIC with a rate of 2.0%	
Reserves	Change in Law Account Maintenance Reserve Account Debt Service Reserve Account	Change in Law Account Maintenance Reserve Account Debt Service Reserve Account	
Additional Costs	Commitment Fee of 50% of applicable margin Agency Fees	Additional legal transactional costs Rating agency costs pre-FC and over the life of project HWC agency fee	For the initial transactions, the requirement to document the HWCF structure will require higher legal costs

Based on the assumptions above the resulting Unitary Charge under the HWC model is **0.9%** below the bank debt scenario. For this hypothetical project that represents **£1.45m** per annum in real terms.

However, the base case assumed is subject to a number of pricing and credit parameters that are subject to variation for a real project. Therefore we have carried out the following sensitivity analysis:

Sensitivity	Assumption	Impact on Unitary Charge under the HWC product
Base Case	As above	(0.9%)
Margin	HWC spread reduced to 185bp	(3.2%)
Margin	HWC breakeven spread	227bps
Cover ratios	Reduce bank cover ratios to 1.15x	0.4%
Tenor	Assume 3 year tail for bank debt and 2 year tail for HWC financing	(1.6%)
Tenor	Assume 1 year tail for HWC financing and 2 year tail for bank debt	(1.8%)
Reserves	Replace DSRA and CILA by facilities under the bank debt financing	1.5%







Qualitative Considerations

The above analysis is based on a number of simplified assumptions and there are wider considerations that would need to be considered in respect to any particular transaction.

Price Certainty

The HWC pricing relies on the ability to issue the structured BBB+ bonds into the market. This pricing can only be estimated at the point there is a real transaction to take to the market. The pricing would not be firm until the day of financial close and the bookbuilding exercise is completed. This was common practice in the era of monoline wrapped bonds. This gives the awarding authority a key uncertainty as it would ordinarily assume the pricing risk and therefore regular market information from a major bond lead manager would be required throughout the process. HWC may seek to mitigate this concern by bringing in key bond investors early in the process who would be able to provide a greater degree of confidence around the likely pricing. It would be expected that the initial transactions may carry a small premium on the basis that this would be a “first”. The quantitative analysis has applied a premium to the market pricing for BBB+ bonds based on discussions with leading bond lead managers. The

implied differential of 50bp may decline over time but it will require a number of projects to be financed using this product to establish a true market price. Another driver that will affect the bond spread is the size of the issue. In the example above the bond issue of around £1bn is considered large and it may well extend the premium required by investors. Pricing tension may be established for smaller deals ie around £500m.

Rating process

The HWC product will require a rating from at least one rating agency on the total debt to ensure it is investment grade. The bondholders would also require an upfront public rating from at least one rating agency as well as ongoing ratings. The rating agencies have been approached to discuss the structure but they will not provide any firm comfort until they review a real transaction. For any project considering the HWC solution it may be worth considering a preliminary rating at an earlier stage in the process. Over time, investors may become more confident in their own credit assessment capabilities which may eliminate the need for ratings. Fundamentally, the HWC solution requires the fund B

Notes to provide a 2 notch credit uplift for the A Notes. This will require careful consideration and may put pressure on construction support (particularly for complex projects for non-investment grade contractors).

Tenor

The base case analysis did not assume any differential in tenor and therefore tail requirements of the bank or HWC structures. In reality the bond market has greater appetite for longer tenors (up to 40 years) and the rating agency analysis may allow shorter tail requirements for well structured projects. This is in contrast to the bank market where long tenors remain a major concern and the implementation of Basle III is likely to accentuate this position in the bond market's favour.

Construction support

The financial crisis has led to the bank market increasing its overall credit requirements including the construction support for projects. For large construction projects it is now unlikely that banks will be comfortable with parent company guarantees alone without third party support. However, the level of construction support will be absolutely key to the rating agencies which will put greater pressure on contracting sponsors to provide adequate support. It is possible that strong contracting sponsors may seek to put greater pressure on relationship banks to accept weaker construction support packages, a situation that was

prevalent when monoline wrapped bonds dominated the market for larger deals. If the bank debt market were willing to accept weaker support packages the borrower may not be ambivalent to which funding option it selects and this will require careful consideration by procuring authorities and their advisers.

Credit structure

If the HWC structure does demonstrate a pricing advantage, the banking market may decide to compete through reducing the overall credit structure of the project, reducing cover ratios and reserving requirements. The results of the sensitivity analysis above demonstrates the potential impact this could have. However, in the current market, banks remain conservative and this is unlikely to improve as Basle III is implemented.

Transaction cost and time

There is very likely to be a premium in terms of cost to document the first project. The intercreditor arrangements between the A and B Notes have been developed by HWC but are not fully negotiated and documented. However, once the first deal is executed the precedent will be set for future projects. The benefit of the HWC structure once established will be a single point of contact in negotiating a transaction as opposed to the challenges of closing a deal with a large club of banks. Therefore, awarding authorities will need to

consider the upfront cost and time required and perhaps the overall benefits to the total infrastructure financing market and this may need a commitment from central Government to deliver the HWC solution if it offers value for money.

Refinancing

The bond market is structured as a means of long term financing and Borrowers are penalized for seeking to refinance through prepayment penalties (typically through a Spens clause). Therefore, under a bond solution the Sponsors and Government are unlikely to be able to realize any real refinancing benefits. Under the bank debt product, subject to managing the swap breakage costs, there is the ability to refinance if the market improves over time. Under the standard terms of UK PPP contracts, most of this benefit accrues to the Authority. Therefore, Authorities should consider the potential refinancing gains that may be foregone. This point is most acute if the driver of the refinancing is not just to take advantage of an improving market but driven by a change in circumstances or Authority requirements. This may be less of a consideration for a simple asset such as a bridge but may be a real concern for complex infrastructure such as an acute hospital with potentially changing clinical requirements over time. Authorities should consider carefully the trade-off between upfront savings from the bond solution compared to potential savings that may arise if credit markets improve over time.

Counterparty Risk

The HWC product is cash funded on day one. Therefore, there are no funding counterparty risks in relation to bank ratings for the Borrower. This is particularly acute where a multilateral agency or Export Credit Agency is involved, as they often have credit rating requirements in relation to banks providing guarantees. In addition, there has been increased concern, post-Lehmans, of any possible inability of banks to fulfil their funding commitments during the construction period or as credit provider for project swaps.





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If the scale of investment is to be realized then any source of new capital should be welcomed by the market



Conclusion

The HWC product offers a realistic opportunity to access the capital markets and access true long term financing from pension funds and insurance companies. Indicative analysis as presented in this paper suggests that under current market conditions the HWC structure may offer both liquidity and a pricing benefit. However, there are number of key qualitative considerations that Sponsors and awarding authorities will need to consider carefully in developing the HWC structure for a particular project.

If the HWC structure is successfully delivered in the market then it is likely to be quickly replicated and institutional investor demand is likely to increase bringing potential pricing benefits. In addition, the generic use of a first-loss tranche to credit enhance senior debt is one that Governments could opt to use directly and it is also consistent with the current discussion around the way a potential Green Investment Bank may operate in the UK.

Furthermore, in the absence of any real external competition, the bank debt market shows little sign of becoming more competitive and therefore competition from the bond market may be beneficial to both Sponsors and Governments alike.

If the scale of investment is to be realized then any source of new capital should be welcomed by the market and with the demand for finance likely to outstrip supply there is no reason why bank and HWC financing cannot operate alongside each other, creating a more efficient financing market.

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www.kpmg.com

Contact us

For further details please contact:

Darryl Murphy
Partner, Global Infrastructure
KPMG in the UK
+44 207 694 3041
darryl.murphy@kpmg.co.uk

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