

**THE FUTURE OF  
PROJECT FINANCE:**  
THE CRISIS IN PERSPECTIVE

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# CHAPTER 10 INFRASTRUCTURE INVESTMENT IN ASIA – HOW TO MAKE IT HAPPEN IN A CHANGED WORLD

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A few billion here, a few billion there ... a consistent ingredient in the mind-boggling numbers being promised by governments to jump-start their economies in Asia, as elsewhere, is spending big on infrastructure. Indeed, the World Bank calculates that in emerging markets worldwide, the majority (64%) of stimulus packages will be spent on infrastructure versus a still significant 22% in high income countries.

Will this help? Definitely. Infrastructure spending actually gets spent, unlike, say, tax cuts which may be saved; it delivers both medium-term employment and (leaving aside bridges to nowhere) longer-term efficiencies across the broader economy. These efficiencies benefit disproportionately the poor; and while the governments' numbers are huge, their effectiveness can be multiplied up by involving the private sector.

Will it help this year? Unlikely. Infrastructure is difficult, slow and fraught with uncertainty. There have been few details as to how the stimulus packages will be spent on infrastructure, for understandable reasons. By all means, make an immediate impression by sending out unskilled labour to clean up canals and roadside verges, but in order to reap the greater benefits of the employment being skilled and to invoke the multiplier effect on the broader economy, it is new physical assets which need to be specified, planned, financed and built.

Can it be done? Of course. But only if it is recognised that the single biggest constraining factor to bringing onstream a succession of infrastructure projects – whether in the public or private sector – is not the lack of funding, but the lack of projects ready to be financed. Only once projects are made ready for financing (i.e. planned, fully specified, and contracts negotiated) can they be financed, and only then can they be considered 'shovel-ready', i.e. construction can meaningfully commence. (China is perhaps an exception here as a number of projects were shelved in 2004 which can now be taken down again.) To achieve this, various players need to up their game, and to do so now.

These players are host governments; multilateral development banks (MDBs) and individual countries' export credit agencies (ECAs); and private sector commercial banks and investors. Once the finance for infrastructure is in place, finding contractors to build it, operators to run it and users to use it – so long as that bridge does, in fact, lead somewhere useful – is the (comparatively) easy bit.

Host governments need to:

- ▶ Make their approval processes more transparent, predictable, consistent and quick;
- ▶ Enable private sector funding for their projects; and
- ▶ Spell out the extent of their support for each project and/or offtaker.

## Streamlining the approvals process

Large pieces of infrastructure are difficult, expensive, high profile and politically sensitive. They are long-dated, so cut across multiple administrations and necessarily involve a large number of parties, many of which are understandably inexperienced in such matters. Whether financed and built in the public or private sector, approval processes need to reflect all of this. Even in the UK, it took eight years to obtain planning approval for Heathrow Terminal 5 and 19 years from submission of original design to opening.

In Asia, much of the time spent in obtaining approvals (sometimes they never are approved, of course) stems from unclear demarcation lines between different arms of national/regional/local/legislative/regulatory arms of government, which lead to inconsistencies and ambiguities. In Indonesia, for example, ministries disagree as to whether Presidential Decree 67/2005 on private sector involvement in the public sector applies to the largest industry sector – power – or not. Mechanisms for resolving disputes between the different arms of government can be similarly unclear; and personal and organisational agendas can collide. Still in Indonesia, power deals based on 10-year-old comfort letters are still being worked on. Even then, appropriate safeguards are not necessarily maintained.

Any approval process is a multifaceted one. Support for the project needs to be built at all levels of the community. Current occupiers of the site need to be relocated sympathetically. They, and neighbouring, provincial and national communities need to be included in the benefits flowing from the project in as wide a variety of ways as possible: if not using it themselves, they need to benefit not just from sales for cash, but also from upside sharing such as royalties, taxes and perhaps dividends. Softer benefits could include local health, education and scholarships; and especially employment, either directly or via setting up local businesses to supply skills to the project, together with training towards that employment.

In almost every major project, it has to be recognised that someone, somewhere, will lose out, so they need to be looked after in the cause of the greater common good. This is especially so with the compulsory acquisition of land. Firstly, land ownership needs to be established. This is often unclear and can get complicated: Papua New Guinea recognises freehold, leasehold and three different types of hunting rights. Structures to circumvent restrictions on foreigners owning land in Thailand and the Philippines, to name but two, are untested. Then every government needs to be able to exercise powers of eminent domain and compulsorily purchase the land – or at least secure rights to traverse it, such as wayleaves for transmission lines. It needs to do so at a fair price and within a reasonable timeframe, so disputes should be resolved on the sidelines rather than being allowed to delay the project. Issues raised by aggrieved communities and NGOs (non-governmental organisations) will need to be dealt with appropriately, but only up to a reasonable point, whereupon the greater common good needs to prevail. Thailand's power sector works well in this respect. On the other hand, in Indonesia enabling legislation has not been promulgated, which is one reason why roads, for example, are not being built there to any great extent, toll road operator Jasa Marga's recent announcements notwithstanding.

As the likes of Siemens and BAe Systems have found out, corruption all too often accompanies government procurement such as infrastructure. In the Philippines, for example (which has a freer press than most), annual surveys by Social Weather Stations are presented to the President. These routinely show that half of local business managers believe that most / all firms pay bribes so as to win government contracts. To guard against this distortion of economic decision-making, a high level, centralised approvals body works best. Governments should make the staff of this body an elite, clearly set out their roles, give them power, support them in standing up to vested interests, train them in the technicalities, pay them well, and punish them when they betray that greater trust ... easier said than done.

When the sort of amounts mentioned in the stimulus packages are involved and when there is political pressure to spend such sums quickly, some of it will be squandered. It is estimated that Japan spent US\$2.6trn on infrastructure in the mid 1990s, some of it on 'bridges to nowhere'. More currently, the need for the US\$5.5bn Hong Kong–Macau–Zhuhai bridge is, as yet, unproven.

When decision-making is so difficult, having machinery for decision-making which is centralised and stable goes some way to at least getting decisions made. (In any system, there is scope to decide afterwards that the wrong decisions had been made.) This is one contributing factor to the city states of Hong Kong and Singapore making infrastructure happen quickly. It is also why the Three Gorges dam (generating 22.5GW of power is only its third priority; one and a quarter million people were relocated) could have been built only in China.

## Involving the private sector

China's stimulus package has hogged the headlines for the sheer size of its headline number of ¥4trn (US\$586bn). In the rail sector alone, Beijing is planning to spend US\$88bn over the next two years on top of the US\$44bn it spent in 2008. (It has built more miles of high-speed rail in four years than Europe has in 20, and 110,000 workers are currently finishing the Beijing– Shanghai line alone.) All this spending is to be funded by SOEs (state-owned enterprises) and government-controlled banks because China has the necessary reserves, but most countries are not so well placed.

According to PFI, in 2008 commercial banks provided some US\$49bn of debt to infrastructure projects in Asia, the best year ever, despite the turmoil of the fourth quarter. Alongside the debt came equity of perhaps US\$20bn more. Worldwide, MDBs provided US\$16bn in direct loans (and a further US\$7bn in guarantees of commercial debt), much of it in Asia: Japan's Bank for International Cooperation (JBIC) provided more than US\$1bn on Tanjung Jati B in Indonesia alone. Even though large parts of the commercial banking sector remain blocked and it is not yet clear when, how or how much appetite will re-emerge (more of which later), host governments simply cannot ignore such sums.

From the public sector's point of view, involving the private sector offloads considerable responsibility. It has also been shown to deliver superior performance in both construction and operational phases. In Hong Kong, the government has just admitted that the (public sector) Stonecutters Bridge will be US\$128m (37%) over budget and one year late due to unforeseen ground conditions. The UK has been a

pioneer of PFI/PPP, whereby infrastructure previously built by the public sector was instead built by the private sector, then either used by the public (e.g., roads) or made available to the government (e.g., hospitals). In 2007, the Confederation of British Industry reported that from 1992 to 2006, 794 projects worth £55bn were signed up, of which 500 were by then operational. Because of the 'whole life' approach of PPPs (i.e., the same party takes responsibility for operating as for constructing), the National Audit Office found that 20% of PPP projects were completed late compared to 70% of public procurement projects; and a similar 20% of PPP projects ran over budget compared to 73% of public procurement projects. Governments in Asia would surely also welcome such improvements in performance.

Some governments have been wary of inviting the private sector into infrastructure finance. Their reasons include: i) wanting to achieve comparable value for money; and ii) fear of being seen in hindsight to have given away too cheaply a monopoly asset. The answer to the first concern is that operational and thus pricing efficiencies in both construction and operation ought to outweigh the higher cost of financing. The answer to the second concern is to make concessions flexible: for example, when traffic numbers on the Dartford Crossing bridge/tunnel in the UK exceeded expectations, the asset was transferred back to the government early, the sponsors already having made an attractive return.

## Spelling out the extent of government support

When the private sector is involved, the first question usually asked of any project is, what is the level of government support – either for the project or for the offtaker to the project?

Perhaps the most support will be required in the power sector when an SOE acts as offtaker for the power from an Independent Power Producer (IPP) under a Power Purchase Agreement (PPA). The offtaker typically assumes considerable responsibility for changes in fuel prices, exchange rates, interest rates and inflation over an extended period, often out to 15 years. Support therefore needs to be unequivocal. Perhaps it will take the form of a straightforward guarantee, but it need not do so. The government should demonstrate that its people need the electricity, that they or it can afford to pay for it, that they agree that the price is reasonable – and then demonstrate a track record of paying for it.

At one level, the simplest approach is to simply guarantee payment as Indonesia did with its Fast Track programme to build 9–10GW /US\$9–10bn of domestic coal-fired capacity for PLN, its state-owned electricity utility. This has led to construction starting on some 7GW of capacity, with offshore funding in place on four projects, and onshore funding on eight. This is much more progress than under the IPP programme, where the government has offered support via funding of PLN, demonstrated such support even at times of high fuel prices and, at least for Japanese sponsors, added an acknowledgement letter pursuant to an umbrella agreement signed with JBIC in 2006. However, progress on IPPs has been disappointing, perhaps because the MOF support has been less than on the Fast Track, but perhaps also due to certain lingering commercial issues in the PPA for Cirebon, which ought to have acted as a template for subsequent IPPs. Unsurprisingly, the government is now looking at extending some form of guarantee of PLN's obligations to IPPs too.

Unfortunately, issuing guarantees pretty quickly raises questions about the government's ability to honour them, especially when they could all be triggered by the same event such as another collapse in the exchange rate. They also increase moral hazard in that prima facie controllers of risk may no longer feel so obligated to do so; and they can lead to some very large numbers. It is surely better to structure government support in more subtle ways. For example, if it is deemed politically desirable to build a road through difficult terrain where traffic volumes alone would not support likely commercial returns, then the government could undertake to top-up debt (and perhaps equity) service when this is insufficient as a result of low traffic volumes – the amounts of government support are then smaller, contingent and spread over time. The alternative of plugging the so-called 'viability gap' – i.e., the government contributing to the capital costs such that the private developer's contribution is small enough to be serviced from projected operational revenues – suffers from having a larger number which is certain and upfront.

Governments need to recognise that their support will almost always be needed for projects such as urban rail. Any rail line will face competition from cheaper modes of transport which essentially use roads for free. However, because the project generates benefits not captured by the project company – less congestion, less pollution elsewhere, higher real estate prices for adjoining properties – support from government can be readily justified as a matter of public policy.

Korea has delivered the largest private sector investment in the region and it has done so by appropriate legislation, principally a build operate transfer (BOT) law last updated in 2005, which sets out procedures to be followed when bidding and which tackles thorny issues such as how to best handle unsolicited bids, including:

- ▶ Standardising risk profiles and contracts;
- ▶ Setting up a centralised authority, the Public and Private Infrastructure Investment Management Centre (PIMAC) to co-ordinate approvals and disseminate information; and, perhaps most significantly,
- ▶ By being more imaginative in the nature and extent of its support.

One example was the Minimum Revenue Guarantee, effectively a collar for 65–75% of the revenue line, whereby the government contributed funds in the event that actual revenues fell, say, 10% below the base case forecast (so long as they did not fall all the way to 50% of base case), in return for which it received funds in the event that actual revenues were 10% above base case. Suffice to say that lenders liked the first bit but sponsors did not like not the second! The government has had to pay up under such arrangements from time to time, but at least the infrastructure got built; by 2006, concession agreements for 53 social overhead capital projects worth some KRW37trn (US\$30bn) had been signed, much of which has duly been completed.

Once a government has decided that an infrastructure project would bring benefits to its people, it would be consistent if it were to stand behind the project in the event that the private sector concessionaire defaulted. Rather than see the asset cease operations, a government should be willing to buy it back – at a suitably discounted price, usually aimed at wiping out equity but keeping the debt whole. This form of government support is a contingent obligation to purchase a useful asset at a fair price and, as such, is a reasonable stance for it to take. It should not be labelled a guarantee. (For reasons of its own, the government did not follow this argument on Manila airport Terminal 3.)

Yes, a government can insist on a lower buyout price, or even none at all, in such an eventuality, but the concessionaire would most likely end up paying more for its debt, and therefore also the government or its voters pay more to use the asset. Likewise, foisting inappropriate risks onto counterparties will be ultimately counterproductive and/or expensive. For example, PLN was not best advised in expecting the private sector to buy land in Indonesia for power plants and transmission lines when it was having trouble doing so itself.

Government support need not take the form of funding, even contingent. On water projects and airports, its chief support is in allowing the concession to run its course and especially in allowing automatic indexation of tariffs.

Appetite for sub-sovereign risk is likely to remain limited and thus expensive.

### **The role of MDBs and ECAs**

The MDBs and ECAs need to: i) provide more advice to host governments, as well as funds with which to pay for that advice, so as to enable the host governments to make the difficult decisions they face; and ii) recognise that commercial bank appetite has shrunk and step in to replace it, hopefully only temporarily, particularly with respect to lengthening tenors.

Host governments need assistance in sorting out their legislative and regulatory structures. They are getting it from the World Bank, its private sector arm the IFC, the ADB, Japan's International Cooperation Agency (JICA), and others. Specific experience is being transferred from Partnerships Victoria in Australia and more recently, the UK's PPP liaison initiative. Many of these organisations are also funding somewhat smaller pockets of expertise (not least Logie Group) to give such advice. But more needs to be done. Co-operation between these organisations can be improved, such that one coherent message is delivered rather than foreigners being seen to support their respective champions in competition with others.

MDBs and ECAs such as JBIC and their insurance counterparts such as Nippon Export & Investment Insurance (NEXI) have traditionally assumed mainly political risk, i.e., currency convertibility, expropriation, war and civil disturbance, payment default by SOEs and non-payment of arbitral awards.

In the current crisis, commercial banks – especially western ones – are taking a more conservative approach to political risk, but they are cutting their appetite for commercial risk too. In particular, cutting loan tenors well below asset lives wrecks the ability of projects to pay debt service from operational cash flows. However, products such as the ADB's Partial Risk Guarantee (PRG) are available, whereby the ADB assumes the commercial and political risk in, say, years 9–15 in the event that commercial banks will only lend for, say, the first eight years. Otherwise, gearing would need to be drastically reduced (it is likely to be reduced anyway in the current market), leading to a higher overall cost of capital.

Long-term currency mismatches were at the heart of the Asian crisis 10 years ago. Since then, some progress has been made, with greater supply of domestic funding with longer tenors from local banks. The ADB is, in addition, pioneering longer



tenors in local currency capital markets. Currency mismatches remain a risk nonetheless.

The MDBs have an enhanced role to play – perhaps temporarily, perhaps also in the longer term – not just in terms of assuming greater risk, but also in funding it.

The World Bank published in April 2009 its Infrastructure Response to the Crisis. This calls for developed countries to divert a very modest 0.7% (barely a rounding error) of their own stimulus packages as additional aid to low income countries. The bank hails the counter-cyclical nature of spending on infrastructure, as well as this being a “transformational opportunity to invest in ‘green’ infrastructure”. This latter is not assured, however, unless green happens to be cheaper than conventional infrastructure or someone else can be found to pay for it, as was the intention under the Kyoto Protocol’s Clean Development Mechanism. Of the World Bank’s three main responses to the crisis, two are centred on infrastructure, namely the Infrastructure Recovery and Assets (INFRA) programme and the IFC’s Infrastructure Crisis Facility, both of which aim to make available bridging facilities for infrastructure projects which are temporarily unable to source funds from elsewhere.

For its part, the ADB had already embarked in 2008 on its Strategy 2020, under which 50%, rather than the current 14%, of its lending is to come from the private sector by 2020. It is raising its first new equity for 15 years and further funds via bond issues. It, too, is raising a fund aimed specifically at infrastructure with a target of US\$5bn and contributions coming from, inter alia, the Islamic Development Bank.

Such initiatives are welcome.

## Private sector funding

As with all commercial lending, western banks in particular need to rediscover their appetite for lending to infrastructure. Pricing, certainly at higher margins but off, for the moment at least, lower bases will then follow.

In Asia, the US banks have not been active since our own crisis 10 years ago, and Europeans such as RBS and some smaller continentals have fallen away. The long-established pan-regionals, HSBC and Standard Chartered, can afford to be selective. The Japanese were planning to resume appetite in their new fiscal year (1 April) although, with Mizuho and SMFG lopping a cool US\$7bn and US\$6bn respectively off first estimates of earnings for the year just ended, this appetite may be revisited. At the moment, it is government-controlled banks that are most active. Singapore had a big year in 2008, but off the back of the privatisation of its three generating companies and the building of two casinos, neither of which theme will recur. In China and India, the government-controlled banks may at times have supported deals which were not especially rigorous in terms of pure project finance principles – i.e., there was a component of name lending – but, if so, they would not have been the first to do so. In the Indian power market, for example, Tata raised US\$3.2bn for Mundra in January and Reliance is bringing to market debt of US\$6.7bn for a further three Ultra Mega Power Projects (UMPPs). Chinese manufacturers alone are currently building US\$7bn of equipment for the Indian market. As it happens, banks such as China Construction Bank are beginning to recognise that project finance as a



discipline does bring stronger credits. Meanwhile, smaller local banks, each staying in its own back yard, are gradually becoming more active.

### **A flight to concrete?**

There are reasons to think that banks will rediscover a little more quickly their appetite for project finance than they will for other forms of corporate lending. After all, project financing emphasises cash flows, so there is no need for marking-to-market or other valuation techniques. It focuses on asset life, so there is less reliance on refinancing. Heightened risk allocation and due diligence ahead of signing bring a superior risk profile. Although project finance loans tend to default more often than do corporate ones, this is often because the default triggers are set more sensitively so as to prompt information flows and involvement in decision-making. Once built, an asset ought to be worth something to someone, so outright losses are rare. In Asia, loan losses on project finance/infrastructure (outside subsea cables as a sector a while back and a handful of admittedly expensive individual cases) have been comparatively small. Think of it as a 'flight to concrete'.

Banks can be expected to not only have reduced their appetite for risk in terms of the headline numbers, but also to have taken a closer look at the detail of what these risks entail (deductibles for commercial insurance, political risk cover for arbitral awards, do MDBs' B loan structures still work for some?).

Appetite for syndication risk has long been low in Asia; now it is even more so. Assembling groups of banks to bid for big deals will be problematic, hence the stapled financings (i.e., financings prearranged for a particular asset, assuming the winning bidder will be an acceptable credit risk) for the privatisation of the generating companies in Singapore at the end of 2008.

The project bond market barely exists in Asia. In 2008, there were only three deals totalling US\$600m and none of them involved a monoline insurer. This situation is unlikely to pick up soon.

On the equity side, infrastructure funds and other pure equity investors will need to accept lower gearing as Macquarie and other pioneers wind back, some drastically. The attraction of having pure investors which have no other conflicting role still holds, however. So too, sponsors such as contractors and operators, which are willing to contribute equity so as to create a customer, will still be interested. With risk appetite waning, pricing increasing and gearing falling, cost of capital can be expected to increase with commensurate increases in tariffs for new projects and falls in valuations of assets which are locked into old, lower tariffs. Fundamentally, though, much of the institutional funding raised with a specific focus on infrastructure is still not invested, while pension plans continue to generate funds looking for the comparatively safe, long-term, inflation-linked returns often to be found in infrastructure.

### **Conclusion**

Investment in infrastructure brings undoubted medium- and long-term benefits. However, making it happen is perhaps more difficult than is commonly realised, and merely making funds available will not suffice. In Asia, host governments need to

improve how they reach the necessary difficult decisions; invite the private sector in; and when they do, spell out the support they offer. MDBs and foreign governments need to assist in both policy advice and the assumption of some additional risk. And private sector lenders need to rediscover their appetite for sensibly structured and repriced risk.

No one said that any of this was easy or quick; but it can be done and, right now, it needs to be.

*Extracted with permission from the latest Reuters PFI intelligence report, The Future of Project Finance: The crisis in perspective, edited by Rod Morrison. For more information, visit [www.pfimarketintelligence.com](http://www.pfimarketintelligence.com)*

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**Footnote**

1 [www.logiegroup.com](http://www.logiegroup.com)

