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POLITICAL INSTABILITY AS A RISK FACTOR FOR PPP PROJECT SUCCESS – A CASE STUDY OF THE HUNGARIAN M1/M15 MOTORWAY PROJECT

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Purpose: The main aim of this paper is to analyze political instability as a risk factor for public-private partnership (hereinafter: PPP) project success on the case of the 1992 Hungarian M1/M15 motorway project. Furthermore, it also examines the project success framework and critical success factors in PPPs, as well as project risk division and proper risk allocation.
Design/methodology/approach: The text includes a review of relevant literature in the field of political instability and risk management pertaining to PPPs, in combination with a case study illustrating the impact of political instability on a PPP project.
Findings: The findings of the case study suggest that Hungary's institutions at the time of the project did not offer the necessary safeguards against governmental abuse of bargaining power. Independent courts are essential for the success of public-private partnerships, in combination with an emphasis on the protection of property rights and the rule of law. A well-functioning institutional and legal framework offer protection against the failure of public-private partnership projects and constitute a critical success factor for PPPs.
Practical implications: Despite growing social infrastructure investment needs, PPP is not developing in accordance with expectations in the majority of developing and emerging economies. Political stability is an essential factor in any development process and happens to be one of the most distinguishing factors between developed and developing countries, in which PPP schemes are underutilized despite an enormous potential for more private sector involvement. Countries lacking independent courts may strongly benefit from alternative dispute resolution procedures. The retention of a larger amount of project risk by the public party may additionally prove to be helpful for the development of PPP markets in nations lacking institutional and political stability.
Originality/value: The research problem identified in this paper concerns the implications of political instability – a global phenomenon of growing significance, on the success of PPP projects. The obtained results may be of interest to representatives of science and practice, especially with regards to developing countries, as well as emerging economies.

Keywords: public-private partnership, risk allocation, political instability, PPP barriers, critical success factors.

Category of the paper: Research paper.

1. Introduction

Public-private partnership is increasingly becoming the method of choice for social infrastructure investments by combining the retention of governmental control with the harnessing of private sector efficiencies (Luqmani and Quraeshi, 2011). Said mode of social infrastructure financing may be particularly beneficial to nations with developing and emerging economies, due to lacking funds and know-how for the self-realization of necessary social infrastructure investments (Otairu et al., 2014). The applicability of PPP to developing nations however leads to the question of the impact and risk of political instability on PPP project success, which this article aims to address with an analysis of existing literature on critical success factors and risks of PPPs, in combination with a case study of the Hungarian M1/M15 motorway project.

2. Project success framework

Before addressing critical factors and risks influencing the PPP project success, it is important to set a framework for what project success entails. The body of research in the field of project success definition and measurement is extensive, and a brief overview thereof is provided in this paragraph.

PPP project success can be defined as a timely and satisfactorily completed project which meets the stakeholders' expectations (Hai et al., 2022). In their research, Ika (2009) defined project success to constitute a compliance with cost, time and quality constraints. Baccarini (1999) claimed that a PPP project's success was achieved when it met the expectations of clients, end users and stakeholders.

De Wit (1988) extensively researched the measures and criteria of project success. He made an interesting case for the distinction between the project management success, and the overall success of a project, claiming that especially at lower managerial levels the two may be at odds with each other. A similar observation has been made by Baker et al. (2008), who argued that a satisfactory final result outweighs successes in upholding the project schedule or performance, stating that "[i]n the long run, what really matters is whether the parties associated with, and affected by, a project are satisfied. Good schedule and cost performance means very little in the face of a poor performing end product" (Baker et al., 2008, p. 685).

De Wit (1988) argues that measures are the most effective way of determining whether or not a project can be classified as successful. "[I]t appears unlikely that any project can be a complete success for all stakeholders during the entire life of the project. Therefore, referring

to a project as being a success or a failure without qualification is a nonsense" (de Wit, 1988, p. 168). De Wit (1988) outlined the following three measures for the success of a project:

1. The project's functionality:
   - The financial functionality.
   - The technical functionality.
   - Functionality derived otherwise.
2. The project management:
   - The budget.
   - The schedule.
   - Technical specifications.
3. The contractors' commercial performances:
   - Short term.
   - Long term.

He also claimed that different measures may apply for governmental projects. De Wit (1988) argued that the success of governmental projects can primarily be defined in terms of satisfaction by those affected – i.e. the citizens. He outlined the following factors for the performance assessment of public sector projects:

- A favorable environment.
- Winning skill in bureaucratic politics through four strategies:
  1. Differentiation.
  2. Co-optation.
  3. Moderation.
  4. Managerial innovation.
- An ability to manage technological development.

De Wit (1988) claimed that with public sector projects, perceived success is more important than real success due to politics playing a dominant role. With the satisfaction of the citizens constituting a key measure of success, the absence of criticism can hence be considered a marker of success. The above mentioned measures offer a foundational framework for the further elaboration of critical success factors of PPP projects.

2.1. Critical success factors for PPPs

The term critical success factors (hereinafter: CSFs) has been used in management science since the second half of the 20th century, defined by Rockart (1982) as "those few key areas of activity in which favorable results are absolutely necessary for a manager to reach his/her goals" (Rockart, 1982, p. 4). CSFs have also been extensively studied in application to public-private partnership projects, offering important variables influencing the successful achievement of the PPP project objectives.

In their review of studies on CSFs for PPP projects from 1990 to 2013, Osei-Kyei and Chan (2015) outlined the top five CSFs in PPPs, which are:

1. Appropriate risk allocation and sharing.
2. A strong private consortium.
3. Political support.
4. Community/public support.
5. Transparent procurement.

Aerts et al. (2014) organized PPP CSFs into eight categories, a structural overview of which is visible in Figure 1.

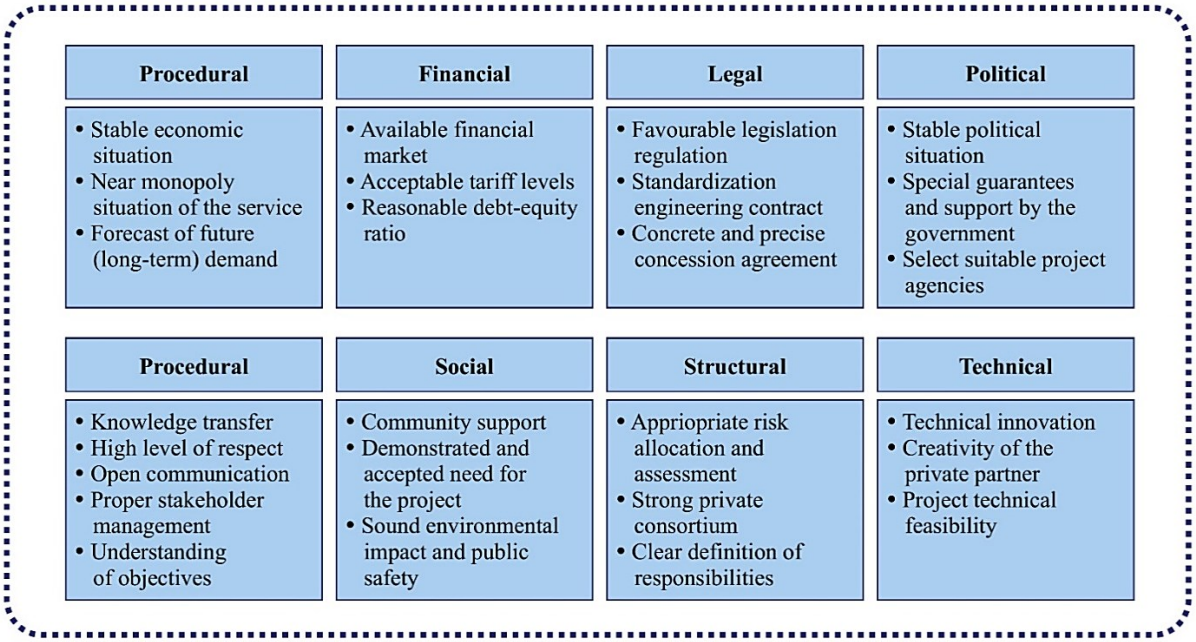

Figure 1. The Critical Success Factors of PPPs. Source: own elaboration, based on Aerts et al. (2014), p. 278.

CSFs offer a useful framework for the analysis of PPP projects and should be taken into account prior to the conclusion of a PPP contract. Not doing so may increase the risk of PPP project failure (Toriola-Coker et al., 2021).

3. Risk factors in PPPs

The identification and proper allocation of risks within a PPP project pose a key element of success. A PPP risk factor not being properly accounted for has the potential to significantly lower the chance of the PPP project being completed (Khahro et al., 2021). This paragraph outlines the main types of risks within public-private partnership projects, as well as the mechanisms of risk allocation.

The Project Management Institute (PMI) defines individual risk as "(…) an uncertain event or condition that, if it occurs, has a positive or negative effect on one or more project objectives" (Hillson, 2014). PMI states that overall project risk, on the other hand, is defined as "the effect of uncertainty on the project as a whole [constituting] more than the sum of individual risks within a project, since it includes all sources of project uncertainty [and] represents the exposure of stakeholders to the implications of variations in project outcome, both positive and negative" (Hillson, 2014). Although project risks can be both – positive and negative, negative risks are more frequent and impactful on the project outcome "[…] because there are many more things that can go wrong than go right, and because we are always trying to place emphasis on doing the job as quickly and cheaply as possible" (Vose, 2008, p. 474).

Public-private partnership projects are generally characterized by all of the parties involved having a preference to be allocated as little of the project risk as possible (Jiang et al., 2021). From the perspective of the private entity, the more of the PPP project risk is retained by the granting authority, the safer and more lucrative it becomes. The public entity therefor may increase PPP competition for the project by retaining a larger portion of the risk. An increase in competition, on the other hand, is known to lower the final price, as well as is likely to drive up the quality of the final infrastructure investment (Nisar, 2007). It must however also be noted that the majority of public entities is opposed to retaining a larger amount of the project risks (Zimmermann et al., 2014). The preference for retaining as little risk as possible is understandable, however may ultimately prove to be more expansive, as well as lead to a lower quality end result.

Wolański et al. (2017) outlined the seven main risk categories which apply to public-private partnership projects:

1. Completion risk
   → A group of risks that appear at design and construction stages.
2. Operating risk
   → Risks of higher operating costs during the operation phase.
3. Revenue risk
   → Risk of lower revenues, caused by low demand.
4. Financial risk
   → Due to increased financing costs etc.
5. Force majeure risks
   → Such as wars, natural disasters.
6. Legal, regulatory and political risks
   → Caused by strategic changes of government policy.
7. Project default risk
   → An ultimate result of other risks.

The above mentioned risks should be determined as they apply to a given project prior to the procurement process. Once the risks of a given project are identified, they should then be divided between the public entity and project company in accordance with the entity's specific qualifications in managing said risks.

Wolański et al. (2017) showcased the ways in which said PPP risks can be allocated, namely:

1. Retained by a granting authority.
2. Transferred to a project company:
   - Retained by it.
   - Passed to its subcontractors.
   - Covered by insurance.
   - Covered by sponsors.
3. Transferred to end users.

In the specific case of PPPs, all of the parties involved (the public sector, the private sector, insurance companies, financial institutions etc.) should determine the amount of risk willing to take, according to their expected return (Sastoque et al., 2016). A phenomenon frequently observable in PPPs is the so-called optimism bias, according to which the company with unrealistically optimistic forecasts has a higher likelihood of winning the contract, thereby increasing the risk of revenue shortfalls. This should be taken into account by public entities seeking PPPs as to avoid an increased likelihood of project failure. Wolański et al. (2017) grouped the PPP risks they outlined into a risk matrix, showcasing the allocation of the specific risk types visible in Table 1.

Table 1.
The risk matrix and allocation of the specific risk types for a PPP project

	Main risks that are usually retained by public authority	**Main risks that are usually transferred to the project company *(a way how the project company deals with the risk)***	**Main risks that may be shared or transferred in different ways**
Completion risk	Land acquisition, protestors, changes made by a public authority	Cost overruns, construction delays (passed to the general contractor – *completion bond, partially insured*)	Site risks (geological archaeological, environmental)
Operating risk	General price level increase	Increase of opex in real terms (mostly retained, mitigated by long-term contracts), additional maintenance or defects (passed to general contractor – *maintenance bond*)	-
Revenue risk	-	-	Risk of low usage (although there are tendencies to limit its' transfer to the project company)

Cont. table 1

Financial risks	**Risk of changing conditions at financial markets before financial close (in most of cases)**	**Loan availability and rates, exchange rates after financial close *(mostly handled by the project company using hedging tools, but can be decreased by a public party by such tools as guarantees)***	-
Force majeure risk	-	Natural disasters *(insured)* Wars, acts of terrorism *(retained by the project company)*	-
Legal, political and regulatory risk	Project or PPP specific legal, political and regulatory changes	General legal, political and regulatory changes, for example changes in general tax rates *(retained by the project company)*	-

Source: Wolański et al. (2017), p. 42.

In summary, the proper definition and allocation of risks within a PPP project constitute an important element in the overall success of the project. The more of the risk is placed onto the project company, the higher the price of the project. Optimism bias constitutes a risk for the public entity and should be taken into account in public procurement procedures.

4. Political instability and PPPs

Political instability is understood as the propensity for government change and is proven to have a negative impact on economic growth (Gurgul and Lach, 2013). The growth and development of any nation is however greatly dependent on the availability of basic public infrastructure and services (Otairu et al., 2014).

Political instability falls under the sixth PPP risk category outlined by Wolański et al. (2017) – that of legal, regulatory and political risks caused by strategic changes of government policy. According to Otairu et al. (2014) "[p]olitical stability is an essential factor in any development process, and this happens to be one of the most distinguishing factors between developing and developed countries. Political stability does not mean the absence of violence alone; it also includes program continuity, which is responsible for development failures in developing countries. Too often, new leadership tends to see discontinuing the previous government's programs as their first act in office, thereby creating additional risks for PPP investors" (Otairu et al., 2014, p. 190).

Independent courts are essential for the success of public-private partnerships, in combination with an emphasis on the protection of property rights. A good institutional and legal framework offer protection against corruption and political abuse of power, which is observable in developing and emerging economies in need of social infrastructure investment. Although many nations utilize private-sector involvement via PPPs for the financing of social infrastructure, PPP schemes are underutilized in developing economies, where the potential financing gaps are significant, in combination with an enormous potential for more private

sector involvement (Queiroz, 2007). Otairu et al. (2014) discovered five factors responsible for the slow growth of PPPs, namely:

1. Government policy on infrastructure.
2. Lack of consensus among policy makers.
3. Political instability.
4. Lack of understanding of the PPP concept.
5. High participation costs

The third factor outlined by Otairu et al. (2014) – political instability, has negatively impacted numerous PPP projects. It acts as a disincentive for private entities seeking to conduct PPPs due to politically unstable governments not being considered trustworthy partners. Particularly the lack of proper institutional and legal frameworks is a phenomenon frequently observable in politically unstable nations, making PPP projects significantly more risky for the private entities involved (Aladağ et al., 2021). An example of the negative impact of political instability on PPP project success can be found when analyzing the case of the Hungarian M1/M15 motorway project.

5. Case study of the Hungarian M1/M15 motorway project

The fall of the Soviet Union led to fundamental economic and political changes, providing Hungary with large opportunities for development. Said opportunities were however undermined by a lack of adequate transportation infrastructure, restricting the access to new markets, as well as the free flow of passengers and goods (Timár, 1994). During the wake of political changes, characterized by Hungary's transition toward a market economy, the country faced significant budgetary constraints, which limited public financing or borrowing for the construction of the necessary transportation infrastructure (Adam, 1995). Hungary hence sought public-private partnerships for the financing of motorways, which was made possible by a new regulatory framework enabling Build-Operate-Transfer (BOT) concessions.

The Hungarian PPP motorway program began in 1992 and constituted a pioneering development for PPPs in the former Eastern Bloc, being the first privately financed and tolled infrastructure project in Hungary. The first investments within said program were the M1 and M15 motorways connecting Budapest with Vienna as part of the Trans-European Transport Network (TEN-T) Helsinki Corridor IV. The stretch of road to be covered by the PPP program was below 60 km – 43 km on the M1 and 14 km on the M15. (Kosztyó and Mészáros, 2005). ELMKA Rt. won the procurement process and was granted the concession to build and operate the motorway. The motorway was successfully delivered on time and within the predicted budget in January of 1996, despite a high inflation rate (up to 30%) and heavy snowfalls during the end of the construction phase (Wolański et al., 2017). The role of the Hungarian government

was limited to providing the necessary land, as well as to build new feeder roads for the motorway – placing the majority of the project risk on the private partner.

The loan for the financing of the project was granted to ELMKA Rt. in USD and DEM by a consortium of international banks under the leadership of the European Bank for Reconstruction and Development in London. Considering the growing inflation rate in Hungary, the foreign currency of the loan would present an increasing problem to ELMKA Rt. The interest, amortization and operating cost of the project were to be fully financed with toll road charges collected in HUF, the value of which would drastically deteriorate throughout the project's lifetime. The tolls were to be regulated according to a price-capping scheme in which tolls could be adjusted according to the increase in the consumer price index and exchange rate changes (USD/HUF, DEM/HUF), without prior permission of the authorities (Kosztyó and Mészáros, 2005). Tolls started to be collected in 1996. It however quickly turned out that the agreed toll rate from 1993 became insupportably high by the opening date. The Hungarian currency faced significant inflation, combined and a drop in real incomes. The motorways hence mostly attracted international travelers possessing a higher willingness to pay for high quality roads. Domestic drivers in need of using the road more frequently almost exclusively switched to secondary roads due to not possessing the necessary purchasing power. This led to an increasing disapproval of the project by the Hungarian population. Shortly after making the road available for use, a large number of legal cases were filed against ELMKA Rt. Although the private company charged the amount to which the Hungarian government contractually agreed, courts ruled against ELMKA Rt. stating that the toll charges were unfair and extremely high as compared to other public services, enforcing the lowering of the toll charge. The company was also accused and found guilty of abusing its' dominant market position, despite not breaking the concession agreement in any way.

This came in addition to another negative development of the project – traffic flows between Yugoslavia and Western Europe, which were predicted to use this corridor, significantly decreased due the Yugoslavian War. Hungarians also limited their visits to Austria, with most of the previously unavailable consumer goods becoming available in Hungary. Said reduced traffic in combination to the high cost associated with the legal cases placed a lot of strain ELMKA Rt., and in 1999 it ultimately went bankrupt. The Government then decided to nationalize the project company, taking over the responsibilities and liabilities of the motorway.

The failure of the PPP project and ultimate bankruptcy of the project company acted as a strong deterrent for private entities to conduct PPPs in Hungary. They no longer viewed the Hungarian government as a trustworthy partner – ELMKA Rt. delivered the project within budget and time, and at no point broke the concession agreement. Hungarian courts however ruled against the project company, accusing it of price gouging and abuse of its' dominant market position.

5.1. The success framework of the M1/M15 motorway project

The M1/M15 PPP motorway project showcases an example of the theory outlined by de Wit (1988), according to which there is a distinction to be made between the project management success, and the overall success of a project.

From a project management perspective, the motorway project can to a certain degree be considered successful. ELMKA Rt. delivered the project on time and within the predicted budget, despite a high inflation rate and heavy snowfalls during the end of the construction phase. The project company at no point broke the concession agreement, and the road itself was well constructed.

An overall success was however not present. De Wit (1988) argued that the success of a governmental project can primarily be defined in terms of satisfaction by those affected. Hungarian citizens, who needed to use the motorway most frequently, were unable to do so due to not possessing the necessary purchasing power. This led to a number of court cases, in combination to a growing pressure on politicians, leading to the ultimate nationalization of the project company. Therefore, the M1/M15 motorway project can be considered a failure from an overall project perspective.

5.2. Risk division of the M1/M15 motorway project

When applying the risk criteria developed by Wolański et al. (2017) to the motorway project, it becomes evident that the majority of the risks within the PPP project was transferred to ELMKA Rt. The private company took over the project completion risk, which became present with unfavorable weather conditions (heavy snowfall) during the construction phase. The operating and revenue risks were also placed onto ELMKA Rt., as became evident when the road traffic fell below the predicted rates due to the lowering of the purchasing power of the Hungarian currency. This in turn significantly decreased the revenue of the project company, which was in no way mitigated or reimbursed by the public authorities.

The private company's revenue was to be collected in Hungarian currency. The loans for the construction of the project were however taken out in foreign currencies. The high inflation rate of the HUF hence placed an increasing strain onto ELMKA Rt., placing the financial risk of the project onto the private company as well.

5.3. The presence of critical success factors in the M1/M15 motorway project

Only two of the five PPP CSFs outlined by Osei-Kyei and Chan (2015) were present in the M1/M15 motorway project. The project showcased a strong private consortium, in combination with a transparent procurement procedure. ELMKA Rt. was granted the concession of the project after providing the cheapest offer in the procurement process. The loan for the financing of the project was granted to the company by a consortium of international banks under the leadership of the European Bank for Reconstruction and Development in London.

Project risks were however not allocated properly, placing the majority of risks onto the project company. Community / public support was also not present, as the Hungarian population did not possess the necessary purchasing power to use the road. Citizens were hence forced to switch to secondary roads as to avoid the toll charges, leading to a growing level of dissatisfaction. Said dissatisfaction caused the filing of lawsuits, as well as a decrease of political support for the project, with Hungarian courts ultimately ruling against the project company. Taking into account the lack of the majority of PPP CSFs, it is no surprise that the project ultimately failed.

5.4. The role of political instability in the failure of the M1/M15 motorway project

The motorway project took place in the early to mid-1990s, shortly after the fall of the Soviet Union. At that point in time, Hungary was undergoing major economic and political changes, characterized by the country's transition toward a market economy. This also led to significant institutional changes, such as the passing of new laws and a complete overturn of the previous regulatory framework supporting a centrally planned economy.

During that time period, Hungary's political and institutional systems were unstable, negatively affecting of the PPP project. According to Kosztyó and Mészáros (2005), one of the primary determining factors for the project's failure was the Hungarian institutional framework's susceptibility to regulatory risk. Regulatory risk refers to a situation where the private investor has already made their investments (in the form of 'sunk costs') and thereby becomes exploitable by the government or regulatory authorities. Said regulatory authorities, on the other hand, are largely guided by public pressure, which became present with the Hungarian population's growing dissatisfaction over the high toll charges.

Taking into account that social infrastructure is by its very nature used by a large percentage of the voting population, politicians have an incentive to exploit the investor's weak bargaining situation. In the case of the project, this exploitation took place with Hungarian court's ruling against the project company and forcing it to lower the toll charges.

The exploitation of said bargaining point is however only possible in an environment without strong institutional safeguards against opportunistic behavior. According to Kosztyó and Mészáros (2005), such safeguards can be present in the form of an inviolable tradition of protecting property rights, as well as strong and independent courts. Hungary's institutions at the time of the M1/M15 PPP motorway project did not offer the necessary safeguard against such behavior. In the 1990s, the legal and institutional system in Hungary was in the transformation process from a centrally planned economy to a market economy. Said framework was in many ways insufficient, causing serious mistakes during the implementation of the project.

This drastically increased the regulatory risks for the private investor – After financing the infrastructure investment and thereby possessing a sunk cost, the concessionaire became exploitable, and ultimately exploited, by the Hungarian government.

6. Conclusions

The failure of the M1/M15 motorway project showcases the importance of a stable institutional and political framework for the success of a public-private partnership project. For the implementation of a successful PPP process, there are pre-requisites which must be met, such as a regulatory framework for PPPs and the creation of the right environment, placing an emphasis on the rule of law. Said environment frequently is not given in politically unstable countries, putting private entities seeking to conduct PPPs at risk.

This understandably disincentivizes private entities to invest into politically unstable nations in need of infrastructure investment. Although such nations should ideally seek to solve the domestic instability and improve their legal system, this is not always possible and achievable within a short period of time. The economic growth and development of a nation is however largely dependent on the availability of basic public infrastructure and services, with most politically unstable countries not possessing the financial means for the self-realization of infrastructure projects.

The availability of outlets for dispute resolution which are seen to be credible and respected by all parties involved may significantly aid in the development of a nation's PPP market. Alternative dispute resolution procedures hence may prove to be helpful, such as contractually agreeing for PPP disputes within a given project to be adjudicated by independent international courts.

Another observation made by analyzing the M1/M15 motorway project is the high importance of proper risk division and allocation for the success of PPP projects. Placing the majority of project risks onto the private company acts as a deterrent for private entities to conduct PPPs in a given nation. Particularly in the case of politically unstable nations, PPP markets may be strengthened and incentivized by the government agreeing to retain most of the project risks. Public retention of PPP risks protects the project company from failure resulting from the propensity of government change – a risk usually present in politically unstable nations. It also likely acts as a force driving down the final price of the project due to the increased competition, and may increase the quality and overall success of the PPP project.

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