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**Privatization as a Strategy for Capital Financing**

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**Introduction**

Thank you, George. I am pleased to be here. I must admit that I'm a little intimidated by the depth and sheer intellectual power of the other speakers on the panel you've assembled here. I've been working hard for three years as a journalist to understand how this privatization phenomenon, the so-called megatrend of the 90s, relates to capital investment in infrastructure. But I am just a journalist.

By definition, a journalist is a voyeur. I've never tried to arrange a nonrecourse loan for a tolled congestion reliever in Bangkok. Nor have I tried to develop a user-fee system to support capital market financing of a sewage treatment system in Hungary. I did successfully squat an abandoned tenement on Manhattan's Lower East Side many years ago. That's the closest I've come to infrastructure privatization in a developing country.

At this point, I usually say that I'm the editor of the most widely xeroxed newsletter in America. Not only is that a lie, but it's grammatically incorrect. I have brought along some copies of past issues which contain case studies and news of infrastructure privatization projects in the U.S. and overseas.

I'm going to begin my talk with a number of vague observations about the challenge and opportunities posed by privatization as a strategy of capital financing. Then I'm going to plagiarize the daylights out of a great paper written by a British banker about Malaysia's experience with its Build-Operate-Transfer projects. I will also make passing reference to a few privatization projects in the U.S. If you want more detail about those, you can read about them at your leisure in PWFinancing or call me in my attic where I spin out these tales of the new frontier.

The possibility of creating large construction projects and of making higher than normal profits over a longer term has attracted contractors, bankers, real estate developers and facility operators to consider taking on some of the risks of ownership, including arranging the project financing and investing some

of their own equity and that of others in public-purpose infrastructure facilities.

These consortia and their public sector partners are the ones trying to make infrastructure privatization projects work in Hong Kong, Sydney, Turkey, Pakistan, Malaysia, Mexico, Indonesia, the U.K., France, Canada, Puerto Rico, the U.S. and someday in Eastern Europe, Central America, and parts of Africa.

What is being sought are the efficiencies made possible by centralizing the management and control of complex infrastructure projects in the hands of private sector experts who are directly at risk for the quality and timely delivery of the design, construction and operation of their product.

The product or service provided can be highways, bridges, mass transit systems, water and sewer systems, electric power stations, basically any type of project that can be supported directly by user fees or indirectly through service contracts with governments. In almost all cases, the projects serve urban areas where money, political power and need are most concentrated.

Privatization removes the government and the public at large as the ultimate credit source for 100% debt-financed infrastructure projects. It replaces that large pot with a much smaller one, namely the project beneficiaries, both direct and indirect. The direct beneficiaries are the facility users. The indirect beneficiaries are the real estate interests whose land and buildings increase in value as a result of the infrastructure improvement.

This is a drastically different way to do business. The way governments procure large infrastructure projects now reflects the high level of mistrust between public bureaucracies and private businessmen. There is much cynicism and inflexibility in both camps. The procurement process is founded on this adversarial relationship. It's the kind of marriage destined to fail and it does all the time.

In contrast, the privatization process mimics a successful marriage between opposite but interested parties. It requires substantial collaboration between the public and private partners in project planning, development, legislation, funding, design, construction and operation. It requires a flexible regulatory approach. It forces both sides to compromise on what gets built and who gets rich. In varying degrees, it requires government to give up some of its control to market forces. It also requires that the private sector trust the institutions of government or find ways to negotiate iron-clad protections against change-of-law risks and other sovereign risks.

In other words, it's like a prenuptial agreement.

The BOT process puts large, well-capitalized private firms with a strong desire for profits at the service of governments with a strong commitment to economic development. It gives bankers and lawyers more of a say in putting projects together with the hope that they can be financed on a nonrecourse basis.

For all those reasons, privatization is hard to do because it challenges an army of vested interests in the old way of doing business. It butts up against a brick wall of institutionalized beliefs about the relationship between the public and private sector. Nowhere is that relationship more strained or inflexible than when large amounts of money change hands, as is the case with most infrastructure projects.

Accessing the capital markets for high-risk, long-term infrastructure projects requires a high level of economic stability and political commitment which are not common in many countries. In their absence, privatization requires AID, the World Bank and other large institutions to put in expertise and credit and to absorb some risk on behalf of client governments.

Ibrahim Elwan, head of privatization and cofinancing at the World Bank, believes BOT project development is a growth industry, particularly for his group. He sees the World Bank's role principally in evaluating and helping to allocate the risks of infrastructure development. Elwan quite properly views private sector interest in BOT projects as an opportunity to shift some of the risks normally taken by governments and the World Bank to private developers.

Under conventional funding programs, developing countries and newly industrialized countries are forced to assume all of the risks of an infrastructure project, including the completion risk, commercial risks, operation risks and sovereign risks. The packaging of BOT projects into longer-term and potentially more attractive investment opportunities makes it possible to give some of those risks back to the contractor-banker consortia. The World Bank's exposure is reduced.

Expediency puts the privatization option on the table. Often, a desperate government is your only customer if you are in the BOT business. In many ways, however, the need or desire for privatization is rooted in a need to reform the public procurement process.

### **Advantages**

1. Centralize decision-making within a group of private contractors and investors who have a powerful interest in efficient project delivery.
2. Large private sector firms bring experience and economies to the planning, design, construction and operation of infrastructure projects. They

also bring credibility in negotiations with the financial community on project loans.

3. Privatization brings additional investment to the country that might not occur otherwise.

4. By limiting the project lenders' recourse to the government's revenues, it provides a means for the government to reduce its direct spending on capital projects and channel some of that money to other pressing needs.

5. The government sponsor has no financial responsibility for the project until it is completed and generating revenues. Design, project development, construction, startup and operation are the responsibility of the BOT developer.

6. BOT projects can often be funded more quickly than public infrastructure facilities so the public derives benefits from faster, more certain delivery of necessary infrastructure improvements. If a new road, water system or powerplant opens the door for economic growth, then getting it built sooner pays off sooner.

7. Finally, privatization provides a window to sophisticated value capture concepts embodied in air space leasing and joint development projects between public and private partners. In many cases, private BOT developers are interested in infrastructure development--particularly large transportation projects--mainly when there is a substantial real estate development sweetener to pull in equity players.

Governments are getting better at capturing the value created by public infrastructure investments. With a private partner doing the negotiations outside of the public procurement sphere, the contribution from real estate value capture may be substantially greater. Ultimately, that takes some of the pressure off user charges as landowner beneficiaries pay their fair share of project costs. The hitch, of course, is that the landowners are often the same as the infrastructure developers. In congested urban areas, improved mobility and access are worth billions to real estate interests.

In Bangkok, for example, Hong Kong developer Gordon Wu, the chairman of Hopewell Holdings, is negotiating with Thailand's new generals to grant him a 40-year BOT concession for a road and rail network costing \$2.8 billion in U.S. dollars. The real driver for the transportation project is the development rights to 10 million sq ft of land around the interchanges. The real estate profits are potentially so significant that Wu is offering the government a free ride plus \$2 billion over the life of the franchise for granting him the transportation franchise.

**No Pain, No Gain**

Even if you get past the public policy debates and go on to the question of how to get more infrastructure built sooner and better, there are still a number of problems with BOT procurements:

No two are the same. There are no easy templates. Each deal is very project specific based on the motivations of the consortium sponsors, the technical risks of the construction project, the political resolve of the public sponsors, the quality of the economic studies underpinning the financing, the endurance and willingness of civil service leaders to adopt and enforce change within their bureaucracies and the ability of all parties concerned to be flexible.

Infrastructure privatization is project financing with the added complexity that comes from having a government partner in the deal and a risk-averse banker as a principal participant at the negotiating table. Often there are dozens of risk-averse bankers involved, each with his own lawyer.

A high level of senior management time and energy is required to consummate these contracts.

The learning curve is very difficult because few public sector people stay around long enough to negotiate two of these deals. Few private sector people have the endurance to do this for a living. Institutional memory is short on specifics. And the negotiating process itself is new and frustrating.

Robert Best, the Director of Caltrans who signed four major toll road concessions in January, says one of the hardest parts of the AB 680 negotiations was reconciling the different motivations of the players. His government team was there to protect the public interest and to further the state's transportation objectives. The private consortia representatives were there to protect their investments and to write as much profit as possible into the contracts.

When they got to the hard parts, they couldn't do what businessmen and their lawyers usually do which is to split the pot. They were talking about different things so the normal methods of compromise didn't apply. They had to create a new way to achieve consensus. On some items, force majeure and defining the franchise zone to limit public competition, for example, it took weeks of 12 and 20 hour sessions to get to final wording. Best and his three top negotiators lost a total of 18 pounds body weight during the final two weeks of talks.

### **Trends**

I see a few important trends evolving out there that you should be aware of:

The first is that familiarity breeds complexity.

As governments become more comfortable with the contractual terms and as the private sector gains trust that the political and legal protections built into the contracts will work, financing packages get tailored to the needs of the project. Risk sharing becomes more sophisticated with each of the many public and private partners taking what it is best able to handle. Also at work here is the fact that financial advisors have a vested interest in putting together designer financings that leave their competitors guessing, at least for awhile.

The second is that size of projects is shrinking due to tight credit and uncertainty among lenders in general.

Theoretically bank syndicates can be put together to finance single projects of almost any size. The massive amounts of paper, ego soothing and facsimile time required to manage the 200-plus banks in the Channel Tunnel syndicate plus the fearsome growth in the banks exposure on the Channel, from (U.S) \$9.7 billion in 1987 to \$14 billion today, has put what many believe is a permanent cap on project size.

What that maximum is I don't know. It will depend to some extent on the general level of capital that's available. Under current capital market conditions, I'm told, projects over \$300 million may be difficult to finance in the U.S. The recent failure of Union Bank of Switzerland to syndicate a \$1-billion nonrecourse project financing for the E 470 toll road beltway around Denver was caused in part by its ambitious size. The governments involved in the E470 Authority are working now to reduce the scope of the project by about 25%. The pool of lenders is pretty much the same for projects in Bangkok or Denver so the limits will be the same as well, I suspect.

Ralph Stanley's Dulles Toll Road Extension from Fairfax into Loudoun County, Va., is getting a positive response from potential long-term lenders, I'm told. If it can be pulled together, the economics of that deal are very good and its size--between \$250 million and \$300 million--doesn't challenge the imagination of lenders.

Further down, the CRSS-Italstat consortium seeking to develop tolled HOV lanes on a public road in Orange County, Calif.--Route 91, the Riverside Freeway--are given high marks by bankers for choosing a small project to test the market for private roads there. The estimated construction cost of the 11 miles of HOV lanes is \$90 million. The right of way and the cost of environmental studies for that project are being donated by Caltrans.

**Malaysia as a case study**

I'd like to move now to a closer look at a how Malaysia has managed its successful privatization program and some of the reasons why it has been successful.

Malaysia provides a good example of the progression in risk sharing typical of privatization projects and why they should more properly be called public-private partnerships. Much of what follows is from a paper by John Burnham, a director of J. Henry Schroeder Wagg, a large U.K. bank that does a lot of international BOT business, both as an advisor and as an investor.

Since the government in Kuala Lumpur started down the BOT path in 1984, three projects have been completed, three others have been put under construction and a batch of new ones are being planned. During the past six years, the risk sharing arrangements have evolved from 100% private exposure on early, small, relatively rich projects to more complex contractual and financial partnerships on large, government-supported projects.

1. The early projects were financed on the balance sheet of private concessionaires who were awarded rights to potentially lucrative toll projects. The first was a 25-year contract for building and operating an urban bypass costing \$20 million in Malaysian dollars. The second, an \$86-million (Malaysian) interchange in Kuala Lumpur, was awarded under a nine-year toll concession. Both projects were built by contractor-banker consortia. They were not stand-alone financings, where lenders have no recourse other than to the project revenues.

2. In the next phase, a water treatment plant and aqueduct costing \$118 million in local currency was financed using a 13-year service contract based on a capacity charge for bulk water deliveries. It was built by a local contractor with a solid reputation.

The project was funded using a conservative debt-equity ratio of 60-40. About 90% of the equity came from institutions, most of them local. The debt was an eight-year floating-rate loan in local currency with no recourse to the equity shareholders.

3. Next in complexity was a power transmission line, a \$100 million (Malaysian) project built by the same local contractor for the Ministry of Energy, which operates the high-voltage line as part of the national grid. The 15-year concession based on a capacity charge was granted to the project company which used that predictable revenue stream to finance the construction. The funding was 75% debt and 25% equity. Institutions put up 90% of the equity and the contractor, 10%. The debt was a 10-year Malaysian dollar loan, part fixed and part floating rate. Again, the banks had no recourse to the equity investors.

4. The current batch of projects more closely approach the European concession model. In these the government plays a substantial role in defining and regulating the business terms with the aim of injecting more competition into the selection of the concessionaire.

In the first, a Japanese contractor is building a series of seven urban interchanges and associated toll plazas in Kuala Lumpur. The builder is under contract to a separate operating company which holds a 12-year concession. Together, these interchanges are potentially very profitable. So the government specified the toll rates and the design of the interchanges and awarded the contract to the consortium offering the shortest concession period. The concessionaire was required to take the full revenue risk if the ridership projections were wrong.

The project was funded at a debt-equity ratio of 73 to 27. It has a mix of equity investors, some of whom are individuals, and three tranches of debt. Some of the loans are fixed throughout. Some are part fixed, part floating and some are floating throughout.

The final example is the North-South highway project, which involves a 30-year concession in which a relatively small company was selected to manage the completion of unfinished segments or upgrade existing sections of a major road over a seven-year schedule. The concession company is overseeing the construction by several contractors. The project cost is estimated to be \$5.2 billion (Malaysian).

Parts of the highway can pay for themselves and other segments cannot. The net effect is a marginal deal from an investor's point of view. For that reason, the government agreed to provide subordinated project loans to the concessionaire and to provide backup funds in case traffic risks, exchange rate risk or interest rate risk go beyond certain points.

The funding is a mix of government and private funds. It includes \$2.5 billion in commercial loans made by local lenders on fixed and floating rates for 15 years. The government provided \$1.7 billion in subordinated loans. The cash flow from early, completed segments of the toll road is expected to produce \$1 billion. About \$800 million in equity was also raised.

Burnham cautions that Malaysia's successes have been hard won and that there have been some failures along the way. Opposition from the civil service and the statutory boards overseeing various aspects of the construction process created delays and made negotiations difficult.

Laws and administrative rules designed for public procurements had to be overcome or changed. Land laws, tax regulations, stock exchange rules and other hurdles were negotiated.

Finally, he says, there have been a number of failures, most of which he attributes to poor selection of concessionaires. In cases where projects didn't go, the companies often didn't have the expertise, credit and credibility to implement the concessions.

The reasons he cites for Malaysia's success are numerous and not all that surprising:

1. They started down the BOT road at a time when the local economy was in acute recession and public funds for capital projects were scarce. There was a strong need to seek private capital.

2. The public works agencies had made some mistakes on previous projects resulting in large overruns and foreign exchange losses. There was a feeling among top political operatives and within certain segments of the civil service that private concessionaires could manage the risks more effectively.

3. The government made strong efforts to be flexible in sharing risks so that the concessions ended up being financeable deals. Different terms were negotiated for each project depending on real-world assessments of its economic viability in the capital markets. In other words, the government did not confuse concept with reality and try to hand all of its risks over to the private sector.

4. The move to privatization came from the Prime Minister and other senior members of the government. That greatly helped to overcome bureaucratic inertia and outright opposition. In addition, the public procurement team was centralized at a high level within the government. That created a wider perspective than would have been possible at the level of individual Ministries. It also meant that new approaches could be taken quickly and unilaterally, without having to stop and educate the various segments of the civil service first.

5. The privatization program was launched by giving infrastructure entrepreneurs the sole right to negotiate concessions for projects the government wanted built. Initially, if a conceptual proposal was strong, the proposers were given six months to try to negotiate contract terms. A number of real projects got built that way, generating strong investor and contractor interest. Initial terms were generous; not outrageous but good enough to open the right doors.

The new approach is to inject as much competition as possible into selection of the concessionaires although exclusivity is still granted to firms with truly innovative solutions. Also, the deals are not as rich because they don't need to be to attract contractor and investor interest.

6. With the exception of the North - South highway, most of the projects were relatively small, \$50 to \$60 million in U.S. dollars. Both sides learned how to structure risks and rewards on strong, stand-alone projects

that could be financed locally. They didn't go for the large, prestigious projects first. If they had, they probably would have failed.

More generally, Malaysia succeeded where many others have not because of the stability of its government; the size and sophistication of its capital market; and the low interest rates on borrowed capital.

Low sovereign risks translate into lower financial risk for the government because bankers and investors are more willing to absorb project risks at reasonable rates. The private sector will assume normal business risks but it will not take any political, change-of-law risk. Developers will want government to take extraordinary steps to protect their investment. They also want and usually get the government to have some financial stake in the success of the project. Unlike most developing countries, Malaysia has a good credit rating on sovereign risks so it didn't have to take a large share of the project risks.

Malaysia also has an exceptional capital market by developing country standards. If you can raise most of your money locally, you avoid the exchange rate risks that complicate any funding in foreign currency. All of the income from infrastructure projects is in local currency which magnifies the foreign exchange risk. Private concessionaires cannot accept that risk which means the host government or a multilateral lending agency must.

Low interest rates make it easier to raise equity capital, which improves project economics.

Quickly recapping, in addition to a stable political situation, strong capital market and low interest rates, there was a strong need for economic development infrastructure in Malaysia in the early 1980s. That need was recognized by the Prime Minister and other senior political figures who were willing to put themselves on the line personally to make the projects bankable deals. The early deals were rich enough and paid out soon enough to attract the private sector. And the private consortia chose to build relatively small projects so they could learn how to allocate risks without too much downside exposure.

Burnham points out that Malaysia may not be a good test bed for infrastructure privatization because it has so many of the necessary ingredients on its shelf. Thailand, Indonesia and Hong Kong also have the right ingredients. Many developing countries do not, however.

The recipe for success doesn't vary much, from California to Kuala Lumpur. What does vary is the availability of the ingredients. When the mixture isn't right for purely private funding, then governments and international

development agencies may have to step in with credit support, financial advice, political risk insurance, concessionary loans and grants.

Pakistan, Turkey, Poland, Hungary, East Germany--all of those countries whose credit standing is at or beyond the limit--are candidates for help from the World Bank, the European Bank for Reconstruction and Development, AID, Ex-Im and other trade and multilateral institutions.

If the local capital market is limited, then international institutions may consider counter-guaranteeing loans from local banks, increasing their lending capacity. Financial advisors could also provide advice on how to set up a revolving infrastructure investment fund to develop the local capital market.

If the home country government can take contingent liabilities and can reassure lenders that it will make good on them, it may consider lending its credit (not cash) to support the farebox during the first half-dozen or so years of project operation. Revenue risks are greatest during the startup phase when the technical kinks are being worked out, when markets are being defined and during the long process of creating loyal customers.

Absent enough capacity in the local markets, some of the funds would have to be borrowed from out-of-country sources. That complicates matters by adding exchange rate risk to the risk-return equation. Either governments allow higher returns to compensate for this risk or they must absorb the exchange rate risk directly themselves.

If local interest rates are high, then the government may want to act as a conduit between the private concessionaire and the international institutions. Trade credits, soft loans and other below-market borrowing could be blended with other sources of capital to make projects financeable. As some of you know directly, a number of electric power projects in Pakistan are being developed with this sort of cofinancing assistance.

There are also tied export credits available. The British Overseas Development Administration is offering the Indonesian government a \$32-million grant from its Aid Trade Provision for a 28-mile toll road between Jakarta and Bandung. The grant is conditioned on British contractor Trafalgar House winning the BOT concession for the \$360-million project. This is the UK's first such ATP grant for an international privatization project. ATP funds come out of the UK bilateral aid allocation, which now totals about 60% of the total development aid program of \$3 billion.

That's about all I know or could borrow about privatization. I think it's a good concept. I don't envy you the job of making it work, however. Change is hard. But sometimes it's the only way to get where you want to go.

3/20/91

Thank you very much for listening so long.

## ABSTRACT

### *Privatization as a Strategy for Capital Financing*

This paper was presented at a roundtable on Urban Infrastructure Financing held on March 20, 1991 in Washington, D.C., organized by the Office of Housing and Urban Programs. The objective of the roundtable was to review options for mobilizing and allocating capital for urban infrastructure, examine and highlight successful experiences and assess cost recovery strategies and applications to various urban services.

This paper focuses on two motivations for privatization of capital financing: a) tapping a greater pool of capital to help finance investment, and b) promoting greater cost-efficiency in any of the various stages of infrastructure management. The author examines developing country use of Build-Operate-Transfer (BOT) systems, drawing particularly upon the successful experience of Malaysia. This success was due to the flexibility in the way BOT was used with some measure of subsidies for certain components of projects which have low projected returns and to the greater use of competition to keep down costs. In addition, Malaysia's strong currency helped make private international financing feasible.

In this regard, the author stresses that there is a single worldwide market in which projects must compete for international private financing. While international capital is usually critical, it can be supplemented by private domestic capital. One problem common to raising private domestic capital for infrastructure projects is the long term horizon of most of these investments. This requires the development of long term financing instruments and shifting the perspective of private capital holders to the long term.