

Special Report

## Public-Private Partnerships: the Next Generation of Infrastructure Finance

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- Special Report, Contagion: Which Emerging Markets are Most Vulnerable, Sept. 26, 2002.

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### ■ Summary

The scope of global demographic, public health and safety needs, as well as economic development goals, translates into infrastructure requirements far in excess of currently available financing resources. While the degree of this funding backlog differs from country to country, it extends from the poorest to the richest of nations. This is true even in the United States, which enjoys the full benefits of decentralized governmental responsibility and an extensive domestic debt market.

Recognition of this funding gap has resulted in a nearly universal acceptance that the private sector can and should play a larger role in the financing of infrastructure in partnership with the public sector, whether actively as a project sponsor or passively as an institutional bond investor. The latter role carries greater promise for enhancing the supply of capital for infrastructure, provided that structural elements meaningfully enhance the credit quality of proposed debt instruments so as to engage a country's domestic debt market. Sustainable infrastructure financing can be achieved from the traditional lending roles of national and international development banks, although not in meaningful amounts. Dependence on existing project sponsor companies is even less reliable given the ongoing contraction within that industry.

In developed countries, these funding partnerships arise regularly through varying combinations of bond and commercial (or government-owned) bank loan transactions issued directly by local governments, government-owned enterprises and private companies contracted by government authorities to provide a public service. In the 1990s, private-sector participation in the financing of infrastructure needs outside of the Organization for Economic Cooperation and Development (OECD) countries was defined actively by privatizations and concessions. Passively, it occurred through private debt placements with a select group of foreign institutional investors or loan syndications sponsored by a few multilateral banks.

These efforts yielded some positive results but failed to resolve the global infrastructure funding gap outside the OECD countries. In emerging markets, the public and private sectors jostled over sovereign control versus investor rights and remedies, as well as expectations over public access to infrastructure versus a reasonable rate of return on capital. Market expectations were further battered by macroeconomic volatility, the political expense of privatization without public involvement at the local level and the incompatibility of financing documents with the host country's legal practices and

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customs. Finally, private-sector project equity relied largely on a collapsing field of financially extended construction companies and showed little capacity for sustained investment. After considerable expectations and a thorough education concerning the various iterations of designing, building, operating and transferring, the global infrastructure funding gap grew.

For a number of countries, a new and more interesting generation of public-private partnerships (PPPs) is now emerging, which Fitch Ratings believes will center on a more efficient and sustainable allocation of capital. Local governments, in partnership with development banks, and international aid agencies are slowly discovering that, by pooling project credit risk through infrastructure banks and adding layers of credit enhancement (initial payment of project debt by local user fees or taxes, followed by the ability to intercept intergovernmental aid, reserve funds and partial credit risk guarantees from external sources), they can engage domestic private capital. By providing an enhancement role with its capital, this public-sector coalition will be able to leverage its funds much further, while domestic investors will benefit from the gradual diversification of their investment portfolios. The remaining construction conglomerates are still on the scene, but their role is less for equity and more for their expertise in designing, constructing and operating projects. Privately financed infrastructure banks that pool project risk are not far behind. In this new generation of PPPs, the private-sector role shifts to the financial engineers who work in conjunction with government authorities, as well as development and multilateral banking partners, to create enhanced investment vehicles that are attractive to domestic capital.

Stabilized revenue streams and a strong ultimate recovery value of infrastructure assets open the door for progressively longer debt tenures, correcting an age-old mismatch between the term of debt and the useful life of an infrastructure asset. While a state-owned highway or municipal water system may default on its debt, these are assets with long useful lives that will not be “wound up,” as in a bankruptcy of a corporate entity. The ultimate test for these developing domestic debt markets is whether this more efficient allocation of risk between the public and private sectors will also translate into more realistic (i.e., achievable) rates of return on private investment. If it does, then for these countries the allocation of capital will not only be efficient, but it will also be sustainable.

For this new generation of PPPs to flourish, the host countries must nurture some important prerequisites. These include promoting a relatively stable macroeconomic environment, developing a legal and regulatory framework for infrastructure projects and nurturing the development of a domestic debt market. Unfortunately, these prerequisites do not exist in most of the world, which means that some of the traditional roles of the multilateral and development banks will remain necessary over the long term. In countries where these prerequisites are taking shape, however, there are real opportunities to expand the availability of capital by using pooled financings and credit enhancements to harness a developing domestic debt market.

Stimulating the efficient use of capital is not the only challenge facing the next generation of PPPs. These partnerships must also expel a set of myths that have developed along with PPPs. This includes a careful evaluation of partnership structures that utilize private-sector expertise and efficiency without also embracing corporate bankruptcy and consolidation risk. (Consolidation risk, in particular, is not widely understood or anticipated in many noncommon law countries, partly due to codified provisions on the nature of trusts and other legal entities that presumably guarantee their assets are separated and, therefore, protected from third-party claims).

Due to their nature, PPPs will be affected legally by both administrative law and commercial or corporate laws. Consequently, a court might dictate against the rights of the private partners on the reasoning that the public interest must be elevated above the interests of the private entity. This decision may be based on the essentiality of services derived from the infrastructure project and their function with respect to maintaining social order and safety, as well as public health.

Evidently, public partners can and will change their minds, so that structured debt transactions will never achieve the level of securitization (security) expected of credit card or residential mortgage receivable transactions. Trustee relationships, while greatly enhancing the credit quality of PPP debt transactions, will never mitigate credit risk fully.

Finally, a more sophisticated approach to understanding the true enhancement value of government project support, which is too often overinterpreted as a direct government guarantee, is required. Does this support promote the full and timely payment of debt service or enhance a transaction’s ultimate recovery value? Is it a

general obligation of the government or a contingent obligation subject to budgetary appropriation? The shades of gray concerning government guarantees form a broader spectrum than most market participants acknowledge, even in developed countries. The perpetuation of these myths impedes the participation and pace of development of domestic capital for infrastructure. Nevertheless, the next generation of PPPs, armed with pooled project risk and supplemented by multiple layers of credit enhancement, is perhaps the best chance for a sustainable supply of capital to meet global infrastructure needs.

## ■ Prerequisites for a Receptive PPP Debt Market

- A relatively stable macroeconomic environment.
- A developing legal framework for concessions, contract enforcement, bankruptcy and lender remedies.
- A relatively stable regulatory framework that recognizes the lifecycle needs of the project.
- A developing domestic debt market.

The traditional alternatives to infrastructure finance in most countries are central government deficits and debt and multilateral bank lending, as well as the foregone economic opportunities of simply not investing in infrastructure. A greater capacity of infrastructure investment is present in the developed countries due to the participation of the private sector, both passively as institutional and retail investors in infrastructure bonds and actively through companies that sponsor projects as contractors, operators or equity investors.

However, private-sector participation requires some structural prerequisites (i.e., a stable playing field) that lessen a country's susceptibility to economic and financial contagions and create an orderly legal and regulatory environment in which to invest and operate. Unfortunately, a quick perusal of these investor prerequisites reveals how few countries fit all of these categories. Nevertheless, private investors (both domestic and international) have shown interest in countries that are at least moving toward these structural prerequisites. This allows Fitch to distinguish certain countries, such as Mexico, Korea, Chile and Poland, as more ripe for private-sector investment than others.

## Relatively Stable Macroeconomic Environment

Only a few countries have truly stable macroeconomic environments, and most are susceptible to the contagion effect of a financial and economic crisis. Nevertheless, countries that have taken steps to control inflation and external debt, increase official international reserves and utilize trading partnerships often provide fertile ground for domestic and foreign private investment. For an infrastructure project, a national and economic crisis creates not only risk for the financial performance of the infrastructure transaction (i.e., its ability to generate sufficient revenues to cover operating and debt service costs) but also added uncertainty as to the range of political responses that might affect its operations during a crisis.

## Developing Legal Framework

The private sector requires clear and stable rules of engagement as provided through a country's legal framework. If a country's public policy wants to encourage private-sector participation in the financing of infrastructure, its laws should support that policy. This includes laws governing concessions and/or privatizations, a clear process for dispute resolution and the ability to enforce contracts, as well as lender remedies under bankruptcy and insolvency.

A number of countries, including Chile, Panama and Korea, have developed comprehensive and transparent concession laws, where public-sector goals and objectives in private participation are clear. Equally clear is the process by which the private sector is to bid on an infrastructure project or system, operate after winning a concession contract and recover a return on its investment. Nevertheless, dispute resolution systems in many countries look good on paper but do not work well in practice. The rules of negotiation continue to prevail over rules for contract enforcement, in most legal documentation. Finally, legal precedents (such as in the state of Parana, Brazil) where a court upheld a contested concession provision (in this case, a scheduled rate increase) are rare.

Bankruptcy laws also have been amended in many countries, as borrowing migrates from commercial bank loans to the capital markets. Still, as lender rights become codified, their application in the real world is often untested due to the continuing propensity to negotiate financial arrangements outside the courts. For these reasons, the ongoing practice of diluting, rather than eliminating, the equity

participation of construction and project sponsor firms that are in or near bankruptcy, as in Korea, may unnecessarily expose an otherwise economically viable project to bankruptcy and consolidation risk. Of equal concern is the belief, as in Mexico, that a future flow securitization can sidestep the ongoing bankruptcy proceedings of a private-project partner. With new and untested legal regimes, it is dangerous to rely solely on the integrity of financial structuring techniques, especially during a financial and economic crisis.

For the private partners, the range of compensation mechanisms for political risk is still developing. Public-sector partners can and will change their minds, thereby affecting the project's operating environment. Compensation is usually expressed as extraordinary rate relief or as an extension of the term of the concession. In the case of termination of a concession, provisions are increasingly present that provide compensation based on some measure of the net present value of revenues over the remaining life of the concession but for no less than the amount of debt outstanding.

### **Relatively Stable Regulatory Framework**

A country's regulatory framework is simply the reflective implementation of its legal and public policy framework. The base set of regulations should be developed in tandem with the legal framework for concessions and privatizations. This process takes time, but it allows the host government to gain its own comfort level with the classic trade offs between access to private capital and the dilution of its own sovereignty. Regulations should focus on the lifecycle of the project (i.e., from design, to construction, to operation and to its eventual return to the public sector). In Korea, the project selection process involves representatives of all the governmental ministries that will be involved with that project over its lifespan. This mitigates much of the regulatory risk upfront, since the concession agreement can reflect the concerns and agendas of the various government ministries that will be involved with the project. The private-sector operator can choose to adapt its concession expectations to an onerous regulatory environment. However, project economics often lack the flexibility to adapt to a shifting regulatory environment.

### **Developing a Domestic Debt Market**

Development of a domestic capital market is key to creating a sustainable supply of capital for infrastructure. For infrastructure finance, the domestic

debt market should be the "cake," while the foreign capital markets should be the "icing," since in most cases the source of repayment will be generated in the host country's currency. Local investors also are in a better position to assess the concession's service area and political risk. Infrastructure transactions with either a U.S. dollar revenue stream or with construction or acquisition costs that exceed the financing capability of the local debt market make better candidates for foreign capital but not without structural enhancements, such as offshore reserves and multilateral risk guarantees.

A growing number of emerging-market countries are developing domestic debt markets. The development process requires financial sector reforms, including the ability to invest funds in more than direct government debt. It also necessitates a savings plan. Typically, these markets are shallow in that investments are usually limited to the bonds of the central government and a handful of other governmental or privatized entities. Investments also are limited to short- and medium-term maturities. The ability to issue the long-term debt maturities needed by infrastructure projects simply does not exist throughout most of the world. Even in countries that have robust domestic debt markets, like Korea and Mexico, the average life of a corporate bond is still approximately 3–7 years; a notable exception is Chile, where to date nine projects have been financed in the national bond market at terms of 20 years. Generally, the remarketing of these medium-term debt maturities is a big risk for infrastructure projects, where revenue growth and financial margins may not be able to accommodate interest rate volatility. Finally, infrastructure bonds often represent a new form of asset class for domestic investors. Until these user-based revenue streams prove themselves, many domestic investors will continue to require other forms of government support.

### **■ Critique of Traditional PPPs**

The drive toward privatization and concession-based project financing in the mid-1990s was seen by many governments as a way to jump start infrastructure investments. The belief was project finance could infuse new capital and better management practices into poorly maintained and overutilized infrastructure systems. The initial efforts of the 1990s were promising, but they soured throughout the emerging-market countries with the contagion effect of the Asian financial crisis of 1997. While this explains the sudden interruption of new capital, it does not fully explain why infrastructure finance never really

recovered. Evidence from the past decade points to difficulties caused by the government sector's rush to privatize basic public services, in most cases without a proper transition period. This resulted in an inevitable clash between public policy goals, public expectations and the private sector's desire for a reasonable rate of return on capital.

While the project finance community enjoyed creating a new vocabulary for the many iterations of these partnerships (e.g., build-operate-transfer, build-transfer-operate, build-own-operate, buy-build-operate and design-build-operate, among others), most of these transactions did not have the transitional underpinnings to operate as independent enterprises or the credit enhancements necessary to withstand macroeconomic volatility. The developed world pushed its construction and financing contractual frameworks onto the developing world, external financing was seen as synonymous with external expertise and both sides misinterpreted the consequences.

### **Public-Sector Risk in Traditional PPPs**

It is important for the private and public sectors to understand the risks of transacting with each other. The key risks the private sector faces in dealing with the public sector are described below, followed by the key risks of dealing with the private sector. In all cases, this is not intended to discourage interaction but to point out areas where proper structuring can enhance the survivability of an infrastructure transaction.

### ***Determining Service Ownership***

In many countries, ownership disputes over certain public services continue between state and municipal governments. While some governments, like Mexico and Brazil, slant resources and regulation at state-owned water utilities, actual title to the water services remains unresolved. It will be difficult to engage private capital until the ownership issue is legally addressed. In many cases, state-owned utilities have contracts with neighboring municipalities, but these are often short-term contracts, and the utilities desire longer term debt. Ownership disputes lend uncertainty to the continuity of utility revenue streams.

### ***Creating Dependable Project Revenue Streams***

Capital markets count on dependable revenue streams to make full and timely payment of debt service. State

and local revenues (including infrastructure user fees), outside of central government transfers, rarely make a dependable revenue stream for infrastructure debt in emerging markets. This is partly because local governments in many parts of the world depend on central government transfers as their main source of revenues. The relative newness of decentralized governmental services is another factor. Local enterprises, such as water authorities, are often plagued with poor revenue collections, reflecting relative inexperience and feeble administrative capacity to operate their enterprises as a business. These challenges are coupled with a still weak public acceptance for user fees and, equally, hikes in user fees after an improvement in service.

The opportunity for a public enterprise to operate as a publicly owned business, including productivity gains and rate increases for capital improvements, can facilitate its transition to the private sector. Corporatization, whereby the publicly owned enterprise is organized and run as an independently financed and operated business, can prepare users for the consequences of improved and reliable services. Along this line, the state of São Paulo, Brazil, operated the Anchieta-Imigrantes toll road as a public enterprise, first implementing tolls along this important route and then increasing rates commensurate with capital improvements or with inflationary cycles. When the private consortium Ecovias won concession over the toll road, its customers had already adjusted their behavior to paying for service enhancements. Similarly, the National Water Commission in Mexico has targeted certain service-level and administrative efficiencies as prerequisites before state-owned water utilities can borrow for additional water or sewer capacity.

### ***Protecting Against Political Risk***

Many governments, until recently, were caught up in the rush to privatize now and worry about the consequences later, causing a general public backlash against privatization. This is especially the case in Latin America, where project contractual covenants, government budgetary capabilities and public expectations are at odds with one another. The absence of corporatization, as mentioned, and the lack of public participation at the local level resulted in an escalation of political risk for both privatizations and concessions. For countries where the prerequisites attract private-sector investment and the legal system supports compensation, effective ways to mitigate political risk are as follows:

- Select projects that best fit the national, state or local priorities for economic development.

- Choose projects with sound economic value.
- Seek project partners with strong levels of commitment and expertise with infrastructure assets.
- Provide an adequate period of corporatization prior to privatization to ensure interim improvements in the efficient delivery of public services.
- Endow projects with sufficient financial protections to mitigate risk, such as liquidity to offset completion risk, operating ramp-up risk and economic cycles.
- Clarify the relationship between the subnational entity and its public-service companies; the flows of capital and the administrative control between parent government and enterprise should be well understood.

### **Private-Sector Risk in Traditional PPPs**

Host governments want the expertise, efficiency and capital that the private sector can bring to infrastructure and local government services. They should avoid exposure to the corporate sector's bankruptcy and consolidation risk. PPP structures are improving upon their ability to isolate voluntary bankruptcy risk (via starting with an economically viable project). However, the relative newness of revisions to bankruptcy codes contributes to a lesser understanding of the risk of involuntary bankruptcy in countries where this legal concept applies. Evaluating bankruptcy risk requires a full understanding of who the project's partners are and their roles with respect to ultimate ownership of the project's land, facilities, equipment and cash.

### **Mitigating Voluntary Bankruptcy**

For mitigating voluntary bankruptcy, the foremost rating consideration is the economic value of the infrastructure project or system. If it has strong economic value, there is less reason to worry about testing the host country's legal environment, which in most cases is either underdeveloped or untested. After that, credit quality can be enhanced by the structure of the project's financial transaction. "Governing by covenants" provides investors with minimum legal parameters for an infrastructure transaction's financial margin and limits the events of default that could lead a project into bankruptcy. Typical infrastructure project covenants include the following:

- A revenue covenant with minimum required debt-service coverage levels.
- Lowest required funding levels for various debt-service and operating reserves.
- Minimum financial tests for the issuance of additional debt.

- An order of priority for the payment of operations, debt service and the replenishment of reserves, as well as certain tests prior to making equity distributions.
- Requirements to re-engage financial consultants if the performance of a project does not meet the minimum covenant levels.

Conditions that cause an infrastructure transaction to default should be sufficiently limited to promote its survival. Typical defaults are for nonpayment of debt service and a continuing breach of other covenant requirements beyond a prescribed cure period. The latter provides some latitude for reaching compliance without placing the project into immediate default.

### **Mitigating Involuntary Bankruptcy**

More difficult to detect is the involuntary bankruptcy risk of a private-sector partner. This partly reflects shortcomings in corporate sector accounting, as well as the market volatility of certain corporate activities. Involuntary bankruptcy exposure of infrastructure projects to which these corporate entities are counterparty assumes the project is functioning fine, but its ability to meet financial obligations is interrupted externally by investor claims on the corporate parent or subsidiary to the company associated with the project. There are a number of ways to mitigate this involuntary bankruptcy risk.

#### *Structuring the Issuer (Creating a Bankruptcy-Remote Entity)*

The type of vehicle employed to issue project debt will depend on the possibilities afforded by national laws. Thus, in Mexico the trust is the one entity that enjoys legal person status under Mexican law. In the United States and other countries, trusts and special-purpose vehicles are also available, with respect to which bankruptcy risk mitigation is the most vital characteristic. Chile created a special corporation under its concession laws. Generally, a nationally incorporated subsidiary or consortium can be created as a special-purpose, bankruptcy-remote entity. The further this independent entity is removed from the operations of the infrastructure project or system, the more bankruptcy remote it becomes. A special-purpose entity can be a shell, with it solely responsible for receiving and transferring a given asset to a trustee. A special-purpose entity also can own an asset, have no ability to voluntarily file for bankruptcy and contract out for operations. A bankruptcy-remote structure can be an independent commercial entity and protects against consolidation of the issuer's assets in a bankruptcy case involving

either its parent corporation or another subsidiary of the parent. Many so-called, special-purpose companies are not so limited. They may be incorporated under the host country's law, but their articles of incorporation and shareholder documents may not create enough distance from the parent company or subsidiaries. In addition, many articles permit engagement into ancillary businesses, creating an additional window for bankruptcy risk.

*Structuring the Transaction (Creating a Trust Estate)*  
Another approach structures the infrastructure debt transaction. The debt issuer sells its rights to the cash flow, securing the debtholder's obligation to a specially created trust estate. Alternative structures can include a limited liability corporation (LLC) or a limited partnership. Under this "deed of trust," all of the issuer's interests, rights and obligations are sold to a trustee on behalf of the bondholders. While the issuer has assigned away its rights, it can still earn returns from the project, although no money is released until the trustee has satisfied all other financing agreement requirements. The trust estate concept is gaining acceptance in such domestic debt markets as Mexico through the creation of a master trust agreement. Nevertheless, there are cases in which a trust's value may be overestimated, particularly where a project trust is created during the ongoing bankruptcy of a parent project sponsor company.

*Limiting the Operator's Interest in the Project*  
In addition to sponsor companies in a project consortium, project operators are the other private partners in an infrastructure transaction. Their role is important since it is often the operator that holds the cash. Legal structures that limit the operator's interest in the project to that of an agent contractually obligated to provide a specified service for the project (i.e., the operator has no legal rights to the cash) can eliminate its bankruptcy risk. It is also important to have provisions in an operating agreement for the potential replacement of an operator under certain conditions of nonperformance.

## ■ Common Myths Concerning Public Infrastructure Finance

Much of the discussion has centered on how structural elements enhance the credit profile of PPP transactions. The lines between PPPs and structured finance have blurred considerably, which carries both positive and negative consequences. The most positive consequence is that domestic debt markets

for infrastructure bonds are now developing in countries like Korea, Mexico and Chile, where until recently such projects were financed only by commercial or government development banks. Strong concession laws, revised bankruptcy regimes, the creation of special-purpose entities and new trustee relationships have set the stage for an exciting evolution in infrastructure finance for both local governments that have large infrastructure financing needs and domestic investors that need to diversify their investment portfolios.

Nevertheless, while PPP transactions have much of the appearance of securitizations, they will never be true securitizations. There are two explanations for this. The primary reason is the role of administrative law, not only corporate law, in the legal frameworks in which most public infrastructure is developed. Namely, the essentiality of the public service can persuade a court under certain circumstances to dictate against the interests of the private sector and cut off investors from the revenues and assets derived from the project. In addition, a public-sector partner in the PPP can and will change its mind about public policy objectives, its regulatory framework and interest in cooperating with private-sector requirements for return on capital, especially during difficult economic times.

This leads to the secondary reason, which concerns the ratio dynamics that drive much of the structured finance world. Collateral and other tests that are developed for the securitization of traditional asset classes, such as residential mortgages, are based on the collective behavior of thousands of loans observed over a long period. Traditional PPPs are often single-asset facilities instead of a portfolio of thousands of credit card or mortgage accounts. There are not enough existing PPPs from which to derive statistically meaningful default behavioral patterns or to develop fixed-coverage tests for a given rating category. Add to this individuality the constant possibility that a PPP's operating environment can change with the policies of a new administration. This diminishes the value of traditional structured finance ratio-driven analysis.

From this experience, some important misconceptions about PPPs have emerged. Fitch has categorized four as myths, not because their claims are never true or cannot be made true but because they are frequently misconstrued as true.

**Myth 1: Bulletproof Financial Transaction**

Experience with PPPs suggests it is not possible to structure the kind of bulletproof transaction common among more conventional securitization asset classes. Governments from China to Argentina to the United States can and do change the rules governing PPP transactions.

Every project has multiple agreements, but they generally fall into two broad sets. One set governs the project: concession, construction and operating agreements fall into this category. The other governs financing: trustee, assignment and intercreditor agreements. While the financial community likes to focus its attention on the protections afforded by the financing documents, it is important to remember the concession agreement actually sets the tone for everything to do with the project.

The concession agreement is the government's grant to a public- or private-sector partner to build, operate and benefit from a project's revenue stream for a period, and under a certain set of conditions, until the project reverts back to the government. This includes the government's grant to the project partner to charge and collect user fees that will recover operating and capital costs of the project and pay debt service and potential dividends to private-sector partners. The concession agreement can also determine the circumstances and timing of fee increases (e.g., annual increases tied to inflation, with a maximum allowable rate of return on capital). All of the protections afforded by the financing documents should be calibrated to these overriding rights and obligations under the concession agreement if they are to remain enforceable. Strengths of various Mexican toll road master trust agreements are the broad cross-referencing to the underlying concession agreement and the enabling legislation for the toll road. Sometimes, the financing documents are not harmonized with the concession document, and that is where bulletproof turns into bullet-ridden.

Governments can change their regulations for a project, and they can even terminate a concession agreement through expropriation. When they do, this can seriously impair or cease access to revenues under a financing agreement, rendering it ineffective. That is why many concession agreements contain provisions for extraordinary rate relief, extension of the term of the concession or compensation in case the concession is terminated. For these reasons, PPP financial transactions, with their assignment of rights, covenants and reserves as well as all of the other "bells and

whistles," which provide so much credit enhancement, cannot be viewed as true securitizations.

**Myth 2: Financial Transaction Through a Special-Purpose Entity**

Every project has internal and external bankruptcy risk unless it has statutory protection that prevents a default from leading into bankruptcy. For financial transactions involving PPPs, sheer economic strength, combined with structural elements, can act as the best mitigant to voluntary bankruptcy risk.

For involuntary bankruptcy and consolidation risk, the best protection comes from a special-purpose entity, as previously discussed. A determination of whether or not the transaction benefits from a special-purpose entity status requires an opinion from a qualified local counsel or other source (such as a third-party guarantee), providing a clear description of the powers and obligations of the entity and certainty with respect to the obligation pledged. Only a handful of countries require this opinion to be rendered, or even requested, as part of the documentation to market such bonds. In most countries, while it is customary for Fitch to request this opinion as part of its due diligence for a rating, it is simply not demanded by the market.

**Myth 3: Trustee Controls Revenue Flow**

Trustee relationships are a critical feature of project and structured finance. They provide passive bond investors with the comfort that project revenues and accounts are assigned to the trustee on their behalf and payments from these accounts will be made in a prescribed manner and timetable, as determined by the trust indenture. Nevertheless, investors should be aware of when the trustee takes control of the revenue flow and the full range of circumstances under which the trustee retains control.

The tightest trustee control over revenues requires frequent (often daily) deposits of project revenues into an account maintained by the trustee. From here, the trustee can follow the dictates of the financing document with respect to when deposits are required into predetermined accounts for operations, debt service and reserves, among other costs.

The now familiar theme of bankruptcy remoteness plays a role here. Legal circumstances can limit the value and effectiveness of trustee control. To begin with, the trustee is not the first participant to handle the revenue. The project operator collects user fees

from the project's patrons and channels them to the trustee. As mentioned, it is important to structure around operator bankruptcy risk.

The second consideration is the full range of circumstances under which the trustee retains control over the revenues; thus it is necessary to return momentarily to the risks posed under the second myth (the importance of determining whether the concessionaire is really a special-purpose entity). If the bankruptcy remoteness of the project entity is not established, the trustee can only have full contractual control over the revenue flow under normal circumstances.

Under an involuntary bankruptcy proceeding, there are a variety of ways the trustee can lose control over the revenue flow. The shortest period that loss of control can occur is when the court determines whether to allow project assets under the proceeding. If it decides not to allow the project's assets, trustee control can resume under normal operating conditions.

If the court decides to allow project assets as collateral under the proceeding, their fate can take several courses. One is where the court allows the project to continue operating but diverts revenues into the ultimate creditor settlement. The other is when the court decides to wind up the project's assets as part of the ultimate creditor settlement. It is important to remember that the court may consider not just project revenue as an allowable asset but also amounts held by the trustee under the reserve. The legal process and interpretations of bankruptcy proceedings vary from country to country, emphasizing the importance of an independent bankruptcy opinion.

#### **Myth 4: Financial Transaction Debt Is Government Guaranteed**

Debt guarantees from host governments are often required by investors if an infrastructure asset class is new or unfamiliar to the market or investors do not believe the user revenue stream from the project can provide a reliable payment source for the debt. This can either be because the project has a public developmental purpose in a region that needs the infrastructure but cannot pay debt service solely through user fees, or because the organizational and administrative mechanisms to operate infrastructure on a self-sufficient basis are either untested or not trusted. While part of the rationale for bringing private partners into an infrastructure project is to provide the skills and

efficiency to run the project on a business basis, the high probability of political risk with respect to rate flexibility, among other things, often causes investors to still demand a government guarantee.

There is a long-held financial proverb that the government guarantee is as good as the sovereign's own credit risk (i.e., equal to its unsecured obligation risk). A sovereign obligation is an unconditional, irrevocable risk, which although it may not be guaranteed or collateralized is still a high bar for the vast majority of guarantees provided to PPP transactions. In fact, investors should question the logic of why a government would grant the same pledge to a project with a private-sector partner as it does to its own bonds. For an investor to assign a value to the debt guarantee, experience suggests a number of considerations, such as the following:

- It is important to determine whether the guarantee is automatic or subject to appropriation as part of the government's budgetary process. A financial obligation that is subject to budgetary appropriation is of lesser credit quality than the sovereign's unsecured debts.
- Investors should know the guarantee's priority of payment with respect to other government obligations. *Pari passu* status with respect to general obligation debt is the strongest. Anything less than *pari passu* is a subordinate obligation and of lesser credit quality than a general obligation.
- It is important to be familiar with the mechanism that triggers the guarantee. Essentially, there are two types of triggers. A proactive trigger requires a trustee and/or concessionaire to formally notify the government in advance if the debt-service account is deficient for an upcoming debt-service payment. Giving the government prior notice and time to respond by making a deposit of the deficiency into the debt-service account on or prior to the payment date preserves the full and timely nature of the payment and is the strongest type of trigger. A reactive trigger waits for a payment default to occur, then asks the government to retroactively use its guarantee mechanism to make up the payment deficiency; this is a weaker guarantee but also the most common.
- The concession agreement should outline the process and timing by which the government will evaluate and settle upon the guarantee commitment. The most effective guarantee specifies which government representatives are responsible for evaluating the guarantee request and how many

days they have to respond. A time-certain review and payment under the guarantee clause is the strongest form of guarantee. An open-ended review process is the weakest. Of equal concern is whether the responsible government agency can reach a different conclusion than the trustee or concessionaire as to the deficiency amount. The concession agreement should restrict the government's ability to interpret a guarantee request. Nevertheless, governments may exercise their own calculations as to guarantee amounts regardless of the mathematical debt-service deficiency. Nothing is ever simple where PPPs are concerned.

- Investors should be concerned about the financial sustainability of guarantee commitments, given other financial and service demands on the government. One should not compare the small debt-service commitment of a project to the largess of the government's budget. Instead, the focus should be on the rigidity of the expenditure budget (how much of it is already accounted for under legally mandated programs). Additionally, contingent liabilities of a growing portfolio of project guarantees as more PPPs are executed could cause financial pressures on the government.
- Finally, investors should consider the political risk inherent to every project finance transaction. It is reckless to believe documentation creates equality among projects in the government's opinion. Some projects will be successful and politically popular, while others will be economically or politically unpopular. Governments will not treat each project equally, especially at election time or during a crisis. For Fitch, this is a rating consideration. Project documents can mitigate political risk, but they do not create an impervious barrier.

## ■ PPPs: The Next Generation of Infrastructure Finance

After considering the litany of risk considerations described, it is easy to understand why there has not been a greater proliferation of PPP financial transactions (i.e., a stronger response to the infrastructure funding gap), despite much anticipation and effort. However, Fitch believes this situation is about to change, as explained herein.

### Pooling Credit Risk

The greatest concern for lenders to local government enterprises and PPPs in non-OECD countries is a lack of confidence in the ability of local revenue streams to repay debt service when due. Economic and political factors often lead to unacceptable rates of default on

project debt. Over time, public and lender interest would be best served if these enterprises became self-sufficient, but in most countries, this is a long-term goal at best. In the more desperate environments, self-sufficiency may never be attainable.

For this reason, the pooling of new or refinanced infrastructure loans into a bank is an important way to mitigate against individual loan loss. This concept may be less applicable to the pooling of existing loans that have different debt structures. Where the ultimate recovery value of the loan portfolio looks promising, the country with multilateral bank grants, if necessary, can capitalize the fund with reserves against the expected cash flow deficiencies within the loan portfolio. Interest income from the collateral can be used to reduce the borrowing costs of the entities within the infrastructure pool. A single debt emission by the bank on behalf of the pool participants will also create liquidity within the domestic debt market on the theory that the market has more appetite for the larger debt issuance of the bank than for the smaller individual project loans of the bank's participants. Liquidity in the capital markets also lowers borrowing costs for the participants. This cheaper access to pooled capital greatly increases the resources available to meet local infrastructure needs.

### U.S. SRF Model

This state revolving funds (SRFs) model was used to create the wastewater and water projects in the United States. Matching capitalization grants from the Environmental Protection Agency (EPA) and their respective states evidence a prioritized list of eligible municipal projects. The model includes qualitative adjustments for a lack of geographic diversity within the pool (in the United States, SRFs are single-state funds), as well as expected loan default rates. Capitalization grants can be set aside in a debt-service reserve fund and invested in collateralized guaranteed investment contracts (GICs) with highly rated financial institutions. They can also be used to make direct loans, the repayment of which can be pledged against future leveraging. Many SRFs issue bonds, lending debt proceeds to participating municipal utilities. Loan repayments from the municipalities are used to repay SRF debt and provide capital for additional lending.

Investment income can subsidize loan interest rates and, of course, invested reserves can act as collateral against the loan portfolio, as can overcollateralized loans. Key factors supporting a high ratings profile for SRFs include the extent of overcollateralization and low default rates on this type of loans. Other rating

factors are the fund's criteria and managerial expertise as they relate to structured and municipal finance transactions, the loan pool structure (including expected default rates), loan underwriting and due diligence guidelines, and investment practices. Substantial reserves and excess cash flows allow bond payment, even during stress scenarios with unprecedented loan defaults.

### **Enhancing Pooled Credit Risk**

Where the default risk of the loan portfolio is expected to be high and its ultimate recovery prospects are weaker, the initial reserves will not be enough to protect the bank. In these situations, extra layers of credit enhancement are needed to improve the cash flow of the loan portfolio. These layers include the initial payment of project debt service by local user fees or taxes, followed by the ability to tap the fund's reserves for cash flow purposes and then to intercept intergovernmental aid to replenish the fund's reserves. These layers could be further supplemented by available lines of credit or other partial credit risk guarantees from external sources, such as multilateral banks, international aid agencies or monoline insurers.

Repayment of multilateral lines of credit should be a subordinate obligation to the bank's debt, but it should not be a grant. In this case, the bank may have to divert interest income from its reserves as a form of repayment for the external lines of credit. The multilateral agencies can determine on a country-by-country basis (by a combination of needs assessment and public policy), which pooled recovery rates they expect for these subordinated lines of credit (e.g., full and timely basis in one instance, 75% recovery after 10 years in another, 40% recovery over 10 years in another, and so on).

While unrecovered amounts can be written off as uncollectible by the multilaterals (having the same economic effect as a grant), this system allows the multilaterals to benefit from the possibility of improved recovery rates over time. Since the assets being financed will have a long useful life, entry into the bank should be accompanied by acceptance of measures to increase the administrative and service level efficiency of the local government or PPP enterprise. This increases the prospects for better financial performance over time. For the borrowing entities, the incentive to improve loan performance is that it progressively frees up the bank's interest income to provide interest rate subsidies instead of repayment to the multilaterals for use of their lines of credit.

The pooling of infrastructure loans plus credit enhancements provides much-needed stability to project revenue streams, creating an opportunity to engage the domestic capital market as an investor in the infrastructure bank's debt. This has the additional benefit of diversifying domestic investment portfolios. Stabilized project revenue streams also allow for progressively longer debt tenures, correcting a long-standing mismatch between the term of debt and the useful life of an infrastructure asset. The ultimate test for these developing domestic debt markets is whether this more efficient allocation of risk between the public and private sectors will also translate into more realistic (achievable) rates of return on private investment. If it does, then for these countries, the allocation of capital will not only be efficient, it will also be sustainable and regenerative.

### **■ Outlook**

In this new generation of PPPs, the private-sector role shifts to the financial engineers who work in conjunction with government authorities, as well as development and multilateral banking partners, to create enhanced investment vehicles that are attractive to domestic capital. Old allies, the remaining construction conglomerates, will still be involved, but their role is less for equity and more for their expertise in designing, constructing and operating projects.

Is this visionary portrait of the future of PPPs in non-OECD countries realistic? Fitch believes that it is close to becoming a reality. The first steps have been taken, with some multilateral banks starting to provide credit enhancement (partial credit risk guarantees) to project debt in the local markets and in the local currency. This enhancement role allows these banks to allocate their capital further than through direct lending. If they were enhancing pooled project loans, their capital could be extended even further.

Enhanced pooled capital is the concept behind the U.S. Agency for International Development's (USAID) support of the Water and Sanitation Pooled Fund (WSPF) in the state of Tamil Nadu, India. WSPF is a special-purpose vehicle to be incorporated under the Indian Trust Act, with an initial debt-service reserve contribution from the Tamil Nadu government. Tamil Nadu Urban Infrastructure Financial Services, Ltd. (TNUIFSL) will manage the fund. Loan repayments for certain municipal users will be made directly by user fees or local taxes, with the ability to intercept state aid if there is a deficiency. For other types of municipal users, the WSPF has the authority to directly intercept state aid

for loan repayment. The debt-service reserve fund carries an amount equal to one full year of debt service. If these layers are insufficient, USAID contractually plans to guarantee an amount equal to 50% of WSPF's principal. The fund's debt will be offered to domestic investors.

Private banks are also exploring the creation of infrastructure banks in select emerging-market countries. These banks would most likely work in conjunction with a host country's development bank to achieve the risk allocation and cost-of-fund advantages of the SRFs. Finally, for certain emerging-market countries with an investment-grade sovereign rating on the international scale, the monoline insurers are

exploring opportunities to provide credit enhancement at the 'AAA' national scale rating level. All these signs are important for the development of domestic capital markets and the creation of a sustainable and regenerative supply of capital for infrastructure projects. The financial engineers from both the public and private sectors will create the next generation of PPPs. A more efficient allocation of capital engages a broader set of participants and creates new incentives to enhance the capacity for infrastructure finance while also promoting a more efficient delivery of municipal services. The process has already begun.

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