

France's experience and on the implementation of VfM approaches.



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A comparative analysis of French Public Procurement tools

Procurement contract/Public Tender	Partnership contracts	Concessions
Short term One object	Long term Multiple object	Long term Multiple object
No financing Successive tenders Service provided to administration Payment by administration	Pre-financing Design/build/operate-maintain Service provided to adminis. Payment mostly by admin. Third-party revenues possible	Financing Design/build/operate-maintain Service provided to users Payment by users
Construction risk	Construction risk Performance risk	Construction risk Performance risk Demand/traffic risk₂

Only Partnerships contracts subject to preliminary VfM analysis

Why?

- Legal requirement , linked to *derogatory status of PPP law (waiver to general principles of public procurement rules)*
- Comparatively larger impact of duration, scope and financing on future public commitments

Consequence:

- If project envisioned as a PPP:
has to undergo a affordability test + legal & VfM analysis vs Traditional Public Procurement (PSC) and/or Concession, **before** launching attribution process
- No such obligation if same project to be launched as Public Procurement or concession (even though concession might involve public subsidies or contingent liabilities).

1st Step(recommended): Preliminary analysis (to be conducted in-house):

=>Qualitative assessment of PPP scheme:

- relevance of PPP for project considered - Economic attractiveness of underlying project/sector
- Possible optimization of risk allocation

Concl: if project deemed liable for PPP, engage full VfM comparative analysis

2nd Step(compulsory): legal & VfM analysis (to be conducted with external advisers):

=>verifying legal criteria to access PPP

+Quantitative economic assessment:

-total cost

-risk sharing &performance

-sustainable development

compared with other procurement options

VfM=1 of 3 access criteria to PPP (in practice, has to be demonstrated)

Scope covered: costs

- Total cost to public contracting authority: payments to private partner + indirect project-linked costs retained by public party
- Taking into account any project-generated income at public party level (net ancillary revenues, project-linked taxes collected at authority's level...) & residual value

Cost assumptions

- To be assessed as thoroughly as possible (with help of construction economists)
- Comparative analysis doesn't imply that costs should be treated in a differential way ($\pm x\%$) between schemes.
 - Aim is to get predictive levels of cost, both as NPV of global costs /project-life & as periodic payment (rent for affordability test)
- Issue of relevant indexes for cost escalation over time

Cost assumptions (2)

- No standard coefficient (optimistic bias) to be used where benchmarking PPP costs with PSC (unless solid factual evidence)
- Limited feedback on relative costs to date, but growing : schools, prisons,...
- Cost of financing,,,,
- As a result , overall costs (current or discounted) usually higher in PPP scheme before risks

Non-financial benefits: taking into account time differences

- VfM cost-minimization approach implicitly assumes equal NFB, but delivery of a project in PPP generally quicker than in PSC.
- Discounting mechanism of costs accounted for in the NPV calculation penalize PPP scheme,
- When major time lags between a PPP and a PSC delivery schedules, => evaluate socio-economic benefits into comparative analysis.
- MAPPP has an evaluation methodology of NFB linked with gains in delays

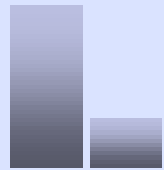
Valuing risk

- Risk=Main added value of comp.analysis & main discriminating factor (with qualitative factors)
- assessed from public partner side, at project level (except for standardized projects: schools, prisons, that can be assessed as programs)
- Start with comprehensive census of risks
- Identify non-quantifiable risks, try to monetarize remaining risks

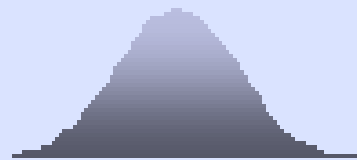
Valuing risk (2)

- Allocate Risks between public & private (risk matrix)
- Risks shared are not treated, only those transferred to one party
- Analysis may be limited to bigger (material) risks
 - Smaller/average projects=> mean value of risk (value of risk=occurrence x impact)
- Larger/complex projects=>Monte-Carlo

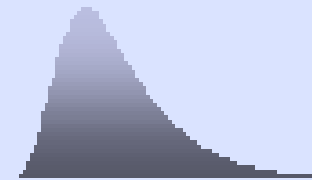
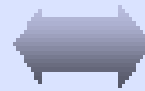
Joint risk information



Probabilité
d'occurrence

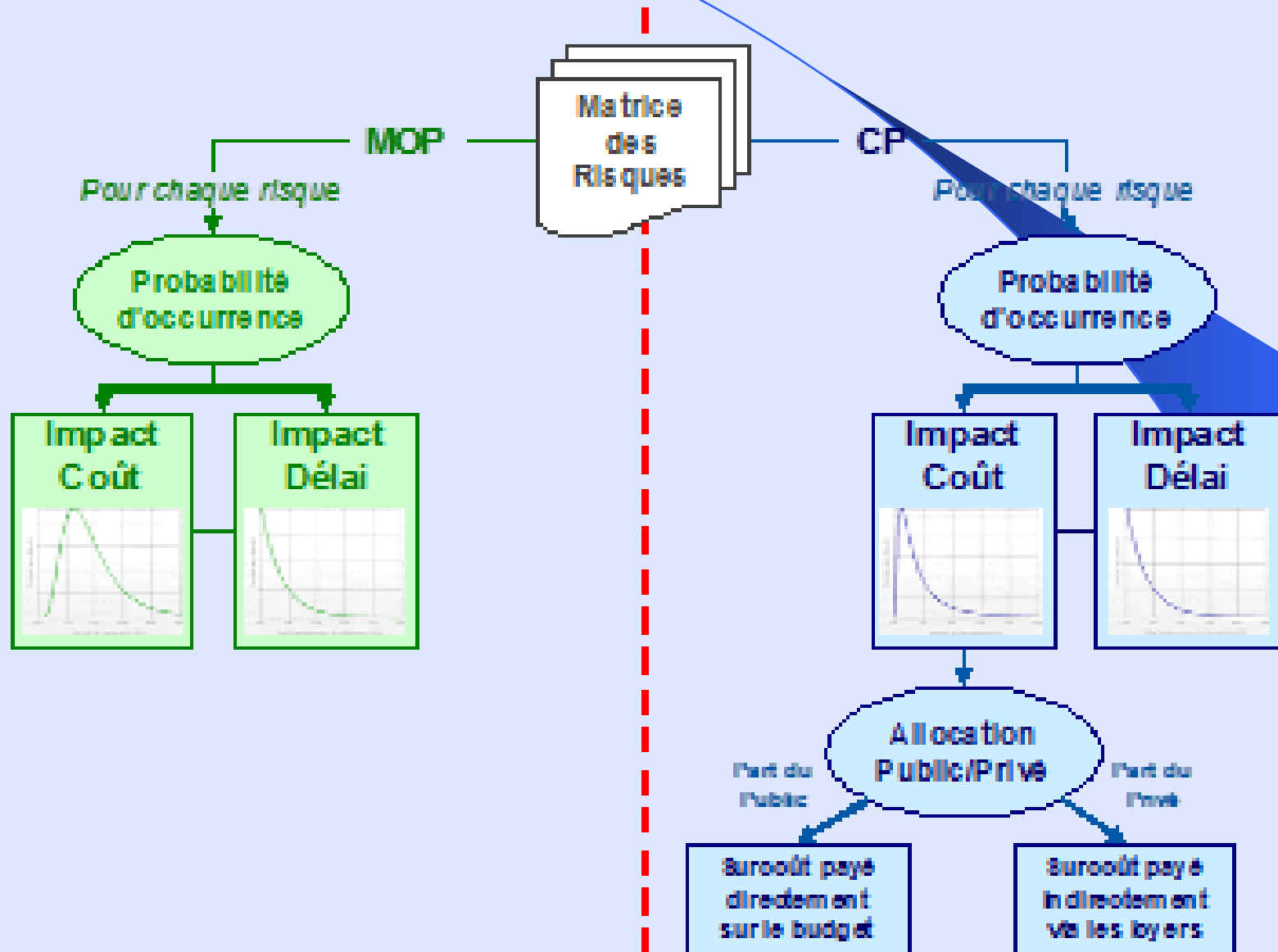


Sévérité d'impact
en cas de
survenance du
risque



Probabilité
conjointe

Taking risk into account in the model



Projet	Bureaux	
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Phase Risque	Conception, Réalisation Etude	
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Allocation des surcoûts en CP	Public	Privé
	0%	100%

Contrat	MOP	CP
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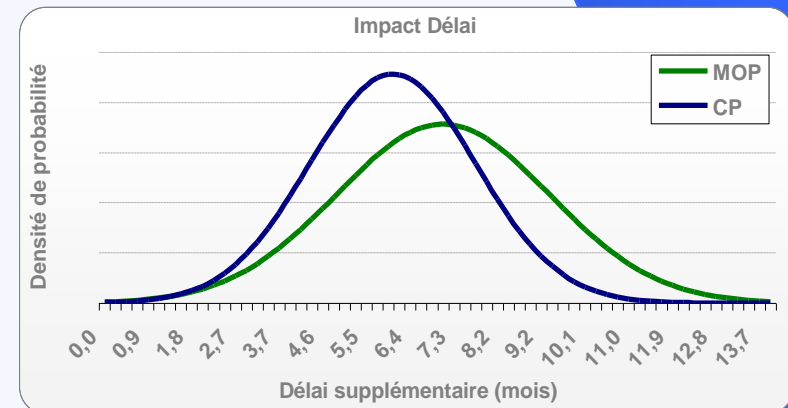
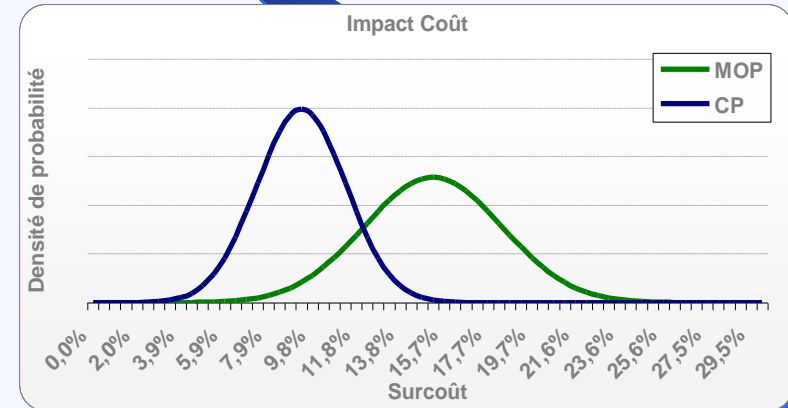
Probabilité d'occurrence	1%	1%
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Impact Coût		
Loi	Normale	Normale
Mu (Moyenne)	15,3%	9,4%
Sigma (Ecart-type)	3,1%	2,0%
	0,0%	0,0%
Moyenne	15,3%	9,4%
Ecart-type	3,1%	2,0%
Impact moyen	0,2%	0,1%

Impact Délai		
Loi	Normale	Normale
Mu (Moyenne)	7,1	6,1
Sigma (Ecart-type)	2,2	1,7
	0,0	0,0
Moyenne	7,1	6,1
Ecart-type	2,2	1,7
Impact moyen	0,07	0,06

Exemple

Risques liés au terrain/site : géologique, archéologique, météorologique ...



Valuing risk (3): limits

- But probability Laws & parameters yet to back with more evidence from practice/experience curve
- Risks shared are not treated, only those transferred to one party
- Analysis may be limited to bigger (material) risks
- Smaller/average projects=> mean value of risk (value of risk=occurrence x impact)
- Larger/complex projects=>Monte-Carlo

Risk distribution laws (transport projects)

		Occurrence	Impact Coût	Impact Délai / Indisponibilité
REALISATION	Etude	Oui 2% Non 98%	0% 1% 4% 6% 15% 32%	1 m 4 m 17 m 1 m 5 m 25 m
	Modification	Oui 98% Non 2%	2% 9%	1 mois 6 mois
	Maintien d'activité	Oui 2% Non 98%	0% 0% 1% 2% 3% 7%	1 mois 2 mois
	Défaillance	Oui 2% Non 98%	6% 11% 11% 16% 15% 19%	2 mois 3 mois 6 mois 9 mois 10 mois
EXPLOITATION	Interface	Oui 98% Non 2%	1% 5%	1 mois 2 mois
	Evolution	Oui 2% Non 98%	0% 2% 1% 3% 2% 6%	0 m 1 m 3 m 0 m 2 m 8 m
	Performance	Oui 98% Non 2%	4% 6%	1 mois 2 mois
	Traffic Demande	Oui 50% Non 50%	1% 3%	⊘
REGREG	Interface	Oui 2% Non 98%	3% 4% 4% 5% 12% 14%	1 mois 2 mois
	Performance	Oui 10% Non 90%	25% 30%	1 mois 2 mois
	Traffic Demande	Oui 50% Non 50%	3% 5%	⊘

Risk-aversion levels

Famille Bâtiments		Famille Infrastructures de Transport	
Type de projet	VaR	Type de projet	VaR
Bâtiment multifonctionnel (palais des congrès,....)	85%	Infrastructures aéroportuaires	90%
Bureaux	80%	Infrastructures ferroviaires	85%
Casernes	80%	Infrastructures fluviales	85%
Centre d'archives	85%	Infrastructures portuaires	85%
Equipements de process (cuisine, blanchisserie,...)	90%	Infrastructures routières	75%
Equipements sportifs	85%	Ouvrage de franchissement	85%
Equipements culturels (théâtre, concerts, musées,...)	90%	Plateforme logistique et infrastructures multimodales	85%
Etablissements médico-sociaux (crèches, MAPAD, ...)	85%	Transport collectif urbain	90%
Etablissements scolaire et universitaire	85%		
Hébergement	80%		
Hôpitaux	95%		
Laboratoire - Centre de recherche	90%		
Palais de justice - Tribunal	85%		
Prisons	90%		

Financing assumptions

- Public co-funding** (subsidies, grants, milestone payments...): is independent of the contract mode selected
- Amount to be financed**: comparison with and without VAT.
- Public financing(PSC)** based on debt
- Private financing (PPP scheme)**:choice to be made in terms of structure (corporate, leasing, PF non-recourse) and mix of equity & debt

Discount rate assumptions

- Comparing net total costs of the two schemes => discounting future cash-flows -
- Necessary to establish a single discount rate and a single starting date common to both schemes.

Financing rate of the public authority will be considered as the discount rate for subsequent NPV computations, and starting date = date of signing the PPP

VfM analysis: who does what?

- Analysis to be prepared by Procuring authority , with help of external assistants, within methodological framework developed by MAPPP
- Checked and validated by MAPPP for all central gov't PPP projects (optional for local PPPs)
- Simultaneously , budget sustainability assessed by Budget directorate
- Launch of tender conditional on MAPPP's greenlight

VfM analysis: who does what(2)?

- At end of competitive dialogue, BAFO compared to updated VfM analysis for PPP scheme
- New greenlight to be given by MAPPPP (though MoF) and Budget before PPP can be signed by ministry or central administration

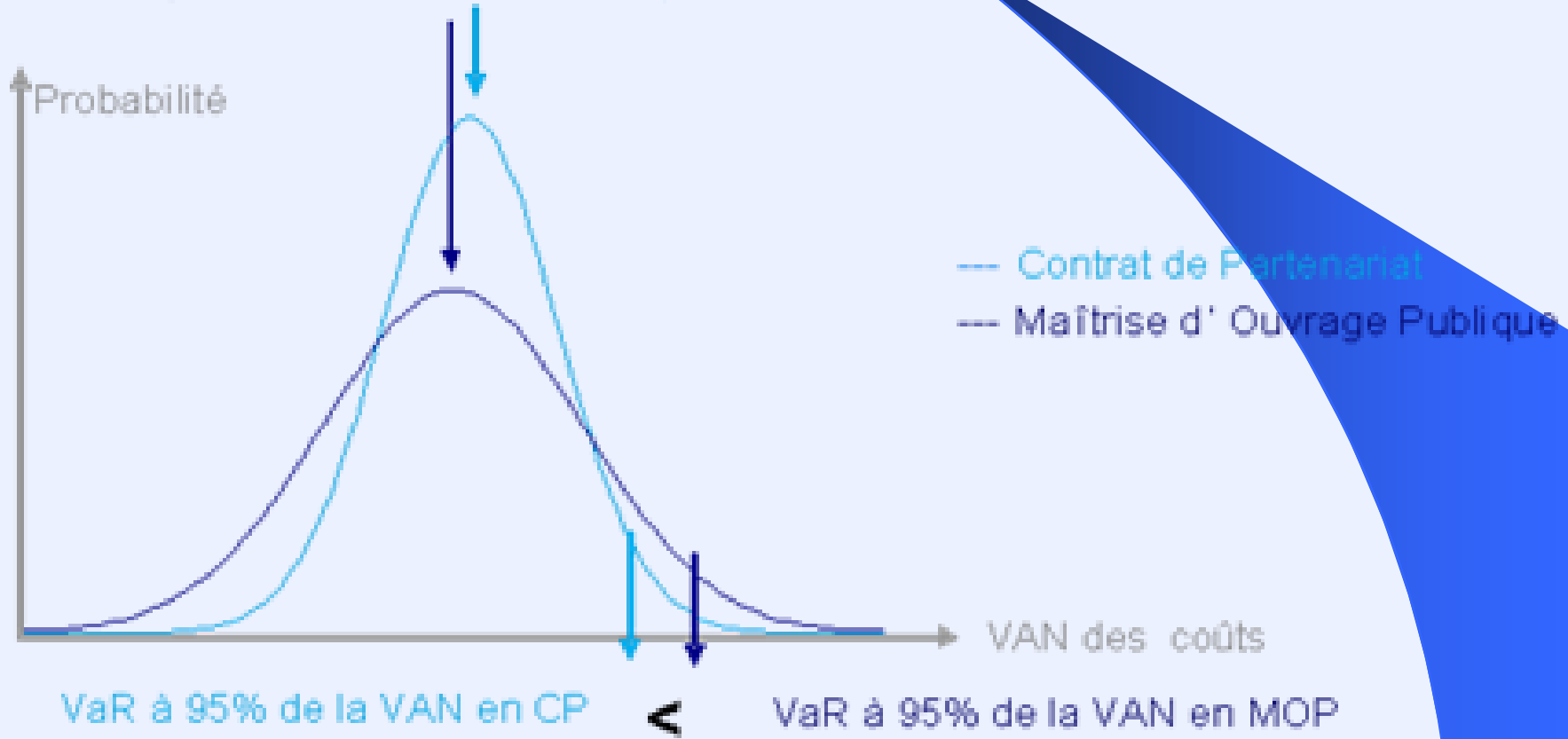
VfM analysis: recommendations & prospects

Audit report by IGF(jan 2013) conclusions:

1. Strengthen assessment methodology (set up Cost database, no performance coefft..)
2. VfM study only for projects earmarked as PPPs: more a technical study pre-implementation of a project as a PPP than a tool to determine best contracting mode
=> Extend comp. assessment to all complex, big projects (whatever procurement mode)

Relevance of Mean value of risk Vs VaR

VAN Moyenne en MOP < VAN Moyenne en CP



Thank you for your attention!

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