CALCULATING THE COSTS AND SAVINGS OF PUBLIC PROCUREMENT

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4th Interdisciplinary Symposium on Public Procurement

Paris, October 25-26, 2018
Costs and Savings are central measures of Public Procurement effectiveness.

Consip experience tough us that often these measures are meaningless, because simultaneous changes in qualitative aspects are not accounted for.

The case of ‘Matite Consip’ will remain in the memory of a generation of Italian civil servants.

Nonna Lina would smile and say: 

*Chi piu’ spende meno spende!* 

[‘You buy cheap, you buy twice’]

For some, like her, it is obvious that too much focus on cutting present costs, today’s savings, may not pay in the long run.

For the measurable costs, wider concept like ‘total cost of ownership’ have been developed to account for long term effects. But seldom used in calculating ‘savings’.
‘You can’t manage what you can’t measure.’

- Measuring the effectiveness of public procurement is challenging because procurement policy is often used to achieve different, changing objectives.

- Because of this complexity, in most cases procurement evaluation has been focusing only ‘savings’, only in the best cases in terms of **value-for-money** (VFM).

- Properly defining and measuring savings in VFM is not easy.

- Even measuring purely monetary savings - abstracting from simultaneous changes in quality and VFM - is not easy.
A - Data are necessary on:

1. all types of costs linked to the full life of the object procured to obtain the ‘total cost of ownership’;
2. cost changes for all types of ex post renegotiations and add-ons linked to the initial purchase;
3. all types of transaction and costs, including time and administrative costs of tender preparation and advertisement, haggling in renegotiations/amendments, procedure administration, contract management, etc;

B - A good counterfactual is needed (savings w.r.t. what?)

Even if though are several methodologies have been developed, they are typically static, and based on past procurements and observed ‘market prices’, which may differ a lot from to what could have been achieved today with a different procurement design.

Many things may have changed, from drastically innovative objects to abrupt cost-reducing innovation to drastic innovations in market structure (fentry or exit of crucial potential suppliers).
C - even if A and B solved, ‘savings’ in VFM implies controlling for differences in *quality*.

- This maybe very challenging, and is often ignored in the public sector / debate

The remaining of this piece will be focusing on this issue.

Dr Glas will focus more on cost measurement 😊
Contractable/Measurable Quality

= dimensions objectively measurable at reasonable cost by a third party (think of delivery time), auditor/court.

- \textit{In principle}, easy to guarantee through legally binding contractual clauses.
- \textit{In practice}, often under-provided by suppliers, because poorly specified in the contract, poor contract management, poor contract enforcement, slow legal system...

The fact that these quality dimensions can be measured at low cost means that reliable data may be collected (or already available) and accounted for to obtain a more meaningful measure of ‘savings’ in VFM.

- Typically not done, or poorly done in reality, except in (some) academic papers.
- Often done only for ‘promised’ quality at award stage, while what matter is effectively delivered ex post!
Non-contractible quality dimensions

..that cannot be measured objectively (verified) at a reasonable cost by a third party, court / auditor.

Risk of degradation much higher.


- Manelli and Vincent (1996): Where gains from trade are concentrated on non-contractible dimensions, competitive auction on contractible dimensions is the worst among all the conceivable allocation mechanisms.

Very hard to measure and include in ‘savings’ or VFM!
Consequences

• Failing to measure quality makes measurements of monetary savings uninformative and often misleading.

• Suppose 20% of monetary savings are realized through centralization, but important quality dimensions worth 80% of total value, fell 50%.

• The apparent savings (that buyer/governments will emphasize) of 20% is accompanied by a 20% fall in the value procured, 0% savings.

• Not what typically announced...

• Things get more complicated when even the most basic additional objectives of the procurer (other than the characteristics of the purchase) become important.
Example 1

- *Emergency* (earthquake) where non-contractible quality becomes crucial, and urgency makes the *speed of delivery/execution* and at which the procurement is executed *essential*.

- Benevolent/honest public buyer switches to *faster, simpler and more discretioneral awarding procedures* where only few highly reputable bidders are invited to compete.

- More discretioneral procedures are tools (like, say, a new, sharper scalpel in a hospital), can be used well or misused, e.g. politically connected firms or extorting bribes (killing or threatening someone in the case of the scalpel).

- Outcomes depend on personnel honesty, competence, incentives, and ex post monitoring, that must always be strengthened when increasing discretion.
We know well that the potential costs of such policy change (the cost of buying the scalpel) include as a minimum:

C1) *Higher procurement costs*, because of the reduced competition and the connected potentially poorer contractor selection in terms of production costs.

C2) *More favoritism/corruption* that likely again to induce even *higher procurement costs and lower levels of all forms of quality*. 
Potential benefits of the tool

They are the very reason why the tool was introduced (the reason why we bought the scalpel in the first place, saving the life of a patient):

B1) *Lower costs and suffering for the population hit by the earthquake* linked to the faster relief;

B2) *Higher non-contractible quality* in the relief brought to the population because of the restriction to most highly reputable suppliers
Effective savings?

Speed and quality costly to produce, will likely come with a (possibly welcome) increase in total monetary cost.

• Suppose C1 and C2 increase procurement cost by 10, but B1 and B2 are ten times as large, causing a reduction of costly suffering by 100, that is hard to measure.

• In standard practice, savings would measure price increases linked to C1 and C2 only; ‘negative’ saving of amount -10.

• But does it make any sense to say that incurring the cost for buying a scalpel reduced savings by its cost, when the scalpel was bought to save several patients’ lives?

• Total savings are (B1+B2)-(C1+C2), so that the total savings from the new policy were huge, 90 (100-10).
例 2

最近的一篇论文由 Baltrunaite 等人于 2018 年发布，提出了一种方法来衡量成本，该方法在更糟糕的供应商选择方面利用了 2011 年 7 月意大利改革的影响，该改革提高了非强制性的程序使用的程度，以加速公共工程的授予程序（旨在增加经济危机期间的公共需求）。

改革:
- 提高了价格门槛，即机构可以使用谈判程序的最低门槛从 €500,000 提高到 €1 百万；
- 对于介于 €100,000 至 €500,000 之间的公共合同，机构必须邀请至少五名投标人（如在改革前的时期），而对介于 €500,000 至 €1 百万之间的合同，机构必须至少邀请十名投标人。
Results of Baltrunaite et al. 2018

Poor selection costs:

- Negotiated procedures up 16% (expected).
- Political connected winners up 3.6% (bad).
- Number of Bidders falls from 42 to 29 on average (bad? good)
- Contracts more often awarded to firms with lowest labor productivity, i.e. more labor intensive (In general bad. In a crisis possibly good to stimulate demand... unclear).
- Transparency (reporting outcomes): 9% fall (bad).
What about benefits?

Faster awarding of public work? Transaction costs? Outcomes?

They checked what they could!!

- Speed: average difference in duration between open and negotiated procedures only 15 days!
- Outcomes: discounts and cost overrun don’t change, but very incomplete/biased though biased/sample.
- Savings in procedural costs? No data...

This last step is crucial, and typically missing!