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Nicolas Dupas, Frédéric Marty, Arnaud Voisin

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**Mini-perm Structures in PPP Contracts:
Risks and Opportunities**

Nicolas Dupas

Investment Manager - Caisse des Dépôts et Consignations

Frédéric Marty

CNRS Senior Fellow

Research Group on Law, Economics and Management (University of Nice Sophia-Antipolis)

Affiliate Researcher – OFCE – Sciences Po. Paris

Arnaud Voisin

Investment Manager - Caisse des Dépôts et Consignations

Prior to the 2008 financial crisis, the economic model of PPPs benefited from a very favorable environment in terms of credit availability and cost. The high level of liquidity in financial markets allowed rising abundant and not expensive external resources, because of both the low level of interest rates and the search by investors for financial assets characterized by these kinds of risk and revenue profiles. Such context was essential to help PPP deals to achieve their value for money requirement as it allowed minimizing the additional cost of private funds, compared to public ones. Indeed, the sovereign debt is considered as immunized from default risk. As a consequence, no risk premium is charged on public debt. So, it would be automatically more expansive to finance procurement through private funds than public ones. The financial attractiveness of PPPs, despite this handicap, could be both explained by intrinsic qualities of such deals in terms of incentive capacities and by this initial financial context, which conduce to

such a private funding structure to present a very limited additional cost compared to sovereign bonds.

The credit crunch compromised the viability of deals, which are funded through project finance structures with high levels of debt. Funds are more and more difficult to raise and are more and more costly, even for deals for which the counterpart is a public body¹. Additionally, the disappearance of monoline insurers, which guaranteed to the investors the repayment of the project entity debt through their AAA financial rating, contribute to limit the capacity of project managers not only to fund them with a limited risk premium but also to obtain a debt maturity, which match with the project one. Consequently, mini-perm structures, which are not a novelty in long-term contracts, tend to be more and more frequent after the financial crisis.

Our purpose, in the framework of this communication, is to assess the possible consequences of such financial structures on the opportunity of PPPs for the public contractor. After presenting in a first part the increasing use of mini-perm structures after the 2008 crisis as a consequence of the major disruption in the contract financing model, we describe, in a second one, its potential repercussions, both in favorable and unfavorable situations. Our conclusion will put the accent on the analysis of financial and budgetary consequences of the additional risk induced by such structures for the public contractor. These consequences could be put in perspective with other devices used for preserving PPP financial structure as government guarantees.

I – Mini-perm structures in PPP contracts as consequences of the financial turmoil

I.1 – The financial structure of PPP contracts before and after the crisis

Project finance structure in PPP deals was commonly implemented for large projects². Limiting the additional cost of private borrowing compared to public supposed to maximize the financial gearing between equity – brought by the SPE (special purpose entity) sponsors – and the debt – which came from bank loans or from bonds issuance on financial market. The rationale is that the remuneration of equity had to be higher than the debt one, as it will be repaid last and it will bear more risks. The lesser the proportion of equity, the cheaper the SPE's weighted average cost of capital.

Limiting this cost could also lead the SPE to favor bond financing, as it is commonly less costly than bank loans. In UK, bond financing was the privileged way to finance deals as soon as their capital value exceeded £200 million (EPEC, 2010).

¹ For an in-deep analysis of the consequences of the current financial turmoil on PPP financing and a comprehensive presentation of the corrective measures implemented for maintaining the viability of these contracts, see Dupas et al. (2012).

² Project-finance is commonly used for large projects, especially in the United Kingdom. The SPE created for the contract is funded through equity (brought by the sponsors) and external debt (from banks or capital markets). Minimizing the financial cost implies to limit the part of equity to a minimal amount (5 to 10%), compatible to the lender requirements. The SPE had to absorb any financial damage which might be induced by delays or cost overruns especially in the first stages of the project completion. The SPE receives payments from the contracting authority, and in a non-recourse financing model, has to cover all project costs, debt repayment, absorb all potential contractual penalty (for substandard service delivery for example) and to provide to sponsors an equity return (Blanken and Dewulf, 2009).

663 PPP deals in UK from 1996 to 2009	Capital value > £200 million	Capital value > £300 million	Capital value > £500 million
Number of projects	48	28	11
Number of those projects bond-financed	25	18	8
Proportion of bond-financed projects	52%	64%	72%

If bond-finance is largely used in United Kingdom it was not the case in the other European countries for which the capital market was possibly less deep or where the domestic banking system was more aggressive (in terms of prices or financial requirements) and succeeded to maintain a large share of projects financed through bank loans. In these cases, a leading financial institution commonly offered to syndicate the financing. Leading Banks used to implement “underwrite and syndicate” lending practices, which gave certainty about the cost and the availability of the financing since the first steps of the competition for the market.

Despite these differences, in both cases, some financial devices helped to limit the additional cost of private funding. Where PPPs were bond-financed, the SPE used monoline guarantees to make their bonds benefit from their high financial ranking. As soon as bonds were *wrapped*, the cost of the debt was significantly reduced (Vinter, 2006). Monoline insurers offered their guarantee on the debt issued by the SPE repayment. As a consequence the default risk on the debt service is no longer considered as the SPE one but the monoline one³. They contributed to minimize the spread with sovereign debt, since they benefit from an AAA financial ranking. In financial terms, when a bond issuance benefits from this kind of insurance, we speak about wrapped bonds. An example putting into relief by EPEC (2010) shows that in the case of UK hospital PFI deals the difference between unwrapped and wrapped bonds have reached 100 bps. Indeed, when the average spread for wrapped bonds was equal for 2005 deals to 77bp, the spread for the unwrapped Greenwich hospital was assessed between 163 and 187bp. The role of monolines was not limited to bringing their credit worthiness; they also performed a due diligence process, which help to assess and to monitor the robustness of the financial deal and by the way the ability of the SPE to perform the service that it is responsible for.

Even PPP arrangements were used in the thick of the crisis as counter-cyclical tools in order to promote public investment without making worse fiscal disequilibria... But, PPPs deals were very vulnerable to the financial and economic turmoil. Concession-type arrangements may be significantly affected by a demand drop induced by the recession. As a consequence, it was possible to observe in numerous cases a shift between concessive structures and availability-payment schemes. PPP contracts in the stricter sense – e.g. services sold to government – were also putted at risk by the market illiquidity. Private funds are more costly and in some cases even insufficient to raise the required funds for closing projects in the pipeline when the subprime crisis occurred.

³ Such insurers are named mono-lines as they only act as financial insurers. On the contrary conventional insurance companies are called multi-lines.

The economic crisis affects PPP contracts through real channels, as a reducing of revenue cash flows in concession types PFI. But the PPP financial model was immediately sooner damaged by the very first stage of the financial crisis during the fall of 2008. The credit became less available and more costly. In UK, the spread on senior debt have risen from 75 to 300 bps because of the crisis (National Audit Office, 2010). According to the NAO, such increase in the borrowing costs induces a unitary payment charge higher of 10% for the public contractor.

As monoline insurers lost their AAA ratings, maintaining the gearing of PPP deals (e.g. the ratio between equity and debt) was more difficult. As Murphy (2009) underlined as soon as monolines collapsed, the bonds issued by the SPE would no longer be wrapped and lost their investment grade rating, making them unattractive to long-term investors as pensions funds.

Financial markets became more reluctant to finance such deals and banks were squeezed with the decreasing value of their financial assets, assessed at their market value, and the requirements in terms of solvability ratios. Even the PPP already in the pipeline have to be financed through club-deals. Large underwriting commitments could not be longer obtained as banks do not dispose (whatever the price) of enough financial resources and lack confidence in other banks willingness or capability to lend to the SPE⁴. As credit became less available, more lenders were required for each contract, implying a drastic reduction of the competition intensity between potential borrowers at the detriment to the public contractor (Murphy, 2009). Even if there is no collusion issue, a club deal contributes to increase the borrowing costs, just because the interest margin is set by the marginal bank (KPMG, 2009a). For instance, in the case of the British PFI hospital contract of Kirkaldy, the funding of £187 million was not brought by a sole bank but by a club of four banks, which contributed to the senior debt from an individual amount of £42.5 million.

Club-deals reduced the funding competition intensity and contributed to an increase in their financial cost. Consequently, PPP contracts did not longer succeed in minimizing the additional cost of private finance.

Risks on PPPs		Consequences on PPP contracts	
Threat	Vulnerability	Effects on private partners	Effects on public partners
Increased interest rates	Large borrowing needs, refinancing operations implied by mini-perms	Increasing relative PPP costs, liquidity issues and lack of attractiveness of new PPP deals	Investment postponing, trade-offs between PPP and conventional procurement schemes
Credit unavailability	Impossibility to reach the financial closing of the deal	A higher share of equity, additional refinancing risks	Capital injections and additional guarantees are necessary for allowing some deals to reach their financial close.

Source Burger et al., (2009)

⁴ In a nutshell, in the previous lead-arranger model, one bank (often one of the SPE sponsors) manages the whole financial transaction, underwrites the whole debt and syndicates a part of it to other banks in a second time.

Allowing the PPP model to survive the financial crisis implied numerous government interventions to tackle its impacts, to maintain its attractiveness for investors, or to moderate its increased financial costs. All these measures improve the risk-return balance for PPP sponsors but imply automatically that the public contractor will bear more risks. After Burger et al. (2009), we could enumerate concession or contract extensions, additional subsidies or grants, subordinated loans or equity measures, and finally guarantee provisions, as debt guarantees or minimum revenue ones.

One of the consequences of the financial situation, deriving from the sub-primes crisis, is the unavailability of funding for a sufficient maturity for matching with the whole contract duration. Before the crisis the financial market proposed bonds whose duration was equal to thirty years. In addition, the swap market enabled banks to manage longer terms. The longer the contract, the more affordable would be the payments for the public contractor.

Mini-perms could be both analyzed as a response to the financial difficulties (and as one of their consequences.... On the one hand mini-perms help to avoid club-deals, on the other hand, they can proceed from such structures, revealing the banks willingness to impose mandatory refinancing to the SPE.

1.2 – Some economics of mini-perms structures

The current situation of financial market does not longer allow disposing from funds for the full term of the PPP contract. It was difficult in 2009 to raise debt for more than a five year tenor (KPMG, 2009a). In fact banks search to match-funded their loans, limiting their duration to the ones of their resources. Loan conditions are less favorable in terms of costs or of security and guarantee requirements. In addition, it becomes more and more difficult to obtain loans whose maturity would exceed a ten year horizon.

To a certain extent mini-perm structures might be analyzed as a response to the current inability of banks to provide enough liquidity to finance PPP projects, without using club-deals (KPMG, 2009b). Symmetrically, we might consider that in some cases mini-perms are the consequences of club-deals. Indeed, in such arrangement, when a bank requires a mini-perm, the lowest common denominator of the club again plays and the mini-perm is unavoidable. In other words, the constraints of the marginal bank become the constraint of the whole financial structure (KPMG, 2009b). Again, according to KPMG, the generalization of such structures in UK could also reveal an opportunistic behavior from some banks. Mini-perms reduce their capital requirement and limit their risk exposure; so to some extent, they demanded them “because they can”.

Two types of mini-perms have to be distinguished. A first one corresponds to the soft mini-perm deals, a second one to the hard ones. A soft mini-perm may be defined as a loan whose term is sufficient to its full amortization but which is characterized by some incentive clauses to perform a refinancing operation. Such incentive clauses may lie on margin increases, which automatically and increasingly erode the cash-flow that will be distributed to the SPE’s sponsors. A hard mini-perm correspond to a loan whose duration is not sufficient to allow a full amortization and introduces by the way a mandatory refinancing failing which a default would occur in the SPE’s payments.

Mini-perms are not only an unwanted consequence of the financial crisis. It's also a response to the current inability of banks to bring the whole long-term financial resources, which are required for conventional PPP arrangements. Before the crisis, mini-perm structures were sometimes used to refinance deals as soon as the construction phase – which concentrates a large part of the project risks – was achieved. As the risk profile of the contract was from this point more favorable to investors, the sponsors could secure long-term and cheaper funding. The crisis made these structures more frequent and more constrained.

As, we underlined, hard mini-perms compel the SPE to mandatory refinance its debt at 3 or 7 years. In other words, banks expect a rapid take-out through these medium-terms refinancing operations. If soft mini-perms induces more reasonable risks (as the maturity could reach 20 or even 28 years for a 30 year PPP contract), it remains that some aggressive margin step-up or cash sweep provisions are introduced in order to give sponsors strong incentives to refinance their debt as soon as markets are characterized by better financial conditions. The first device is a margin ratchet. At certain dates, an incremental set-up of 25 or 50bp will occur. So if the debt is not refinanced, its cost will become higher and higher. The second procedure is the cash sweep requirement. At a certain date, the free cash flow must be used to prepay the debt outstanding rather than being distributed to the SPE shareholders. For instance, a contractual provision may require that in year five, 50% of the free cash flow will be devoted to such reimbursement and in year 8, the percentage will reach 75%. As KMPG (2009b) underlines, this kind of device could induce that the debt would be fully reimbursed before its legal term, at this expense of dividend distribution. For instance, the Portuguese Douro Highway contract closed in November 2008, whose capital value is €765 million and whose spread reached 230 bps, based on 27 year duration, introduced a cash-sweep after eight years. Banks want to exit earlier from the deals and to incentive the sponsors to take profit from more favorable market conditions in the future.

The potential impacts of mini-perms are quite different according to their type. Hard mini-perms expose the sponsors to a risk of default if the debt is not refinanced at the term. Consequently, banks will benefit from a significant bargaining power allowing them to apply whatever margins.

A mandatory refinancing operation creates an additional risk within the life of contract. Such risk – positive or negative – had to be allocated or eventually shared among the two parts of the transaction. A new refinancing risk is introduced. Will funds be available at the time of the refinancing and if yes what will be the interest rate required by the future lenders? Mini-perms structures contribute to expose the public partner to financial risk, when the principle of private finance initiative contracts lies on the private partner responsibility on those dimensions.

II – Do mini-perms represent a risk or an opportunity for public contractors?

The crisis is not at the origin of such mini-perms but favored their development, especially in the case of hard ones. If it is perhaps too early to say if mini-perms are just a one-off solution (when the lending market is virtually frozen) or a structural feature of the new PPP financing model, we may consider them in terms of risk sharing between public and private contractors.

II.1 Taking benefit from a future better situation of financial market: mini-perms as an incentive scheme to refinance a deal

The bright side of mini-perms lies on the possibility to benefit from a lower interest rate when the debt refinancing will occur. If the situation of the financial market will be more favorable – what is not an improbable event as the current debt is subscribed in the worst moment of a financial crisis. Refinancing such debt as a *clause de retour à meilleure fortune*, in other words a claw-back provision. In this perspective, mini-perms refinancing could be considered as an opportunity for the public contractor and has to be analyzed in the same way as PFI refinancing operations in the UK in the late nineties (NAO, 2006; Dupas et al., 2009).

Such PFI schemes refinancing were based on the progressive lowering of the risk premium during the life of a given contract or applied to the whole PFI portfolio on the British market. The first phenomenon was linked to the fact that the perceived SPE risk of default decreases dramatically as soon as the construction phase is achieved or when the service is effectively delivered. In other words, a large proportion of the risks are concentrated at the beginning of the project. If a refinancing occurs after this stage, new investors face a very favorable risk profile, which justifies a lower level of risk premium. A second phenomenon, which explained such a decrease, lied on the existence of a larger portfolio of contracts, which contributed to reduce the perceived risk of PFI bonds considered as a financial asset category. The PFI refinancing operations led to some very significant gains for the SPE, which could be observed through the RoE (return on equity) increase for their sponsors. The Treasury exercised some pressure upon its contractors to share such non-expected gains, which derived both from their merits but also from the success of the whole PFI policy. After these first experiences, refinancing gain sharing clauses were systematically introduced in standardized PFI contracts⁵.

If the situation of the financial markets is expected to be more favorable at the end of the mini-perm period (or during this one, according the type of the structure), such financing schemes could be considered as a source of potential financial gains during the contract performance for both public and private contractors. In other words, the financial cost of the PPP for the public authority could be reduced through these structures. If mini-perms could be analyzed as an opportunity to benefit from better financing terms in the future, they could also induce some political risks if – as the case of PFI refinancing operations shown – no provision of gain sharing is introduced in the contract. The RoE for the SPE sponsors could be hugely increased, creating a windfall profit that would be the source of political and social defiance against such deals⁶.

⁵ If the sharing rule applied for first refinanced PFI contracts (in which no mandatory contractual provision were introduced) lied on a 50/50 model, the provisions introduced in the following deals allow the public partner to benefit from 70% of the refinancing gains (NAO, 2009).

⁶ We have to notice that no gain sharing procedure was introduced in UK for the sales of SPE shares by sponsors on the secondary PFI markets. The debate on the profitability of PFI deals for private investors is not close, as the recommendation of the Green commission on the government efficiency to audit all PFI contracts with a capital value of over £100 million demonstrated (see also HMT, 2011).

II.2 Does mini-perm issue affect the core model of PPPs for the public contractor?

On the contrary, mini-perms could induce additional risks. According to the EPEC (2010), mini-perm adverse consequences are commonly divided between the contractors, with the public partner bearing the cost of margin set-ups, through an increase in its payments and the private one assuming the consequences of the risk of contract termination if the financing would not be available whatever its cost. In its recommendations, the EPEC underlines that the public contractor should ensure that its counterpart would adopt transparent and realistic refinancing hypotheses, would plan a downside scenario for the contract or mitigation measures as additional equity for the SPE (Murphy, 2009). Nevertheless, the risk of refinancing could be not fully underwritten by the sponsors. A risk sharing provision is needed as soon as a full assumption by the public partner would give a *free exit option* to them.

a) How to share the potential cost of mini-perms structure?

Mini-perm structures illustrate the adverse effects of the adjustment of PPP financial structures after the crisis. One of the main interests of these contracts for the public contractor, the certainty of its future payments throughout the contract duration is lost. If a PPP may induce an additional cost related to the spread induced by private finance, it may be compensated by the advantages of a fixed price contract. The additional cost could be, to some extent, analyzed as a financial insurance device, allowing the public contractor to cover against cost overruns during the contract and as a consequence contribute to ensure the affordability of the deal at the budgetary point of view.

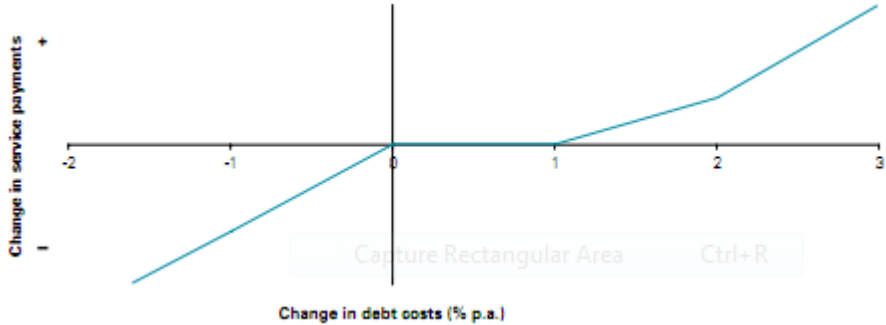
Before the crisis the certainty about the financial cost of the deal was often obtained since the bidding stage as a bank – from the SPE's sponsors – may arrange the deal and underwrite the debt before the financial closing. Since such syndication disappeared, the certainty about the level of the financial component of the public payment is also lost until this stage (as market-flex clauses are commonly introduced in consortium proposals). The effective payment level may be not certain even after the beginning of the contract as soon as a mini-perm structure is implemented. Losing certainty on the budgetary commitments induced by PPPs, when public guarantees are increasingly required and financial costs are rising, could compromise their opportunity for public contractors⁷.

The refinancing risk could not be absorbed by the SPE since the equity brought by the sponsors is reduced to the minimum to maximize the financial gearing and then to minimize the weight average cost of capital. In fact, it is necessary to implement a risk sharing device in order

⁷ The theoretical advantages of PPPs are the following : economic gains induced by the bundling between conception, construction, operation and maintenance phases; a maintenance program driven by performance requirements and not – as in a public management model – by budget availability; an efficient incentive structure produced by the fixed-price model and the fact that the private manager is now the residual claimant of the benefits; an optimal risk sharing (the different risks are allocated to the party which is able to manage it at the lower cost) and finally a greater time and cost certainty for the public contractor. As the MoD Main Building Redevelopment case demonstrated one of the more important features of PPPs is their capacity to give the public contractor a guarantee on the profile and the level of its payment on the whole contractual life. Such certainty helps to assess the affordability of deal, to eliminate potential fiscal risks (due to time and cost overruns, which are often seen as some hidden costs in public procurement) but could also be analyzed as a financial covering device. Indeed, even if the additional cost of private resources makes the PPP more expensive than a traditional procurement scheme, choosing such contract could be considered as rational as soon as it is considered an insurance premium against cost overruns.

to incentive the private contractor to manage the refinancing risk efficiently without making him to assume the whole risk, since it is financially impossible for him to absorb it fully in the worst scenario.

On the principle (see the chart below), potential gains resulting from the mandatory refinancing have to be equally shared between public and private contractors. To a given threshold of interest cost increase (example 100 bps), the SPE has to bear the full consequences of the refinancing operation. If the cost increase is between 100 and 200 bps, government assumes 40 % (by increasing its annual payments). If the spread is higher than 300 bps, the breakdown of the figures could be 80 % for the public contractor and 20 % for the SPE.



Refinancing and risk sharing mechanism: an example (KPMG, 2009a)

The practice in United Kingdom leads in the case of soft mini-perms the public contractor to absorb the cost of the margin ratchets and its private counterpart to bear the cash-sweep devices, which have adverse impacts on their RoE. Government used to bear the consequences of margin ratchets as these ones are perfectly predictable. Their affordability could be ex ante assessed. Cash-sweep risks have to be assumed by the sponsor because it's undoubtedly one of the most incentivizing provisions for leading them to refinance the deal as soon they can (KPMG, 2009b).

b) Do mini-perms compromise the interest of PPPs for the public partner in terms of value for money and affordability?

The increased cost of private funds and the difficulty to obtain a sufficient amount for the required duration could compromise the core economic model of PPPs (Dupas et al., 2009). As the NAO (2010) stated “PFI is less likely to be value for money unless there are substantial and credible savings to offset higher financing costs”.

According Blanc-Brude (2010), the financial crisis affects the whole project-finance model of PPP. The maturity of the loans is often limited to 5 or 7 years, the spread reaches 300 bps and could increase through margin set-ups after 4 years. From the same duration, cash sweep provisions could fully cover the free cash flows. The requirements of the lenders also lead to stringent debt service cost ratio (DSCR), which now reach 1.3 against 1.1 before the crisis (Marty et Voisin, 2006).

Since the public contractor is bound to bear a greater part of these dramatically increased financial risks, the ability of PPPs deals to meet Value for Money is compromised. In addition, mini-perm structures induce a new risk, which could both impair their affordability and lead the public contractor to renounce to the advantages of a fixed-price contract. Such a renouncement is not in fact a choice but the consequence of the public entity's budgetary constraints. If the PPP is chosen, it is sometimes not because the intrinsic qualities of such contract in terms of economic incentives or in terms of budgetary visibility, but just because it's the only game in town. Using PPPs despite the current unfavorable financial conditions implies to accept an altered allocation of risks at the detriment of the public contractor. Nevertheless, the purpose is perhaps no longer to maximize the value for money of the public investments but their own funding.

Mini-perm structures do impair the value for money assessment – because it is no longer possible to evaluate on an ex ante basis an essential cost component of PPPs – but also bring into question the affordability of the deal for the public contractor – as the level of the required budget approval cannot be set.

A reduced level of certainty on the financial cost of PPPs is undoubtedly one of the main consequences of the financial crisis on the PPP model. For instance, market-flex clauses reveal that lenders currently refuse to bear risks on credit spread, at the bid stage, for more than 90 days from the time of bid submission. If such provisions are legitimate as they allow the lender to adjust the terms of their loan to the existing market conditions, they could produce adverse effects as the public contractor do not longer benefit from a reliable assessment of the value for money – and the affordability – of the deal, before the financial closing. Market-out clauses participate from a comparable logic. Mini-perm issues in fact extends such uncertainty to refinancing windows... If the initial model of PPP allowed the public contractor to forecast with a very tight margin error is budgetary commitments from the bid disclosure, it is no longer the case.

In a nutshell, cost sharing provisions deriving from mini-perms as required government guarantee on the SPE debt service do not exclusively affect the PPP incentive structure or compromise its fixed-cost nature. They induce additional fiscal risks in a very unstable budgetary context. For example, how assessing the potential costs of such risks in the framework of an *ex ante* economic assessment of the *value for money* of the planned PPP? How recognizing them in public accounts or how to guarantee the budgetary affordability during the whole life of the contract? Other risks are even more difficult to evaluate on an inter-temporal basis. Indeed, as the PPP contract *sanctuarize* the budgetary expenses, a potential effect of eviction to the detriment of conventional funded investments could be feared if the fiscal situation will become more and more under stress.

Conclusion

Mini-perms are just one among others manifestations of the increased fiscal risks associated with PPPs after the 2008 financial crisis. A same reasoning could be implemented for the government guarantees, which are more and more frequent and whose probability of calling is increased. Consequently such risks had to be covered by budgetary provisions or at the minimum to be regulated in order to define a maximal government exposure. As Burger and al.

(2009) proposed it could be appropriate to flow limits on annual total PPP-related payments and contingent commitments. In this logic, the IPSAS Board proposal on the recognition of *Service Concession Agreements* in the public accounts based on the IFRIC 12 is akin to this logic. To a certain extent, all the financial devices, which could be applied in order to avoid mini-perms, as equity contributions or debt repayment guarantees, induce comparable difficulties.

Risk adverse behaviors could be also observed through an increased focus of lenders on default provisions and also through increased security requirements by lenders on the SPE. If, the principle of project finance is a limited recourse of the lenders to the assets of the project entity, the crisis led to give them additional guarantees both from its sponsors⁸ but also – in an increasing manner – from the public contractor (as soon as they cannot take security over the facility, which is the object of the PPP contract). Government guarantees might impair the economic model of PPPs for the public partner. First, the PPP is not longer purely a private finance initiative as government co-lending is often necessary⁹. Again, according to Murphy (2009), we could consider that the “F” is perhaps removed in the DFBOM model...

Such mechanisms are observed in the United Kingdom, where the government had the possibility to lend on commercial terms if the SPE fails to obtain enough financial resources from the markets (Treasury Infrastructure Finance Unit – TIFU). It could also imply some direct subsidies or grants. All these models contribute to reduce the interest of PPPs for the public contractor as budgetary resources are needed. In the same time, the couple “risk-return” (in other words the incentives) for sponsors is also altered¹⁰. Perhaps even more crucial for our point is the second type of government commitment in PPP financing. The government credit guarantees do not imply (as mini-perm structures) an immediate budgetary cost for the public partner¹¹. Nevertheless, they increase its risk exposure in case of difficulties and by the way introduce some additional – and difficult to assess and cover – fiscal risks¹².

⁸ The SPE faces stringent covenants requirements from the lenders as contingent equity commitment from the sponsors (making new injection mandatory if the cash-flows are below a given threshold), cost-overruns and completion guarantees (for instance in the construction stage), or even shortfall guarantees (which imply that the sponsors commit to pay any sum remaining due after the termination of the loan) Parent company guarantees (PCG) imply that the exposure of the sponsors would not remain limited to their equity injections in the SPE. Letters of credit (for example 5% for construction obligations), cash sweeps or reserves are more common than before the crisis. As Murphy (2009) puts into relief, “obviously as PCGs expands in scale and scope, the essential nature of limited recourse in PPP financing starts to weaken because the lenders are effectively able to look to assets other than those of the project company”.

⁹ It is necessary to highlight the role of the European Investment Bank in filling the financial gap for large PPP deals. Its commitment might avoid, in some cases, mini-perms structures. It is the case for the Scottish M80 highway (for which EIB has provided 50% of the funding, allowing the project to benefit from reasonable financing conditions both in terms of spread and other financial requirements. On the contrary it was not the case for Greater Manchester Waste and for the M25 contracts, for which EIB intervention not avoid mini-perm structure.

¹⁰ A government guarantee has adverse effects on the incentive structure produced by the project finance scheme, as the discipline induced by the debt service repayment is relaxed and as the external financiers have ex ante incentive to perform efficiently the due diligence process, since they will benefit from a governmental guarantee (see on the incentive effects of private finance in PPPs, Marty and Voisin (2008)). We may also consider that a direct funding of the project through capital grants from government could have also adverse effects on the lenders’ incentives. If the level of equity invested by the sponsors is lower, lenders could consider that the risk of the project is concentrated on a relatively small amount of private equity. Consequently, the guarantee given on the debt service repayment could appear as even lower.

¹¹ A partial government guarantee on the repayment of debt of the SPE plays as an underpinning scheme. For instance, in the French case, the *Plan de relance* (fiscal stimulus package) introduced by the *Loi Devedjian* on February

Mini-perms structures and government guarantee schemes affect the model of PPPs since they induce risks and uncertainty in terms of PPP related payments affordability and they make disappear one of the main theoretical interest of PPP contract: its fixed-price structure.

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2009 allowed government to provide a credit default guarantee for the SPE lenders. Such guarantee reached 80% of the total debt of projects concluded before the end of 2010.

¹² If the public authority participates to the financial closing through direct loans to the SPE, it could also induce some incentive distortions, even if the former effects, put into relief in the cases of guarantee or equity injunction do not play. Firstly, a conflict of interests could appear in the sense that government is both the lender and the procuring authority. Secondly, the due diligence processes performed by the government and by the other lenders could be suboptimal if the two ones tend to adopt a free riding strategy. In other words, if private lenders are excessively confident as soon as public loans are presents and if government just relies on private lenders' risk assessment. In addition, as KPMG (2009a) points out, the impact of the PPP in public accounts could be doubled-up.

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