

Global PPP Lessons Learned

Special Report

Fitch defines the term public-private partnerships (PPPs) broadly as any instance where certain rights and responsibilities — to finance, construct, expand, operate, and/or maintain a publicly controlled infrastructure asset, and charge user fees under an established tariff regime or receive a prescribed stream of public sector payments as compensation — are transferred to the private sector in frameworks including concessions or private ownership structures. This would include availability payment structures, as well as structures where price and demand risks are borne by investors.

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Framework Provides Strength; Challenges Remain: The challenge is transferring risk associated with the financing, construction, operation and lifecycle maintenance of an asset or service while maintaining flexibility. The protection to all parties is built into a complex suite of legal provisions that allocate risks to the party, theoretically best able to handle those risks. However, the unique nature of each asset or service and the unpredictable nature of future events can make the risk allocation subject to criticism in hindsight.

Value Garnered When Risks Anticipated: The public sector makes the rules, but sometimes it has trouble living by those very rules. Transactions that have significant advance planning and meaningful public involvement to identify key long-term public policy objectives and acceptable tradeoffs create a better risk reward balance, benefiting both the public and private sectors in the long run, and consequently, debt investors.

Proper Risk Allocation Is Key: When risks are allocated to parties best able to manage them economically, then the incentives of all parties are better aligned towards successful execution. Key project risks in construction or operation from unanticipated or changed conditions do occur and can be managed. When all parties have appropriate levels of risk, they are better incentivized to work together to find an amicable solution.

Size and Complexity Affect Deliverability: The larger the project and the greater the technical complexity, the more important it becomes that constructors and operators have the technical and financial wherewithal to bear the risk they are taking. At some level of size and complexity, the pool of qualified players and the ability to allocate risk can be limited such that the risk of nonperformance falls back on the public sector and consequently on lenders. An independent, qualified technical assessment of risk is very important to understanding this risk.

Forecasting Demand Sometimes a Key Vulnerability: The probability of over-estimation remains high despite decades of experience with forecasting demand on transportation projects. Many greenfield projects over the years across many jurisdictions have suffered from this exposure. While other risks have been manifested in many cases, defaults on debt have largely been driven by underperformance relative to original projections.

Macro and Industry Risks Remain: A key assumption is that a normal environment will prevail. However, severe recessions prior to project opening, political risk from high tariff increases, changes in approach from new administrations, lack of fulfillment of third-party commitments, among others, can all have a meaningful effect on the performance of a PPP.

Concession Renegotiation Risk Must Be Addressed: As time progresses and the needs of the population and government evolve, it should not come as a surprise that key terms may be subject to debate and renegotiation. It is important that adverse changes to terms be subject to lender approval. The alternative is often optional grantor concession termination, which is often unaffordable. Concession termination scenarios should be understood. While most concessions tend to go to term, understanding the options available to government in the event of termination is important. For governments, very often this scenario is not a viable alternative given the lack of identifiable resources to pay compensation.

The PPP Landscape

PPPs have been a tool used by governments to deliver needed public infrastructure for centuries. Canals, rail, ferries, water systems, power networks and roads were built privately in exchange for tariff or toll-raising authority or government paid capacity-based revenue streams. Western governments following the Great Depression and post-World War II reverted to a public finance and procurement model for the development of large rail, road, port and airports. They used the public balance sheet and spread costs through the tax system.

The recent trend towards use of PPPs with public payment (availability-based) structures dates back to the Project Finance Initiative (PFI) of the U.K. government with more than 700 PFI transactions completed in the U.K. since the mid-1990s, concentrated in social infrastructure. Over the same period, a smaller but still substantial few hundred PPP projects, were financed in continental Europe. The World Bank, using a broad definition of PPP identified nearly 5,000 private infrastructure projects in low- and middle-income countries since 1984. These include management or lease contracts, concessions, greenfield projects and divestiture of public enterprises. These also include more than 800 water and sewerage projects, more than 1,400 transportation projects and more than 2,600 energy projects.

The track record has been mixed. Governments like Australia, Canada, Chile, Spain, France, Belgium, the Netherlands, Mexico and the U.K. have embraced the concept, and while problems have occurred, they have chosen to make changes and continue to pursue PPPs. The U.S. has been slow to embrace PPPs, but momentum finally seems to be building.

Although there have been many issues with PPPs, this is not necessarily an indictment on PPPs, but instead a reflection of the fact that the complexity of the assets and services presents challenges in finding the right public policy balance that fits within a business, legal and financial framework to bring best value to all parties, most importantly citizens. Further, local sentiments and conditions cause the public policy, business, legal and financial considerations to differ from jurisdiction to jurisdiction, asset type to asset type, and from project to project. Added challenges are layered on by the political imperatives and schedules of elected officials that can create less than ideal PPP frameworks, and the profit objectives of private parties that justify participation despite inappropriate levels of risk.

While one can view PPPs as a glass half full or as a glass half empty, it is Fitch's view that the former is the better perspective. PPPs can provide public value, but need to be carefully crafted to address all stakeholder concerns. When PPPs are viewed to have failed, the issue is often inappropriate transaction design and application.

Responsibility Lies with Both Parties

Responsibility for problems with PPPs can be assigned to both the public sector (the grantor of the concession) and the private sector (the grantee of concession rights and responsibilities or the concessionaire). When issues of loss of control and too much profit arise, the responsibility lies squarely with the executive and legislative branches of the public sector (i.e. the grantor) that sets the rules of the game. When issues arise from project cost overruns, delays in completion, weaker demand, higher operating costs, lower profits, debt default and concessionaire bankruptcy, the responsibility lies largely with the private sponsor (i.e. the concessionaire).

A key tenet of a PPP is that most risks (permitting, land expropriation, preexisting site conditions, third-party commitments, unproven traffic and revenue, uninsurable event risks) that

cannot be commercially mitigated at reasonable cost should be borne by the grantor and those that can be commercially borne at reasonable cost (completion, predictable traffic and revenue, operations, lifecycle maintenance, financing, insurable event risks.) should be borne by the concessionaire. The nature of a PPP also requires considerable interfacing between the two parties given the inability to anticipate every eventuality as the infrastructure is built, operated and maintained during the life of the PPP. This can result in friction when actual conditions differ from what might have been expected.

Success Demands Competence on Both Sides

A well-structured grantor team and a competent concessionaire are better positioned to respond and minimize the adverse effects to both parties. That is not always the case and this unfortunately creates an asymmetrical risk. Grantors are exposed to government/political risk from unanticipated and unplanned obligations, which results in concessionaire delays and costs that may be further exacerbated with the possibility of being only partially compensated or not compensated at all.

The concessionaire is then in the precarious position of deciding each time whether its claim or dispute is worth declaring an event of default. Dispute resolution mechanisms agreed to by the parties can significantly reduce this asymmetry. Nonetheless, an experienced concessionaire would likely build this risk into its required return profile. Concessionaire inexperience and poor performance is also a concern and can result in misestimation of its risk and ability to perform. In this case, the grantor is not obligated and not likely (except in exceptional circumstances where there is mutual benefit) to bail out the concessionaire (and its lenders).

Lastly, there are instances when risks are asymmetrically borne by lenders and not the grantor or the concessionaire. In some cases, grantors reserve their right to change their mind about the nature of the original transaction, which can result in changed scope with a renegotiation between the parties. The incentives of equity and debt may not be properly aligned here. The equity sponsor may be willing to accept lower or even some negative returns on a single project to secure a broader and longer term relationship with the grantor across other profitable projects. Lenders do not often benefit in that equation. In the absence of a requirement for lender approval, changes may be crammed down on lenders.

PPP Structures Have Proven to Be Resilient

While risks abound, one must keep in mind that most risks can be anticipated and mitigated. Many projects have been implemented in many jurisdictions. While the market continues to face new pitfalls, governments and the market have learned from prior missteps. The issues that arise, while problematic, are not deal breakers and sensible minds often prevail with enough mutual benefit remaining for both parties to take the transaction to term.

Defaults in PPP transactions have largely been the consequence of weak project economics (e.g. overestimated demand or poorly estimated costs) rather than friction between the parties or outright default by the grantor. However, there have been instances of grantors retroactively altering the economics of the concession to the detriment of equity and lenders. On balance, Fitch notes that most governments have a large infrastructure deficit and they see PPPs as a way to facilitate progress. This puts much needed pressure on key decision makers to plan better and hold up their end of the bargain as much as possible.

Aggressive Leverage Is a Vulnerability

PPPs and publicly managed assets globally have been vulnerable to the risks of over-leverage. This is further exacerbated in periods of extreme economic or financial stress. In instances of high leverage, the credit decline was greatest when projects with traffic and revenue forecasting risk significantly underperformed their revenue projections. In the U.S., these include the San Joaquin Hills toll road, SouthBay Expressway, Southern Connector, Santa Rosa Bay Bridge, Dulles Greenway, Indiana toll road and Pocahontas Parkway. In Europe, they include the Madrid Radiales in Spain and toll projects in Portugal. The Tequila Crisis in the mid-1990s caused numerous projects to default on their debt in Mexico. In Australia, the Cross City and Lane Cove tunnel projects were also exposed to this risk.

Lessons Learned

Learning from the mistakes of the past is a good way to begin avoiding new ones in the future.

Fitch's Rating Criteria for Infrastructure and Project Finance (August 2012), together with specific-sector criteria addressing transportation and energy infrastructure, identify the major risks that projects face. When analyzing the project, Fitch considers factors such as project rationale, the sponsor and legal structure, completion risk, technology risk, operating and maintenance risk, plus risks to project gross revenue from volume, price or availability. Sovereign, political and industry risks are also considered together with future capital expenditure and information quality. Risk allocation is a key feature of project finance and Fitch assesses its impact on the project company, as appropriate for each risk factor, which in most cases will include a minimum level of creditworthiness consistent with the significance of the allocated risk.

The criteria lists typical stronger, midrange and weaker attributes associated with each major risk factor. Investment-grade ratings are typically associated with projects, structures and instruments displaying predominantly stronger or midrange attributes. The stronger attributes associated with the relevant risk factors and a select set of examples from lessons learned on PPPs that illustrates these risks in the following tables.

Project Risk: Ownership and Sponsors

Relevant Stronger Attributes

Market leading “trade” owner/sponsor; deep experience of similar projects; history of support for investments; essential public service sponsored by central government; minimum ownership and change of control covenants through debt life; “long-term” business model; strong financial capacity.

Project	Country	Positive/Negative Developments
Jarvis PLC Concessions	U.K.	Rapid growth from a small contractor to Britain's largest engineering and construction firm in 10 years. It began with its role in the British Rail privatization, then pushed aggressively into PFI projects (motorways and social infrastructure) achieving preferred bidder status by underbidding the risks, even when its finances were strained. Problems in construction ensued as did operational and safety issues, subsequent investigations and financial stress culminated in it having to divest its concessions.
Southbay Expressway	U.S.	Disputes with contractor in construction due to inadequate contract provisions. Sponsors contributed significant additional equity to complete.
Colombia Concessions	Colombia	High dependence on toll revenue from ongoing operations during initial years of a concession to make the financial plan work. This permitted concessionaires to reduce upfront equity or have no real equity at risk while revenue underperformance and concession performance risks were borne squarely by lenders. To guarantee completion of the projects to minimum standards, payments to concessionaires are now subject to projects becoming operational and achieving service and quality standards.
Inversiones Alsacia	Chile	The state made changes to the concession framework post-financing to increase the exposure to demand risk and increase operational performance requirements. The equity sponsor was amenable to the changes to protect its market position to the detriment of lenders who face an elevated risk profile.
Las Vegas Monorail	U.S.	The project significantly underperformed traffic and revenue. Debt default was inevitable; however, as a not-for-profit corporation with no long-term private or public equity, it lacked any institutional commitment to the asset once it was built leaving it “orphaned” with few incentives to work constructively with lenders for a satisfactory resolution. The casinos were the primary beneficiaries, but had little skin in the game.

Source: Fitch.

Project Risk: Debt Structure

Relevant Stronger Attributes

Senior-ranking debt – interest and principal; fully amortizing debt; no de facto subordination; scheduled amortizing principal commencing after completion; interest deferral on junior debt; no cross default or acceleration; fixed interest rates; marginal or no bullet debt in the financing structure; nominally some bullets, but rating case cash flows show no or limited balance at nominal bullet maturity.

Project	Country	Positive/Negative Developments
Indiana Toll Road	U.S.	Near zero interest rates caused the mark-to-market on the accreting swap (used to lower initial year debt service obligations) to spike well beyond expectations. The accreting liquidity facility increased rather than decreased the financial risk profile of the concession company.
Chicago Skyway	U.S.	This financing has a similar risk profile to the Indiana Toll Road with accreting swaps, but without short-term bank loan maturities that exacerbated the ITR transaction's risks. It does face refinance risk and is unlikely to benefit meaningfully from the monoline guarantee in place.
European Concessions	Europe	Exposure to refinance risk coupled with the timing of the recession caused high costs with material mark-to-market on swaps, which had longer maturities than the mini-perm debt.
Mexico Concessions (Pre-1994)	Mexico	Toll rate increases on a few projects were linked to foreign exchange movements in order to justify U.S. dollar-based debt. The Tequila crisis caused significant devaluation of the Mexican peso, which could not be reasonably passed on to users. This underscored the importance of financing public assets largely in local currency.

Source: Fitch.

Project Risk: Legal and Regulatory

Relevant Stronger Attributes

Structure based on standard contracts or specific legislation supported by legal opinions; allocation of project and financial risk unambiguously evidenced by contracts; all relevant licenses, permits, or regulated status have been obtained and are valid to debt maturity; low structural complexity; legal framework includes financial rebalancing mechanisms in case of unforeseen events; strong track record of quick and fair resolution of litigation.

Project	Country	Positive/Negative Developments
407 ETR	Canada	The established tariff regime with no caps or restrictions and the 99-year concession came under considerable criticism a few years after the inception of the transaction. The province challenged the ability to raise tolls unilaterally under the concession and refused to deny license plate renewals for toll violators. The legal challenges by the province went through the full appellate process and the concessionaire won every round. There was a final settlement with the concessionaire making some improvements and setting aside some funds for toll discounts.
Chicago Concessions	U.S.	The city of Chicago executed a series of concessions over the past decade for its Skyway toll bridge, municipal parking garages and street parking. Long, 99 and 75-year concessions to maximize upfront payments to subsidize city operational deficits and very liberal tariff regimes have come under considerable criticism. Legal disputes in response to adverse city actions related to the garage and street parking transactions have resulted in an arbitration panel ruling against the city and requiring a \$57.8 million compensation payment in the former case and a negotiated settlement with some give backs from both sides in the latter case.
Elizabeth River Crossings	U.S.	Legal challenge on Commonwealth's authority to transfer right to toll crossings upheld in court. It is now under appeal and lenders are protected by concession terms placing the risks of this challenge on the grantor.
Spanish Concessions	Spain	The government is working with concessions to shore-up project companies/minimize losses given aggressive government role in original concession arrangements. This fits with Spanish concession law that allows for economic rebalancing to compensate for unexpected events. However, it is unlikely to avoid some defaults/distressed restructurings given the severity of traffic decline.
Spanish Concessions	Spain	Lawsuits were filed related to land acquisition resulting in large, unanticipated land expropriations costs several years after acquisition.
French Concessions	France	Land expropriation risk, while a concessionaire risk, is not a concern because the process relies on a robust legal framework for land valuation.
Perpignan-Figueras	France/Spain	The rail line between France and Spain was delivered on time, but Spanish authorities did not deliver the connection with the Spanish network. However, the concessionaire received compensation and was kept whole.
Portuguese Shadow Toll Roads	Portugal	Government converted shadow toll roads into real toll roads with traffic risk borne by the government. The concessions were converted to availability-based structures. On balance, a good outcome for concessionaires given a lower risk profile, but returns were also lower relative to initial business plans
Hospital Sud Francilien	France	Litigation over delays and cost overruns mainly due to changes requested by the public sector. The main cause of disputes was driven by the political bias against PPPs and the fact that hospitals face chronic deficits, which is unrelated to the PPP. However, the size and complexity of the PPP affected its design and implementation making it a target for criticism; in retrospect not an ideal project for use of PPPs.
Chilean Concessions	Chile	The "Least Present Value Tender System" was created to protect public value by limiting concessionaire return while also incentivizing the concessionaire to perform and lower their risk by varying the length of the concession. Higher revenues than expected would shorten the concession and vice versa. While a good tool from a public policy standpoint, the public policy and credit framework was sound in that it insulated both the public and the private sector from the vagaries of revenue forecasting risk that neither party could control even though lenders faced some prepayment and delayed payment risk.
Inversiones Alsacia	Chile	The changes to the concession framework post-financing were not deemed to be adverse by the government so they were not accompanied by any compensation. Concession maturity was also unchanged. Lenders face a heightened risk profile in Fitch's view
SR 91 (Orange County)	U.S.	The high increase in toll rates in the first few years of the Managed Lanes operation was received poorly by users and increased the call by elected officials for the county to buy it back and lower the tolls. The county did buy it back in an amicable arrangement at what appears to still be a reasonable price 10 years later and even after the recent unexpected, deep recession. Elected officials in the county can be credited for understanding that the value of the asset is dependent on free flow traffic, which in turn is dependent on a de-politicized and systematic approach to tolling. The lanes continue to operate today with public acceptance that has resulted in a project to expand the lanes in neighboring Riverside County.

Source: Fitch.

Project Risk: Completion

Stronger Attributes

International engineering, procurement and construction (EPC) contractor; direct experience of similar projects; involvement of major local contractor; midrange to strong financial strength; facility management team with a history of delivering projects on time. Fixed price contract; cost risk appropriately allocated; substantial contingencies in cost budget; committed funding incorporates contingencies; cost estimates based on detailed upfront designs; well-conceived project management approach at existing facility substantially mitigating cost and delay risks; step-in rights; all permits, etc., in place; generous project schedule; contingencies for unexpected delays; little ground for public opposition; major parties have history of on-time completion; clear, binding and standard dispute resolution process; regular onsite inspection and detailed reporting; no connecting infrastructure risk; contractor experienced with technology.

Project	Country	Positive/Negative Developments
Jarvis PLC Concessions	U.K.	Underbidding of contracts resulted in financial strain; construction schedules began to slip and Jarvis blamed its subcontractors for the problems and did not pay them in certain instances leading to further cost increases, delays and legal disputes. However, despite the severe stress, the projects were completed with additional funding from Jarvis divestitures and additional project debt. All major project parties were adversely affected.
Metronet	U.K.	Model did not bring efficiency to the procurement and capital investment process because risks were not shifted through the contracts, and possibly by their nature could not have been. A failed, large PPP for modernization work needed to remedy decades of underinvestment in the London underground transit system. The National Audit Office concluded that the concession was unable to manage the supply chain, which was controlled by shareholders. Suppliers had power over scope of works, required payments for extra works undertaken and had a superior vantage point in understanding costs. Management could not control scope of works or cost evolution and could not support claims for compensation from London Underground for "efficient and economic works." Metronet went into receivership in 2007. Capital markets bondholders and monolines recovered fully, largely due to a 95% guarantee on certain debt amounts by London Underground supported by grants of 1.7 billion pounds from the department of transport.
East Lothian Schools	U.K.	The main contractor, Ballast PLC, went into receivership. Another contractor was engaged by the concession sponsors to step in and complete the project, which involved major refurbishment of the county's six high schools. Although delayed, the project was completed and delivered to East Lothian with no increase in cost to the grantor. Replacement and increased completion costs were met by a combination of surety bond, guarantees, debt and equity.
Southbay Expressway	U.S.	Significant delays, but contractor JV completed project while disputes were ongoing. Inadequate contract left project company exposed to additional costs that were not allocated to either the contractor or the grantor.
Eurotunnel	U.K./France	Delays and cost overruns due to complexity, the challenge of tunneling from two sides. Significant size, interfaces, technical issues. Cost overruns were significant and not clearly allocated to either the public grantor or to the contractors through fixed price contracts.
National Physical Laboratory	U.K.	National Physical Laboratory was the first PFI to default in 2004. In 1998, the Department of Trade and Industry entered into a 25-year PFI concession to build and manage new measurement laboratory facilities. Planned cost was GBP96 million funded through bank loans. Design errors and additional costs led to failure of the project and cancellation of the PFI contract. It is believed senior lenders experienced a loss of GBP18 million and the contractor lost considerably more.
Dudley Group Of Hospitals	U.K.	The project encountered additional costs during construction due to additional works being required as part of the refurbishment process. The contractor disputed the costs with the concession grantor, but continued to complete the project as required under the concession documents and design-build agreements. The contractor reported losses nearing GBP100 million on completion in 2005. It subsequently sued to recover costs from the grantor and is reported to have settled for GBP23 million.
Taiwan High Speed Rail	Taiwan	Suffered cost overruns and delays due to the hilly terrain, many tunnels and largely elevated structures. This raised financing problems and further delays with risk ultimately borne by the government.
Lane Cove Tunnel	Australia	This tolled tunnel project encountered significant construction issues when a geological condition caused the collapse of its roof in 2005 and damaged a multifamily residential building requiring its temporary evacuation. Design and installation issues were identified. It highlights the uncertainty of tunneling and in-the-ground risks. The contractor made the needed repairs and completed the project.

Source: Fitch.

Project Risk: Operations

Relevant Stronger Attributes

Management team with strong record of successfully managing asset; extensive experience with similar projects; international reach with local experience; multiple alternative operators available; ease of replacement; project is a “landmark” for the operator. No supply constraints for labor or materials; excellent transportation/utility infrastructure; connecting infrastructure in place multiple alternatives exist; commoditized nature of key supplies; low or no exposure to input costs.

Project	Country	Positive/Negative Developments
HSL Zuid	Holland	Operations were delayed due to required systems upgrades by the Dutch government.
Hospital Sud Francilien	France	Litigation over classification of expenditures as routine maintenance or vandalism. The former was required to be paid by the concessionaire while vandalism was a government/hospital risk under the agreement.

Source: Fitch.

Project Risk: Revenue

Relevant Stronger Attributes

Availability-based revenue from counterparty with strong financial capacity; limited deduction risk; limited delivery risk; fixed tariff “take-or-pay” contracts exceeding rated debt life; currency hedging; minimal reliance on demand or resource forecasts; matched costs and revenues; low-cost producer; demand at market prices; strong historical evidence of revenue patterns; lower volatility user-based revenues; diverse customer base; proven ability to pass on inflationary price increases.

Project	Country	Positive/Negative Developments
Southbay Expressway	U.S.	Actual traffic and revenue significantly below projections. Forecasting error further complicated by mortgage crisis and deep recession.
Pocahontas Parkway	U.S.	Actual traffic and revenue significantly below projections. Forecasting error further complicated by deep recession
Northwest Parkway	U.S.	Actual traffic and revenue significantly below projections. Forecasting error primarily.
SH 130 Segments 5 and 6	U.S.	Actual traffic and revenue significantly below projections. Forecasting error further complicated by deep recession.
Chicago Street Parking	U.S.	Public outcry from very high initial tariff escalations in the first few years.
Eurotunnel	U.K./France	Actual traffic and revenue significantly below projections. Forecasting error further complicated by emergence of low-cost airlines and a ferry war price.
Taiwan High Speed Rail	Taiwan	Actual traffic and revenue significantly below projections. Forecasting error.
High Speed 1 (Original)	U.K.	Actual traffic and revenue significantly below projections. Forecasting error and overestimation of socioeconomic benefits.
M1 Toll Road	Hungary	High toll rates for Hungarian standards while reasonable from a Western European standpoint.
Hospital Sud Francilien	France	The hospital is in dire straits and is struggling to pay the annual infrastructure charge. The private sponsor is seeking to renegotiate the scope and lower the charge with the government. Negotiations are in progress.
Lane Cove Tunnel	Australia	Optimistic traffic forecasts were made worse by high gas prices. The concession entered receivership in 2010. This default followed earlier PPP defaults on the AUD700 million Cross City Tunnel in Sydney and the AUD4.8 billion Brisbane Airport Rail Link also due to overly optimistic traffic expectations.

Source: Fitch.

Other PPP-Related Lessons Learned

Project	Country	Positive/Negative Developments
Colombia Concessions	Colombia	Artificially low bids with the goal of renegotiation a year or two after the concession is awarded and collusion among bidders. The government's inability to anticipate scope needs facilitated concession reopening and a return to profitability for the concessionaire. The government's PPP program has evolved over the years to limit this risk by establishing 20% limits to extensions and increased public resources and maximum 30-year concession terms.
Las Vegas Monorail	U.S.	The primary beneficiaries of the asset were casinos on one side of the Las Vegas Strip. There was the perception that it provided little value to the local population and consequently little community buy-in and limited commitment from elected officials to find a resolution or enhance investor recovery.
Stewart Airport	U.S.	Privatized airport sought to attract new carriers, which it was unable to do even during the strong growth years of 2002–2007. Despite large catchment area, the strong competition from well-connected major regional airports was a huge barrier. This indicated that to deal with future demand risks new airports initially need considerable public equity investment to become viable. While constrained, the existing airport network remains a competitor and a barrier to service at the new airport.
Indiana Toll Road	U.S.	State subsidies planned and still continuing to minimize public impact of toll rate increases and get public buy in. Long-term though, the public subsidies will end and users will face above-average toll rate increases due to the permitted toll regime.
Early California Concessions	U.S.	Though not a practical issue today, the state sought to limit equity returns by restricting the total rate of return on capital to 18%, but by not recognizing the role played by leverage and clearly defining capital as equity. The concession agreement effectively had no limit on equity returns.
UK PFI Concessions	U.K.	The "value-for-money" analysis done by the government to ensure that project finance initiative (PFI) was the most financially efficient procurement method, in retrospect, has been valid for only a small subset of projects. The problems included higher than expected equity returns and project scope that included the transfer of some risks that could have more efficiently dealt with by the grantor.
UK PFI Concessions	U.K.	To limit equity returns, Scottish Futures Trust (the authority responsible for procuring PFI projects in Scotland) has adjusted the PFI framework it uses with private sector equity investors earning a "reasonable" fixed return on their investment and with excess returns flowing back to the public sector.
UK PFI Concessions	U.K.	Newer PFI projects are notable for their significantly reduced scope with standardized and basic cookie-cutter designs (rather than state-of-the-art designs) for initial construction, the removal of "soft" facility maintenance (FM) services such as catering and security (which have been found to be extremely lucrative for contractors and equity sponsors) and leaving the only significant project responsibility post-construction as "hard" FM (i.e. building maintenance and renewal).
UK PFI Concessions	U.K.	Equity sponsors were observed flipping projects for significant capital gains post-construction, suggesting that the availability payment stream that the public sector grantor was locked into was overly lucrative once construction risks had been overcome. Later projects were notable for the inclusion of provisions allowing for the sharing of any realized capital gains in such a scenario with the public sector grantor.
DOIHI Hospital	Mexico	After almost two years of operations, the hospital is still operating at 15% of its capacity reflecting the lack of coordination in the public sector to direct patients to this much-needed facility. Meanwhile, the concessionaire benefits from a lower-cost profile and full contractual payments. Should this to continue, there is risk of political opposition to this transaction.

Source: Fitch.

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