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# **The Impact of Laws and Regulations on the Recovery of Distressed PPP Infrastructure Projects**

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# **The Impact of Laws and Regulations on the Recovery of Distressed PPP Infrastructure Projects**

## **ABSTRACT**

In PPP arrangements, the sponsors of distressed projects may renegotiate their contracts with the host government and lenders if the project is to continue operating. This renegotiation occurs in the shadow of local law concerning security interests, contract rights, insolvency and bankruptcy, as parties calibrate their positions to potential downside outcomes. This paper examines the impact of such laws and regulations on the distressed PPP infrastructure projects in Thailand.

Keywords: distressed PPP projects, PPP laws, regulations

## **Introduction**

Public-private partnerships (PPPs) are a recurrent topic in economic and technical literature on infrastructure development and management. This procurement model has found broad global acceptance, as governments are eager to leverage infrastructure development, but face severe public capital availability restrictions. The PPP market has steadily grown over the last decade, even with the economic and financial crises that hit the financial sector over since 2009, along with higher costs of capital (Hall, 2010; Cruz and Marques, 2013). There is some consensus in the literature that the experiences with the PPP procurement model have been mixed (Engel *et al.*, 2013). On the one hand, PPPs have fostered infrastructure development and indirectly leveraged the economic prosperity of many nations. On the other hand, this development was often achieved at a very high cost to be borne disproportionately by future generations, in view of lengthy contracts and related financial burdens.

Many authors have also claimed that the excessive level of renegotiation has eroded public interest (Guasch, 2006, 2009; Guasch *et al.*, 2007; Cruz and Marques,

2013a, 2013b). Some renegotiations have bailed out concessionaires from their projects' economic difficulties, whether revenue shortfalls, cost increases, or both (Burger and Hawkesworth, 2011). Empirical evidence also shows that a priori expectation of this bailout encourages more aggressive bidding by the competitors and negative long-term consequences (Guasch, 2004).

A few studies have focused on the stress of PPP projects (e.g., Reside, 2009; Cuttaree, 2008). For example, a study by Reside (2009) concluded that political risk has a profound influence on PPP outcomes. In addition, as Reside (2009) observed, even though political risk is the biggest threat to project outcomes, it usually occurs after other macroeconomic factors trouble the projects. Similarly, Cuttaree (2008) argued that the distress of past PPP projects can be mainly attributable to (1) inadequacy feasibility studies, (2) unreliable traffic forecasts and (3) undefined public contribution. A review of the literature review also shows that factors likely to have an influence on the failure or the distress of the PPP infrastructure projects include the level of regulations, such as price regulation, regulations on PPP implementation and regulation on debt/equity ratio, as well as risk allocation among parties (Quiggin, 2005; Loosemore, 2007).

However, the literature has not provided evidence on how concession contracts, sector regulations or general economic laws affect the effort to salvage distressed PPP projects or influence parties' decision whether to implement them. This paper, therefore, investigates the impact of laws governing PPP projects on the recovery of distressed PPP projects: the laws governing the implementation of PPP projects and the laws regarding the reorganization of the troubled PPP projects. This paper examines the impact of those laws on the discovery of distressed PPP infrastructure projects in Thailand. To put these laws into perspective, and to facilitate their comparison to laws of other nations in future studies, analogous laws of the United States, such as its

Bankruptcy Code (Title 11 of the United States Code) are used as familiar point of comparison. The paper focuses its study on two key contractual relationships common to PPP projects: one is between the sponsors and the host government, and the other between the sponsors and the secured lenders.

### **Overview of distressed PPP projects worldwide**

Reside (2009) documented that, of the roughly 4,000 projects then in the World Bank's PPI database (from 1986 to 2009), 57 (only 1.4%) were classified as distressed; 185 (only 4.5%) were listed as cancelled. While this is a low rate of failure relative to ordinary private enterprise, it is not intrinsically low, given that most PPP projects are matters of broad economic interest and depended upon, such as: utilities (water supply systems, energy distribution, wastewater treatment), transportation (roads, railways, urban buses, light rail systems, ports or airports) and health (hospitals, primary care units, etc.). Cancellation or liquidation of these projects often implies a discontinuity of services on which the society and broader economy – or vital political prestige – depends. At one extreme, as with certain railroad or port towns, the local economy and society are effectively hostage to the continuation of the project. At another extreme, the economic, social and political benefit is less than the cost of restructuring project, and a cheaper failure is rationally preferable to an expensive “successful” restructuring. The interesting cases fall in the middle, where the most salient of the social, economic and political costs of discontinuing the project exceed the cost of restructuring the project's finances. In fact, an early precursor to PPP restructuring, the restructuring – rather than liquidation – of railroads that had extended westward through North America on public land grants and syndicated private funding, largely for the sake of the commerce and communities that had grown along the lines, was the late-nineteenth century cradle of modern corporate bankruptcy law and restructuring practices (Skeel

2003). In the United States, western states, once enfranchised, could not be relegated to territorial status, their rail towns could not be emptied, and profitable factories built along the line could not be moved. While many rail lines could be abandoned, and were, the main lines, even if unprofitable, simply could not be torn up, with the rails foreclosed upon by the secured creditors and sold for scrap.

Renegotiation still comes into play to save beneficial distressed projects so that they can continue operating, and this is the explanation of the low level of PPP projects being “distressed” or “cancelled” on a global scale as reported by Reside (2009). Further observations of Reside (2009) bring us to Thailand and contemporary PPP restructuring.

### **The definition of success and distress**

The first justification for PPP funding of projects is greater value for money, relative to traditional public procurement. Thus many governments have developed the Public Sector Comparator (PSC) as a method for determining whether the concessionaire bids are cheaper than the theoretical cost of public procurement.

This measure of success is complex, and it is not the purpose of this paper to discuss how to evaluate it. However, distress requiring legally-supervised restructuring or a formal bankruptcy may be assumed to correlate with project failure. In this paper, the threshold line for success is set on the economic and financial equilibrium of the project, although, as mentioned earlier, this is not a guarantee of success.

Nonetheless, a successful PPP may be defined as the one that is developed on time, under budget, and that provides value for money. The criterion “on time” is easy to measure, although the substance behind often-shifting deadlines may be elusive. The other two criteria are not easily measured. Governments often unilaterally change on the project design, destabilizing the budget. Such design changes are quite common in

PPPs, and they are considered to be an important source of cost overruns (see more in Baeza and Vassallo, 2010). But even more difficult is the measure of value for money.

Distress in PPP projects, as in enterprise generally, is of two types: financial distress and economic distress. Financial distress is used to describe projects that are viable as going concerns but currently having difficulty repaying debts, whereas the term “economic distress” is used to characterize those projects with low or negative operating profitability and have questionable going concern value (Lemmon et al., 2009). Financially distressed projects are candidates for renegotiation, firstly of their capital structure. Economically distressed projects are projects whose losses flow from the nature or operation of the project itself, which cannot be resolved through renegotiation of the capital structure, such that liquidation is rational thing to do unless beneficial externalities of the project can be captured, for example by fees and taxes, or represented, for example by direct subsidies from general funds. Again, however, unlike other projects or corporations, the characteristics of PPP infrastructure assets, irreversible once invested, make liquidation often untenable, as Hoffman (2008) pointed out. This may be true economically (businesses use the project), socially (a people depend on the project for their way of life) or politically (an interest group or party is sufficiently committed to the project).

### **Conceptual model of PPP outcomes**

A PPP project is developed throughout several stages, each critical for the success of the project, as depicted in Figure 1. This section will describe the PPP implementation from the perspective of PPP outcomes: *success*, *financial distress*, and *economic distress*. The definitions described in the previous section will also be further refined in this section.

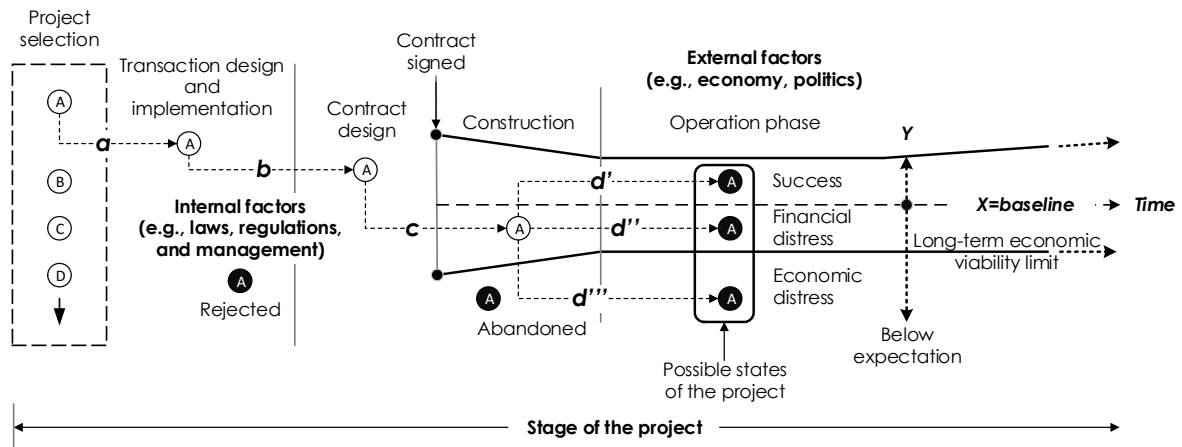


Figure 1: PPP implementation processes and outcomes

The PPP process begins with governments having a “pool” of candidate projects to be developed, as shown in Figure 1. From this pool of projects, some will be selected to be developed, either through PPP or tradition public procurement. In theory, the projects should be prioritized by cost-benefit ratio (the higher the cost-benefit ratio, the higher the priority of the project). Nevertheless, this process is highly prone to political bias (Heldeweg and Sanders, 2013).

After the “Project selection”, the selected project proceeds to “Transaction design and implementation”, the stage during which the tender process is prepared and launched. In this phase, the probability of failure is still high because it is susceptible to political pressures and unprotected by signed contracts. It is not rare in most countries that, for example, political parties may change their minds, once they take office.

Then follows the contractual arrangement, usually reached by negotiation with the concessionaire selected in the previous stage. Key contract features will already have been defined in the terms of reference of the tender, and in the concessionaire proposal. However, these features need to be incorporated in the contract, along with project specifications that might have changed since the tender, and tacit, one-sided, or



even unintentional differences between preliminary agreements and the final contract may be introduced. After the contract is negotiated and both parties agree on the terms, the contract is signed and the partnership is formally established. Next, the construction begins, whose cost brings great risk of “distress” and/or “bankruptcy”. In PPP arrangements, construction risk is shifted to the concessionaire. In some types of construction (particularly those involving tunnelling), this risk is particularly high due to geotechnical uncertainty, and it is not unusual for projects to face significant cost overruns, such as with the Marão tunnel in Portugal or Metronet in London (Jupe, 2009).

Once construction is completed, the project may enter operation, which brings a new major risk: insufficient (or more rarely, otherwise different) demand for the services (Grimsey and Lewis, 2002). Future revenues are persistently overestimated by assuming high levels of demand or consumption than are not realized (Siemiatycki, 2010). Inadequate revenues are a major cause of project financial distress, as operational, maintenance, and financing costs will have been set in light of projections. Another potential source of distress is an increase in operating or maintenance costs, although this is rarer than the shortage of revenues problem. Operations and maintenance are more nearly under the concessionaire’s control than is a revenue shortage – a fundamentally external risk. Another source of financial risk may stem from the variable costs of financing, such as with floating-rate notes, interest rates and other financial externalities.

With regard to the definition of success and distress, a “successful” project can be defined as a project that, at the time, fares at least as well as what had been anticipated (see Figure 1). Financially distressed PPP projects, on the other hand, can be defined as those performing below expectation stemming from financing issues,

adjusting for margins of safety built in, but that have going-concern values in excess of the minimum for “long-term” economic viability. The classic example is a solvent project whose cash-flow will result in an inability to meet payroll and mandatory maintenance unless debt payments are delayed or interest reduced. “Economically distress projects” are defined as those having a cost of operation greater than the sum of revenues plus the subsidies from entities that represent *indirect benefits*. In sum, economically distressed projects are those having performance below long-term economic viability: the future cash flow of the project will never be enough to repay lenders during the specified concession period, let alone reward equity contributors. Equity contributions are, of course, a classic source of a margin of safety in a project’s capital structure, as well as a potential source of additional capital when restructuring a project that remains viable, but on a different time horizon than originally expected.

Each stage of the project implementation has its own outcomes and consequential impacts to the next stages of the project. For example, a hypothetical project A (see Figure 1) during the approval process could be either approved or rejected. If the project is approved, it proceeds to formalize a relationship between the responsible government agency and the concessionaire. Then, once the formal agreement is signed, the construction will be commenced. The formal relationship, generally under the form of a contract, should be set after a competitive tender to select the best proposal/concessionaire. After the contract is signed, the concessionaire can begin the construction and afterwards, the operation. After the operation starts, the revenues will flow in, thereby leading to servicing of debt and payment of dividends. The path of project A, from the conception to the present, would thus be a-b-c-d’ as shown in Figure 1. Accordingly, the project may be considered to be a “success.”

However, if the construction turned out worse than expected (e.g., substantial cost overruns), the project may be abandoned by the concessionaire unless the government intervenes by providing subsidies. For the hypothetical project A, the project is under distressed during construction, which puts it below the X-axis in Figure 1. If the project suffers both from distress during construction and from low revenues during the first years of the operation, such that the project is unable to service its debts, the project may follow the path of a-b-c-d''. This project may be thus in a state of *financial distress*.

Finally, if the project has negative operating incomes (operating revenues less than O&M expenses) and the future cash flow falls below its long-term economic viability, the project, therefore, follows the path a-b-c-d'', a path of *economic distress*. However, as mentioned earlier, this distress, even though it may lead to the bankruptcy of the entity controlling the PPP or even of the concessionaire, does not necessarily mean the demise of the project itself if liquidation of infrastructure is not an option. Instead, a new owner, often the government, will take over the project, sometimes using the bankruptcy process itself as leverage against the concessionaire, unions or other parties, or as a means of avoiding liabilities such as injury lawsuits or retirement benefit obligations that would otherwise cling to the project. This characteristic of infrastructure is one of the reasons why distressed PPP infrastructure projects survive renegotiation processes. But, again, not all distressed projects should be resolved through renegotiation.

### **Laws and regulations governing PPP projects in Thailand**

Public-private partnerships (PPPs) are a recurrent topic in economic and technical literature on infrastructure development and management. This section provides an overview of laws regarding PPP infrastructure implementation in Thailand. We will

focus only on the issues related to handling of the PPP projects under distress, but these laws are of course far cover many other topics are highly detailed.

In Thailand, the relevant laws governing infrastructure developments are the country's Constitution B.E. 2007 and the Public Investment in State Undertaking (PISU) Act 2013. In addition, bankruptcy in Thailand is governed by the Bankruptcy Act 1940. Enactment of the PPSU Act 1992 led to improved management of the implementation of PPP projects. However, the pace of PPP implementation under this regime was rather slow, largely due to an outdated approval processes, this led to revision of the law in 2013.

Bankruptcy and insolvency, in turn, is governed by the Bankruptcy Act 1940 (as amended in 1998 after the Asian financial crisis). This law provides essentially for two types of bankruptcy. First, a creditor can invoke a soft bankruptcy under Chapter 3/1 of the Act whereby the court will administer the reorganization of a debtor company and offer an automatic stay of court proceedings against the debtor. This is analogous to a reorganization under chapter 11 of the U.S. Bankruptcy Code. Second, the traditional insolvency process can be invoked and a creditor can request that the court participate in winding up the company (Tilleke & Gibins, 2013). This is analogous to a liquidation under chapter 7 of the U.S. Bankruptcy Code. Note that Thai bankruptcy process, similar to U.S. processes, is court-centered, in distinction to the more administrative corporate bankruptcy processes of many other countries, particularly in Europe.

In addition, infrastructure development in Thailand is currently subject to the nation's Constitution BE 2007, Part 7, Article 84, clauses (10) and (11), which requires the government:

- (10) To provide basic public facilities necessary for the people to live for the purposes of maintaining the economic security of the State and shall not allow

private sector to monopolize the basic public facilities necessary for people to live which cause damages to the State;

(11) To commit no act which causes the structures or networks of basic public facilities necessary for the people to live or the security of the State to be under private ownership or makes the State to own less than fifty one percent;

This significantly shifts the landscape of PPP implementation in Thailand, in contrast to the U.S. context, where public facilities may be – and often are – privately controlled or left to municipalities of the states, without controlling federal involvement, and where controls on monopolies are a matter of well-settled but changeable economic policy rather than enshrined in the Constitution.

This regulation imposes significant restrictions to the business model of the PPP to be developed going forward in Thailand. It obliges the unbundling of infrastructure and operation, since the government is legally required to own the infrastructure. However it is not clear whether the maintenance of the infrastructure can be developed under a PPP contract, while maintaining the ownership in the public sector side. By contrast, design-build-operate (DBO) projects that leave land and infrastructure ownership under the concessionaire's control – even control of a foreign concessionaire – are feasible without such constitutional hurdles in the U.S. and many other jurisdictions.

These Thai laws provide some, but not all of the elements of an ideal legal framework for addressing PPP distress. First, such an ideal framework would begin with a recognition that the need for a workout does not necessarily indicate “failure”, but only that the project or its financing failed to go as planned, taking into account the tolerances built into the project and financing. The framework should not be reflexively

punitive in nature or stigmatizing, but retain the ability to mark and punish failures that are blameworthy. Thailand's new bankruptcy law is a clear improvement on this score. Second, the legal process for dealing with workouts – such as secured financing and bankruptcy law – should be as clear as possible, so that all stakeholders can plan in advance for varying outcomes, pricing accordingly. The more predictable the legal framework, the more efficient the structuring may be, while still accommodating different tolerances for financial risk. In this respect, firm legal terrain is as advantageous as firm physical terrain. If the law is uncertain, the result is analogous to what happens when the terrain is uncertain: either overbuilding (that is, excess financing) or excess risk of failure (that is, excess risk of an inefficient financial workout). The function of insolvency law, at the time of financing and building, is to provide predictability. The more predictable and well-established the law, the more efficient and welcoming the national environment is to PPP investment, especially foreign investment and new domestic investment that does not have the informal assurances that come from being politically well connected. Expanding the pool of potential finance parties decreases the cost of financing and increases the appetite of parties who bring not just funding but relevant expertise and resistance to corruption. Thai law is at an intermediate stage, when evaluated in this light. On the one hand, the current laws have been in place for some time and there is no present movement to repeal them. On the other hand, as further discussed in the case study below, several important paths – such as a restructuring of a PPP – are as yet untested, and therefore have not developed a body of case law or professional practice. Incumbent, local or well-connected parties will therefore continue to have not only their inherent advantages, but also decreased competitive incentives to provide the government the best terms.

Moving beyond these framework elements, an ideal legal structure for handling PPP financial distress should provide for – and distinguish among – the key alternative paths for solving distress by means of a restructuring. A “restructuring” is the broadest term and includes both financial workouts and operational or capital infrastructure changes, in order to achieve viability. This may be in- or out-of-court, and may be either financial, economic, or a combination of the two. In Thailand as in the United States, both in- and out-of-court solutions are possible under present law. One path is a “workout”, which is any restructuring process that changes financing, but especially voluntary renegotiations with existing creditors that do not make use of special laws or courts or arbitral processes. One branch of the workout path is a “refinancing”, which especially concerns a restructuring that finds new money on new terms to pay off existing creditors, but may include some existing creditors (on new terms) or leaving some existing credit (on old terms) in place. In the case study below, we illustrate a Thai refinancing provided new and more debtor-friendly terms for the secured debt facility. A more comprehensive restructuring is a “reorganization”, which may include the elements of a workout or refinancing, but generally involves a legal change to the project that makes use of compulsory legal process for insolvency, but does not result in a liquidation. This may include a chapter 11 “bankruptcy” in the US or a soft “business rehabilitation” bankruptcy under Chapter 3/1 of the Thai Bankruptcy Act (or in Portugal a conciliation process or a reorganization (not liquidation) under the Código da Insolvência e da Recuperação de Empresas). Finally, there remains the alternative to restructuring, which is an outright nationalization or a liquidation, a process that sells the assets, distributes the proceeds to creditors, and winds up the old business. In the US, this is done under chapter 7, rather than chapter 11 of the US Bankruptcy Code. In Thailand, this is a traditional bankruptcy under the Act. The liquidation alternative

offers a potential cudgel in the hands of the government, to the benefit of taxpayers, to the extent it can credibly threaten to liquidate rather than bail out the project.

## PPP implementation in Thailand

Thailand has a long history of deploying PPPs for its infrastructure investments. For the purpose of classification, PPP developments and implementation in Thailand can be divided into three generations: (1) before 1992, (2) 1992-2013, and (3) from 2013 to present, as illustrated in Figure 2.

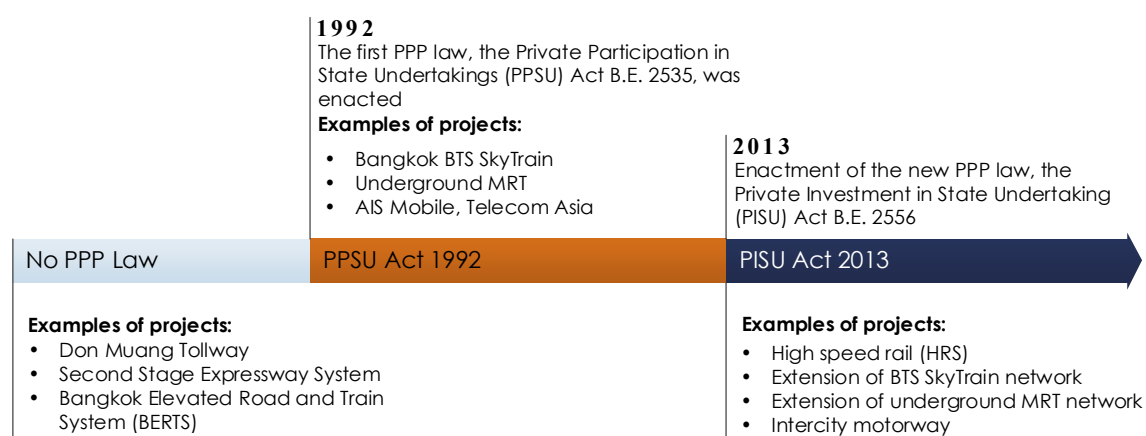


Figure 2: Three generations of PPP developments and implementation in Thailand

Under the PPSU Act 1992, relatively few projects were implemented. However, none of them faced any serious financial and economic distress. Energy projects in Thailand are not subject to the PPP laws, and this helps explain why private participation in the energy sector is very active. Indeed, it is probably the most active sector for PPPs in Thailand. This is broadly similar to the United States, where the energy sector is largely a private matter, though heavily regulated, outside important



exceptions such as the Tennessee Valley Authority (TVA) and the hydroelectric projects of the U.S. Bureau of Reclamation. Unlike energy projects, PPP projects in the transport sector are regulated by the then PPSU Act 1992 and the current PISU Act 2013.

It is interesting that most of PPP projects in Thailand facing financial and economic distress are those implemented during the first generation where there were no PPP laws governing the implementation of the projects. In the second generation of PPP implementation in Thailand, there was PPP law aimed to better the outcomes of PPP implementation. The results appear to have improved, as intended, but the pace of PPP development was slower than it should have been. Based on this observation, it can be found that law and regulation can have a positive impact on the outcomes of PPP projects.

### **Case study projects: the Don Muang Tollway**

We focus the study of this case project on four main issues: (1) the contractual relationship between project sponsors and the host government (e.g., transferred risks), (2) the contractual relationship between the project company and secured lenders (e.g., levels of leveraging and capital structure of the project company), (3) and the impact of laws and regulations on distressed PPP projects, and (4) available solutions for project restructuring and recovery. Most of the materials presented in this section were taken from: (1) *the Matter of an arbitration in Geneva, Switzerland and Under the Treaty between the Federal Republic of Germany and the Kingdom of Thailand made on 24 June 2002 concerning the Treatment of Investments and under the UNCITRAL Arbitration Rules 1976 between Walter Bau AG (In Liquidation) Claimant and the Kingdom of Thailand Respondent. Award, 1 July 2009*; and (2) *The Role of Government in the Don Muang Tollway (Thanaphonphan, 1996)*.

### *A brief overview of the DMT project*

In 1989, the Don Muang Tollway (DMT) company, a project company, received a 25-year build-transfer-operate (BTO) concession from the Department of Highways of Thailand (DoH). The DMT project was originally to be financed 20% through equity and 80% through local-currency debt (in Thai baht: THB). However, once the agreement was signed, the Thai government amended the rules, requiring foreign investors to provide both equity and about half of the loans in foreign currency, instead of in local currency. There was no explanation for the change. But, as investors knew well, this would subject them to exchange-rate risk: earning the revenues in local currency but paying back debt in another one. The result was the increase of equity to 25% from 20% and non-baht funding of \$130 million. The structure of the project is presented as shown in Figure 3 below.

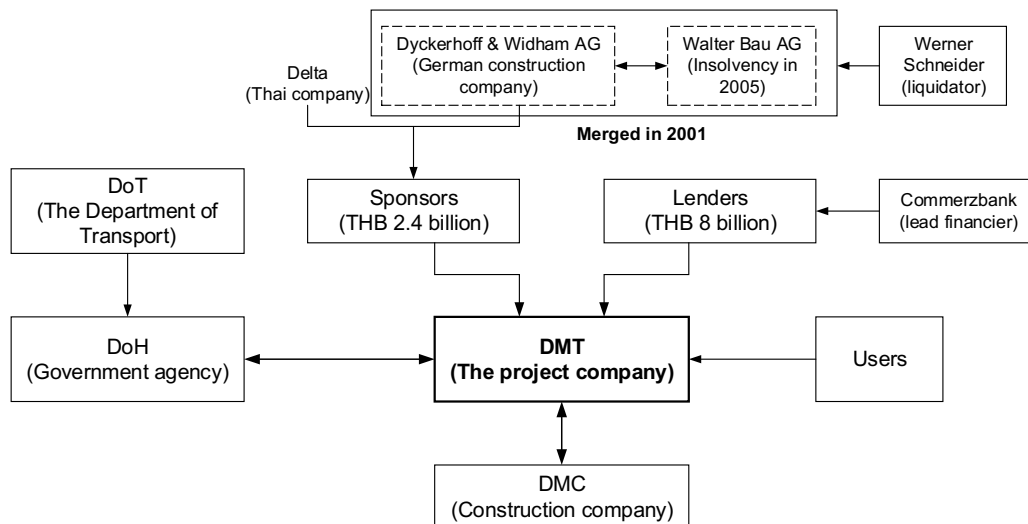


Figure 3: The structure of the DMT project

### *Causes of distresses*

The construction of the project was to take three years to complete – according to plan. But financial closure for construction funding took about a year, delaying the beginning of construction.

During the construction, the project faced further delays stemming from: (1) delay in government approvals of designs by the DoH, a third party, (2) delay in the acquisition of some pieces of land, and (3) failure of the government to removal (or turning) of two of four overpasses parallel to the project as previously agreed (Klager, 2014). The main reason for the government not to remove the flyovers was a political one: public opinion was strongly against their removal, sparking demonstrations and forcing the government to negotiate with the concessionaire to amend the PPP contract so that the government did not have to remove the flyovers as previously required by the contract.

The delays in construction caused the cost overruns of the DMT project and affected the realization of expected operating revenues. Total construction cost of the project amounted to \$416 million (\$96 million in equity and \$320 million in debt, of which \$130 is foreign debt). The cost of delay was absorbed by the construction company Diwidag in accordance with a liquidated damages clause. This construction company was also the sponsor of the DMT project.

After a year of delay, the project was opened for traffic in the late of 1994. Upon operation, the actual traffic volume was below forecast. This was largely caused by the delayed flyover turning. It took about two years after the opening of the project for the government to dismantle the flyovers as agreed upon. According to the project company, the project company lost about THB 2.34 million a day over that two year period. Such loss of revenues was also responsible for the inability of the project

company to service its outstanding debt, so it fell into serious financial distress in 1996. The government had no option but to authorize a substantial toll increase and take over some of the DMT's existing loans. In 1997, when the Asian financial crisis occurred, the government devalued the Thai baht, causing the ballooning of the liabilities of companies with foreign-currency debts, including the DMT.

In 2001, D&W was merged into Walter Bau AG, which acquired all D&W assets, including its shares in the DMT. Then, in April 2005, Walter Bau AG commenced insolvency proceedings (the liquidator of Walter Bau AG was Werner Schneider). Later that year, the company alleged that Thailand breached its contract by not allowing a proper toll increase as prescribed in the contract, which significantly deprived the return on its investment, accordingly, and it submitted a request for arbitration in September 2005. In the underlying arbitral proceedings the Tribunal, after confirming its jurisdiction in a 2007 Partial Award, ordered Thailand to pay damages in the amount of €29.21 million due to breaches of the fair and equitable treatment provision in the Germany–Thailand BIT (Klager, 2014). However, Thailand appealed and delayed the payment until 2011.

Moreover, after successfully restructuring its debt in September 2007, the DMT was also allowed to raise toll rates without government approval, and the concession period was extended for 13 more years from original 25 years and previous extension of 7 years (the concession will end on September 11, 2034), making the total concession period be 45 years (the concession began on August 21, 1989), almost twice of the original concession period.

A brief description of the four main focuses of the study on the case project can be summarized in Table 1 below.

Table 1 Summary of main features of the DMT project

<p><b>1) Contractual agreement between the project company and the government</b></p>	<ul style="list-style-type: none"> <li>▪ Concession Agreement is in the form of Build-Transfer-Operate or BTO.</li> <li>▪ Government’s main responsibility is to provide land for the construction and operation of the project.</li> <li>▪ Project Company is responsible for the design, finance, construction, and operation of the project during the agreed concession period, and to return the project at no cost to the host government after the end of the concession.</li> <li>▪ Demand, revenue, and O&amp;M cost risks are borne by the project company, who could compensate risk through increase in toll fees, based on the agreed-upon schedule, which requires government approval before going into effect.</li> <li>▪ To protect the project company initial investment, the Concession Agreement included “non-compete” clauses, which prohibits development of roads or other types of projects that could divert the traffic from the project. The Agreement also required the removal or turning of the overpasses in four major intersections of the V-R highway (the existing road over which the project was elevated)<sup>1</sup>.</li> </ul>
<p><b>2) Contractual agreement between the project company and the secured lenders</b></p>	<ul style="list-style-type: none"> <li>▪ It took about a year for a financial package to be concluded with the lead financier, the German bank Commerzbank.</li> <li>▪ The lenders, especially the foreign ones, intended to provide local-currency loans. However, the change in regulation required some of the loans to be non-baht, which at the time the exchange rate of the Thai baht was pegged to the US dollar, and the lenders agreed to do so, assuming that the currency exchange would remain pegged to the US dollar.</li> <li>▪ In 1997, the Asian financial crisis caused the Thai government to devalue its currency. This resulted in the doubling of the foreign debt of the project company, expressed as Thai baht.</li> </ul>
<p><b>3) Impacts and effect of the laws and regulations on distressed PPP project</b></p>	<ul style="list-style-type: none"> <li>▪ The concession agreement was signed prior to the PPSU Act 1992, which governed PPP implementations from 1992 to 2013. Bankruptcy law in Thailand was updated in the aftermath of the Asian financial crisis in 1997, which added “organization restructuring” similar to that of the US. However, this bankruptcy law has never been used for any economic distress PPP project in Thailand.</li> </ul>
<p><b>4) Solutions led to the recovery of the project</b></p>	<ul style="list-style-type: none"> <li>▪ Government approval for toll increases</li> <li>▪ Extension of the concession period to allow for the investors to recoup the initial investment</li> <li>▪ Debt restructuring: Secured lenders’ acceptance for a reduction in debt load</li> <li>▪ Reopening of the Don Muang International Airport, which significantly increased traffic volume. However, this may be temporary, as the</li> </ul>

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<sup>1</sup> This non-compete clause is worse than a normal non-compete clause because it was intended to make the traffic of the original road more congested so that the motorists would have no choice but to pay for a non-congested one.

	<p>construction of the MRT-Red Line has begun. The MRT-Red Line will link the MRT-Blue Line to northern suburbs of Bangkok via the Don Muang International Airport. This clearly will affect the level demand on the DMT project.</p> <ul style="list-style-type: none"> <li>▪ The Project Company may again sue the government for breach of the contract by allowing the development of competing transportation parallel to the project. This might not have happened if the government had not approved the extension of the concession period to 2034 (the original concession period was scheduled to end in 2014)</li> </ul>
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## Conclusions

To achieve value for money, it is necessary that the PPP be economically viable. Most PPP projects are developed in sectors where public interest is high (e.g. transportation, water supply, energy, etc.). The distress of such PPP projects can lead to a discontinuity of services in the medium term or, to avoid that result, may instead and more likely lead to government intervention and restructuring of the financing of the projects, usually with the result of increasing the financial burden on the public. This raises the question of whether risk transfer in PPP projects is “real.” As the case study of the DMT showed, the notion of risk transfer may be illusive in the context of Thailand. This is in line with the observation made by Thanaphonphan (1992) who argued that policy towards small government using public private participation without proper laws and regulations in place may essentially lead to the transfer of the country’s economic surplus to a certain interested party. The losses, on the other hand, could still be retained or shared by the host government through subsidy and renegotiation.

Although a PPP may face financial difficulties for a (short) period of time, it should allow for the investor to recoup the investment and the return on capital necessary to motivate the investment, on a risk-adjusted basis. Governments may have the intention of transferring all the risks to the concessionaires (e.g., the currency risk on the case study presented). However, risk outside the control of the concessionaires

should not be transferred to them, since it can jeopardize the financial stability of the project.

PPP regulations provided essentially help control the financial risks attending project distressed in Thailand. The distressed or cancelled PPP projects in Thailand were mainly caused by (1) ill-conceived projections and (2) government mismanagement. However, the regulations themselves were a key factor in the slow progress in the implementation of PPP projects. It is hoped that, after the enactment of the new PPP law in 2013, PPP implementation in the country will improve, given that the political situation has not changed dramatically. The PPP law itself is essentially insurance that PPP projects will more likely be governed properly and in accordance with international standards.

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