

ALTERNATE ROUTE

Infrastructure investing is more than a detour

BY JOHN RUBINO



IT'S A SUNNY SPRING AFTERNOON,

and the Chicago Skyway is jammed with outbound commuters paying their tolls and heading for the nearby suburbs. This is, to all appearances, a typical U.S. urban toll road on a typical day.

But there's a twist. Rather than flowing into state and local government coffers, Skyway revenue goes to an operating company run by Australian and Spanish firms and owned by pension funds and insurance companies from around the world. Chicago still owns the road itself, but under the terms of a 2004 privatization deal, Skyway's investors will both run it and profit from it—for the next 97 years.

Although new to the United States, this kind of public/private infrastructure partnership is popular in much of the rest of the world. The Rome, Sydney, Budapest, and Taipei airports are all privately run, as are dozens of toll roads crisscrossing Europe, Canada, and Australia. Many Chinese toll roads are private, and India is actively courting this kind of foreign investment. Infrastructure, in short, has become a separate asset class, one highly sought after by both pension funds and investment banks, and—last but certainly not least—it's one of the coming decade's hottest job markets for analysts and money managers.

This story begins in the early 1990s, when the Australian state of Victoria ran into the standard set of financial difficulties: too many obligations, too little tax revenue, and few traditional ways to bridge the gap without courting regime change. So, local officials, like their counterparts in dozens of other places, analyzed their balance sheet and found a treasure trove of undervalued assets. "They decided that the best way to overcome their difficulties was to privatize a number of assets, including power stations, grids, and toll roads," says Mark Ramsey, head of unlisted equities at

Macquarie Group, Australia's largest investment bank.

Rather than simply taking these assets public or selling them directly to private sector operators, Victoria structured the deals as long-term leases, with operating companies paying large up-front fees in return for multi-decade contracts to manage the assets. Macquarie and a handful of other investment banks arranged financing, lined up operating companies, and sold equity stakes in the operating companies to pension funds and insurance companies, either directly or through funds created for that purpose. "It was a very successful exercise," says Ramsey. "The government released a huge amount of equity. This took a state which had been in fiscal difficulty to fiscal soundness. Other governments now recognize it as a good model."

This deal structure appears to offer something for everyone. Institutions, for instance, love the resulting securities for their long durations. "They're ideal for pension funds or insurance companies with long-term liabilities," says Peter Hobbs, global head of real estate and infrastructure research at Deutsche Bank's RREEF Division. But they're more than garden-variety bonds, which pay the same coupon year after year. A toll road or airport, if managed well, can grow over time in number of users and the level of fees over time. "Because the cash flows are both predictable and growing, you have, in effect, an indexed bond with a bit of upside, similar to listed electric utilities in terms of duration and stability," observes Hobbs.

Governments, meanwhile, are comforted by the knowledge that their crown jewels aren't trading on volatile stock exchanges. "These assets naturally reside in institutional hands, with investors who are there for the very long term," says Shaun Mays, RREEF's global head of infrastructure investments.

INFRASTRUCTURE: WHAT IT IS

Infrastructure is a broad term for physical structures that are (1) accessible to most of a society's people and (2) have a reasonably privileged income stream. Useful ways of categorizing it include the following:

Social vs. economic. There are private sector hospitals and schools of course, but for the most part, this "social infrastructure" is politically hard to privatize and operationally hard to run for a profit. So, the real action is in economic infrastructure—roads, bridges, airports, and electrical grids.

Monopoly vs. competition. Picture a continuum with a legal monopoly (say, an electric utility) at one end and a multiplayer free market at the other. Various pieces of infrastructure can be found at every point. An electrical grid, for instance, is protected by law from major competition but is constrained by regulators on fees and expansion. An airport or toll road may not be a legal monopoly, but the expense of building a competing structure creates high barriers to entry. A railroad, however, might compete with trucks running on subsidized highways and other railroads.

Over time, the definition of infrastructure is broadening, according to Macquarie's Ramsey. "We see it as any asset with a strongly protected income stream, whether it's a true monopoly or an asset which has a strongly competitive position," he says. TV broadcast towers are a case in point: "There are only so many needed in a given city, and they have a long period when all local TV stations will use them," notes Ramsey. In the same category are cable TV assets in places where they are the only delivery system.

Expansion potential. A toll road, for example, can be upgraded with electronic toll booths, for instance, but there's a limit to how much new traffic this change will generate. Airports have more revenue sources, including restaurants, stores, and services aimed at passengers and airlines, so it's possible for astute managers to produce a faster increase in cash flow.

Country and regulatory climate. "In developed countries, there's a legal framework where even if the government changes its mind, you have an enforceable contract. This is not so easy in less politically stable situations," says Robbert Coomans, head of infrastructure investment for Dutch fund manager ABP.

Life-cycle stage. Infrastructure, like any other economic asset, passes through various stages, from development to maturation to obsolescence. A greenfield project (say, the clearing of a forest to build a new airport in China) and a Canadian toll road that has been around for decades will have a very different risk-return profile.

WESTERN BOOMERS, EASTERN DRIVERS

The other reason infrastructure's time has come is demographic, says Mays. Mature European countries, such as France, Germany, and Italy, already exceed the deficit limits imposed by the EU Maastricht Treaty, and with aging populations, a surge in pension and health care spending looms. The result, according to Mays: "Governments in Europe will use the sale of economic infrastructure to fund the shift in social infrastructure like schools and hospitals."



Infrastructure and Valuation

Building a discounted cash flow model for a public/private infrastructure deal "is always tricky," says Mays. Since each deal is negotiated by a unique mix of government agencies, investment banks, operating companies, and pension funds, they can differ in the range of fees the operator is allowed to charge, required maintenance and upgrades, and the duration of the relationship—among many other things. Meanwhile, each facility's growth prospects differ according to asset type and location.

With mature projects, such as an existing toll road, an analyst has a good sense of what to expect. "You've got known or predictable cash flows, with early cash flows dominating the model," says Mays. At the other end of the spectrum, with a new project in a growing area, the calculations have far less certainty but the potential growth rate is much greater. Then comes the real challenge of choosing a discount rate. Here, the following risks have to be assessed:

MANAGEMENT: The more growth potential an asset has, the more important the operating company becomes. And as the

number of deals inevitably outstrips the supply of experienced operators, this becomes a major factor. "If you look at the number of managers who are now in infrastructure, there are certainly not a lot with long experience," says ABP's Coomans. Many of the people now being installed to manage current projects "have earned their credentials financing infrastructure projects and advising governments, not by running a project themselves."

REGULATION: "Each type of infrastructure is regulated in a different way," says Hobbs. Even within the same economy, different rules govern roads, airports, and electrical grids, and each set of rules will be at a different stage of evolution. And among countries, the regulatory frameworks vary widely for the same assets.

CONSTRUCTION: When an asset is being expanded, and especially when it's being created from scratch, many things can go wrong, from union work stoppages to spikes in steel and cement prices.

Developing countries, meanwhile, need vastly more infrastructure to satisfy growing middle class populations. China's massive spending on roads and power plants is already exerting upward price pressure on everything from copper to oil, while the number of cars on Indian roads has more than tripled since 1991 to 67 million. As India's finance minister, P. Chidambaram, put it in a recent speech, "We have discovered that infrastructure is our biggest constraint." One study estimates that East Asia needs more than US\$200 billion per year in infrastructure funding, an amount that's far beyond the means of regional governments.

The result: Most countries have little choice but to privatize infrastructure, whether existing or prospective, and governments and institutional investors are both partial to the kind of deal structure described for Skyway. So expect the number of such deals to surge in the coming decade, while the market evolves toward open funds, longer durations, and the addition of municipal bonds to the deals.

OPEN FUNDS AND LONGER DURATIONS

Institutions can buy into the new wave of public/private partnerships either directly or through funds that specialize in them. The funds, meanwhile, come in listed and unlisted forms. "The excitement recently has been in the unlisted funds," says RREEF's Hobbs. Especially in Europe, such funds are most often closed-end funds, with durations from 7 to 10 years. But this is more a result of the newness of the market than of the nature of the securities. "In Europe, where fund investing is less mature, investors are more comfortable with a finite life," he says.



But this will change. "Once investors get involved with these assets, they don't want to let them go, because they like both their yield and duration," says Hobbs. So over the coming decade, he expects that "most of these fixed-term funds will convert to open ended and perpetual," taking in new capital and investing in new deals.

MUNIS IN THE MIX

In the United States, the traditional way of financing infrastructure has been for a government body to issue insured municipal debt to fund construction and then manage the asset itself. The Australian/European/Canadian method uses a combination of taxable bonds, bank debt, institutional equity, and private management. This model is now becoming popular in the United States, as evidenced by the Chicago Skyway and several subsequent deals.

And now? "I think you'll see a blending of the market, taking the best of both models," says Kate McDonough, senior managing director of North American project finance for bond insurer Ambac. She notes that U.S. law makes muni debt highly attractive. "You get the benefit of the depreciation on the roads and tax exemption on debt."

One example of this hybrid structure, says McDonough, is the Trans Texas Corridor project, which eventually will create a seamless north-south corridor from Mexico to Oklahoma. In partnership with Cintra, one of the operators of the Chicago Skyway, the state has granted rights of way and a construction overrun guarantee and issued munis, insured by Ambac, to fund construction. Other parts of the deal will

INTEREST RATES/CURRENCIES: Operating companies use massive amounts of leverage—sometimes 90 percent of total capitalization. So, the terms of this debt, especially how its rate adjusts and when it must be refinanced, are crucial. Likewise, if debt is in one currency and revenues in another, as was the case with many developing world privatizations in the early 1990s, you've got potential problems.

WHO SHOULD OWN WHAT: Early-stage projects and developing world assets offer higher potential returns with commensurately higher risks, making them more attractive to private equity/venture capital/hedge fund investors. Mature assets in developed countries are more suited for pension funds and insurance companies with long-term liabilities. Frequently, a given asset will pass from the first stage to the second and be sold by its early, short-term investors to yield-oriented institutions.

The question is: What happens to prices and returns along the way. Without an active public market it's already

hard to gauge the attractiveness of a given operating company's risk-return profile. This will become more of a challenge as the sector gains popularity, increasing the risk that banking fees will come to drive deal flow, distorting valuations and lowering returns. Infrastructure isn't there yet, but it's heading that way. "The risk premium has declined lately, as investors have become more comfortable," says Hobbs. "So you're not going to get the strong returns you got in the past. It's important to be realistic about the returns that will be expected from the asset class."

Another consequence of the emergence of a new asset class is a surge in demand for people. Infrastructure is very much a cross-disciplinary field, with elements of investment banking, security analysis, and business management, a skill set that's both currently rare and soon to be in big demand. "The teams that we use are very large," says Ramsey. "On one bid in the U.K. we had 35 people internally and another 100 external advisers 24 hours a day for six weeks. This world is growing very rapidly, and the number of people with the right skills is limited. There are great opportunities."

The Case for Litigation Financing

Court is now in session for a new approach to investing in intellectual property

BY CHRISTOPHER CASSERLY, CFA, AND DANIEL CATHELL

Capital markets place a high value on intellectual property (IP)—and rightly so. To better appreciate the value the market assigns to intellectual property, one need look no further than the often high market capitalization of a company relative to its book value. It could be logically estimated that this difference is largely attributable to the value of a company's intellectual property. The market understands that companies can use their patents, trademarks, trade secrets, copyrights, and service marks to earn excess returns. Intellectual property gives companies the ability to limit the potential for competitors to enter a market, to create better products, and/or to garner efficiencies that provide flexibility in the marketplace.

The value associated with these intangible assets is often the crux of numerous contested matters, including infringement and unfair trade practices. Defending intellectual property through litigation is risky and, at times, prohibitively expensive. Factors that influence the costs include (among others) the amount of damages at stake, litigation complexity, fee arrangements, and aggressiveness. According to a 2003 report by the American Intellectual Property Law Association, the average cost of a patent case with damages of more than US\$25 million at stake was approximately US\$3.9 million. This amount decreased to approximately US\$2 million when damages sought were between US\$1 million and US\$25 million.

While there are certainly examples where the costs far exceed these amounts, the potential rewards can be quite large.

Law firms have implicitly invested in such opportunities for years via contingent fee arrangements. Because many law firms lack the appetite for risk associated with this type of investment of time and resources, more risk-oriented investors—such as venture capitalists, private equity funds, alternative investment practices, and high-net-worth individuals—may find an opportunity in a new approach. Litigation financing, which pays traditional hourly professional fees in return for a share of the ultimate damage award, can efficiently and appropriately allocate the risk and reward among all parties. Hypothetically, arrangements can also be made for funding the defense of IP litigations, whose return is predicated on an inverse formula.

Unlike a more traditional approach to investing in intellectual property, such as owning equity in a company with significant IP assets, dedicated funds could be raised to finance IP litigation in a limited partnership structure with a general partner responsible for finding, managing, and monitoring investments. Clearly, the funds would need to follow traditional portfolio investment practices and diversify among many different litigation investments so that large damage awards or settlements could offset investments for which the entire amount expended is lost. General partners with knowledge and experience in IP litigation could create added value through intelligent investment decisions, such as narrowing the selection process to the disputes that offer the best set of facts and circumstances to the party for whom the investors intend to fund the litigation.

One of the most recent and compelling examples of IP litigation financing/investing is one that created anxiety for many of us addicted to being in constant touch with our e-mail. We refer, of course, to the *NTP v. RIM* (Blackberry) patent infringement case in which RIM agreed to pay NTP US\$612.5 million in a settlement. According to the *Wall Street Journal*, the law firm representing NTP, Wiley Rein & Fielding LLP, bore the risk of a contingent fee arrangement and in return received roughly a third of the settlement. Though there are many other contributing factors in this case, it epitomizes the very large payoffs that can result from patent litigation.

The growing field of IP litigation offers the potential for significant returns commensurate with the risk. In a world that is changing rapidly as a result technological advances, companies must protect their intellectual assets. Under the current system, litigation is an important component of such protection. Investors need to consider how the recent rash of IP litigations will shape the overall market—including the possibility of new investment vehicles—in the future. ▀

Christopher Casserly, CFA, and Daniel Cathell are employed by Invotex Group, which provides accounting and financial consulting services to the business and legal communities, financial institutions, insurance companies, and governmental entities.

follow the Australian model. “Funding can be a combination of muni and bank debt, local equity investors, and some of the Macquarie-type equity funds,” says McDonough.

A layer of insured debt offers several benefits, says McDonough. “With a lot of these deals, the debt is back-ended, with equity getting paid before the debt matures, so having a layer of long-term insured debt gives equity investors an added level of security.” He adds, “If a project is favorable 30 years out and you’re making an [equity] investment with a 7–10 year horizon, that should work as well.”

Meanwhile, the concept of U.S.-style insured infrastructure debt is spreading abroad. In Mexico, an earlier failed toll road privatization was recently refinanced with 24-year bonds,

insured by MBIA. Although the bonds are not munis in the U.S. sense, they are denominated in Mexican pesos, indexed to provide a 5 percent real return and (because of the MBIA guarantee) are rated AAA. “Basically, what [Mexican institutional investors] are getting is an asset in Mexican pesos that is rated AAA global,” says Eugenio Mendoza, MBIA’s head of international new business development for the Americas. “In this case, company risk is better than country risk.”

John Rubino, a former financial analyst, is the author of How to Profit from the Coming Real Estate Bust and Main Street, Not Wall Street.

Infrastructure’s next hot market? The United States

China, India, and the rest of the developing world are on an airport/road/power-grid building spree. But that’s not where Western institutional investors expect to place their infrastructure bets in the coming decade. The really interesting growth market, believe it or not, is the United States. There are several reasons for this:

- The developing world’s economic systems in general and regulatory structures in particular haven’t matured to the point at which an airport or toll road’s revenues would be predictable, which is infrastructure’s main attraction for pension funds and insurance companies. A Vietnamese airport might be a huge winner over time, but for now, such a deal remains the province of hedge funds rather than pension funds. The United States, however, has a body of established law protecting property rights and plenty of roads, airports, and power grids with established operating histories.
Only a tiny fraction of U.S. infrastructure has been privatized. According to the Reason Foundation, a free-market think tank, of 517 U.S. airports offering commercial passenger service, only 13 are privately run; only 2,400 of approximately 54,000 municipal water and wastewater systems have been privatized; and all but a tiny fraction of U.S. highways are still in the public sector.
- The rules recently have been changed to make public/private partnerships more attractive. Following California’s lead, states are explicitly permitting private toll roads. President Bush’s recent Executive Order #12803 on Infrastructure Privatization removed the requirement that previous federal grant funds be repaid before state or local governments can privatize an asset. And the 2005 Transportation Equity Act contained a provision making private sector debt financing of transportation projects more attractive.
- The Chicago Skyway got everyone’s attention. This 7.8-mile stretch of road, which links the Indiana Toll Road with the



expressway that leads into Chicago’s “Loop” business district, was built half a century ago with muni financing. But, says Ambac’s Kate McDonough, “The anticipated traffic growth didn’t occur, and the bonds defaulted.”

Meanwhile, Chicago, like all big U.S. cities, was facing a serious need of cash. “Mayor [Richard] Daley was looking at assets that could be better handled by the private sector,” recalls Ed Feo, an attorney with Milbank, Tweed, Hadley & McCloy, the Chicago law firm that worked on the Skyway project. The Skyway seemed like a logical and manageable first step. But with few U.S. precedents, the city and its advisers had to look north for a model—to the recent successful privatization of Canada’s Highway 407. That deal called for the government to retain ownership of the road while handing off maintenance and toll collection to a private firm via a long-term lease.

When the Skyway was put out for bid, “They had a fair amount of interest. Six groups pre-qualified, and four eventually put in bids,” says Feo. The winner, a consortium led by Australia’s Macquarie and Spain’s Cintra, gained the right to manage the road and collect tolls for 99 years, in return for a jaw-dropping up-front payment of \$1.8 billion. “This price was well beyond anyone’s expectations,” says Feo.

Now, state and local governments are poring over their balance sheets in search of Skyway-caliber assets and finding plenty. A 75-year, US\$3.85 billion lease of the Indiana Toll Road is in the works, the Texas Corridor is progressing, and even New York’s Tappan Zee Bridge is on the block. Cities and states are looking at power grids, airports, water systems, you name it. The result: a gold rush for investment banks, a widening of investment options for institutions, and a fundamental shift in the global infrastructure sector’s center of financial gravity. “If we’re looking 10 years down the track,” says Deutsche Bank’s Shaun Mays, “infrastructure owned by insurance and pension funds will be roughly equivalent to the equity market, with the U.S. being the biggest and Europe second.”