

Economics of Public Procurement

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DEFINITIONS AND ...

Where does Procurement come From

- PRO CURARE (Latin)
- *To take care*
- *... For someone else.*
- **QUALITY (GOAL) AND DELEGATION (INSTITUTIONS+CONTRACTS):**
procurer-supplier but also taxpayer-politician and politician-procurer.
In the presence of asymmetric information, could lead to moral hazard (wrong effort) in addition to adverse selection (wrong guy)!

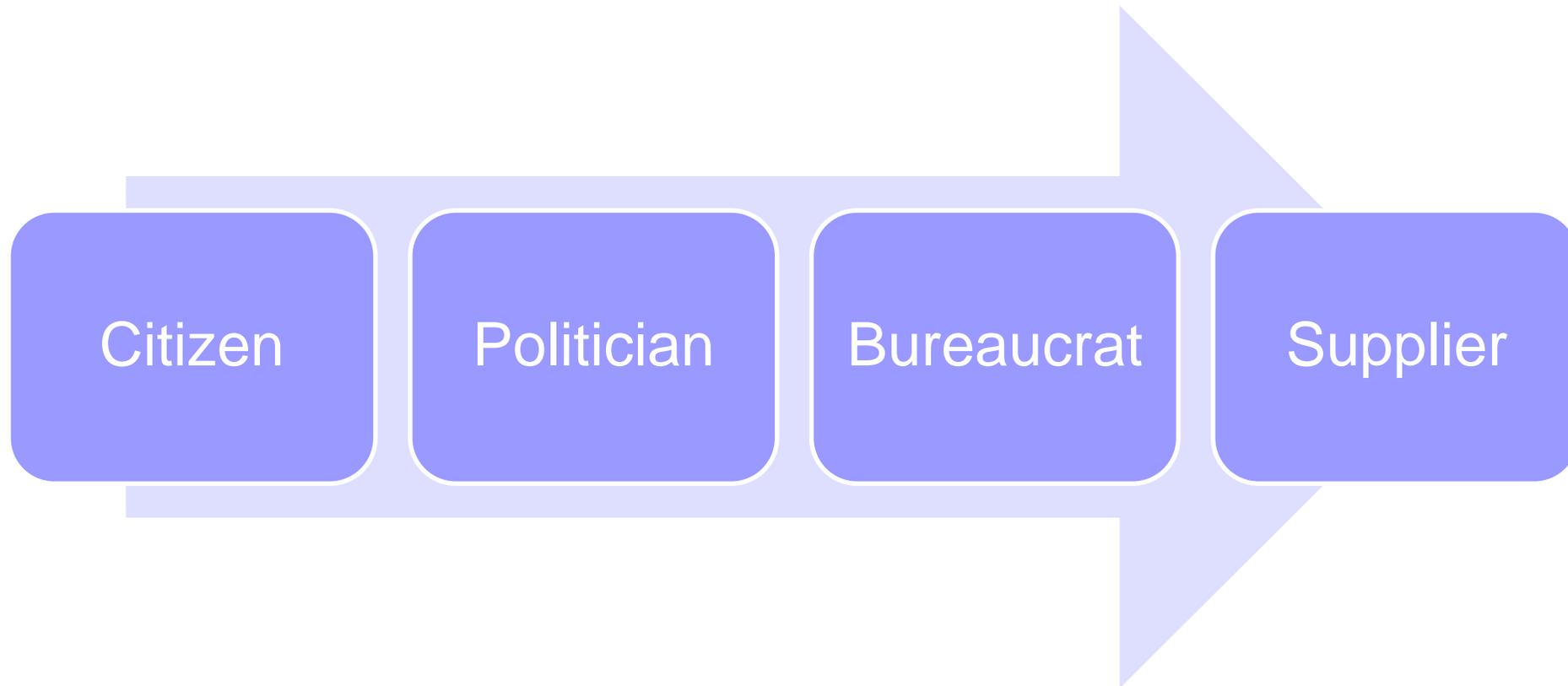


(Some) Implications

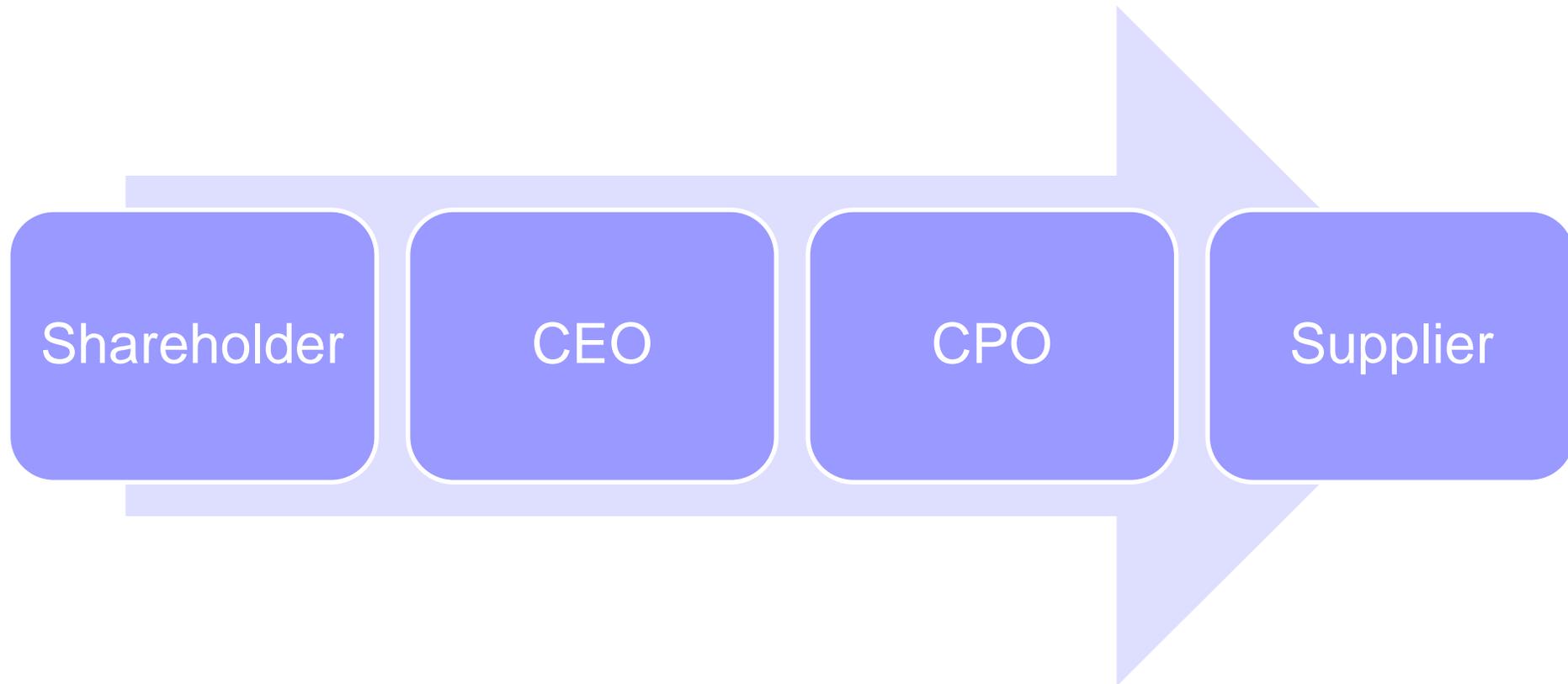
gh the book is the fundamental tension between rules and discretion. Rules limit the agent's ability to pursue his private interests at the expense of the taxpayers, but discretion allows them to use their knowledge of the context and react quickly to unforeseen changes, as in emergencies. At the time of writing, two years into the

To strike a balance between rules and discretion, we need to know more about the exact nature of the agency problem. A common assumption is that agents (and their monitors) are corrupt, that is, they actively exploit their position to extract rents. A less common assumption is that they have a strong preference for leisure and therefore put little effort in achieving their contractual objective of getting value for money. This distinction between corrupt and lazy agents is important because policies designed to curtail corruption such as strict rules that require extensive documentation can backfire if the agent is lazy – or even just cautious – as deviating from the rules is punishable even when doing so would benefit the taxpayer.

Delegation - Public



Delegation - Private



What is Procurement [Public too]

- [Public] Procurement is the process by which [state and local Public Administrations of a country] organizations i) establish and determine their **need** of, ii) demand the (competitive/non competitive) **provision** from **outside** entities (bidders/sole sourcers) of, iii) **contractualize** the **purchase** [with taxpayers' money] with **one** entity of and iv) **monitor/manage** the provision of: goods, services and works, in order to fulfill their **institutional mandate** with regards to their [citizens] principal/shareholders.

What is Public Procurement

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NB: Procurement and Contract Theory

- The origin of the word contract is the Latin **contractus**, from *contrahere*, to **draw together**. Dictionary definitions of the term include ‘an agreement between two or more parties, especially one that is written and enforceable by law’.
- Well-designed contracts are essential to **effective** procurement. By fixing obligations and promises, contracts *try to* protect each party in a procurement transaction.
- “There are several types of contracts and very many dimensions along which apparently similar contracts differ, so that choosing the right contracting strategy is not always easy for a buyer. And a bad choice of contract can have very negative consequences for a buyer in terms of cost and quality of supply.” (Albano, Calzolari, Dini, Iossa and Spagnolo, 2006).

NB: Contract Can «Optimally» Fail

Interestingly, public contracts are often complex transactions with changing objectives, and it is not easy to anticipate future events that may disturb the relationship (Williamson 1985, Hart 1995). Hence, renegotiations might also be viewed as necessary adaptations to fill in the contractual blanks of the initial agreement to meet contingencies that arise ex post (e.g. Grossman and Hart 1986). Such unforeseen events may be exogenous (economic crises, technological innovations, legislative changes, pandemics, etc.) or may result from internal needs of the contractual relationship (evolution of needs for more efficient service management or inadequate design of the initial contract). Thus, renegotiations are necessary, and the frequency of renegotiation may provide public contracts with a relational dimension (Spiller 2009) associated with greater surplus.

Ultimately, renegotiations can improve contractual efficiency but remain a risky adaptation process that may lead to opportunistic behaviors. As a consequence, contracting parties need a formal agreement to secure their specific investments, but this security should not come without any contractual flexibility to adapt to unanticipated events. This trade-off leads to an optimal level of contractual completeness (e.g. Crocker and Reynolds 1993, Saussier 2000), which translates to an optimal level of contract renegotiations.



PERIMETER OF PROCUREMENT

Not everything is Procured: may even not be provided!

- *«Larger and older cities provide more public services... Services for which contracting difficulties are greater are also provided somewhat less frequently».*
- Size (costs?) and experience matter.
- (Contractual) complexity too. Procurement developments affects public service availability (not only delivery)!

*«Contracting For Government Services: Theory And Evidence From U.S. Cities», Jonathan Levin and Steven Tadelis, Journal of Industrial Economics, 2010. Survey on 1043 US cities.

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Everything that is Provided May not be Procured: it may be provided differently

- *“Over 80% of services are provided either **in**house or through contracts with private sector firms. A smaller but still significant set of services is provided through contracts with other public agencies.”*
- Not necessarily expansion in public service delivery implies more public procurement.

*«Contracting For Government Services: Theory And Evidence From U.S. Cities», Jonathan Levin and Steven Tadelis, Journal of Industrial Economics, 2010. Survey on 1043 US cities.

When is it Optimal to Outsource?

- Ignoring contracting costs, performance contracts will result in more efficient production than (labor intensive) inhouse. **Saving advantage?**
- Main contracting costs: difficulty of performance measurement, the lack/need of/for flexibility and the potential for holdup (more asymmetric information: “sour lock-in” or “corruption”). **Quality costs?**
- The optimal choice will **weigh** the added contractual costs of using performance contracts against the added benefits of the increased labor efficiency and lower labor costs.

Examples

- Police and fire services are two of the most difficult services to contract out. Both require significant flexibility and adaptation; performance is difficult to assess accurately and specialized local knowledge can play an important role.
- Street cleaning and building-and-grounds maintenance are two of the easiest services to contract out.

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Data

<i>Service</i>	Number of Cities Providing	Method of Provision		
		In-house	Public	Private
Operation of parking lots and garages	411	0.68	0.03	0.19
Utility meter reading	727	0.78	0.04	0.13
Residential solid waste collection	750	0.47	0.01	0.33
Commercial solid waste collection	558	0.32	0.01	0.43
Street/parking lot cleaning	935	0.72	0.02	0.18
Vehicle towing and storage	596	0.09	0.02	0.81
Buildings and grounds maintenance	1003	0.62	0.01	0.30
Building security	721	0.75	0.02	0.20
Parks landscaping and maintenance	996	0.69	0.05	0.18
Tree trimming/planting on public rights on way	939	0.42	0.02	0.39
Collection of delinquent taxes	584	0.40	0.39	0.17
Solid waste disposal	565	0.32	0.18	0.35
Street repair	1011	0.45	0.02	0.36
Operation/maintenance of recreation facilities	974	0.72	0.06	0.10
Water treatment	783	0.78	0.14	0.06
Insect/rodent control	443	0.42	0.36	0.16
Operation of libraries	632	0.56	0.29	0.03
Sewage collection and treatment	868	0.68	0.20	0.08
Operation of museums	342	0.25	0.16	0.29
Legal services	842	0.34	0.02	0.58
Sanitary inspection	496	0.51	0.40	0.04
Animal control	857	0.61	0.21	0.13
Emergency Medical service	769	0.54	0.14	0.19
Operation of daycare facilities	194	0.24	0.09	0.55
Programs for the elderly	582	0.28	0.20	0.19
Fire prevention suppression	932	0.82	0.07	0.00
Inspection/code enforcement	1013	0.84	0.03	0.08
Drug and alcohol treatment programs	201	0.05	0.38	0.39
Crime prevention/patrol	1021	0.86	0.07	0.00

Empirical Evidence

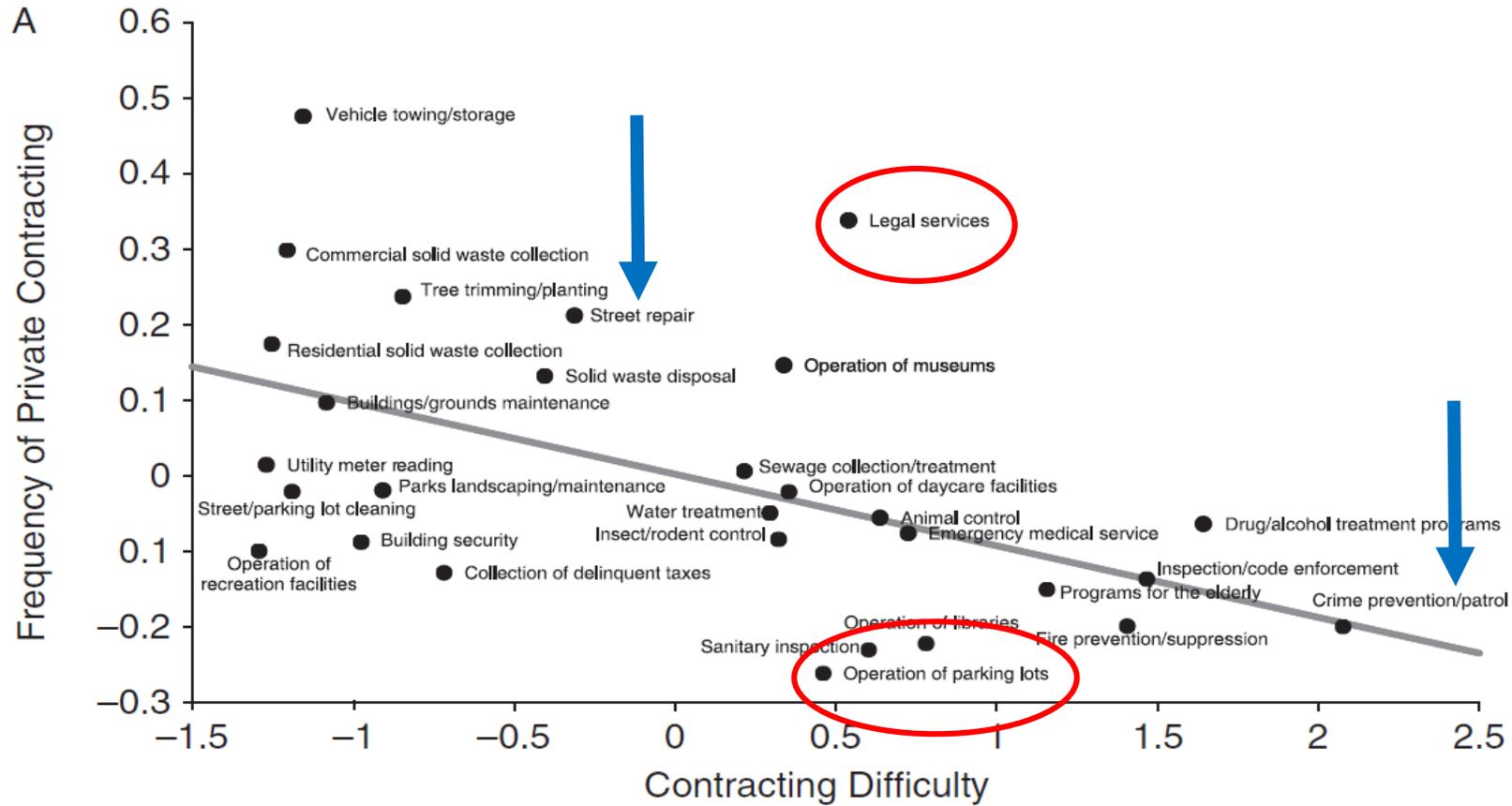


Figure 1A
Contract Difficulty and Private Contracting

Result n. 1

- Services for which it is harder [simpler] to write and administer performance contracts are less [more] likely to be “privatized” (i.e. procured, outsourced).

*«Contracting For Government Services: Theory And Evidence From U.S. Cities», Jonathan Levin and Steven Tadelis, Journal of Industrial Economics, 2010. Survey on 1043 US cities.

Result n. 2

- “Large cities make the greatest use of privatization, and are the least likely to provide services in-house”. (economies of scale effect?)
- “The smallest cities are the most likely to contract with other public agencies, perhaps to take advantage of economies of scale.” (or information or market power?)
- “Cities with higher debt burdens are more likely to privatize in order to cut costs. Cities that privately contract 10% more of their services spend about 3% less per capita.” (at the expense of?)

*«Contracting For Government Services: Theory And Evidence From U.S. Cities», Jonathan Levin and Steven Tadelis, Journal of Industrial Economics, 2010. Survey on 1043 US cities.

P.S.: economies of scale = savings?

«Speculation»: the Perimeter of Procurement is expanding

High debts, public finance constraints/shocks, globalization: they should generate more focus on savings and therefore we should see more outsourcing and mechanisms generating economies of scale [aggregation with Central Purchasing Bodies and Joint Procurement initiatives].

Everything else equal this shift to contractualization may have risks/negative implications for quality.

Policy hint:

To “compensate” for this trend, better performance measurement, more flexibility, more SME concern, and less potential for holdup in procurement are needed. How?

Lowering contractual costs

1

Better performance measurement

Technology (example of GPS in local transport: measuring time of transportation; frequency of service; waiting periods at the bus stop) and competence.

Lowering contractual costs

2

More flexibility

A different role for the rule of law?
More discretion (more competence,
more accountability).

Lowering contractual costs

3

Less potential for hold-up

Less asymmetric information (more competence), guaranteed performance schemes, greater role for reputation of suppliers, more cooperation with suppliers, more competition, more attention to anticorruption.

Lowering contractual costs

4

Expanding Participation

allowing for criteria that help SMEs to participate when procurers «go large».

Summming Up: if procurement has to expand, organizations have to change

If the world out there changes, «forcing» optimally more procurement, everything else equal, this may have negative implications for efficiency/quality.

Something has to change in procurement too.

One policy hint:

Organizational reform should allow for less rules and more «independence with accountability» of procurer and possibly require...

First (interim) conclusion – Virtuous circles?

- a) Technology developments in contract monitoring of performance, flexibility in the law and competence developments, which may make the optimal share of (public) services to be delivered through procurement processes further rise through more quality;
- b) Shareholder involvement (Civil society), organizational reform & data development toward transparency and accountability may make the optimal share of (public) services to be delivered through procurement processes rise wmq;
- c) ... If innovative procurement is a by-product of this organizational change, then we should also expect the number of (Public) services provided to expand (thanks to innovative procurement).

But, the optimal contract... might differ from the real one

Agency problems

Self-interested decisions by bureaucrats, politicians and firms (political patronage, favoritism, nepotism) drive away from optimal* contract.

* goal?



What, Where, Who, How?

What is Procurement [Public too]

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What is Procured? Pencils, Tunnels and...?

- In some cases, what is procured is the actual development and/or delivery of the policy outcome, e.g. a **PPP** hospital (or jail) providing public health (security and re-education): the market provides the solution and delivers it to citizens.
- In other cases, what is procured is partly unknown (input vs. output): I pay you if you provide me with a solution that allows for hospital patients to be transferred across rooms with little “collateral damage”: the case of the “flying beds”. **Innovation.**

How is Procurement?

- “Typically, conducting the *bidding process* itself is **costly**. Competing firms must bear significant bid-preparation and documentation costs. The buyer ... incurs similar costs in evaluating bids and selecting a firm (or firms). Thus, contractors are quick to point out the risks they bear when the **bidding competition** is open to a large number of firms. Each firm typically devotes significant resources to the bidding competition but has a relatively small chance of winning the contract.” (Samuelson, 1984)

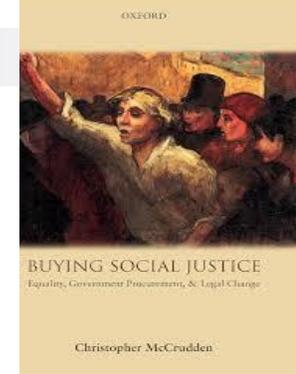
Where is Procurement?

- How procurement contributes to [Government's policies and] the organization's outcomes may be **indirect** – for example, buying office supplies - or more **evident** when [politicians/well-educated citizens] shareholders/customers see such outcomes, e.g. shop-furnitures [school buildings and roads].
- Procurement, when not on the phone or on paper, can occur on publicly accessible platforms (E-Bay), privately outsourced platforms (Bravo Solution for the London Olympic Games), Government-owned (CPBs) or privately-owned platforms. **E-procurement**

Who Procures in an Organization?

- Centralized Units (on the rise?)
- Decentralized Units
- Hybrid Units/Arrangements

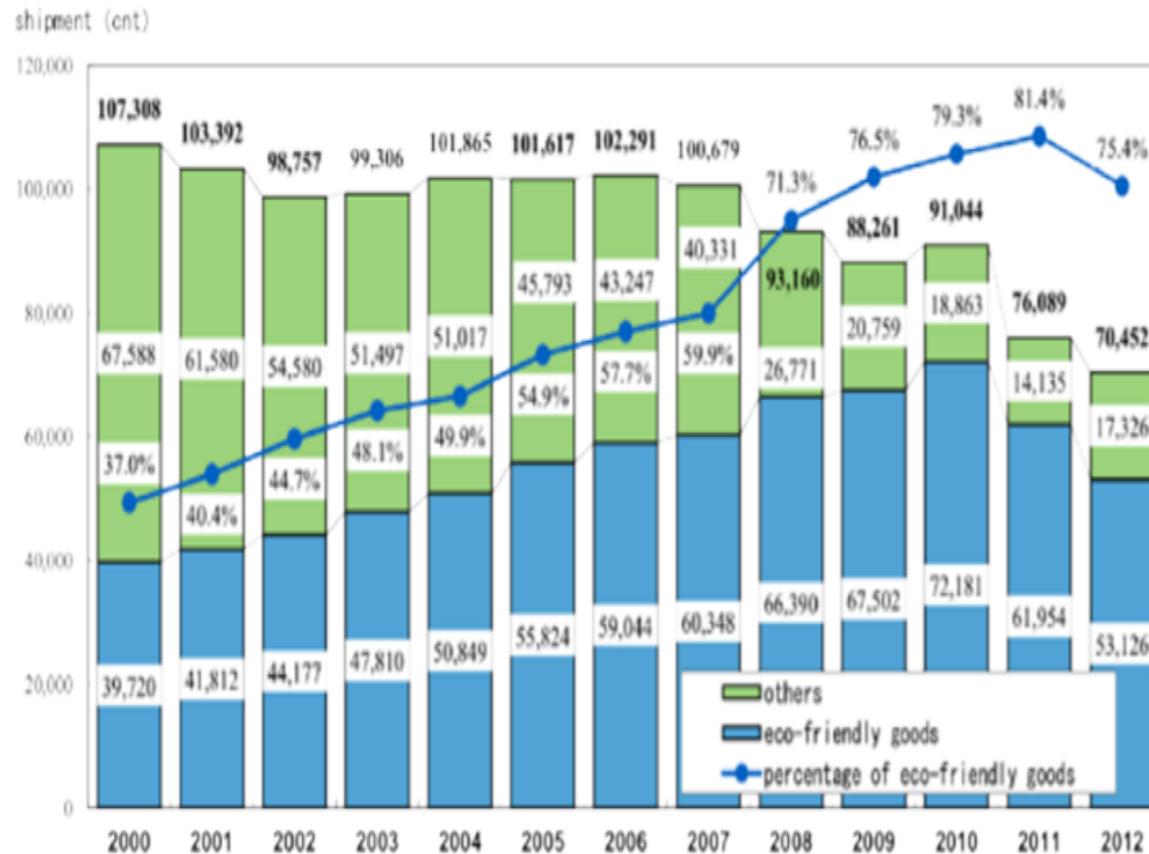
Who do we Procure from



- [Public] procurement affects a large part of what is demanded in a given country to the private sector (national and international; small or large firms) and NGOs, thereby **helping** those actors to encounter favorable opportunities where to sell, display talent, produce *innovation* but also **forcing** them to adapt to new or specific standards that maybe would not have arisen otherwise (imagine green products) or new claims/rights (imagine minimum wage in a contract, percolating to the labor market at large, or human rights **protection**).
- Industrial policy? “Buying” Social Justice? Sustainable PP?

Who do we Procure from

Development of eco-friendly fluorescent lamps in Japan following a dramatic public procurement shift in 2000 to purchase that product



Who do we Procure From

Inclusion of **labor and human rights dimensions** in public procurement enables the tender specifications, and the contractual commitment of the selected supplier, to function as an instrument for extending the effectiveness of labor and social policy, such as, for example, **in respecting the rights of the child or temporary workers.**

The inclusion of respect for labor and human rights can be more naturally applied to first-tier suppliers and then cascaded down to sub-contractors, both at home and abroad, to support national policy objectives and fulfilment of international commitments. It is clear that enforcement of policy considerations in public procurement that promote labor and human rights is **a meaningful factor in promoting achievement of particular SDGs** (such as SDG 8.7, 12.7 and 16.3).

Example. Who do we Procure from in EU

“Broad measures addressing the economic operator as a whole (e.g., requiring the company to have a human rights policy or equal pay among all staff) cannot be required. A public authority can require that all supplies which the authority purchases are produced in accordance with, for example, Fair Trade labelling, but not that all the supplies produced by the economic operator, including supplies not produced for the contracting authority, shall be made according to such a standard.

This requirement limits the potential to use public procurement to fully implement the UNGPs* and include measures to require, for example, that economic operators implement human rights protections and undertake human rights due diligence across the full breadth of their operations.”

** Guiding Principles on Business and Human Rights*

[https://www.humanrights.dk/files/media/document/EU-RegulatoryMeasuresExplainer EN april2024.pdf](https://www.humanrights.dk/files/media/document/EU-RegulatoryMeasuresExplainer_EN_april2024.pdf)

Example. Who do we Procure from

“However, over ten years since the adoption of the UNGPs, **little progress** can be registered in terms of using procurement to protect, facilitate, and promote human rights throughout the **supply chain**.

After twelve years of United Nations Guiding Principles on Business and Human Rights, a handful of good practices are **not enough.**”

(La Chimia, 2024, *The Economics and Law of Public Procurement: New Global Scenarios*, Routledge)

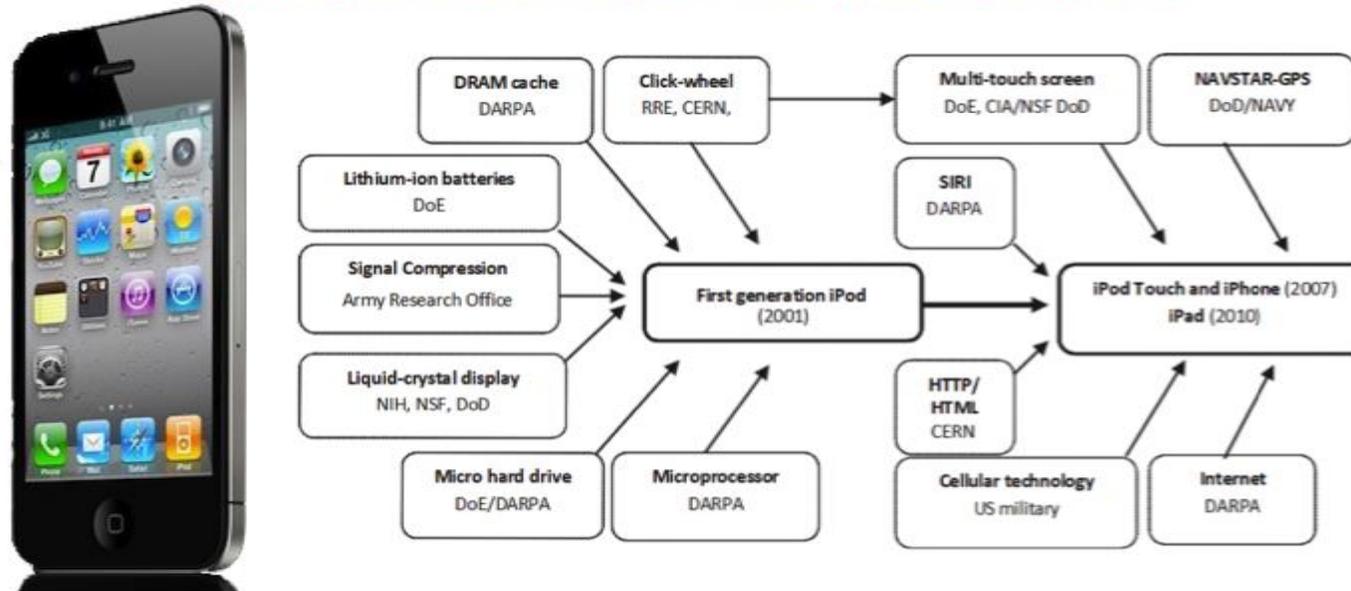
Who do we Procure From

The review showed that public buyers via **SPP** can exert what institutional theory (Di Maggio & Powell, 1983; Scott, 2008) refers to as coercive and mimetic pressures over its suppliers, which encourage them to transfer sustainable supply chain management practices within their supply chain. The effectiveness of these pressures however depends on contextual **factors**, including **buyers' capabilities** to integrate in the tender and then in the contract SPP requirements that are clear, specific, and that will be followed upon in contract monitoring and verification phases. Whereas on the supplier side, the **reputational risk** and the profit loss are the identified drivers that make the global firm reactive to those pressures. Global suppliers will be better able to enforce the required sustainable supply chain management practices when they actively bridge their cultural and geographic distance with their sub-suppliers located in emerging and developing countries through **collaborative practices** (e.g., suppliers development activities). Valentina Bianchini (2022)

Do private firms procure from the public sector? Where does the i-Phone Come From?

- https://www.youtube.com/watch?v=_FDUzBt12X0

What makes the iPhone so 'smart'?





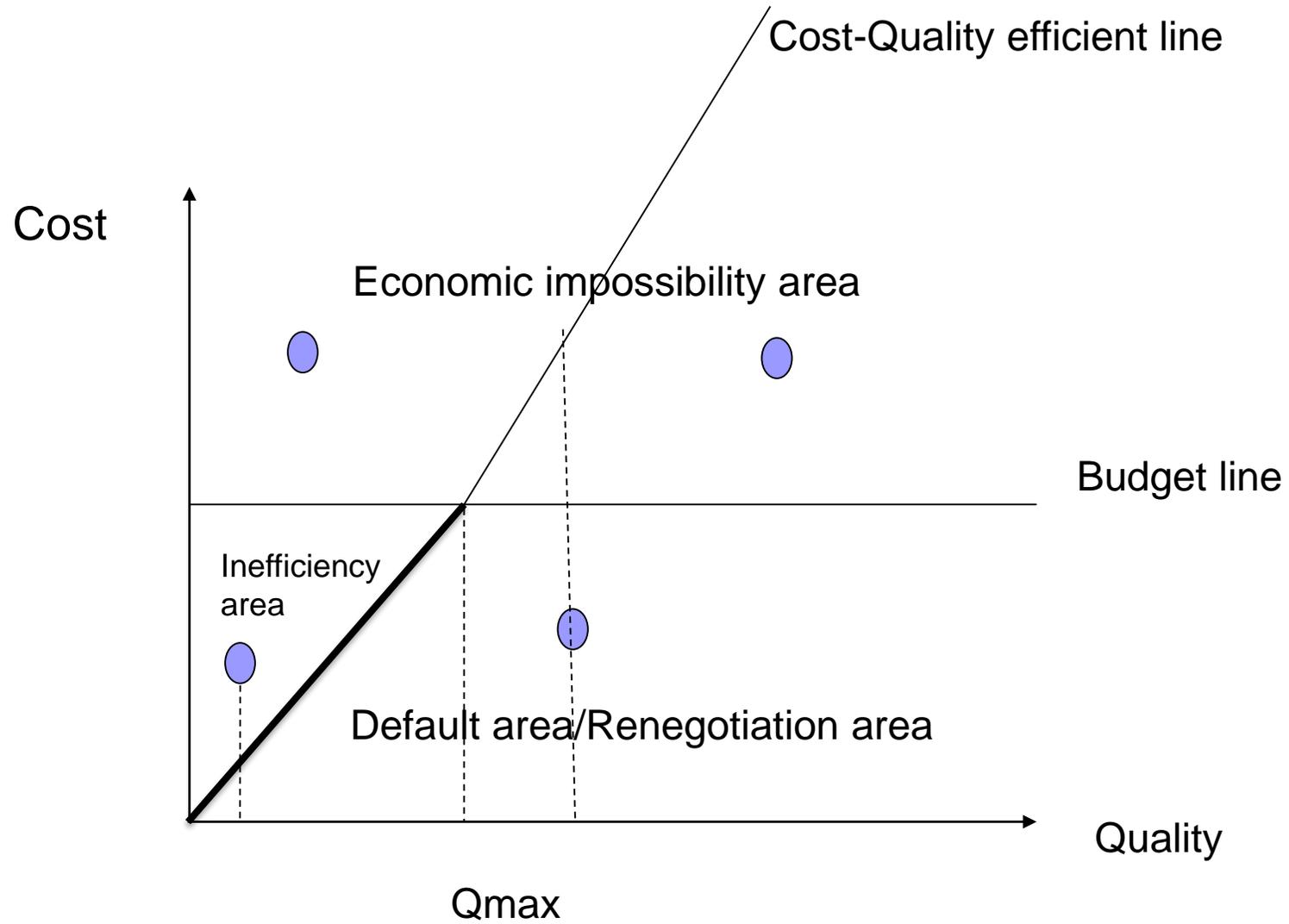
PUBLIC PROCUREMENT GOALS

What is Public Procurement about

- Effective **public** procurement in society, requires **several strategic** undertakings.
- Policy-makers are thus forced to face three equally relevant questions: “how to buy”, “what to buy” and “who to buy from”.
- These are questions asked in **private** procurement too but with lesser concern for other stakeholders.

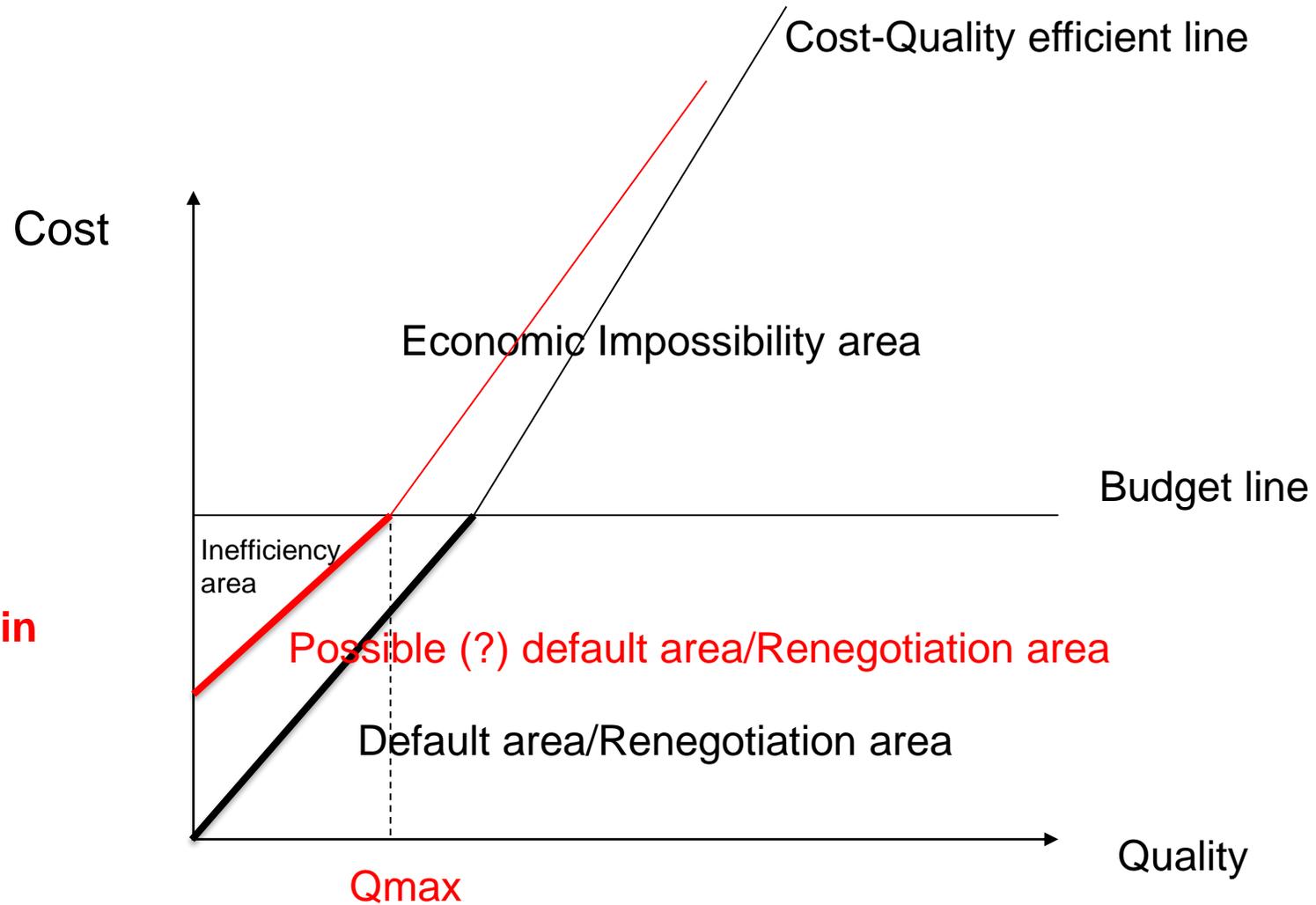
What is Public Procurement about? Traditionally...

- The purchase of goods, services and works by the public sector in many ways can be **compared** to the equivalent process within private sector firms. Indeed, it requires on the part of who buys a need to be **efficient** and **effective**.
- As much as the procurement function has become **strategic** in contributing to a private firm's competitiveness in a globalized world, so a well-functioning public procurement can go miles in contributing to the **policy effectiveness** of government in modern society.



Efficiency

An increase in cost due to cartels



Cartel impact on choices

What is [Public?] Procurement about? Value for Money?

«The effective, efficient, and economic use of resources, which requires an evaluation of relevant costs and **benefits** along with an assessment of risks, nonprice attributes, and/or total cost of ownership as appropriate.»

Asian Development Bank

<https://www.adb.org/sites/default/files/procurement-value-money.pdf>

What is [Public?] Procurement about? Evolution (and Complexity)

Framework of Public Procurement Values

? →

Goals	Values
Regulatory Goals	
Propriety	Conduct, behaviour and corporate governance
Transparency	Requirements and procedures are open
Commercial Goals	
Economy	Cost reduction
Efficiency	More for the same price; same for less
Socio-economic Goals (bundles of values)	
Social welfare	Equality, protection of minorities, sustainability
Public value	Trust, legitimacy, equity, ethos and accountability

PS: private sector framework?

What is Public Procurement about?

More and more...

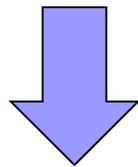
One of the seventeen **SDGs**, i.e. **12.7**, which the global community is collectively committed to realize by 2030, seeks to achieve ‘responsible consumption’ through eco-friendly production and consumption. That SDG specifically targets **the promotion of public procurement practices that are sustainable, in accordance with national policies and priorities**. A related SDG, i.e. SDG **16.6**, aims to develop effective, accountable, and transparent institutions at all levels. Improvements in transparency and accountability play an integral part in enhancing the quality of delivery of public procurement at national, regional, and global levels.



Sustainable Public Procurement (SPP)

“Promote public procurement practices that are sustainable, in accordance with **national policies and priorities**”.

Art 12.7 (SDG 12 - Responsible consumption and production)



Sustainable Public Procurement
SPP
Economic, Social and
Environmental



What is Public Procurement about OECD (2015), an example

- “**Primary** procurement **objective** refers to delivering goods, (**works**) and services necessary to **accomplish government mission** in a **timely, economical and efficient manner;**”
- **Secondary (? , Piga) policy objectives** refers to any of a variety of objectives such as sustainable green growth, the development of small and medium-sized enterprises, innovation, standards for responsible business conduct or broader industrial policy objectives, which governments **increasingly** pursue through use of procurement as a **policy lever**, in addition to the primary procurement objective”

<https://www.oecd.org/gov/public-procurement/OECD-Recommendation-on-Public-Procurement.pdf>

What is Public Procurement about Evolution of Value?

- “Current legal frameworks for procurement were dominantly developed for the core objectives of trade facilitation. **Development of countries was seen as secondary by product.**
- It is now well-recognized that public procurement is a complex activity because the process of government purchasing is animated by a varied matrix of national (and in many cases sub-national) policy objectives. The **balancing act** therefore needs to start with the **objectives** of public procurement and should first and foremost be seen from a **country perspective** and **secondly** from a trade and international perspective”.

What is Public Procurement about Evolution

- Value for Money.
- “At the core of any public purchase of goods or services is whether such transaction provides optimal value for money (VfM) for the ultimate end-users of those goods or services **within the context of the applicable set of country-owned socio-economic and cultural priorities.**
- VfM at the most basic level means the acquisition of goods, works or services needed by a public purchaser on the best available terms (=money) **within the country’s identified core values of the procurement function (=value).”**

Similarities and differences

Table 1. Similarities and differences between sustainable public procurement (SPP) in the European Union (EU) and Sub-Saharan Africa (SSA).

	EU	SSA
Main determinant of what SPP practices are feasible	EU directives on public procurement	National agenda as set out in national legislation
Bias/dominant dimension of SPP	Environmental	Social
Scope of social dimension	Labor rights	Equality Social justice Human rights
Level at which social considerations are relevant	National context and increasingly in international value chains	National context
Instruments utilized to implement SPP	Bid criteria	Set-asides/reservations Award preferences
Major limitations on introducing SPP into procurements	Link to the subject matter of the contract	Empowering statutory framework
Drivers of SPP adoption/extension	National and municipal initiatives	Ad hoc national pilot projects, mostly externally initiated



Stoffel, T., Cravero, C., La Chimia, A. and Quinot, G. “Multidimensionality of Sustainable Public Procurement (SPP)—Exploring Concepts and Effects in Sub-Saharan Africa and Europe” (2019) 11:22, 6352 Sustainability, 1-23 <https://doi.org/10.3390/su11226352>



From Goals to Impact?

UNEP Factsheets from 2017 to 2022 (from 40 to 45 countries)

2017

«Resources invested each year»:

23 countries answered with some data, 8 had no data, 9 did not respond

SPP IMPLEMENTATION ACTIVITIES

Implementation of the SPP policy(ies):

The Ministry of Planning, Budget and Management is responsible for the formulation and promotion of policies and guidelines for the sustainable management of materials, products, services and works.

Resources Invested each year:

Currently, the Ministry of Planning, Budget and Management only has one staff exclusively dedicated to sustainable public procurement.

From Goals to Impact?

Factsheets from 2017 to 2022 - From 40 to 45 countries

2022

«Aspects Monitored: Number of staff dedicated to sustainable procurement»:



2 flagged it, 30 did not, 13 removed it

No quantitative information
(but for 1 country)

A Little (tentative) History of procurement's evolution globally (with no flags)

	Effective checks	Ineffective checks
Discretion		
Rules		

A Little (tentative) History of procurement's evolution globally (with no flags)

	Effective checks	Ineffective checks
Discretion		Early stages of development Corruption pervasive and lack of competence High Costs, Low Quality No Planning
Rules		

A Little (tentative) History of procurement's evolution globally (with no flags)

	Effective checks	Ineffective checks
Discretion		<p>Early stage of development</p> <p>Corruption pervasive and lack of competence</p> <p>High Costs, Low Quality</p> <p>No Planning</p>
Rules		<p>Advanced stages of development</p> <p>Corruption declining, greater competition</p> <p>Medium Costs, Low Quality</p> <p>Rules as Planning</p>

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A Little (tentative) History of procurement's evolution globally (with no flags)

	Effective checks	Ineffective checks
Discretion		<p>Early stage of development</p> <p>Corruption pervasive and lack of competence</p> <p>High Costs, Low Quality</p> <p>No Planning</p>
Rules	<p>Industrialized countries</p> <p>Corruption less relevant than waste from incompetence</p> <p>Medium Costs, Medium Quality</p> <p>Execution as Planning</p>	<p>Advanced stage of development</p> <p>Corruption declining, greater competition</p> <p>Medium Costs, Low Quality</p> <p>Rules as Planning</p>

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ENGINEERING

A Little (tentative) History of procurement's evolution globally (with no flags)

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	Effective checks	Ineffective checks
Discretion	<p>Service-intensive countries</p> <p>Competence and probity</p> <p>Low Costs, High Quality (sustainable)</p> <p>Organization and Competence as focus of Planning</p>	<p>Early stage of development</p> <p>Corruption pervasive and lack of competence</p> <p>High Costs, Low Quality</p> <p>No Planning</p>
Rules	<p>Industrialized countries</p> <p>Corruption less relevant than waste from incompetence</p> <p>Medium Costs, Medium Quality</p> <p>Execution as focus of Planning</p> <p>ENGINEERING</p>	<p>Advanced stages of development</p> <p>Corruption declining, greater competition</p> <p>Medium Costs, Low Quality</p> <p>Rules as focus of Planning</p>

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A Little (tentative) History of procurement's evolution globally (with no flags)

Administrations	Law only	Interdisciplinary (and intersectoral)
Universities		
Interdisciplinary (and intersectoral)		New stage
Law only	First stage	



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What is Public Procurement about

- “how to buy”: 0) via paper or e-proc or AI? 1) via MEAT (most economically advantageous tender) or lowest price? 2) very transparently, or less so? e.g.: via auction or negotiation?*
- “what to buy”: e.g. green, a concern for the environment or innovative, a concern for growth;
- “who to buy from”: e.g. SMEs, minorities, people with disabilities, war veterans ... a concern for justice.

*How to Buy?

“While **auctions** are supposed to ensure transparency, selection of the lowest cost bidders by benefiting from competition and prevent biased awarding of contracts, it may have some undesirable **self-selection** consequences and fail to respond optimally to **ex post adaptation**. On the contrary, **negotiations** may easily be suspected of corruption and favouritism but in the same time these “relational” contracting modes allow **public** buyers and suppliers to spend more time discussing ex ante the characteristics of the project to be delivered, and the appropriate design of the contract thereby reducing the risk of ex post opportunistic haggling.

Hence, according to this literature, the trade-off between auctions and negotiations in procurement is assumed to depend on (1) the buyers’ level of expertise and competencies regarding the organization of competitive tendering, (2) the potential for competition, and (3) the level of complexity of the project to be procured”. (Chong et al., 2010).

Also to be considered: The Toyota effect and the issue of reputation?

What is Public Procurement about

- “how to buy”: 0) via paper or e-proc? 1) via MEAT (most economically advantageous tender) or lowest price? 2) very transparently, or less so? e.g.: via auction or negotiation?*
- “what to buy”: e.g. green, a concern for the environment or innovative, a concern for growth;
- “who to buy from”: e.g. SMEs, minorities, people with disabilities, war veterans, HR responsible suppliers ... a concern for social justice, protection. Or buy ... nationally? A concern for protectionism.

Buying AI

“You are not alone. Across the country, state and local governments are experimenting with AI tools that outsource important government decisions to private companies, all without public input or oversight.

These systems assign children to schools, inform medical decisions about patients, impact policing decisions about where to patrol and whom to target, and determine who receives public benefits. And they do this all using products and services developed by private companies like Thomson Reuters, Deloitte, and LexisNexis. In other words, an increasing number of important government decisions are being made by private companies’ AI systems.”

Outsourced & Automated

<https://epic.org/outsourced-automated/>

What is Public Procurement about

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Buy... American

The screenshot shows a web browser window displaying a news article from Global News Canada. The browser's address bar shows the URL <https://globalnews.ca/news/7597523/biden-buy-american-canada-2/>. The page features a navigation menu with categories like World, Canada, Local, Politics, Money, Health, Entertainment, Lifestyle, Watch, Perspectives, and Sports. The main content area displays a video player with a still image of Joe Biden at a podium. Behind him is a blue backdrop with the Presidential Seal and a circular logo that reads "THE FUTURE WILL BE MADE IN AMERICA". The Global News logo is visible in the bottom right corner of the video frame. Below the video, a caption reads: "WATCH: Biden signs executive order enacting 'Buy American' plan. – Jan 25, 2021". To the right of the video, there is a small thumbnail for another article titled "hospitals. But can they?". Below the video player are social media sharing icons for Facebook, Twitter, and Email, along with a plus sign for more options. At the bottom of the page, there is a "RICHIEDI ONLINE" button and a "Cookie Consent" notification. The Windows taskbar at the very bottom shows the search bar with the text "Scrivi qui per eseguire la ricerca", several application icons, the system tray with a temperature of 18°C, and the date and time: 08:18 on 14/09/2021.

<https://globalnews.ca/news/7597523/biden-buy-american-canada-2/>

Public Procurement: «Never» so Politicized

*“We have to make full use of and significantly accelerate existing EU instruments, from important projects of common European interest **to the role of public procurement**”.*

Emmanuel Macron and Olaf Scholz, Financial Times, May 27, 2024

The Politics of Public Procurement

«Les règles du jeu ont changé. Les deux premières puissances internationales ont décidé de ne plus respecter les règles du commerce... Il nous faut une **préférence européenne** dans l'achat de matériel militaire...»

Emmanuel Macron, Université Sorbonne, April 25, 2024

«But in the absence of such a centralised approach, we can achieve a lot by coordinating public procurement policies more closely and applying **more explicit local content** requirements for EU-produced products and components.»

Mario Draghi, Acceptance Speech at the Monastery of San Jeronimo de Yuste (Spain, 14 June 2024) for the Carlos V European Award.

The recent Draghi report

Word procurement? 20 times! (12 times for defense).

“Between mid-2022 and mid-2023, 78% of total defence procurement spending went to non-EU suppliers, out of which 63% went to the US”

«At the national level, to ensure predictable demand for the EU clean tech industry and to offset trade distorting policies abroad, the report recommends introducing an explicit minimum quota for the local production of selected products and components in public procurement ... and other forms of local production offtake. ... For “infant industries”, it is recommended that Member States plan upcoming auctions and public procurement procedures to act as a “launch customer” for new technologies»

https://commission.europa.eu/document/download/97e481fd-2dc3-412d-be4c-f152a8232961_en?filename=The%20future%20of%20European%20competitiveness%20_%20A%20competitiveness%20strategy%20for%20Europe.pdf

The Politics of Public Procurement

The words competitiveness and markets mentioned...

11 times

The words employment, unemployment, wages, social mentioned...

Zero times

The word environment too.

Procurement and democracy?

“Macron and Scholz: we must strengthen European sovereignty”

<https://www.ft.com/content/853f0ba0-c6f8-4dd4-a599-6fc5a142e879>



BARGAINING POWER IN PUBLIC PROCUREMENT

How Large is Public Procurement

- Government expenditure for purchases of goods, services and works (public procurement) is a key component of national income and well-being. World estimates (OECD) see procurement as approximately 15% of GDP; while across the European Union expenditure on goods, services and works currently (2015) represents 14% of GDP (excluding the utilities) on average (<https://ec.europa.eu/docsroom/documents/20679/attachments/1/translations/en/renditions/native>) and, at the end of the century, the 106 developing countries' procurement markets amounted to 13.9 percent of the total worldwide procurement spending.

How many Procurers in each Sector?

- Governments may be monopsonists or the biggest purchaser (e.g. in health, education and military), but relatively small in terms of other markets (e.g. cookies (for soldiers)).
- Similarly, some (large) private firms can be monopsonists (Amazon?). Or sometimes small firms (Chinese restaurants in Rome alone buy dumpling paste in Rome).

What Bargaining Structure in each Sector?

- We can have a State which is Monopsonist, with a large power to set market rates (e.g **temporary** nurses and teachers) and prices in some sectors, or a State which is almost a price-taker in others (IT hardware, food etc.).
- Sometimes a bilateral monopoly (submarines) occurs or, when facing an oligopoly (phone services/medicines): intermediate situations (depending on centralization or not in the public). Issue of bargaining power.
- Analogous cases can apply for large private firms (less for small ones).

Bargaining Structure, Partnership and Procurement Outcomes: Covid

UK vs. EU: a very different negotiating approach.

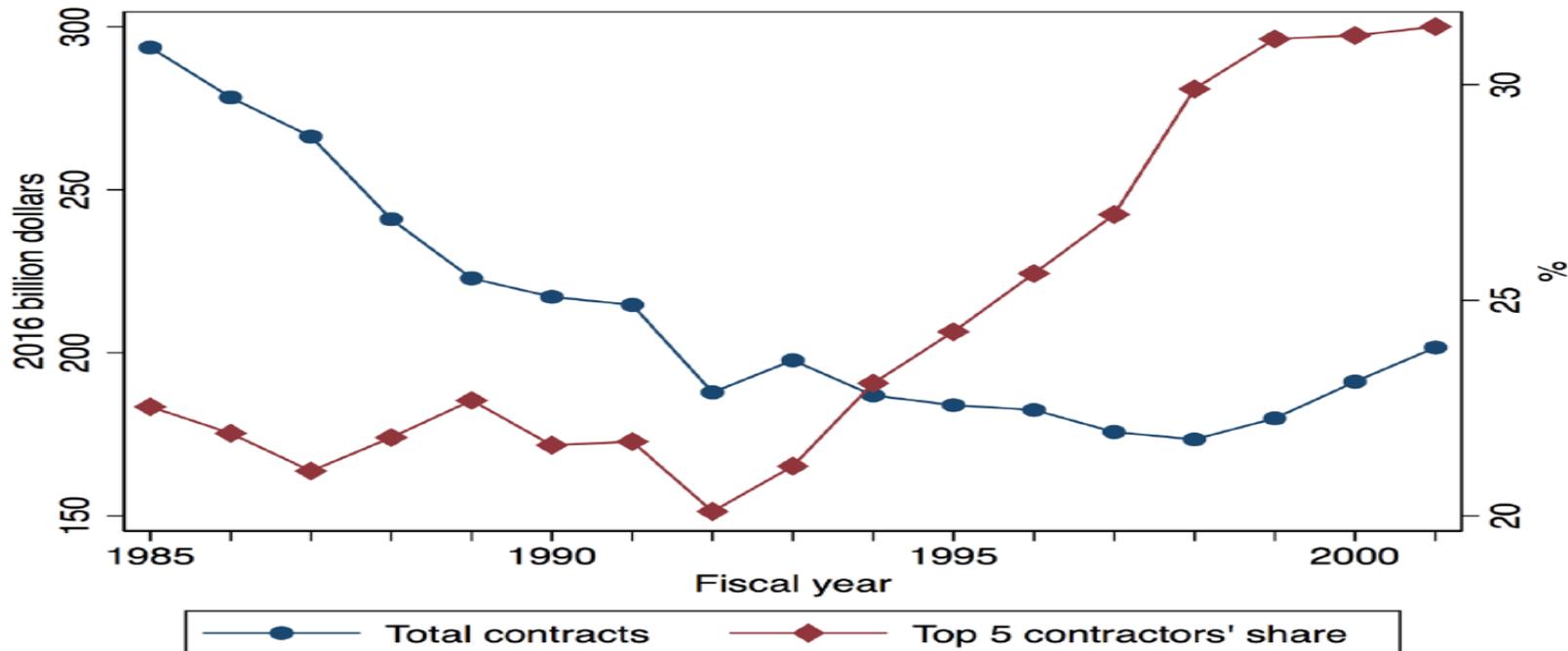
“The first thing is to be partners, not adversaries. And that is very unlike normal government **procurement**, which is all about how you can get the cheapest price. . . There’s a partnering mindset that is very different from what’s normal in government”.

“Europe’s first deal, with AstraZeneca, came in August, months after the United States. And while Europe negotiated as a powerful buyer, it lacked the wartime **procurement** powers that the Trump administration had used to secure raw materials for companies”.

<https://www.ft.com/content/8d9edc58-7922-496a-942f-5360bfe84876>
<https://www.ft.com/content/8d9edc58-7922-496a-942f-5360bfe84876>
<https://www.nytimes.com/2021/03/20/world/europe/europe-vaccine-rollout-astrazeneca.html>

Market Structure, Bargaining Power and Procurement Outcomes: a Case Study

Figure 1: Aggregate contract spending and concentration



THE IMPACT OF INDUSTRY CONSOLIDATION ON GOVERNMENT PROCUREMENT: EVIDENCE FROM DEPARTMENT OF DEFENSE CONTRACTING
Rodrigo Carrila and Mark Duggan, Working Paper 25160, <http://www.nber.org/papers/w25160>

Market Structure, Bargaining Power and Procurement Outcomes: a Case Study

«This substantial increase in concentration was largely driven by a series of mergers between defense contractors. In fact, the DoD itself was reported **to have encouraged consolidation** between contractors in the early 1990s, as a response to recent and expected future budget cuts following the end of the Cold war era.

Over the next decade, the share of contract dollars going to the top 5 contractors increased by roughly 50%, with four out of those five contractors being the result of the previously mentioned mergers».

Creating Less Competition in your buyer's market??

THE IMPACT OF INDUSTRY CONSOLIDATION ON GOVERNMENT PROCUREMENT: EVIDENCE FROM DEPARTMENT OF DEFENSE CONTRACTING

Rodrigo Carrila and Mark Duggan, Working Paper 25160, <http://www.nber.org/papers/w25160>

Market Structure, Bargaining Power and Procurement Outcomes: a Case Study

“An increase in HHI of 0.02 (say, generated by the merger of two firms with 10% market share each), would cause the share of noncompetitive or single-bid contract dollars to increase by 7.5 percentage points ($\approx 0.02 \times 3.77$). This would represent an 18% increase given the mean share of 42.1%.

...

We therefore interpret these results as evidence that rises in product market-level concentration caused the procurement process to become less competitive”.

Creating Less Competition in your buyer’s market??

Market Structure, Bargaining Power and Procurement Outcomes: a Case Study

“In March 2009, President Obama signed a memorandum that declared that “sole-source contracts, contracts with a limited number of sources and cost-reimbursement contracts create a risk that taxpayer funds will be spent on contracts that are wasteful, inefficient, subject to misuse, or otherwise not well designed to serve the needs of the Federal Government or the interests of the American taxpayer.” If this association between procurement terms and cost efficiency is correct, then our previous discussion should imply that **consolidation also led to higher procurement costs.**”

Market Structure, Bargaining Power and Procurement Outcomes: a Case Study

Not necessarily. Various effects are at work.

Indeed, firms may have bid less aggressively knowing that there were fewer potential competitors. And the shift to cost-plus contracting may have allowed firms that were awarded contracts to opportunistically push spending higher.

On the other hand, the merged firms might have been more efficient than their predecessors and consequently submitted bids with lower prices. Similarly, government officials may be well-positioned given their significant (current and future) buying power to constrain cost increases.

Market Structure, Bargaining Power and Procurement Outcomes: a Case Study

So, did consolidation lead to higher procurement costs? It did not.

The same increase in HHI of 0.02 that we have considered above led to a **reduction** of 6.5% in spending.

Why?

The government is a monopsonist! Sales to the U.S. government represent approximately 70% of the revenue for the Department of Defense's largest contractor, Lockheed Martin Corporation.

Market Structure, Bargaining Power and Procurement Outcomes: a Case Study

“Did consolidation lead to higher procurement costs? It did not. The same increase in HHI of 0.02 that we have considered above led to a **reduction** of 6.5% in spending.”

Consider the dynamic incentives introduced by the repeated nature of the procurement process.

Contractors would find it optimal to consider not only the profits accruing from their current portfolio of contracts, but also the expected future contracts that they may obtain from the government. To the extent that **reputation** is an important factor in this repeated game, contractors thinking of increasing prices will trade off a short-term profit opportunity against a potentially lower stream of future profits coming from new contracts.

What does Public Procurement do

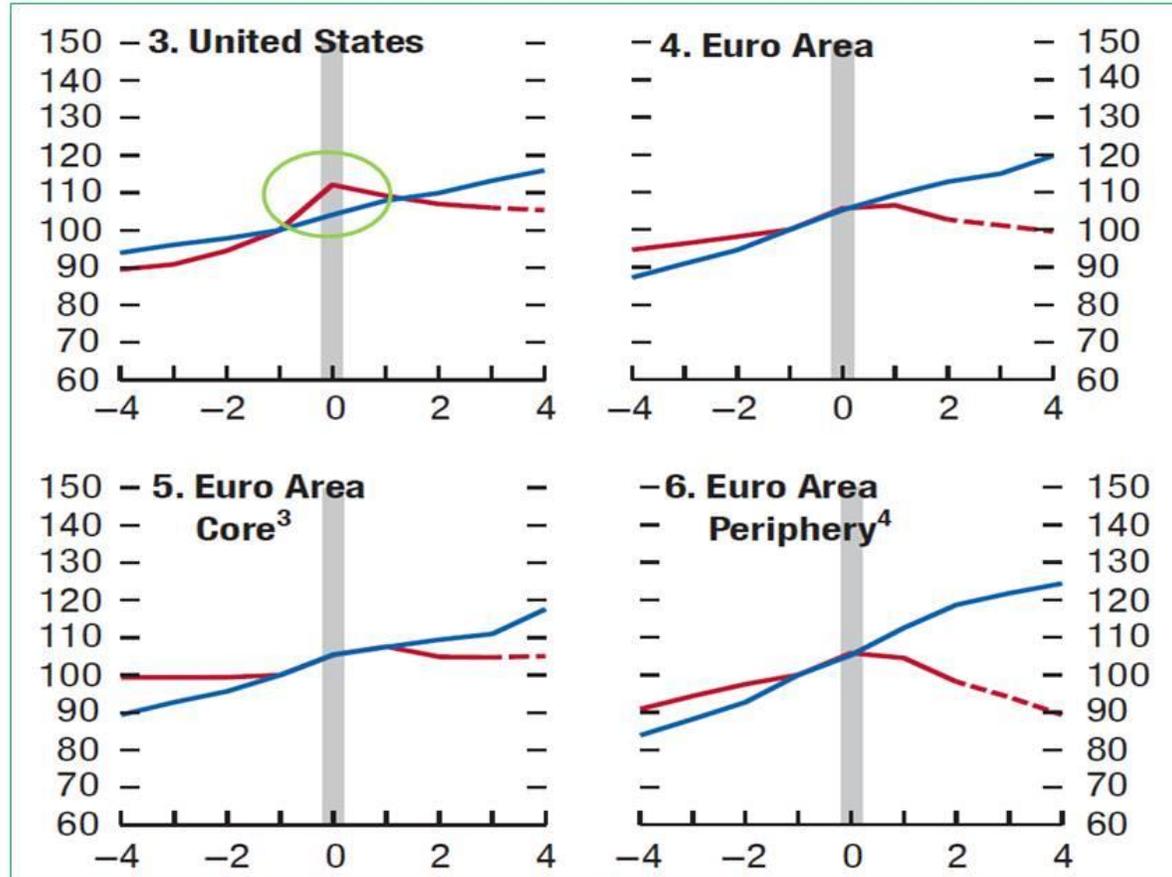
- The size of government purchases also plays a key role during bad times, when it helps smoothing the harshness of business cycles, by declining less than the overall economy, and when it can be used discretionally to revamp an economy in a slump. OECD estimates of the short-term multipliers (impact on GDP) of a 1% increase of government consumption range from +0,5 to 0,9 and from +0,9 to 1,1 for government investment. That is, the percentage effect on GDP, averaged over the first and second year, of a 1% of GDP change in government consumption or investment is likely to be the same or at least half of that.
- “Tax cuts, especially temporary ones, and fiscal relief to the states are likely to create fewer jobs than direct increases in government purchases”, claims the 2009 Obama Administration’ proposal Job Impact of the American Recovery and Reinvestment Plan, that embeds in its analysis similar multiplicative effects of real government purchases.

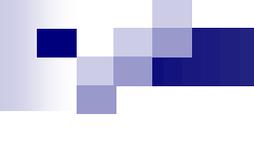
What does Public Procurement do

In the 2008 financial crisis we have witnessed in many countries a vast increase in the use of fiscal deficits to smooth out the global crisis through spending, avoiding the use of financing with higher taxes because of their recessionary impact. And do what with those resources?

Not surprisingly, some governments have turned to using strategically public procurement to exit the swamp.

Not in Europe!





But effective public procurement may be a strategic tool not only to boost demand but also to find resources in times of scarcity.

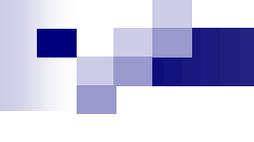
As put by the UK Office of Government Commerce once having exhausted the use of more debt financing: *“since we can’t borrow anymore, we see procurement as the best source of revenue stream... Investing in the function tasked with delivering these (efficiency) targets is a clear **spend to save** business case”.*

- However data show that, over the past decade, Governments are yet to take full advantage of the potential savings embedded in strategic procurement. The UK audit office, for example, shows substantial differences between the highest price and the lowest price of same goods purchased by 121 public bodies.

	Price Range	% Variation
Toner cartridge (per cartridge)	£41 to £89	117
Electricity (day rate kWh)	4.8p to 8.3p	73
Box of 5x500 sheet A4 (80g/m2)	£6.95 to £14.95	115
Post It notes (pack of 12)	£4.41 to £10.55	139



PUBLIC PROCUREMENT: A COMPLEX BALANCING ART



How to foster **efficiency** and **effectiveness** in
procurement?

Buying **what you want**
(quantities, quality, impact, goals!)

at the lowest possible price compatible with
suppliers' capacity to deliver.

«The right stuff from the right people»!

Are we sure this is EASY?

Easy?

Effective procurement: buying the **right°** stuff ...

- ° **pro-curare! Right for whom?**
- ° **At society's level: unbiased by corruption**
- ° **At society's (politics) level: how much green? Social? **Trade-offs?** how innovative? ...**
- ° **At the procurer's level: coherent with specifications, with market analysis, and internal client understanding; not distorted by incompetence**

... from the **right people***.

- * **At society (policy) level: Social preferences? Industrial preferences? ...**
- * **At the procurer's level: dynamically consistent (e.g. vendor rating) ...**

NB: With **Central Purchasing Bodies** often important actors between society(policy) and local procurement level

Easy?

«The Right Stuff from the Right People»

depends also on the **cost** of such choices

(thus on the budget allocation and external constraints like markets (e.g. cartels, etc...) which define the purchasing power of a certain budget...)

At the society (policy-level): How costly is green? And buying from SMEs only? How corrupt is the system?

At the procurer's level: How competent are we (e.g. for innovative purchases)? And how organized? How much corrupt?

Effectiveness presumes Efficient procurement:

buying it also at the right, **minimum, overall** cost

(organizational, transaction, disposal, price + ...)

Short-run efficiency: taking organization, e-proc, competences, corruption as given;

Long-run efficiency: choosing the right level of centralization, e-proc, competences, integrity etc...

Keeping in mind that some «external constraints», like cartels, can be faced both in the short-term with good procurement practices and in the long-run with good institutional reforms.

$$P^s: P^p + \Delta P$$

$$Q^s: Q^p - \Delta Q$$

Key Moments in Procurement

Q^p . **Estimating needs and processes:** handling *product's quality, contract's length, location (lots), (how much and how) centralizing, who to buy from?*

$P^p \times Q^p$. **The tender,** price only. Handling *base price, risky bids, open tender vs. negotiation; sealed bid vs auction etc....*

$P^p \times (Q^p + \Delta Q^p)$. **MEAT** criteria, price and quality. Handling *scoring rules.*

$P^s \times (Q^s)$. **Coherence of quality.** Handling *checks, inspections, fines, KPIs, customer satisfaction.*

$$P^s: P^p + \Delta P$$
$$Q^s: Q^p - \Delta Q$$

Key Moments in Procurement

Q^p . Demand Management.

$P^p \times (Q^p + \Delta Q^p)$. Sourcing .

$P^s \times (Q^p - \Delta Q)$. Supply Management.



**DO NOT
SEPARATE**

*

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Q^s . Demand Management.

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$P \times (Q - \Delta Q^e)$. Supply Management.



**DO NOT
SEPARATE**

*

Demand management and market analysis: some procurer's **discretionary** choices

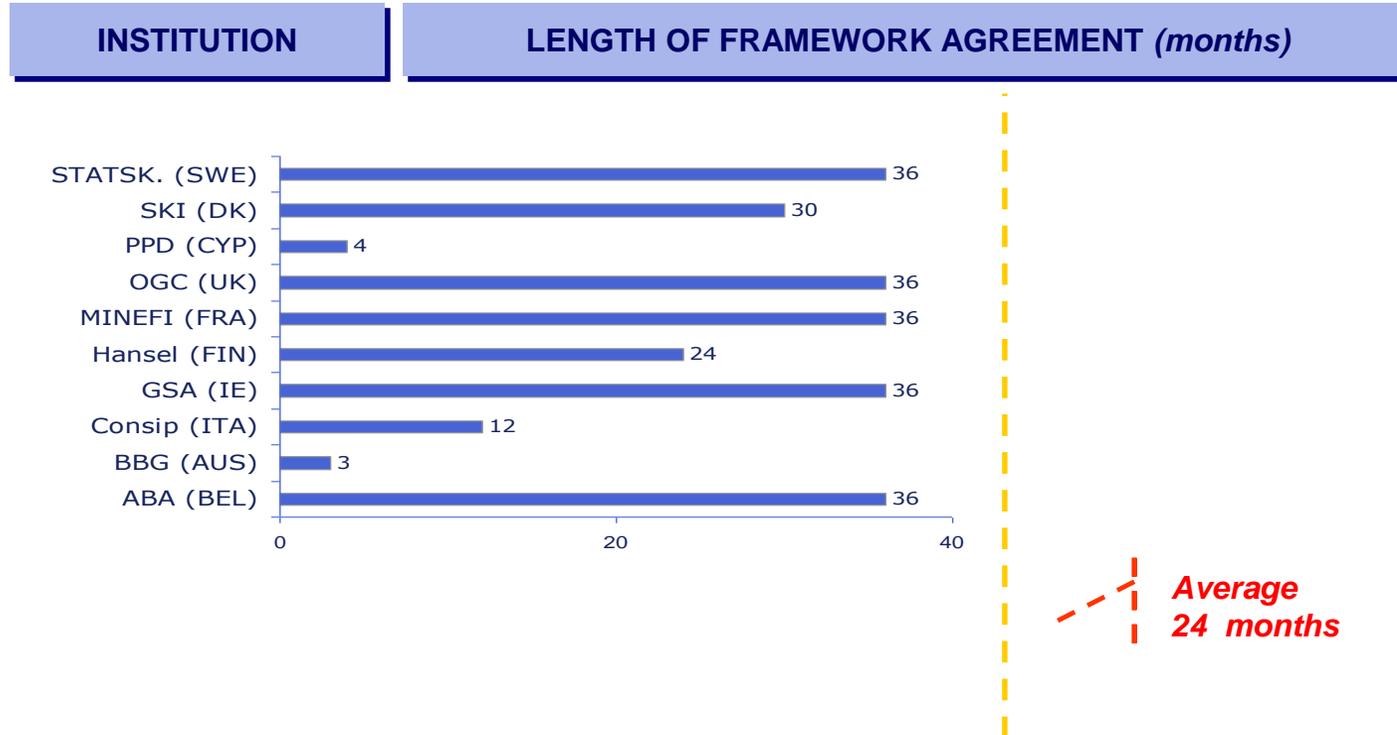
Which contract **length**? Technology matters, economic factors too, but also strategic factors (**cartel vs. lock-in?**)

Over which **space** (lots)? Economies of scale, (dis)economies of scale, strategic factors (**cartel vs. participation?**)

Delegating, how?



Length of Contract of Paper for Printers



The length of the Agreement (same commodity) varies depending on the institution. Why? Do you see a risk of fostering cartel agreements? Or lock-in?

Demand management and market analysis: some issues

Which contract **length**? Technology matters, economic factors too, but also strategic factors (**cartel vs. lock-in?**)

Over which **space** (lots)? Economies of scale, (dis)economies of scale, strategic factors (**cartel vs. participation?**)

Delegating, how?

Types of Lots

- Geographic (North vs. South)
- Commodity-wise (slow and fast photocopying machine)
- Sometimes with constraints (participation or victory)
- Sometimes divided among incumbents and non incumbents.

Types of Market Structures Matter for Lots Policy

- Monopolistic (patents)
- Cartelized
- Oligopolistic
- Competitive

Collusion

- Imagine having two potential firms (suppliers).
- How many lots?
- One?
- Two?
- Are you not making cartels more likely if you choose two lots? Any reason to do 2 lots that could justify your choice?

Demand management and market analysis: some issues

Which contract **length**? Technology matters, economic factors too, but also strategic factors (**cartel vs. lock-in?**)

Over which **space** (lots)? Economies of scale, (dis)economies of scale, strategic factors (**cartel vs. participation?**)

Delegating, how?

Delegating, How?

- Imagine one large organization (CPB) with 1000 internal clients (IC) that need the product.
- One only tender by CPB (with one or ... 1000 lots)?
- 1000 autonomous tenders by IC, one for each client?

Economies of scale and/or of transaction costs vs.
informational losses

Where is the market knowledge?

A third alternative?



Framework Agreements

A two-stage procedure (for CPBs?):

- first stage, with aggregated amounts, where all or part of the terms of the contracts to be awarded are defined (master contract, framework agreement) **with multiple winners**.
- second stage, where the actual contracts are awarded (specific contracts, task-order contracts, call-off contracts to be awarded only by using a further round of competition, marchés subséquents) among the selected winners of the first stage.

Main goal: To streamline the procurement process for repeated purchases of similar, albeit not identical, supplies/services/civil works.

Pros: Higher administrative efficiency; Higher buyer's bargaining power through demand Aggregation; Low-value contracts more "visible"; Balance between contract standardization and tailoring; **Lower sourcing risk**.

Cons: Potential barrier to entry for smaller vendors; Risk of mismatch between vendors' proposals and buyers' needs; **risk of anticompetitive behavior** both at the award and at the call-off stage.

Delegating, How?

*CPB offer visible **benefits**: for example, by consolidating purchases across a number of purchasing bodies, **significant efficiencies** and simplification can be introduced into the system. Nevertheless, the increasing role of CPBs also carries with it a number of **risks** (e.g. **reduced access for SMEs due to a larger size of contracts**, reduced decentralisation, impact on the supply market, etc.). For these reasons, CPBs should be at the heart of the implementation of our policy.*

EC statement

PS

Then why are contracting authorities in the USA asked to bundle contracts only if savings obtained are greater than a certain threshold? Why is centralization and aggregation there discouraged rather than encouraged?

To be discussed later

Key Moments in Procurement

Q^s . Demand Management.

$P^s \times (Q + \Delta Q^p)$. Sourcing .

$P \times (Q - \Delta Q^e)$. Supply Management.



**DO NOT
SEPARATE**

*



In all tenders, stimulate participation.
Various issues derived from debate with
Antitrust Authority

Two suppliers, one lot. Do you allow or disallow **temporary groups of firms?**

Base Price: do you select it close or distant from market price?

Tender design: one-shot bid or continuously descending bids?

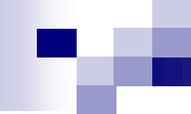
Temporary Groupings

Two suppliers, one lot. Do you allow or disallow **temporary groups of firms**?

Italian Antitrust Authority: only if pro-competitive, to enlarge participation of those who can't on their own. Disallow if firms can compete on their own: waste arising from not disallowing is due to...?

The case of a small Italian firm that tried to and failed to team up with a large firm.

If constraints on consortia are missing in the tender specifications, is it necessarily waste? Or rather a concern for ensuring participation by powerful suppliers?



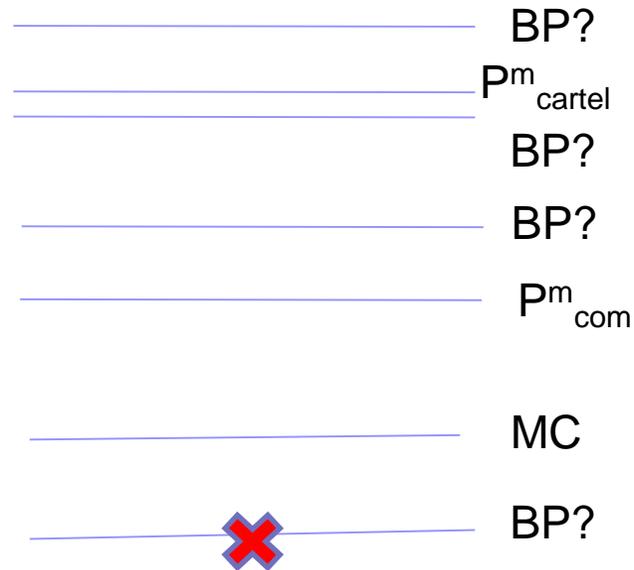
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Base price! Implications for waste



P^m : market price (varies depending on market structure)

BP: base price

MC: marginal cost



In all tenders, stimulate participation.
Various issues derived from debate with
Antitrust Authority

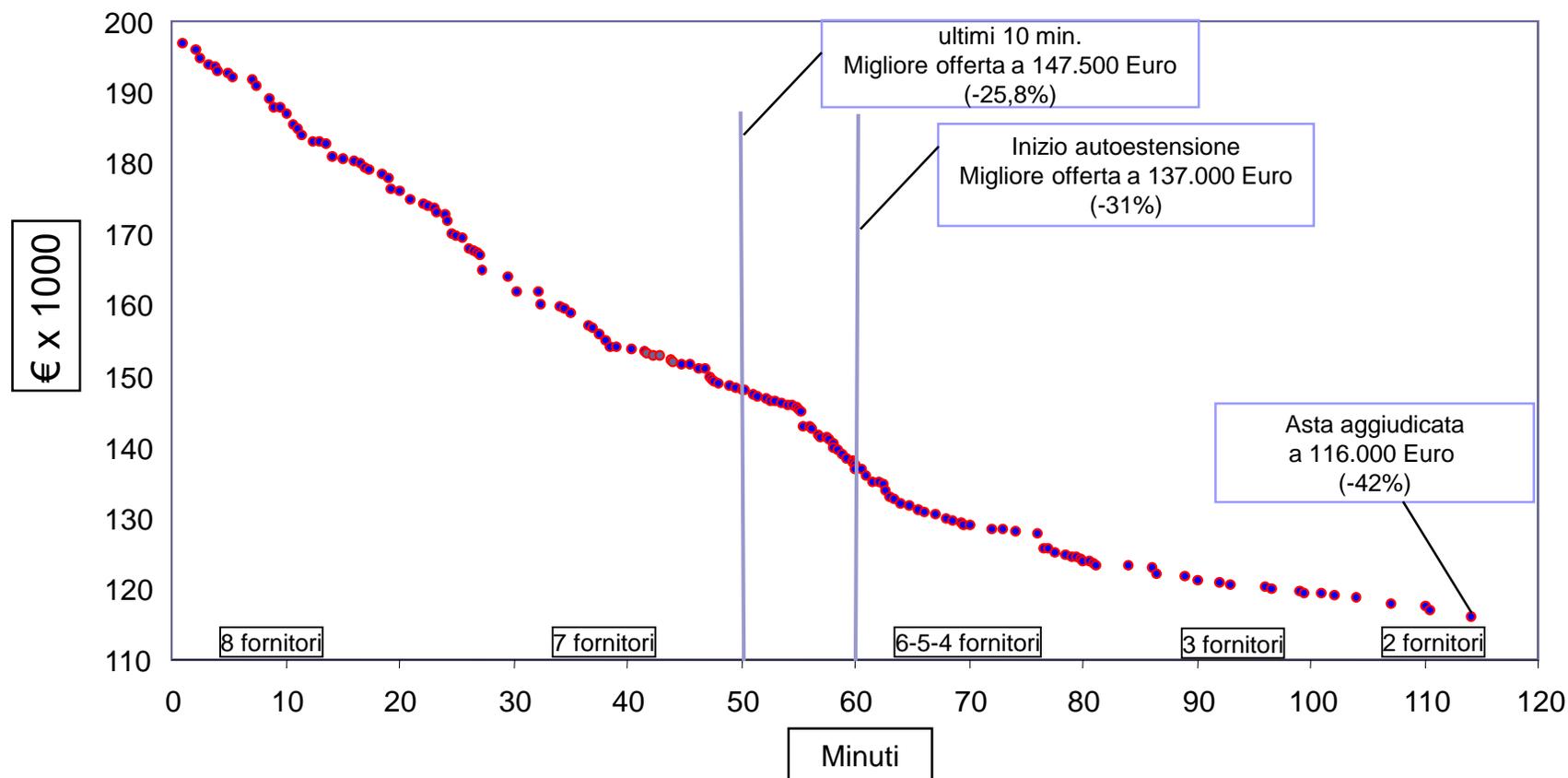
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Do e-auctions generate competition?

Supply Wheelchairs for Persons	Contracting Authority Umbria Region	Base price 199.000 €	Awarded price 116.000 € Euro	Price decrease 42%	N° of suppliers participating 8
--	--	--------------------------------	--	------------------------------	--



Reverse auctions, opposite views

THE PRACTITIONER: “Thanks to electronic tools enterprises make various offers and at the same time see the others’ bids. In this way – already at the psychological level – competition is increased. This in turn leads to better results and savings for the Public Administration. Bidders are masked with a code, which does not allow them to know the identity of others during the tender. In this way the Administration tries to **avoid collusions**” (cited in Magrini, p. 36).

THE THEORIST:

- **ascending auctions remove uncertainty about the value of the good and make firms bid more aggressively.** But online auctions can increase collusion: competitors get to see, in real time, if a cartel agreement is being broken by a defector and have the possibility to retaliate with lower prices. Knowing this, there will be no defection and **collusion will be self-sustained**, causing harm to the Administration;
- the **openness of the format** may scare away small firms that anticipate being easily topped by big firms during the auction.
- Much better would be **a mix of the two methods?** Which one?



SOURCING: FROM WHOM?

Procurement is all about

«Government procurement seeks to balance three **competing (?)** goals of **equity** (fair access to competing bidders), **integrity** (reduction in opportunities for corruption) and **economy** (obtaining goods, services or works required at the lowest possible price)».

https://digitalcommons.law.yale.edu/cgi/viewcontent.cgi?article=2520&context=fss_papers

Why? What is fair? Non discrimination

***Direct discrimination** is when an explicit distinction is made between groups of people that results in individuals from some groups being less able than others to exercise their rights.*

***Indirect discrimination** is when a law, policy, or practice is presented in neutral terms (that is, no explicit distinctions are made) but it **disproportionately** disadvantages a specific group or groups.*

<https://www.amnesty.org/en/what-we-do/discrimination/>

Ongoing direct discriminations, unfair, rarely generate reactions from governments which are usually in favor of such discriminations (e.g., apartheid regime).

Past direct discriminations and current indirect discriminations generate reactions. In procurement too and distinctively. Through the use of **preferences**.

https://ccednet-rcdec.ca/sites/ccednet-rcdec.ca/files/ccednet/pdfs/2004-mccrudden-public_procurement.pdf

Types of preferences (affirmative action)

- * Race
- * SMEs
- * Gender
- * Ethnicity
- * War-veterans
- * People with disabilities
- * Recently in MEAT criteria in EU: young and female-owned firms or employed.
- * And ... local preferences?

Buy... American. PS: direct discrimination or indirect discrimination?

The screenshot shows a web browser window displaying a news article on Global News. The browser's address bar shows the URL <https://globalnews.ca/news/7597523/biden-buy-american-canada-2/>. The page features a navigation menu with categories like World, Canada, Local, Politics, Money, Health, Entertainment, Lifestyle, Watch, Perspectives, and Sports. The main content area displays a video player with a still image of President Joe Biden speaking at a podium. The background of the video still includes the Presidential Seal and a circular logo that reads "THE FUTURE WILL BE MADE IN AMERICA THE FUTURE WILL BE". A "Global NEWS" logo is visible in the bottom right corner of the video frame. Below the video, a caption reads: "WATCH: Biden signs executive order enacting 'Buy American' plan. – Jan 25, 2021". To the right of the video, there is a partial view of another article with the text "hospitals. But can they?". Below the video player, there are social media sharing icons (comment, Facebook, Twitter, Email, and a plus sign), a font size adjustment control (-A A+), and a "Cookie Consent" button. At the bottom of the browser window, the Windows taskbar is visible, showing the search bar with the text "Scrivi qui per eseguire la ricerca", several application icons, and system tray information including the date "14/09/2021" and time "08:18".

<https://globalnews.ca/news/7597523/biden-buy-american-canada-2/>

In all tenders, stimulate participation. Various issues



Large firms

Procurement Law?
Does it «give them
a shot»?

SMEs



*Indirect discrimination is when a **law**, policy, or practice is presented in **neutral** terms (that is, no explicit distinctions are made) but it **disproportionately** disadvantages a specific group or groups.*

SMEs are special

Problems faced by EU bidders, (by bidders size relative to large firms)

The column of totals displays on average which portion of firms interviewed answered “always” or “often”

Potential problems	Micro	Small	Medium	Large	TOTAL %
Over-emphasis on price	1,1	1,0	0,9	1	1,0
Long payment terms	1,4	1,2	1,1	1	1,1
Late payments	1,3	1,0	1,1	1	1,1
No debriefing	1,2	1,0	0,9	1	1,0
Administrative burden	1,5	1,1	1,2	1	1,1
Lack of clarity	1,4	1,0	1,0	1	1,1
Limited options for interaction	1,4	1,0	0,9	1	1,0
Disproportionate financial criteria	2,0	1,2	1,1	1	1,2
Insufficient time to bid	1,4	1,2	0,7	1	1,0
Lack of information on opportunities	1,4	1,3	1,1	1	1,1
Tenders not evaluated fairly	5,3	4,7	8,7	1	6,3
Disproportionate technical criteria	1,4	1,4	1,1	1	1,2
Large contract value	22,0	22,0	5,0	1	7,0
Joint fulfillment of criteria not allowed	2,0	2,0	1,5	1	1,3



Are large contracts the business of large firms only?

Are SMEs Good? So why large contracts?

“We have strong evidence than in many cases SMEs are considerably MORE efficient than large firms, so that the issue of how to involve them in government procurement is one of immediate efficiency, not just a political constraint or a costly investment for the future.

This evidence is under the eyes of everybody: it is the amount of **subcontracting** to SMEs that most large suppliers undertake after they win **large contracts** from bundled procurement. **If the large firms were more efficient than SMEs, they would lose money by subcontracting to SMEs, hence we would only observe subcontracting to other large firms”**

Giancarlo Spagnolo, Second Interdisciplinary Symposium on Public Procurement, Budapest 2014.

Not always?

- The typical problem with directly involving SMEs in Public Procurement is **coordinating their work and ensuring a reliable and constant level of quality**, not risking to pay more. Quality problems and coordination problems are important, they should be taken into account, and they are typically solved well by large suppliers who use subcontracting to them all the time.
- Even though SMEs are often more efficient in production than large firms, **coordination and quality control problems could be large enough to make it preferable for the government to contract with large firms and let them deal with SMEs as subcontractors.**
- Therefore, the problem is: **how do we know** when the difference in production efficiency between large firms and SMEs that could be captured by the buyer by having smaller lots **and direct involvement of SMEs**, are larger than the additional administrative, coordination and quality control costs that the buyer will have to incur when there is not a large supplier serving as an intermediary?

Giancarlo Spagnolo, Second Interdisciplinary Symposium on Public Procurement, Budapest 2014.

2 Types of Solutions

- Efficient SMEs? Go for small lots on which everybody can bid, but also allow for bids conditional on winning a large number of lots, a "package" or "combination" of lots. **Combinatorial bidding** is in the New Directives.
- “Inefficient” (new) SMEs? Accept the short-term cost in terms of competition today for more competition tomorrow: **set-asides**. But the European Union bans set-asides, in the name of competition and fairness.

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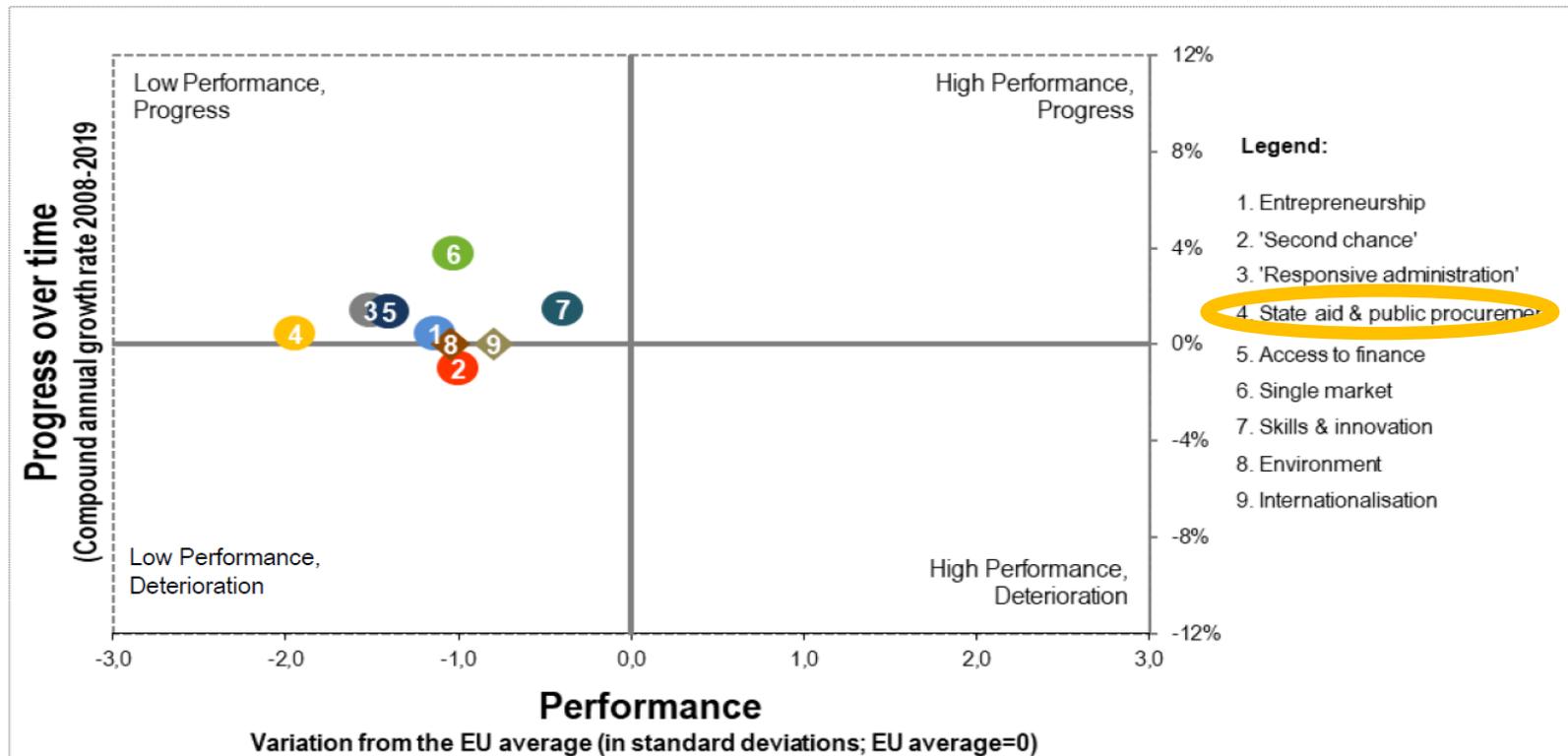
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The EU paradigm

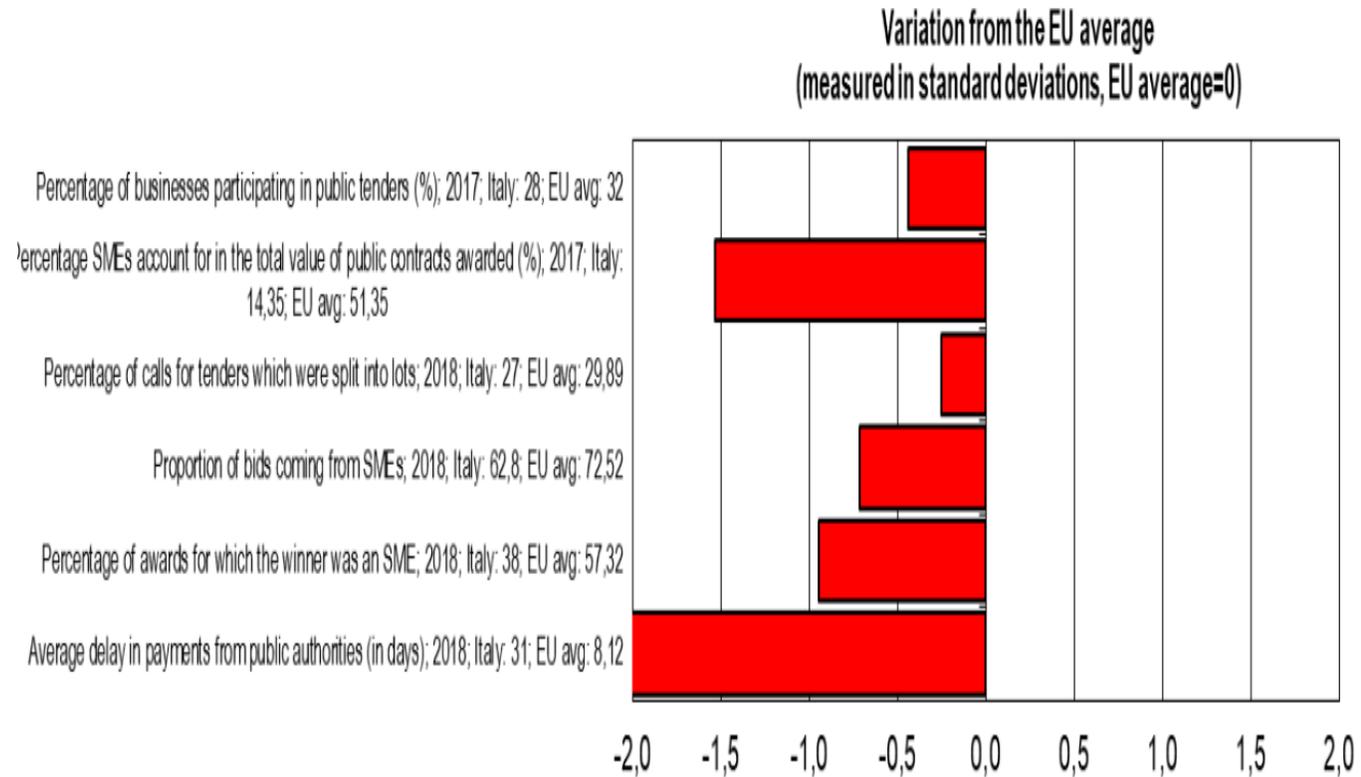
- “The EU is not in favour of reserving markets to specific undertakings. Such actions would also be in contradiction with the principle of equal treatment of tenderers, a fundamental pillar of the EU public procurement regime anchored by the Court of Justice in the Treaty freedoms.” **Green Paper (2012).**

The EU SBA - Fact Sheet: an example

SBA performance of Italy: state of play and development from 2008 to 2019¹⁵



An example of performance measurement in the EU SBA



Note: Data bars pointing right show better performance than the EU average and data bars pointing left show weaker performance.

Discrimination in the EU?

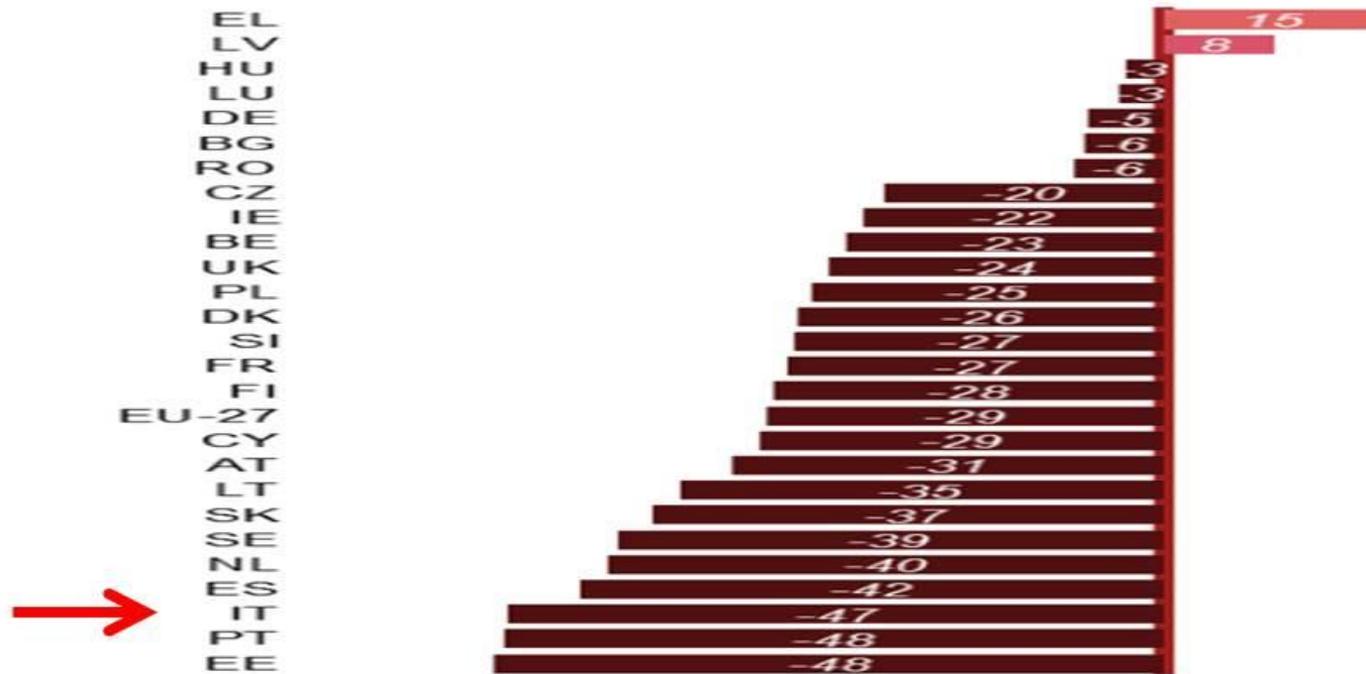
Exhibit 2-12: Difference between the share of SMEs in public procurement (average 2009-2011) and their role in the economy (EU-27)*



**Calculated on the combined gross value added in main economic sectors*

Different across Nations

Exhibit 2-13: Difference between the share of SMEs in public procurement and their role in the economy by Member State (average 2009-2011)



The issue of participation of SMEs

Trouble for centralization especially. Indeed, CPB seem to aim at enforcing SMEs participation through different mechanisms:

- **Using particular auction formats (i.e. combinatorial auction with package bidding);**
- **Splitting the supply contract into many smaller lots;**
- **Setting the reserve price at sufficiently high level;**
- **Defining less restrictive participation requirements;**
- **Promoting grouping of enterprises among smaller firms;**
- **Using awarding constraint in order to have more than one winning supplier;**
- **Disclosing as much information as possible to level information asymmetries;**
- **Promoting subcontracting;**
- **E-commerce-platform-types for small purchases.**

The issue of participation (victory) of SMEs

Still, it remains a problem:

- **Lots are always too big even when they are many (David vs Goliath);**
- **Consortia are not always open to SMEs (David vs Goliath);**
- **Buyers' risk aversion: "you never go wrong buying IBM";**
- **Treating different situations equally? Disproportionate barriers?**

The EU paradigm

- “The EU is not in favour of reserving markets to specific undertakings. Such actions would also be in **contradiction with the principle of equal treatment** of tenderers, a fundamental pillar of the EU public procurement regime anchored by the Court of Justice in the Treaty freedoms.” **Green Paper (2012).**

Equal Treatment or Unequal Starting Points?

- But (US) SBA studies point out that “at the aggregate level, regulatory compliance costs per employee appear to be at least 36% higher in small firms than in medium size and large firms”.
- So goes for tendering transaction costs for firms.
- How could anyone argue that today’s tenders [in the EU] provides for equal treatment (yes) of equal situations (no)? The role of incentivizing centralization.
- The reaction (almost) all over the world: Affirmative Action.

Are they all against equal treatment?

A few **tiny** nations have been using them (for SMEs and discriminated people or entities: veterans of war, racially discriminated entrepreneurs, individuals with disabilities, minorities, women-owned firms,...):

- USA (since 1953), SB Act and SB Authority
- Brazil
- South Africa
- China
- India
- Mexico
- South Korea
- Japan
- Canada
- ...

Shouldn't we at least discuss it?

Since 1953 with no uncertainty.

The Usa Small Business Act.

“The essence of the American economic system of private enterprise is **free competition** ... The preservation and expansion of such competition is basic not only to the **economic well-being** but to the **security** of this Nation. Such security and well-being **cannot be realized unless** the actual and potential capacity of small business is encouraged and developed. **It is the declared policy of the Congress that the Government should aid, counsel, assist, and protect, insofar as is possible, the interests of small-business concerns in order to preserve free competitive enterprise, to insure that a fair proportion of the total purchases and contracts or subcontracts for property and services for the Government (including but not limited to contracts or subcontracts for maintenance, repair, and construction) be placed with small business enterprises”**

A different vision of COMPETITION

Goal of 23% of awards

Since 1953 with no uncertainty. The Usa Small Business Act.

Procurement aggregation only allowed if necessary and justified, i.e. if, compared to non bundling, the Federal Government obtains substantial and measurable benefits, in terms of:

Cost savings

Quality improvement

Reduction in procurement time

Other measurable benefits.

Minimum benefits for allowing contract-bundling:

For contracts under \$75,000, at least 10% of the contract value

For contracts above \$75,000, at least 5% of contract value.

Target: At least 23% of federal prime contracts (by value and in aggregate) should be awarded to SMEs (maximum period: 9 years for the individual company).

Contracts with a value between \$2,500 and \$100,000 are reserved exclusively for SMEs, unless it is not possible to obtain two or more SMEs that are competitive in terms of price, quality and delivery of the goods and services being supplied.

The Sba Procurement Center Representative (Pcr) against the risk-aversion of CPOs

These are representatives of the U.S. Small Business Administration in the various large Procurement Agencies.

Functions and Powers:

- **1. Analyze the procurement strategies and verify if contract-bundling is necessary and justified**
- **2. Propose alternative solutions to the contracting officer to foster SMEs participation**
- **3. In case of a failed agreement, escalate the issue in the hands of the Agency Manager.**

Protection types (now in the EU too!)

USA



EU

Recovery
Plan for
gender
and youth



Biden



Table 1.14 Description of the Variables

Variables	Sub Variable	Variable Description
1. Reservation	Set aside	Allow only enterprises that have prescribed characteristics to compete for the contracts or portions thereof, which have been reserved for their exclusive execution.
	Qualification criteria	Exclude firms that cannot meet a specified requirement, or norm, relating to the policy objective from participation in contracts other than those provided for in the law.
	Contractual condition	Make policy objectives a contractual condition, e.g. a fixed percentage of work must be subcontracted out to enterprises that have prescribed characteristics or a joint venture must be entered into.
	Offering back	Offer tenderers that satisfy criteria relating to policy objectives an opportunity to undertake the whole or part of the contract if that tenderer is prepared to match the price and quality of the best tender received.
2. Preferencing	Preferences at the short listing stage	Limit the number of suppliers/service providers who are invited to tender on the basis of qualifications and give a weighting to policy objectives along with the usual commercial criteria, such as quality, at the short listing stage.
	Award criteria (tender evaluation criteria)	Give a weighting to policy objectives along with the usual commercial criteria, such as price and quality, at the award stage.
3. Indirect	Product/ service specification	State requirements in product or service specifications, e.g. by specifying labour-based construction methods.
	Design of specifications, contract conditions and procurement processes to benefit particular contractor	Design specifications and/or set contract terms to facilitate participation by targeted groups of suppliers.

EU Recovery Plan: an example

“Contracting authorities are required to include specific clauses in their calls for tenders, notices and invitations to tender to include criteria to promote youth entrepreneurship, gender equality, work inclusion of person with disabilities and the employment of young people under 36 years of age as necessary requirements and as additional bonus requirements for the tender.

Necessary requirements of the offer are the assumption of the obligation by the tenderer to ensure that at least 30 per cent of the recruitment necessary for the execution of the contract or for the realisation of related or instrumental activities is made up of young people and women.

Further bonus measures may be included in the call for tenders, providing for the awarding of additional points to the tenderer or candidate who:

- a) undertakes to employ, in addition to the minimum percentage threshold laid down as a requirement for participation, young people under 36 years of age, disabled persons and women.
- b) has, in the last three years, respected the principles of gender equality and adopted specific measures to promote generational and gender equal opportunities.”

Italy Law 77/2021 art. 47

P.S.: 2/3 still back out of such clauses
«motivating» their unwillingness

Why the EU resistance?

Worry for Frauds.

Complication of Measuring Impact.

**Preferential clauses are often seen as
generating dis-savings.**

To the contrary, they often reduce the
bargaining power of powerful

Preferences in Procurement, good (?) but...

- **Fraud.** “fake” (small) corporations might be created only for the purpose of being awarded the procurement contract at a higher price. Or else, large companies might redefine their structure to participate as small ones and obtain the advantage (Brazil). **A corrupt environment might make this fraud easier.**

Fraud or Misrepresentation Can Overstate SME Participation

Recently, the US General Accounting Office (GAO), upon checking set-aside contract eligibility for small businesses, found several to be awarded to ineligible companies. Of the 32 cases that were reviewed, 20 cases were identified contractors or contractor employees who were “found guilty, pled guilty, or settled with the government for representing themselves as eligible to receive set-aside contracts. These contractors falsified self-reported information and made false certifications to the government to claim eligibility by using eligible individuals as figurehead owners”. *

*** GAO, “Ongoing DOD Fraud Risk Assessment Efforts Should Include Contractor Ownership», November 2019.
<https://www.gao.gov/assets/710/702890.pdf>**

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Procurement impact on growth

We find that winning a government contract has a significant effect on firm growth both during the quarter in which they win, as well as over the medium horizon. These effects are also **larger for younger firms**, conditional on size. Our estimates imply that winning at least one contract in a given quarter increases firm growth by a sizable 2.2 percentage points over the quarter, which is sufficient to move a firm located at the median of the firm growth distribution to the 75th percentile of the distribution.

These effects **persist** over time as firms experience growth for at least 2 years after winning a contract, which is well beyond the time when most government contracts have expired.

To further understand the long-lasting effects of government contracts, we use auction and firm level data to examine the behavior of firms that were close winners and close losers. We find that these persistence effects are, in part, attributed to firm **behavior in future auctions**. Firms that win a close auction participate in 30 percent more auctions over the next three months compared to those firms that barely lose.

Procuring Firm Growth: The Effects Of Government Purchases On Firm Dynamics by Claudio Ferraz, Frederico Finan and Dimitri Szerman, Working Paper 21219
<http://www.nber.org/papers/w21219>

Procurement and set asides impact

Why does winning a contract lead to such persistent effects? There are two broad explanations.

First, winning a government contract could be **providing information to the firm about the demand for its products**. As firms learn more about their demand over time, they decide to grow. In our setting, firms face uncertainty both in the demand for its products, as well as the marketplace itself. By winning a government contract, firms may start to realize that their products can be sold not only to their own local government, but to governments in neighboring municipalities and states.

Second, winning a government contract may **encourage firms to invest more** in organizational and human capital. If firms are credit constrained, then winning a government contract could allow firms to further invest in organizational upgrading. For example, firms may want to hire someone devoted entirely to managing the logistics of the online marketplace (i.e. bidding, finalization of the contracts, etc.). If firms reorganize their workforce or investment in more human capital in response to these demand shocks, they are likely to become more competitive and productive over time, which would explain the persistence in growth even after the contracts expire.

Ambiguous Results

Buy Big or Buy Small? Procurement Policies, Firms' Financing, and the Macroeconomy*

Julian di Giovanni* Manuel García-Santana^o Priit Jeenas^o
Enrique Moral-Benito^o Josep Pijoan-Mas^o

June 23, 2023

Abstract

This paper provides a framework to study how different allocation systems of public procurement contracts affect firm dynamics and long-run macroeconomic outcomes. We build a novel panel dataset for Spain that merges public procurement data, credit register loan data, and quasi-census firm-level data. We provide evidence consistent with the hypothesis that procurement contracts act as collateral for firms and help them grow out of their financial constraints. We then build a model of firm dynamics with asset- and earnings-based borrowing constraints and a government that buys goods and services from private sector firms, and use it to quantify the long-run macroeconomic consequences of alternative procurement allocation systems. We find that policies which promote the participation of small firms have sizeable macroeconomic effects, but the net impact on aggregate output is ambiguous. While these policies help small firms grow and overcome financial constraints, which increases output in the long run, these policies also increase the cost of government purchases and reduce saving incentives for large firms, decreasing the effective provision of public goods and output in the private sector, respectively. The relative importance of these forces depends on how the policy is implemented and the type and strength of financial frictions.

Procurement and impact: operational consequences

A country's efforts to promote MSME development through procurement policy can serve as an example of how outputs and targeted and achieved outcomes and impacts relate to each other. In this scenario, for example, a procurement output could be the introduction of a contracting set-aside to encourage MSME bids and awards. The corresponding ex ante procurement outcome would be a target of, say, 25 percent of all tenders awarded to MSMEs (however they are defined) by a given procuring agency in a given year. The ex post outcome might be, in fact, an actual (over-)achievement of 27 percent of contracts awarded to MSMEs. In this scenario, there would be no substantive gap. If the relevant procuring agency were unable to accurately measure the share of contracts awarded to MSMEs during the given period, or in ways that were not credible, a measurement gap would exist. Impact, in turn, would include whether there has been sustained, longer-term MSME development (such as capitalization and revenues) and increases in MSME-related employment and productivity, among other metrics relevant to the national economy under consideration.

<https://www.worldbank.org/en/events/2022/01/06/a-global-procurement-partnership-for-sustainable-development-an-international-stocktaking-of-developments-in-public-proc>

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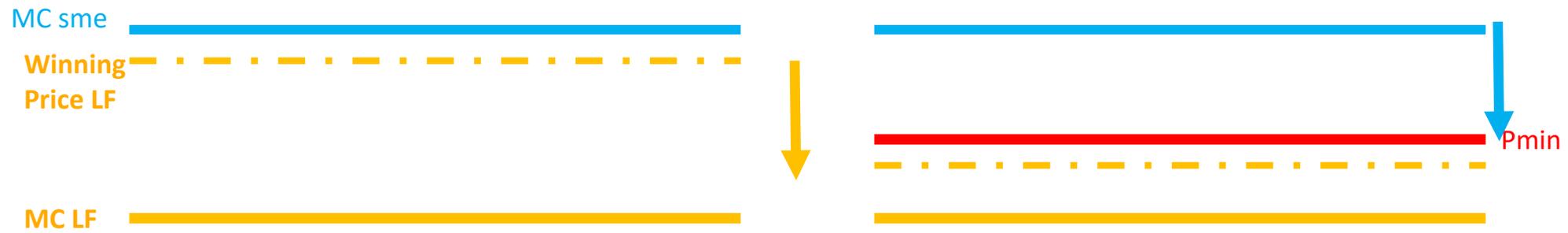
To the contrary, they often reduce the
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Unorthodox solutions: preferences

“Failing to recognize how **affirmative action** can be used to enhance procurement competition grossly overstates the cost of affirmative action subsidies.”

For example, nonpartisan state legislative analysts estimate the California Department of General Services spent an additional \$9.9 million last year by rejecting low bids from firms that failed to comply with affirmative action requirements. Unfortunately, these estimates ignore how affirmative action may have driven down the low bids that were used as the benchmark. Without the enhanced bidding competition created by affirmative action, these low bids and the low bids on other bidding contracts may have been substantially higher.”

The case of a price preference with large firms (LF) still winning with lower surplus

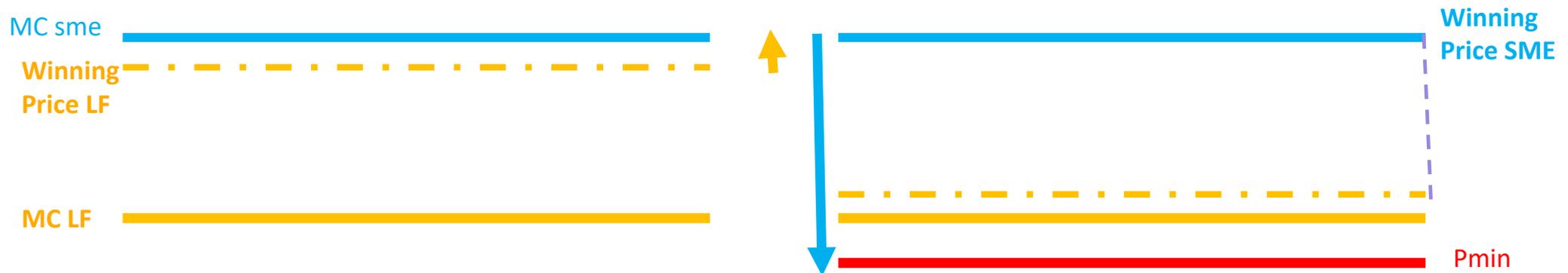


The red bar introduces legislation for a minimum price discount with respect to the one of the SME to be awarded the tender. **The blue arrow** the minimum difference in price wrt to the SME one needed to win.

The orange downward arrow shows the decline in winning price by large firm after the scheme (preference scheme savings), to the advantage of taxpayers.

The preference scheme savings are not seen by taxpayers by looking at data!

The case of a price preference with large firms (LF) losing to inefficient SMEs



The red bar introduces legislation for a minimum price discount with respect to the one of the SME to be awarded the tender. **The blue arrow** shows the minimum difference in price wrt to the SME one needed to win.

The orange upward arrow shows the difference in the price by large firm and the one (winning) of the SME, to the disadvantage of taxpayers.

The preference scheme dissavings seen by taxpayers (see purple dotted line) by looking at data are overstated!

Unorthodox solutions: preferences

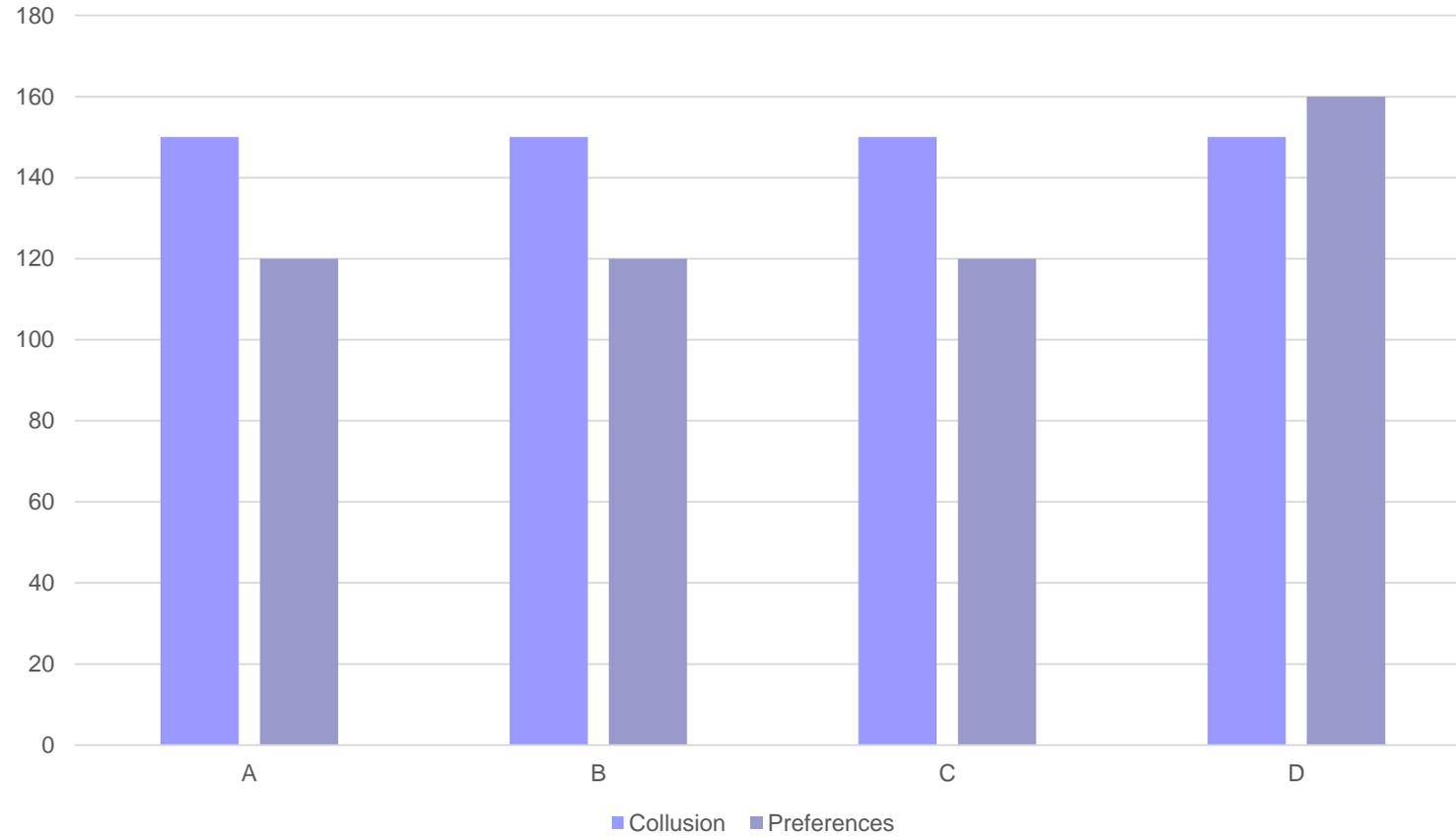
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Unorthodox solutions: set asides

- “For example, if four incumbent construction firms were bidding to build four different playgrounds, they might be able to coordinate their bidding (either tacitly or explicitly) to divide the contracts among themselves.”
- “Setting aside one of the bidding contracts for traditionally disadvantaged, non-incumbent firms may enhance intragroup competition, as the four incumbents must now compete for just three contracts. Any incumbent that believes it may end up empty-handed is likely to reduce the markup in its sealed bid. **While the government may pay more on contracts set aside for traditionally disadvantaged bidders, reduced costs for non-set-aside contracts can lower overall procurement costs.**”

The impact of preferences for non incumbents.
4 lots A, B, C and D



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Set asides impact

Removing set-asides in small tenders in Japan would lead to:

- a) In high-end projects, the number of LBs would drop from 8.85 to 5.60, which would raise the expected winning prices of those projects by 1.03 percent. **Large firms switch to small tenders.**
- b) At the same time, the LBs' participation in low-end projects would reduce small business (SB) entry into low-end projects. The mean number of SB participants would decline from 8.33 to 5.33. The number of both large-firm and SB participants in low-end projects would drop from 8.33 to 7.49 on average because, according to the static entry model, the participation of one more LB in the low-end projects would eliminate 1.56 SB participants on average.

Set-asides decrease effective contract prices by 0.22 percent.

Set-asides raises participation of small firms by 40%.

Costs vs Benefits of Training Disadvantaged Business Enterprises

“We find the most convincing effects LINC (training) has on (DBE) firms is with respect to their bidding behavior: LINC-trained bidders submit more competitive tenders after graduating from the program. Average bids from LINC graduates are more aggressive relative to firms that are ineligible for the program as well as relative to those firms which are eligible but have not undergone training.

A bulletin is circulated to all prime contractors interested in working with Texas DOT announcing the firms that have completed the LINC training, making other industry participants aware of which firms have graduated from the program. When rivals learn that a LINC-trained firm holds plan for a certain project, an indirect competition effect results in which ineligible firms (by far our most frequently observed class of bidders) behave more aggressively than they otherwise would have.

The lower bids carry through to generate cost-savings for TxDOT in two ways: first, when LINC-trained firms win their bids are lower, on average, than those of all other firms; second, when other firms compete at auctions which attract interest from LINC-trained firms, the average winning bid is also substantially lower. These two channels generate substantial savings for the state—even our most conservative estimates **involve millions of dollars saved**. **In contrast, the LINC program requires a budget of only about \$200,000**. Moreover, eligible firms that do not get trained are more likely to exit the industry than firms that are not eligible, but this concerning effect goes away for firms that graduate from the LINC program”.

De Silva, D. G. , T. Hubbard, and G. Kosmopoulou. “An Evaluation of a Bidder Training Program” International Journal of Industrial Organization (2020)

<http://www.econweb.umd.edu/~davis/eventpapers/HubbardProgram.pdf>