TOR VERGATA
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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*.

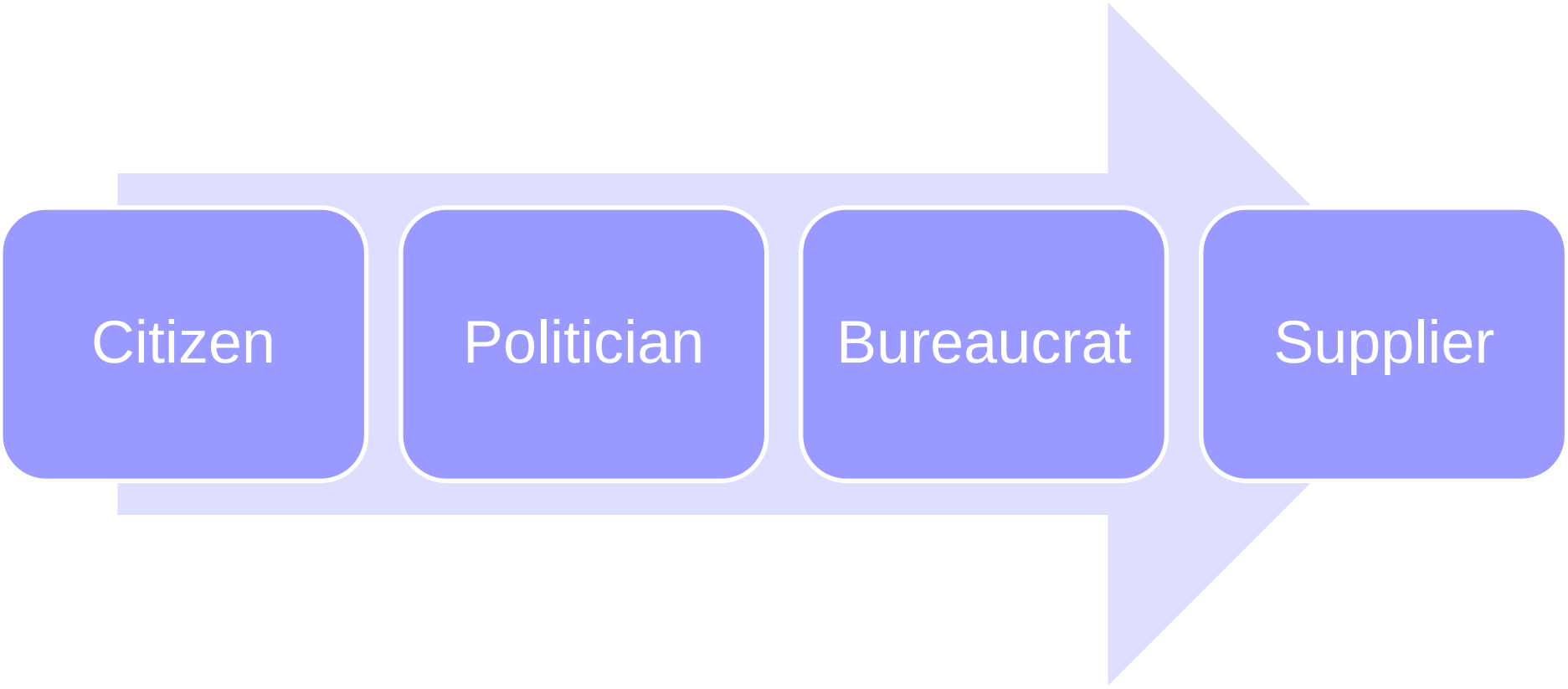
  In the presence of asymmetric information, could lead to moral hazard (wrong effort) in addition to adverse selection (wrong guy)!

(Some) Implications

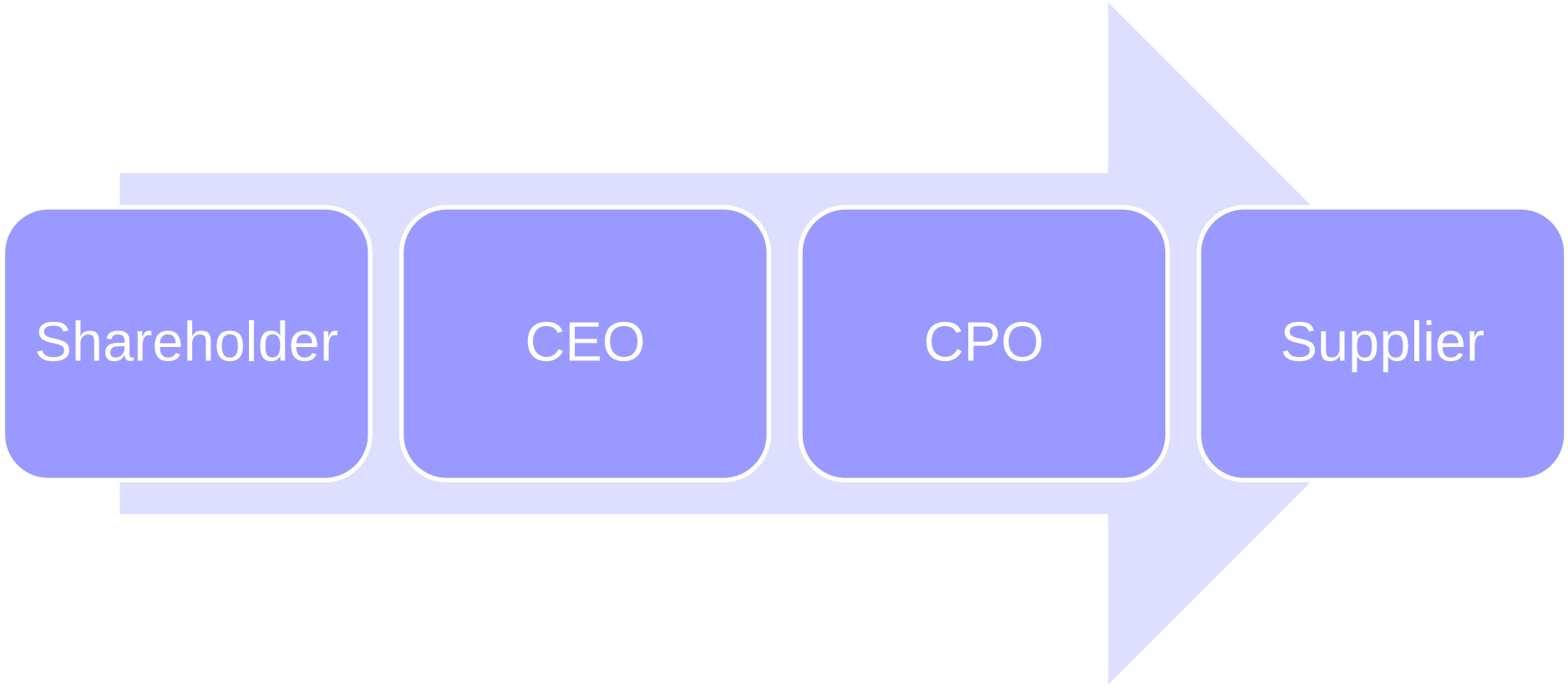
gh the book is the fundamental tension between rules and discretion. Rules limit the agent's ability to pursue his private interests at the expense of the taxpayers, but discretion allows them to use their knowledge of the context and react quickly to unforeseen changes, as in emergencies. At the time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

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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.

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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

Service	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

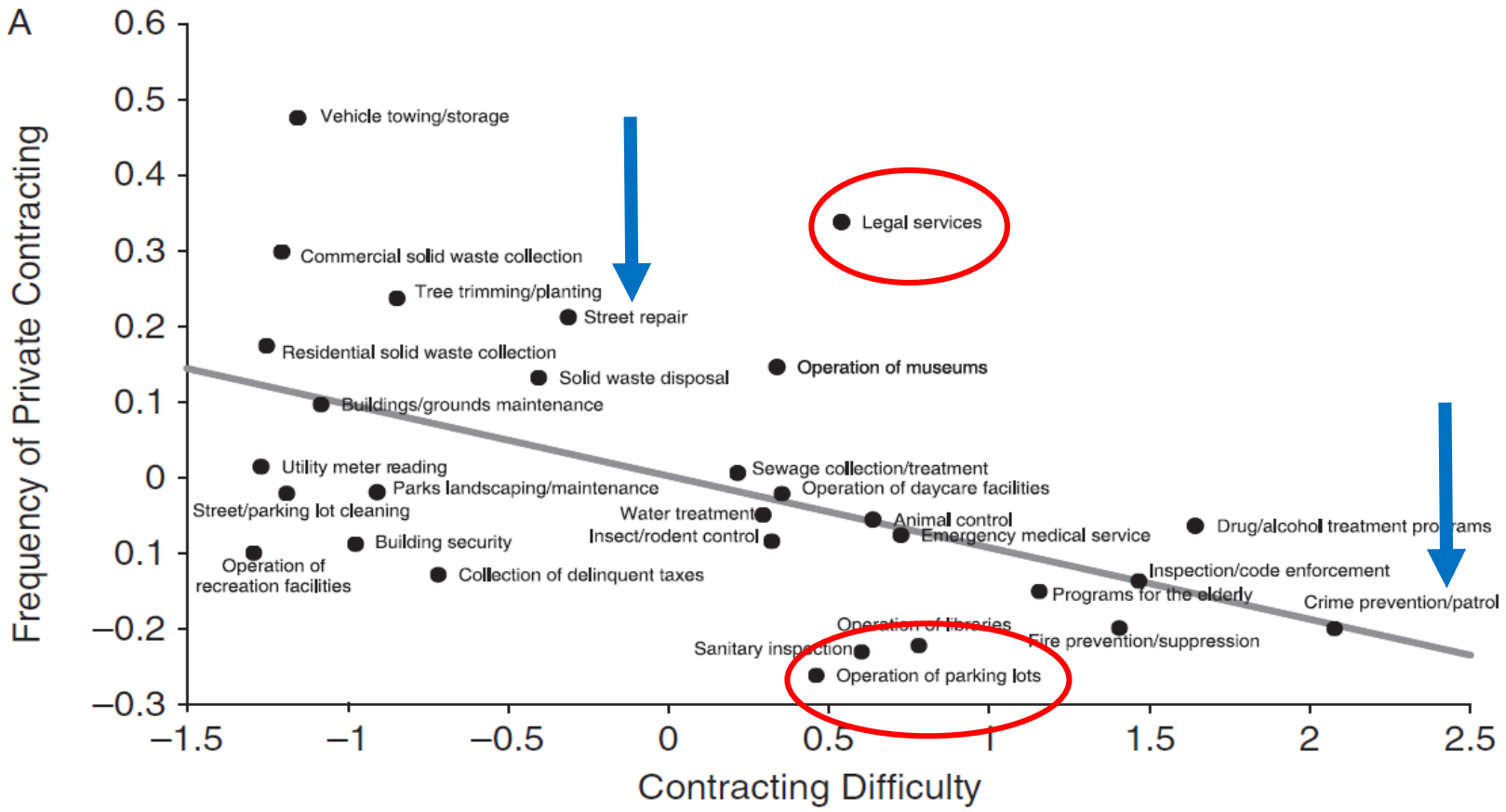

Figure 1A
Contract Difficulty and Private Contracting

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?

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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)

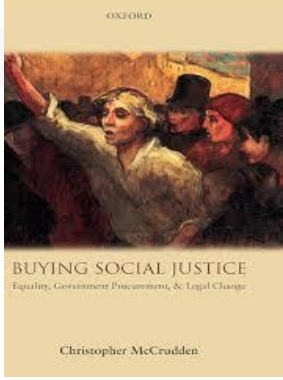
Where is Procurement?

- 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

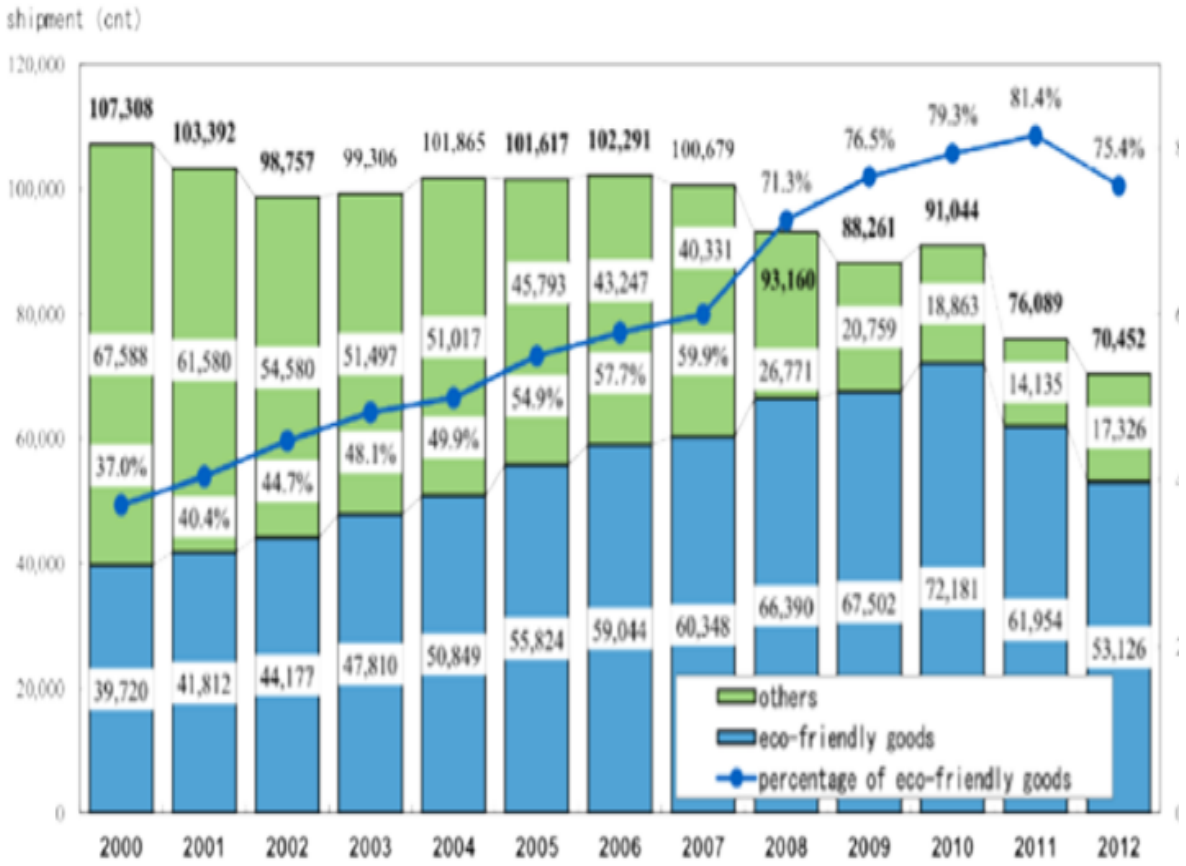
Who do we Procure from



- [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

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**."

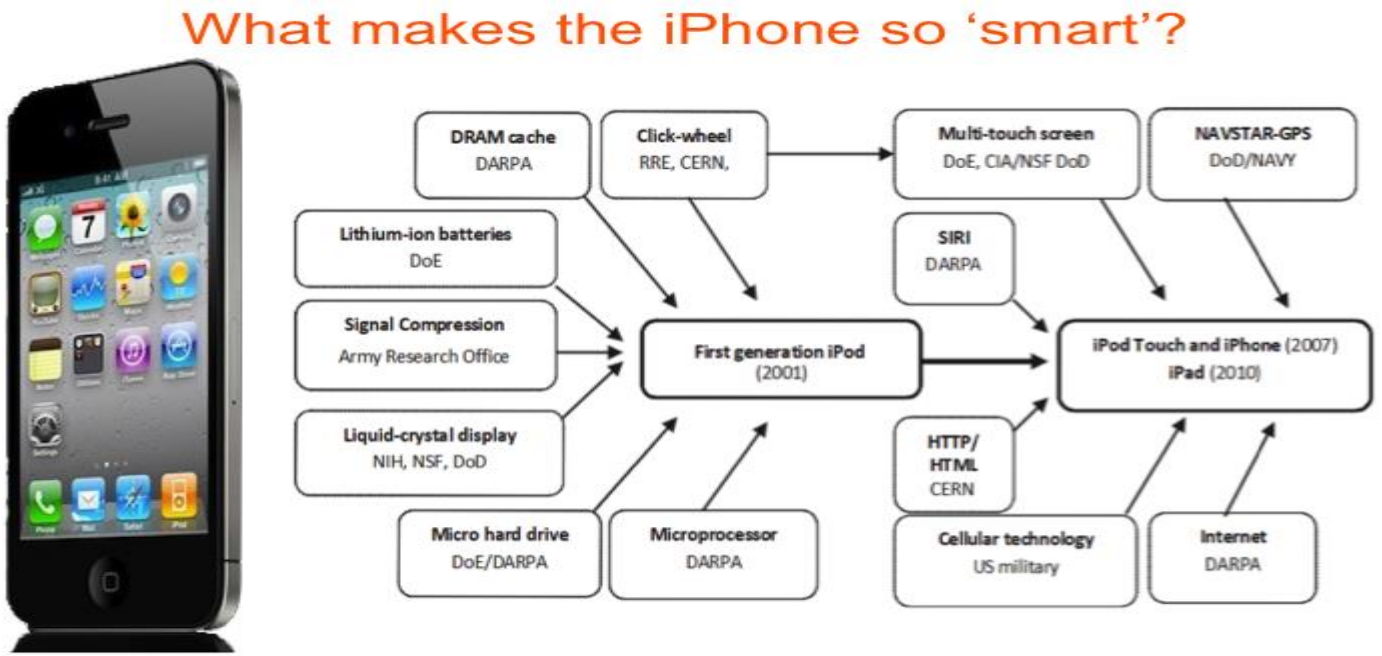
(La Chimia, 2024, *The Economics and Law of Public Procurement: New Global Scenarios*, Routledge)

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



©MarianaMazzucato The Entrepreneurial State: debunking private vs. public sector myths, p. 109, Fig. 13

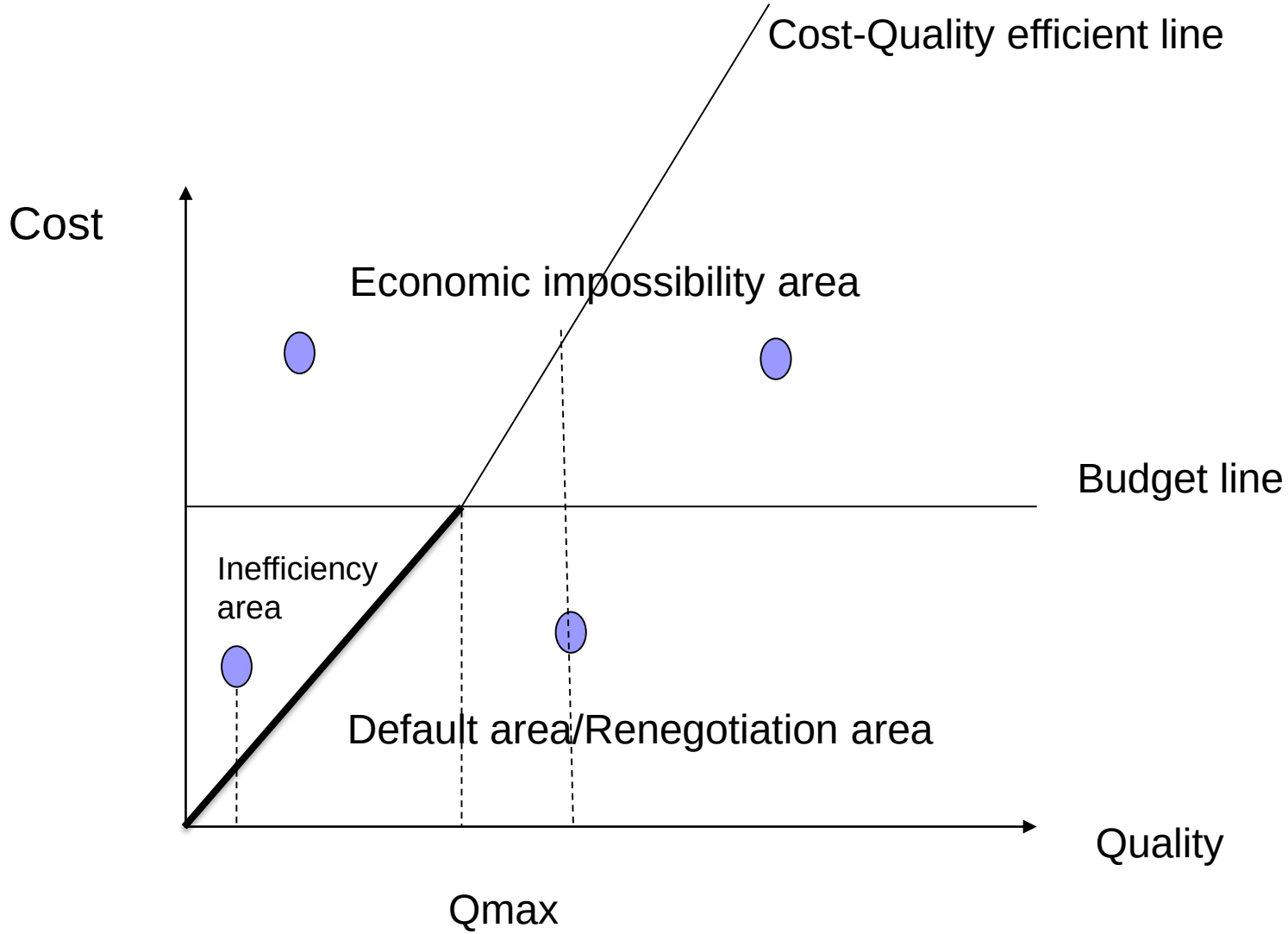
PUBLIC PROCUREMENT GOALS

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…

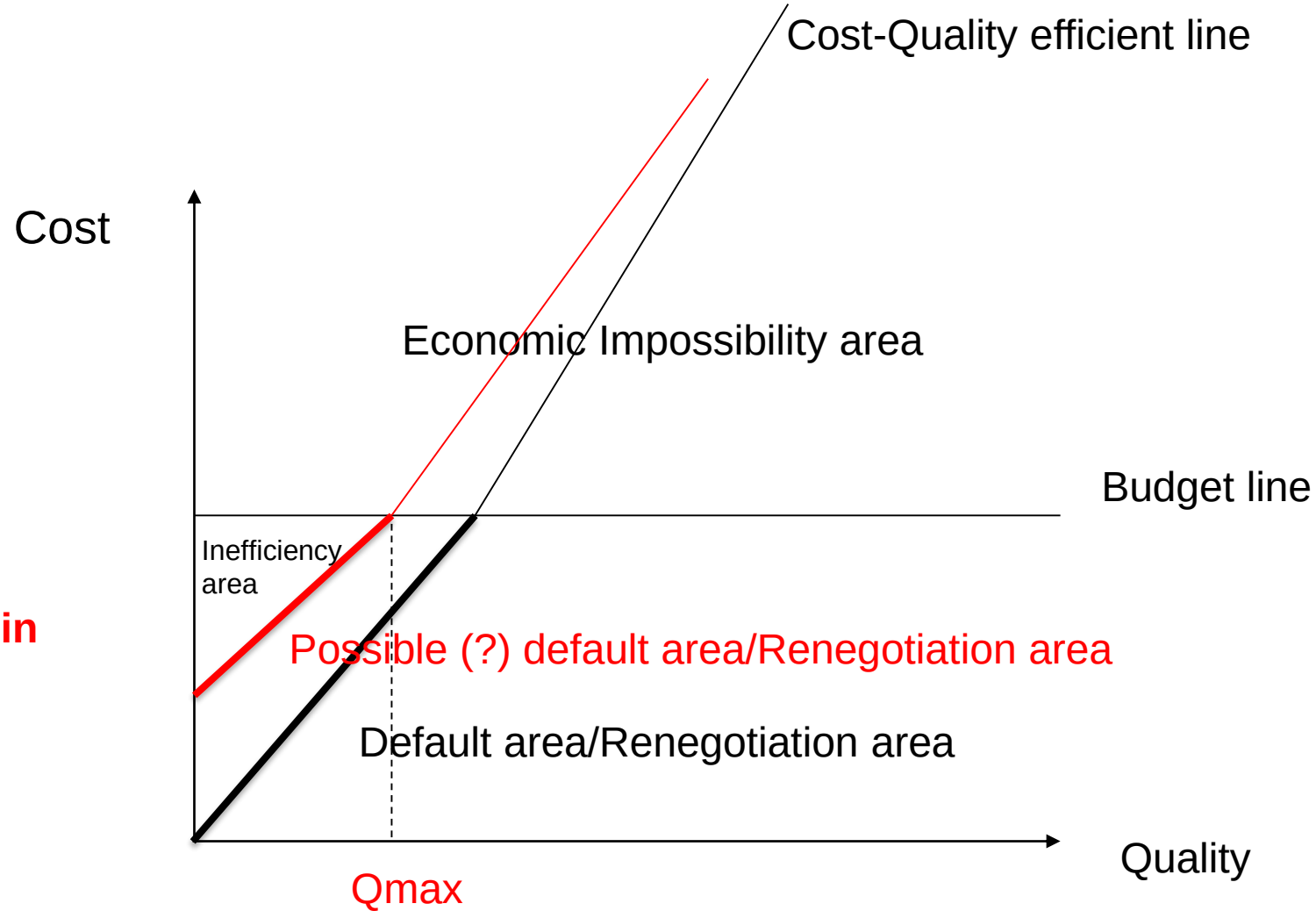
- The purchase of goods, services and works by the public sector in many ways can be **compared** to the equivalent process within private sector firms. Indeed, it requires on the part of who buys a need to be **efficient** and **effective**.
- As much as the procurement function has become **strategic** 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.


Cost-Quality efficient line
Cost
Economic impossibility area
Budget line
Inefficiency area
Default area/Renegotiation area
Quality
Qmax

Efficiency

Cartel impact on choices

An increase in cost due to cartels



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 polices 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".

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

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		**Early stage of development** **Corruption pervasive and lack of competence** **High Costs, Low Quality** **No Planning**
Rules		**Advanced stages of development** **Corruption declining, greater competition** **Medium Costs, Low Quality** **Rules as Planning**

L
A
W

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

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

ENGINEERING

LAW

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

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

BUSINESS

LAW

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

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

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, possibly (?) with lesser concern for other stakeholders.

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

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- "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

- "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?*;
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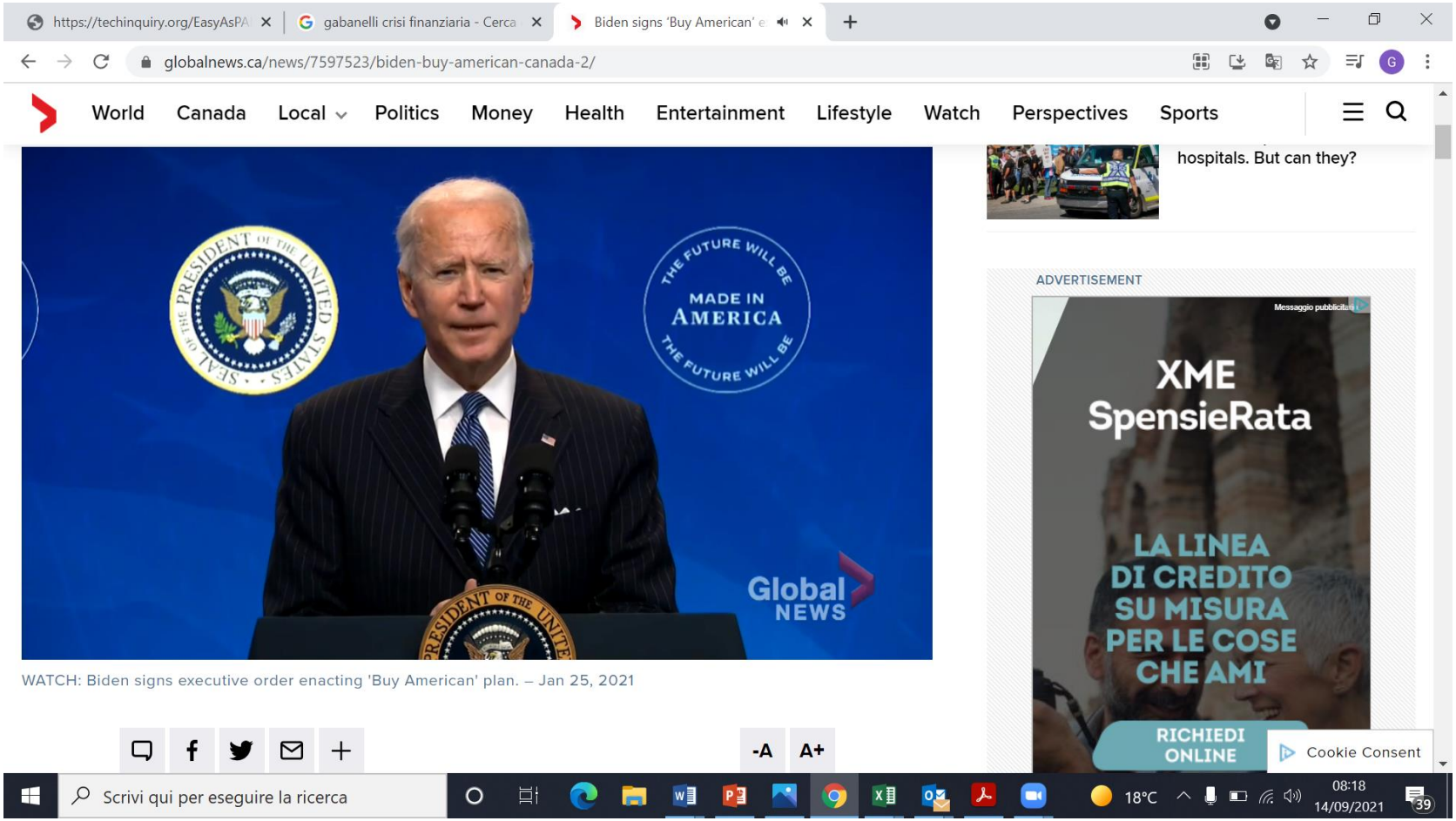
Buy… American



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 jeux ont changé. Les deux premières puissances internationales ont décidé de ne plus respecter les règles du commerce… Il nous faut une **préference 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…

Zer0 times

The word environment too.

Procurement and democracy?

"Macron and Scholz: we must strengthen European sovereignty"

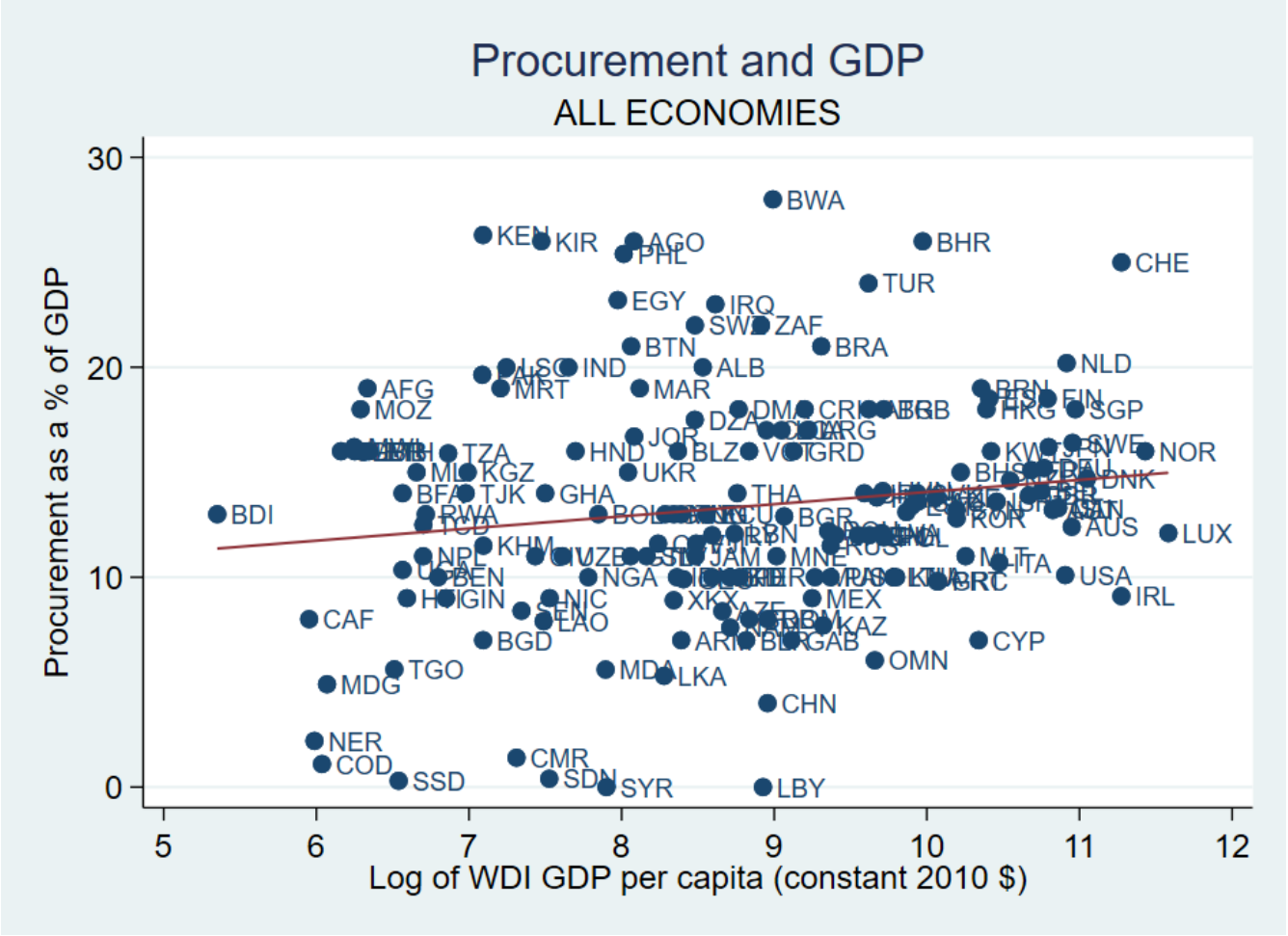
https://www.ft.com/content/853f0ba0-c6f8-4dd4-a599-6fc5a142e879

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.

The richer the country, the more the public sector buys



https://blogs.worldbank.org/developmenttalk/how-large-public-procurement

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.

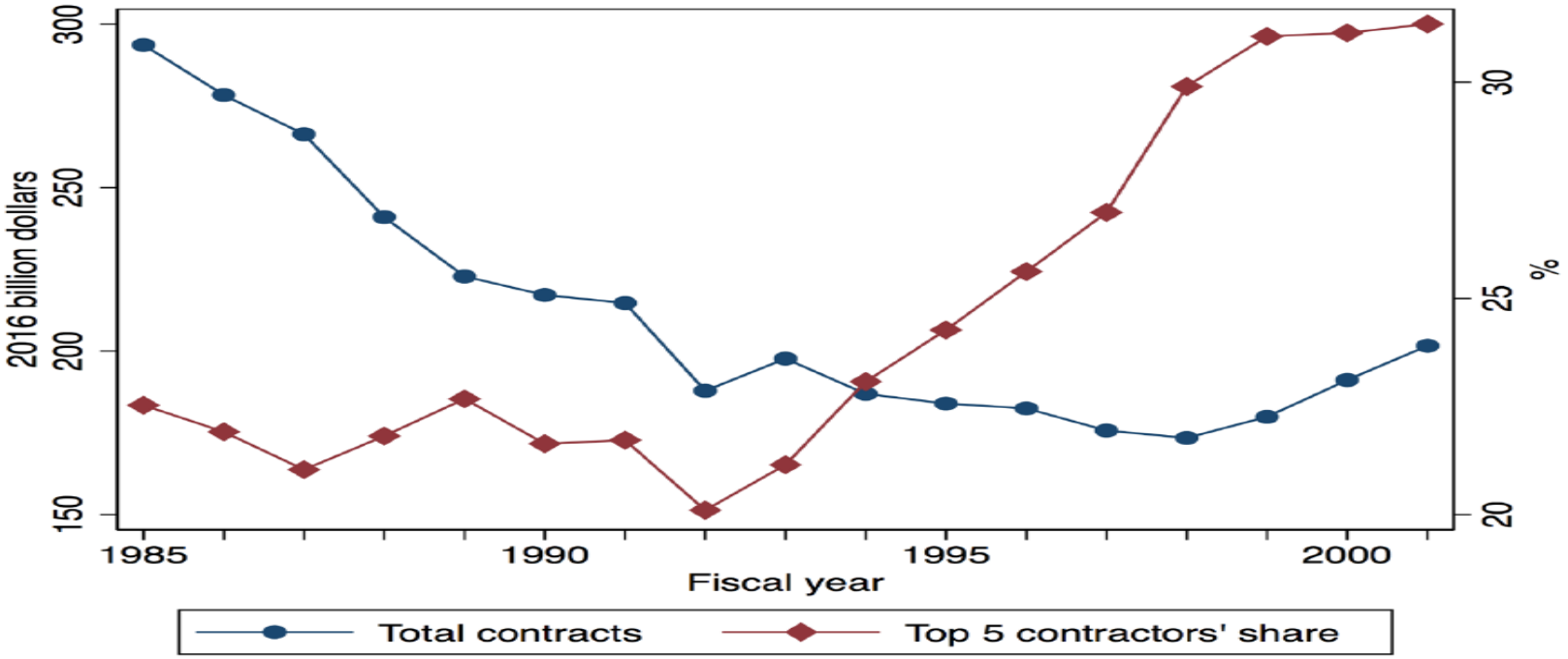
"The first thing is to be partners, not adversaries. And that is very unlike normal government **procurement**, which is all about how you can get the cheapest price. . . There's a partnering mindset that is very different from what's normal in government".

"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-5360bfe84876https://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??

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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 (≈ 0.02 × 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??

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"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."**

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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.

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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.

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

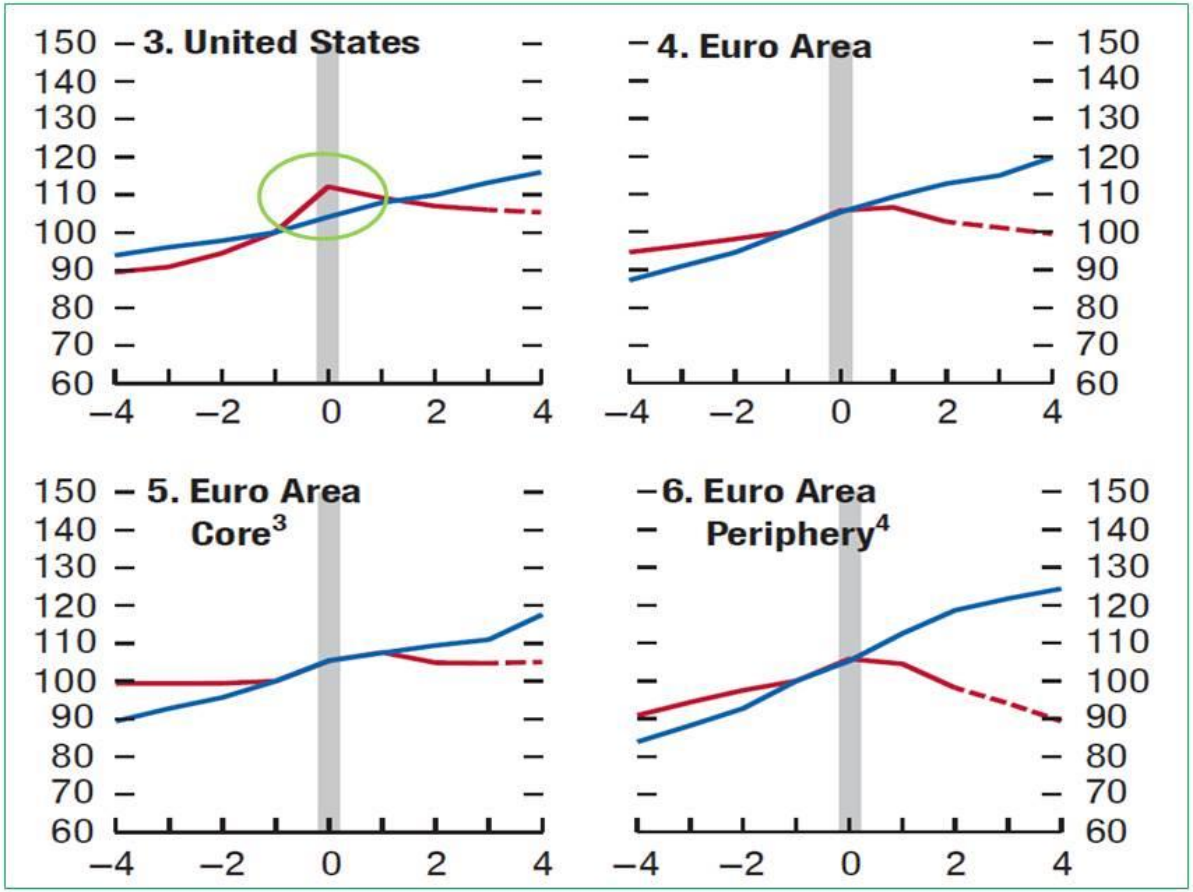
- The size of government purchases also plays a key role during bad times, when it helps smoothing the harshness of business cycles, by declining less than the overall economy, and when it can be used discretionally to revamp an economy in a slump. OECD estimates of the short-term multipliers (impact 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!


3. United States
4. Euro Area
5. Euro Area Core3
6. Euro Area Periphery4
150
140
130
120
110
100
90
80
70
60
–4
–2
0
2
4

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 +Δ P
Q^s: Q^p - Δ 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 x Q^p. **The tender**, price only. Handling *base price, risky bids, open tender vs. negotiation; sealed bid vs auction etc....*

P^p x (Q^p + ΔQ^p). **MEAT** criteria, price and quality. Handling *scoring rules.*

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

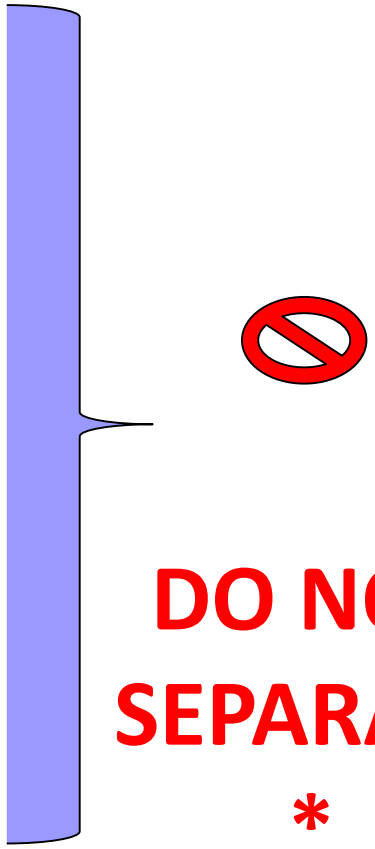
P^s: P^p +Δ P
Q^s: Q^p - Δ Q

Key Moments in Procurement

Q^p . **Demand Management.**

P^p x (Q^p + ΔQ^p). **Sourcing .**

P^s x (Q^p – ΔQ). **Supply Management.**



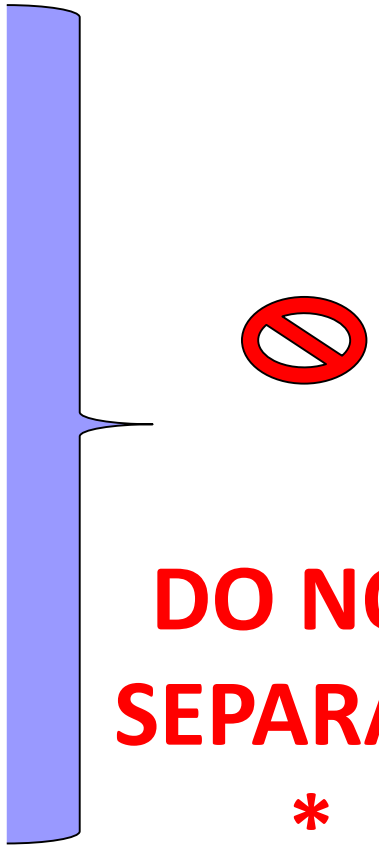
DO NOT SEPARATE
*

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

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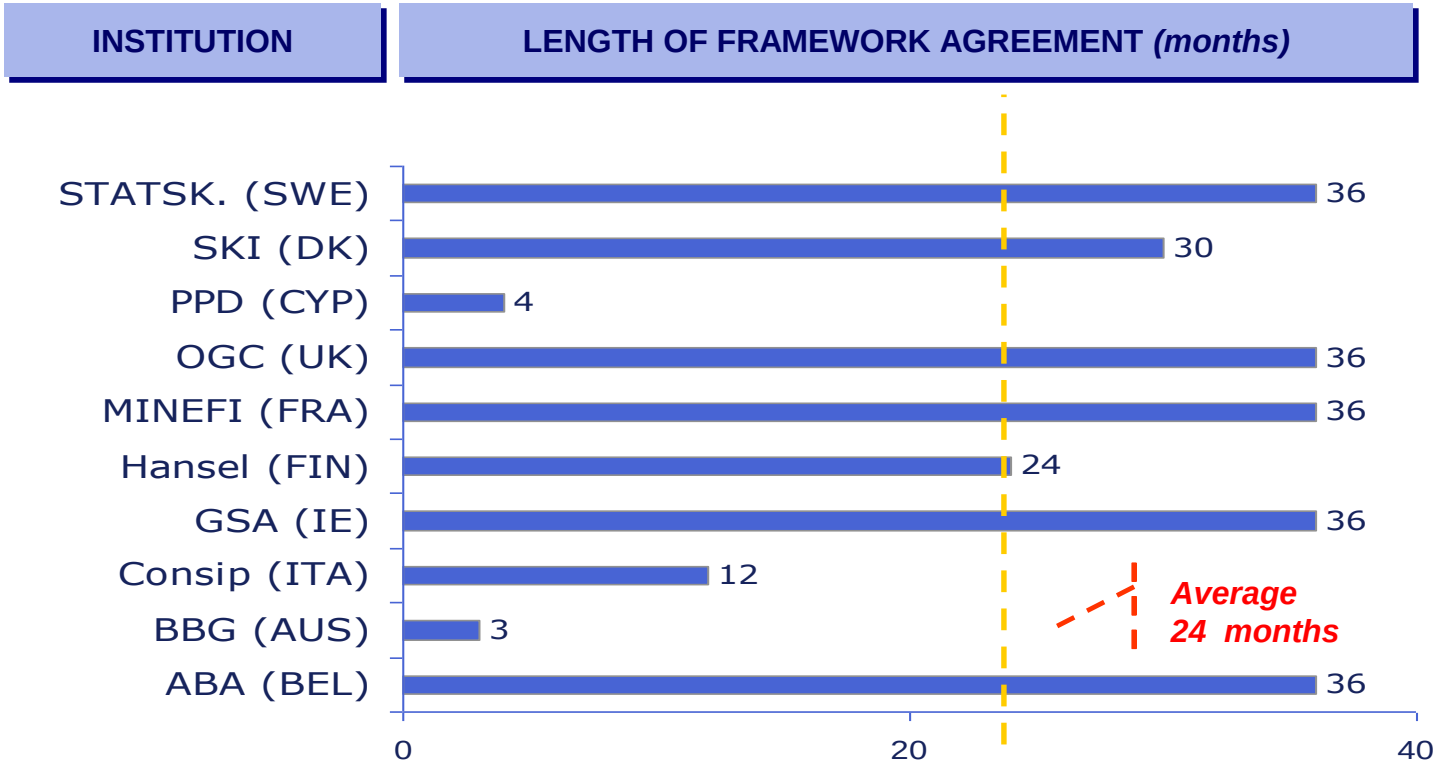
Demand management and market analysis: some procurer's discretionary choices

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. partecipation?**)

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. partecipation?**)

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. partecipation?**)

Delegating, how?

Delegating, How?

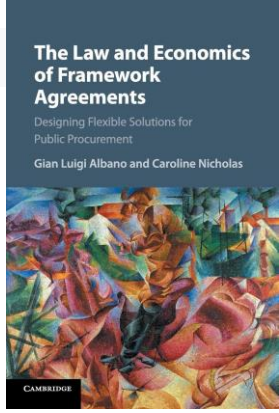
- Imagine one large organization (CPB) with 1000 internal clients (IC) that need the product.
- One only tender by CPB (with one or … 1000 lots)?
- 1000 autonomous tenders by IC, one for each client?

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?

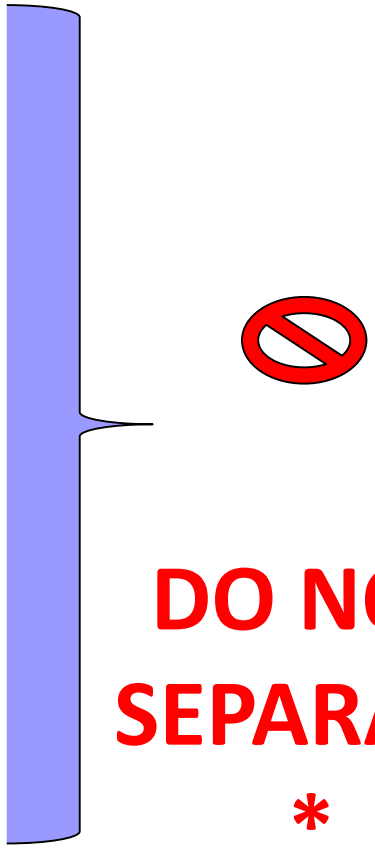
To be discussed later

Key Moments in Procurement

Q^s . **Demand Management.**

P^s x (Q + ΔQ^p). **Sourcing .**

P x (Q – ΔQ^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 a concern for ensuring participation by powerful suppliers?

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**?

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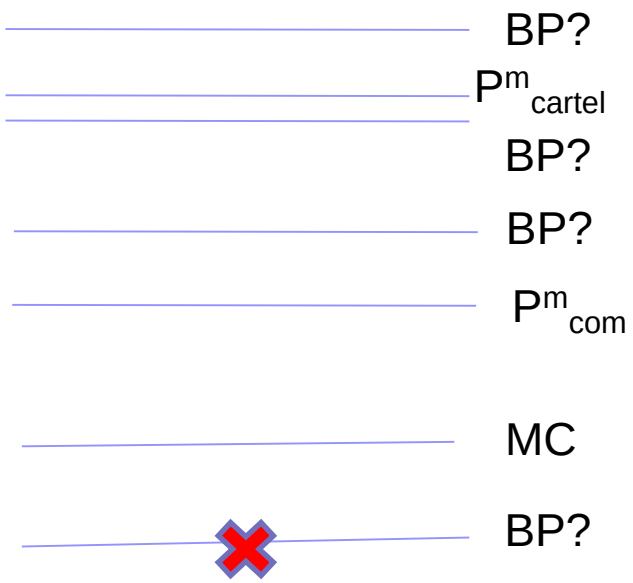
Tender design: one-shot bid or continuously descending bids?

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

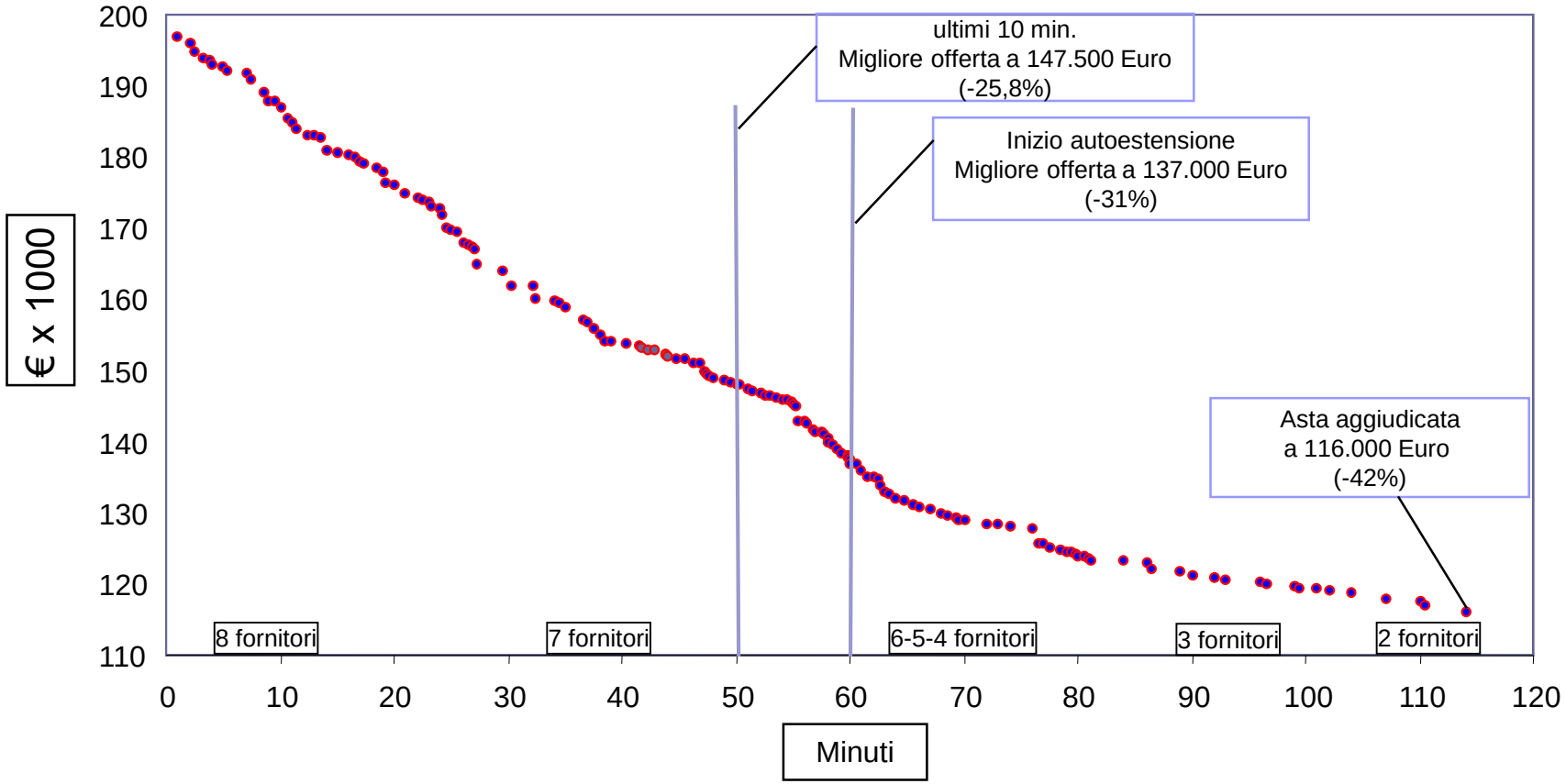
Two suppliers, one lot. Do you allow or disallow **temporary groups of firms**?

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

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

Do e-auctions generate competition?

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

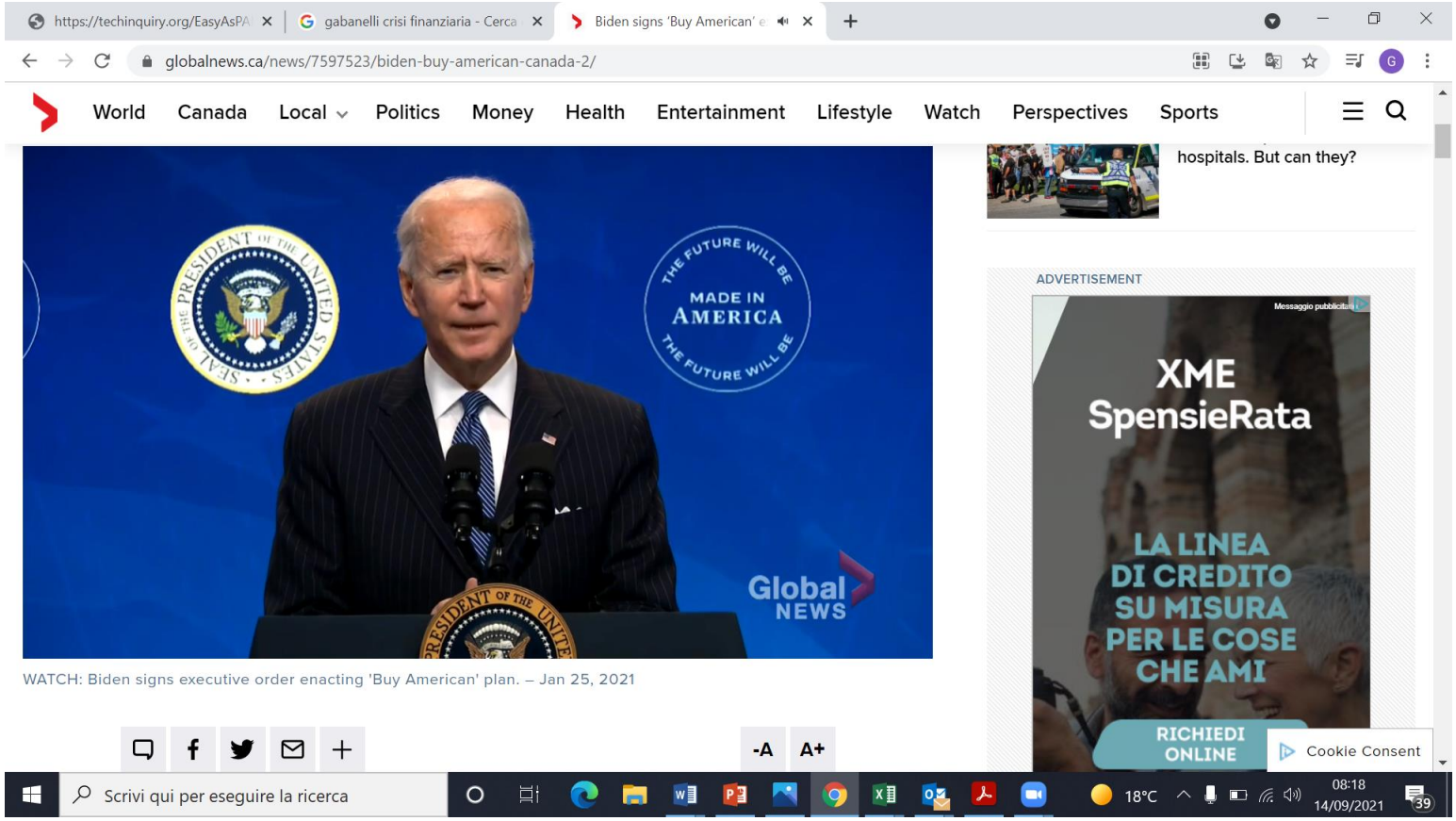
Past direct discriminations and current indirect discriminations generate reactions. In procurement too and distinctively. Through the use of **preferences**.

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?



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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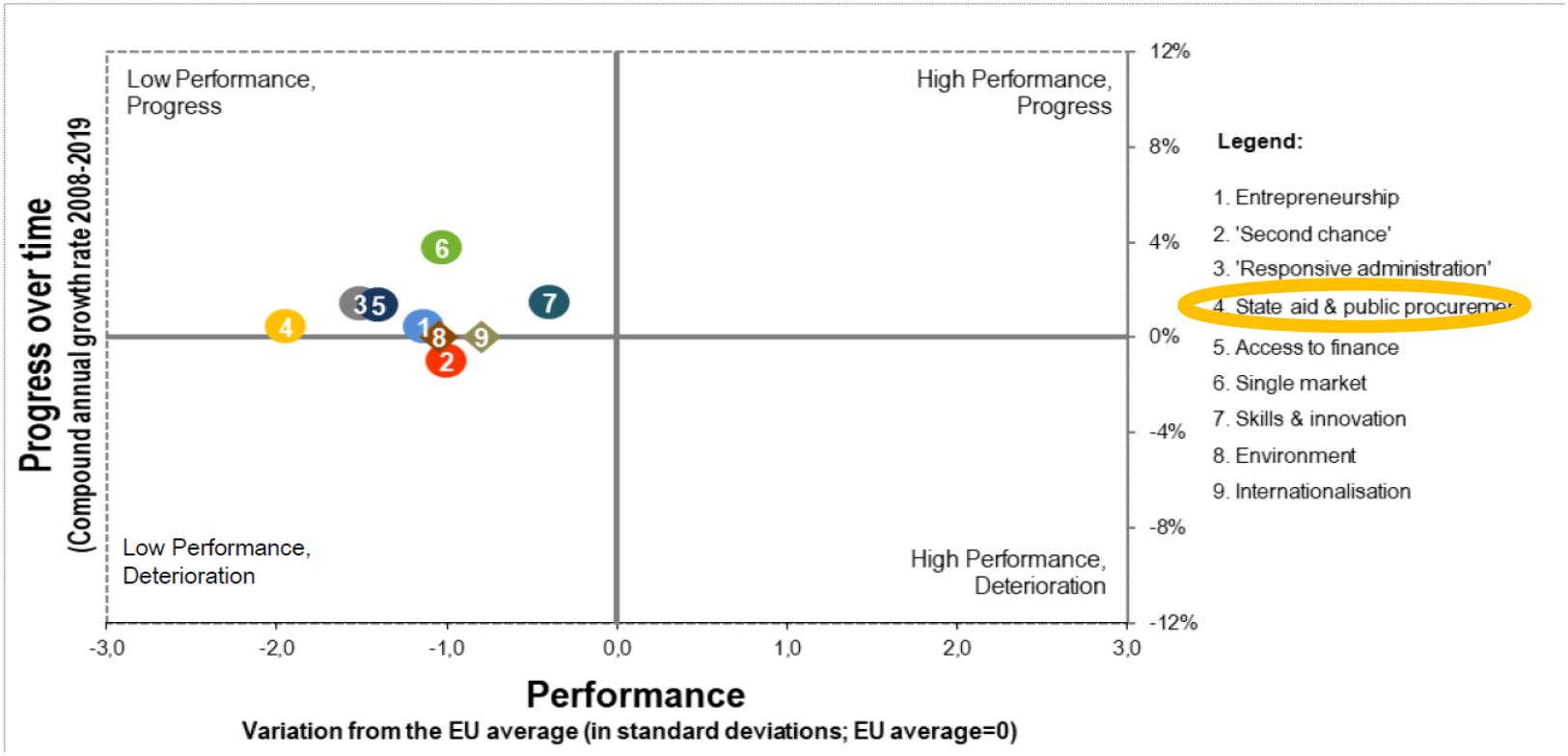
The EU paradigm

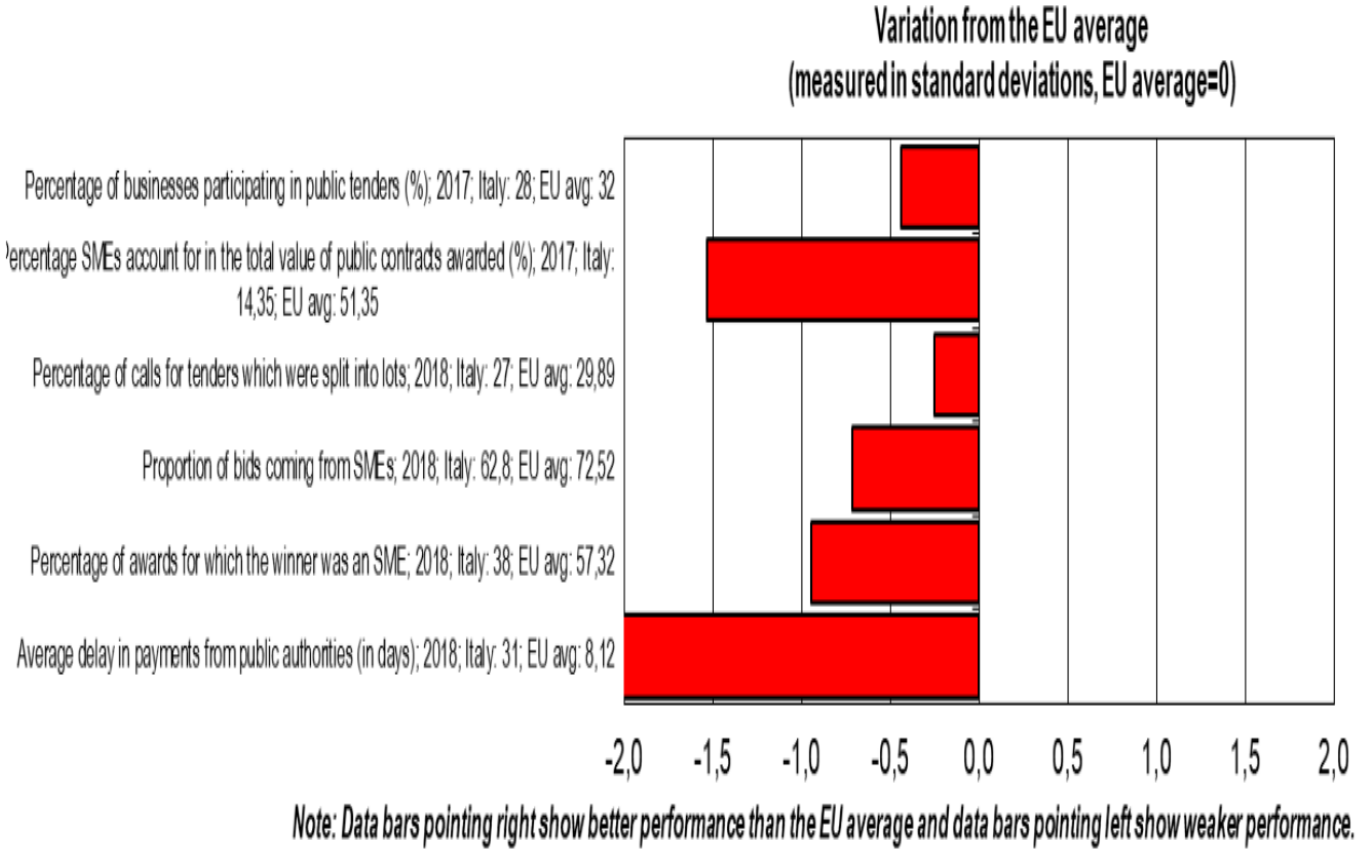
- "The EU is not in favour of reserving markets to specific undertakings. Such actions would also be in contradiction with the principle of equal treatment of tenderers, a fundamental pillar of the EU public procurement regime anchored by the Court of Justice in the Treaty freedoms." **Green Paper (2012).**

The EU SBA - Fact Sheet: an example

SBA performance of Italy: state of play and development from 2008 to 2019[15]



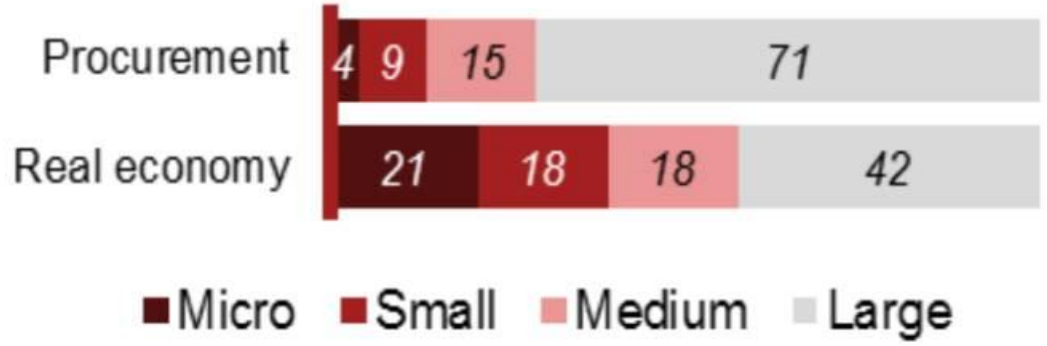
An example of performance measurement in the EU SBA



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

Discrimination in the EU?

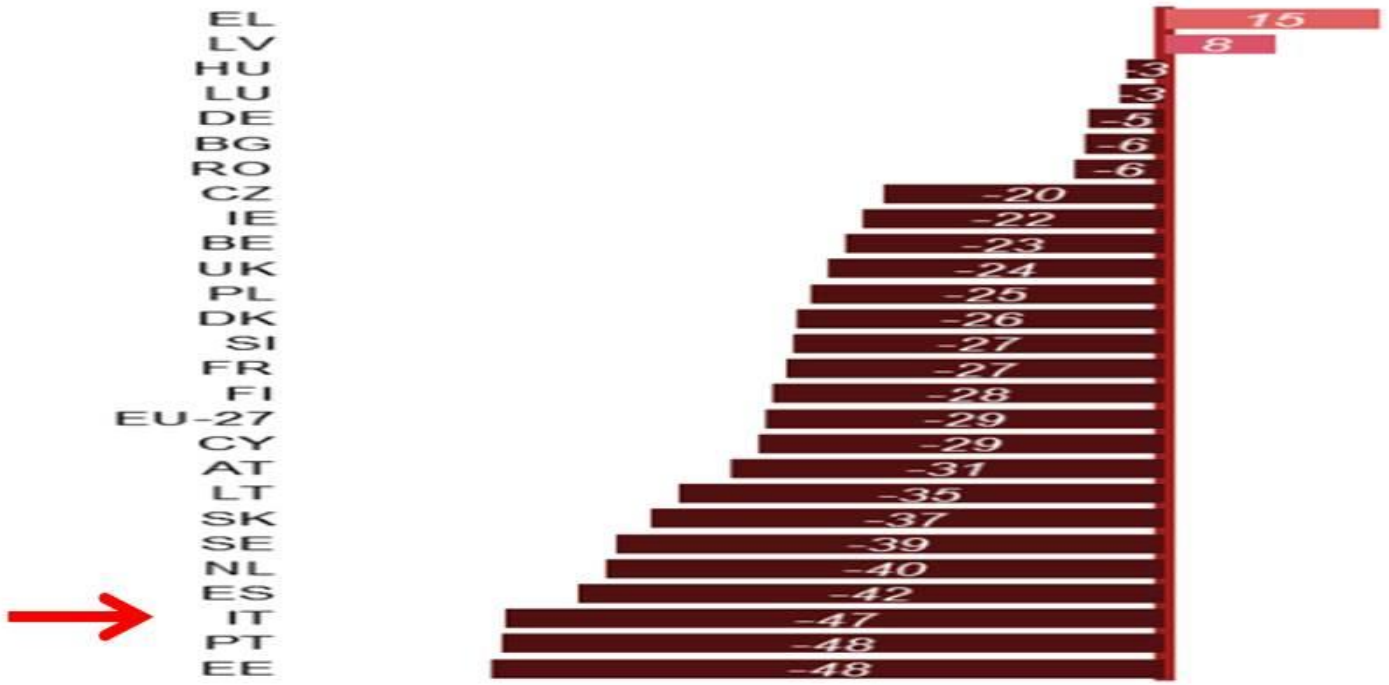
Exhibit 2-12: Difference between the share of SMEs in public procurement (average 2009-2011) and their role in the economy (EU-27)*



*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 partecipation**
- **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[◇] Priit Jeenas[□]
Enrique Moral-Benito[◇] Josep Pijoan-Mas[△]

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

Why the EU resistance?

Worry for Frauds.

Complication of Measuring Impact.

Preferential clauses are often seen as generating dis-savings.

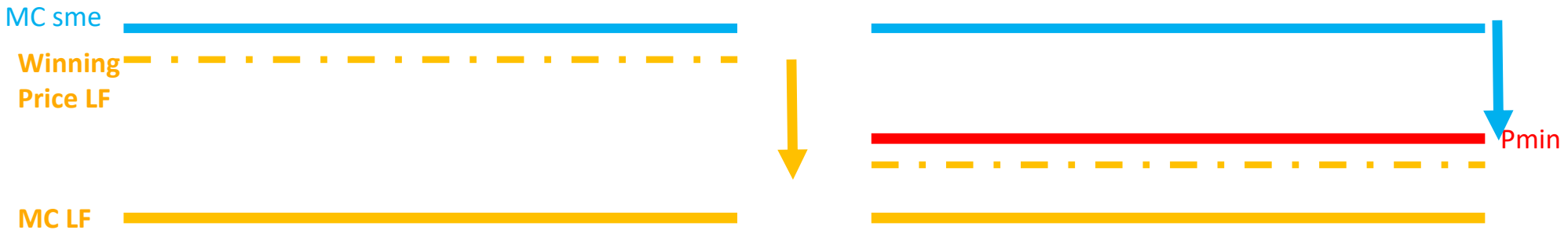
To the contrary, they often reduce the bargaining power of the powerful!

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

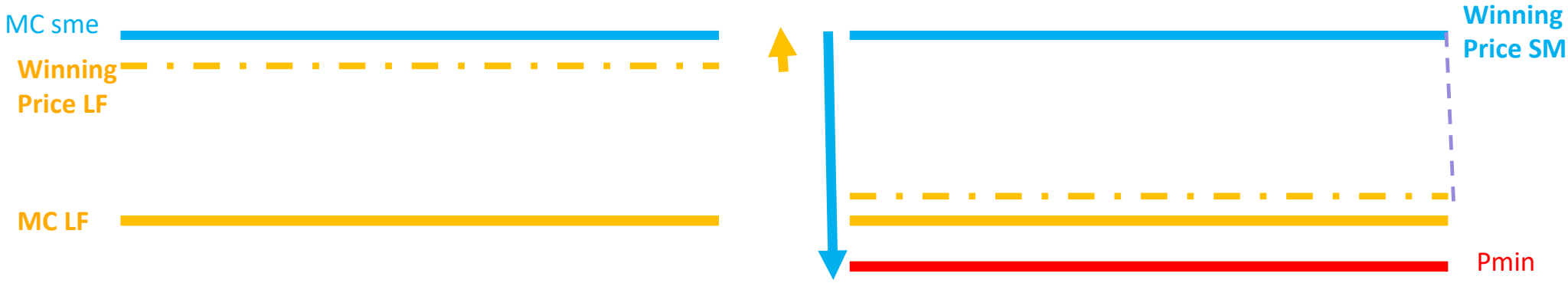


The red bar introduces legislation for a minimum price discount with respect to the one of the SME to be awarded the tender. **The blue arrow** the minimum difference in price wrt to the SME one needed to win.

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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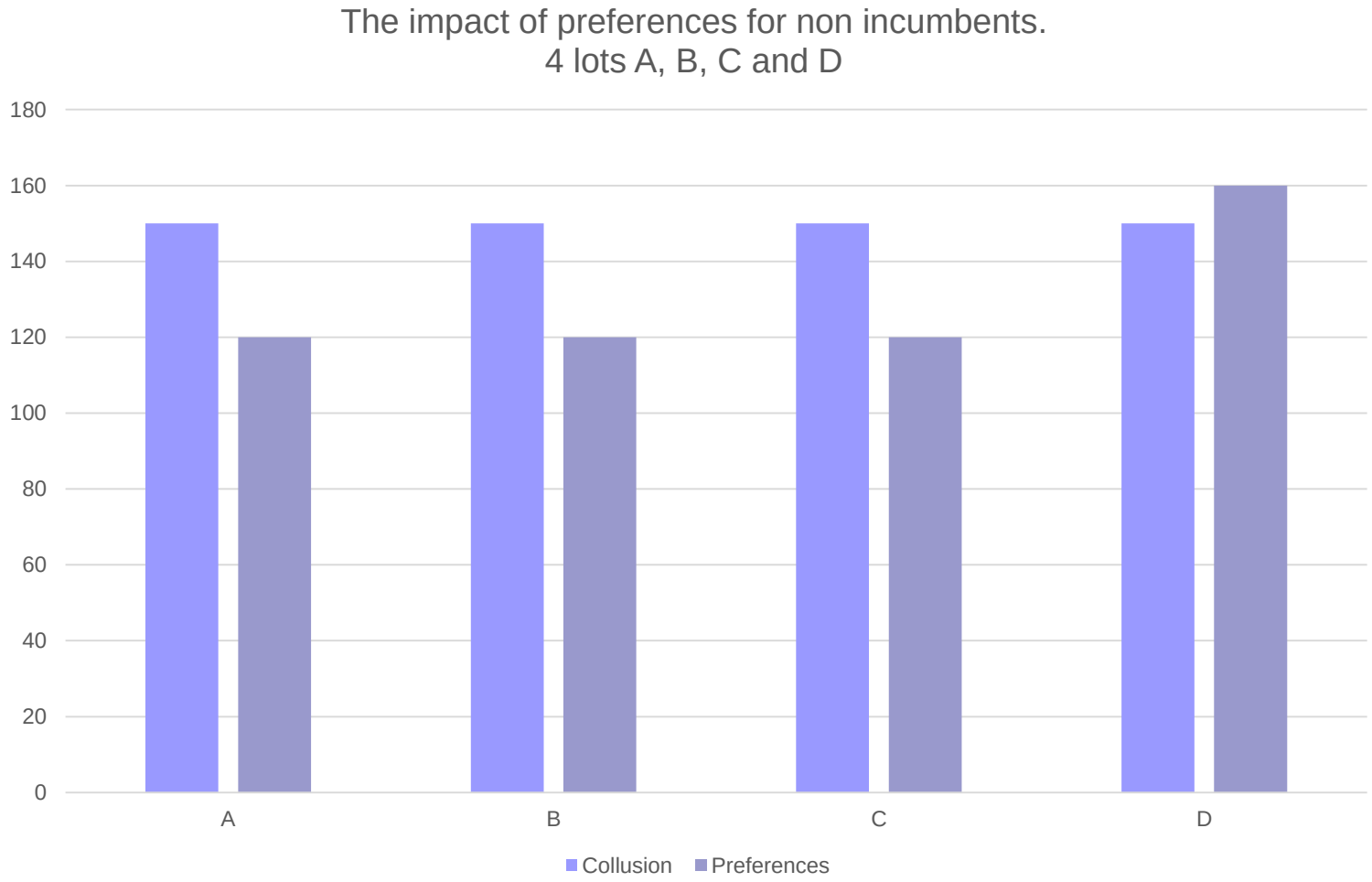
Unorthodox solutions: set asides

- "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
180
160
140
120
100
80
60
40
20
0
A
B
C
D
Collusion
Preferences

Unorthodox solutions: set asides

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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%.

Small business set-asides in procurement auctions: An empirical analysis, Jun Nakabayashi

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

Private sector too!

- The tender, which amounted to € 80 million for the auction base, ended.
- 5 lots based on vertical technologies to the Business of **XXX**, within Software development with a contractor for Lot. The choice to create smaller lots has made it easier for SMEs to participate, since these often have specialized know-how while large multinationals are more cross-sectoral and have wider coverage. Among these, 3 lots out of 5 were divided into a large share - to which large companies could participate - and a small share (the proportion between large and small sub-lots was 70-30) to which only companies of a limited size could participate . In total, considering the split lots there were 8 lots, 3 of which were dedicated to SMEs, with 1 winner per lot.
- To meet SME needs, we have structured large lots as requiring local presence on all the specific XXX geographies of the tender (Europe, South and North America) while SMEs have been asked limited presence only to Italy and Spain. In the pre-launch phase, we also dealt with making possible groupings between Italian and Spanish SMEs so as to allow them to optimize the geographical presence / technical and economic offer, putting them in contact where necessary. The three Lots for SMEs included, as a back-up mechanism, the possibility that the second ranked in the big part of the lot would be recuperated out in the small lot if the possible SME participating did not meet a minimum technical score established as a threshold.

Private sector too!

In addition, only for large lots - for which the participation in temporary consortia was limited to 3 members, we envisaged the possibility of presenting a fourth firm who was required to present an innovative project developed by the same company that could contribute to obtaining an additional technical score. The requirement for this additional company was that it had to be in the register of "Innovative SMEs" or "Innovative Start-ups" of "Business Register". This has led all the companies participating in the 5 large lots to present this additional company to compete for the maximum technical score and, for the successful bidders, to entrust 5% of the contract to this company.

The result was the following: in large lots large companies participated as usual. In 2 small lots 3 temporary consortia participated for each lot (two of which were awarded each one a lot) while the third lot we received only a technically unsuitable offer and therefore the repechage mechanism was activated.

The MEAT award formula included a technical-economic 70-30 ratio. Following the award, in addition to the 2 consortia being awarded the small lots, the other 6 consortia awarded (5 of the large lots + 1 rescued for the third small lot) have either an Innovative SME or an Innovative Start-up.

In this way, for the next tenders, even small companies will be able to participate autonomously or in consortia, **having some references that can be used in their name and not having to submit to the subcontracting mechanism that cancels the ownership of the reference itself** as it is not the company that owns any direct contract with XXX.

Rationale for Preferences

1) Insofar as the lack of competitiveness of small firms with respect to large firms is due to discrimination in **credit markets** (including as a consequence of delays of payment by governments), inefficiencies from subsidies (preferences) are reduced.
2) **Dynamic competition** may make these inefficiencies vanish over time as subsidies today - that encourage small firms to sustain fixed costs and try to enter the public market by participating to tenders - increase the likelihood of unsubsidized entry tomorrow by **stronger to be candidates** (SME's that have become large/successful firms) and more competition makes cartels and corruption harder.
3) *"The immediate difficulty … was the mismatch between the needs of government for specific goods and services and the industry distribution and limited capacity of most **MBEs**. Most were in the wrong lines of business and lacked, as well, the necessary expertise, working capital, and bonding capacity contractors needed to complete successfully all but the smallest government procurement tasks"*. (Bates). **Dynamic learning**. The Chicago case.

Korean SMEs

SMEs can also benefit from a variety of special designations that are offered by SMBA, PPS and line ministries. Designation as an outstanding SME (for example, through certification for excellent technology or performance, or through designation as an innovative SME by SMBA) provides additional points in contract fulfilment capability tests, allowing such SMEs a competitive advantage. Designation as a supplier of an Excellent Government Supply Product allows for direct contracting, which can increase SME market share. The Excellent Government Supply Joint Brands designation allows direct contracting in a way that supports technology sharing, transfer and joint production among SMEs. These and other certification mechanisms will be examined in more detail below.

PPS also provides special financial support to SMEs involved in public contracting. SMEs are entitled to an upfront payment of up to 70% of the value of a government contract (see Table 4.5). For some contracts for goods, including orders against unit-price contracts, lump sum contracts for goods valued up to USD 423 800, or at the request of the end user for other goods contracts, the business is entitled to instant payment upon presentation of the invoice. In these cases, payment is made from the PPS special account and then reimbursed by the end user, as discussed in Chapter 2. Though central government entities are entitled to a payment period of up to five days, instant payment allows SMEs to receive payment within as little as four working hours.

Further liquidity support for SMEs in public procurement comes from a network loan programme. Under this programme, 15 commercial banks have partnered with PPS to offer terms that allow SMEs to obtain loans for up to 80% of the contract amount solely based on the contract with PPS, without any lien. This is a valuable means of support for SMEs without the financial standing to otherwise finance performance of public procurement contracts, and it has expanded substantially in recent years, reaching over 11 000 loans and nearly USD 400 million (see Table 4.6). Six institutions - including KIBO (Korea Technical Finance Corporation), Korea Federation of SMEs, Industrial Bank of Korea, Sinhan Bank, Hana Bank and Woori Bank – provide even more comprehensive support for SMEs in the form of warranties, loans and enterprise consulting. As of 31 December 2014, 1 223 warranties, loans and consultations were provided under this programme, for a total amount of USD 571 million.

Rationale for Preferences

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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)».

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)».

Economy can be compatible with Equity!
And Integrity?

Other Rationales for Preferences

There is even a sense in which affirmative action promotes the "full and open competition" mandated by the Competition in Contracting Act of 1984.[137] The government procurement process seeks to balance three competing goals of "equity (fair access to competing bidders), integrity (reduction in opportunities for corruption) and economy, (obtaining goods or services required at the lowest possible price)."[138] Although the main thrust of our argument has concerned economy, affirmative action may also increase fairness and integrity. When affirmative action increases auction competition, it inevitably diminishes firms' opportunities to bilk the government. The privilege of participating in a noncompetitive auction could be recharacterized as unfair access to the public fisc. And affirmative action may promote fairness by redressing past and present instances of either private or governmental discrimination. To the extent well-organized incumbents are more likely to capture or corrupt the purchasing process,[139] affirmative action subsidies counteract both possibilities by forcing favored incumbents to bid closer to their reservation prices.

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

Most of all

Value for Money

What is Value?
Fairness? Integrity?

«Each country will necessarily balance and pursue procurement-related policy objectives—whether transactional or strategic—in ways that maximize value for its own stakeholders. In other words, application of VfM is contextual and, therefore, potentially subject to wide divergence between and among countries depending on the relative mix of national socioeconomic priorities in each country.»

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

The Race

The Aussie Athlete, **James Gallaugher** recently **(2013)** completed the 200m run 0.08 secs faster than **the 14-year-old Bolt (2000)** registering 21.73 secs.
Google.com

Not this Race

Dont’ let this race take place

The Empty Race

The Meaningful Race

Usain Bolt and brazilian athlete Terezinha Guilhermina, fastest blind runner. 50 meters in 9:12 on the track of the Brazilian Jockey Club di Rio de Janeiro, at the event «Hand in Hand Challenge».

The future of preferences?

Some discrimination may disappear (thanks also to preferential procurement).

Some new discriminations may not be tolerated anymore (and require new preferential procurement) by future generations!

Two nightmares for a "good" procurer

Having competition without participation:

- Barriers to entry, where a few compete and others do not enter while they might have if procurement had "targeted" them;

Having participation without competition:

- Cartels, which are ubiquitous in public procurement.

COLLUSION

Two nightmares in one

- Bos and Harrington (2010) show that stable cartels are often not all-inclusive.
- They show that a firm finds it optimal not to join the cartel when its capacity is sufficiently low, because the effect of its membership on price is trivial but, at the same time, it experiences a non-trivial reduction in its output.
- Thus, they claim we should not expect a cartel to include very small firms.

Europe: Combating Collusion, practice

Only a few of the cartels investigated by the EC originated from bid rigging. The bitumen cartels in the Netherlands, where 14 firms were involved, and in Spain, where there were five participating firms, both cartels were investigated through reporting of the same leniency applicant, BP. BP discovered the cartel in the course of a merger notification process.

The most important reason why bid-rigging cartels are seldom investigated by the EC is that the members of a bid-rigging cartel are generally firms that are all localized in the jurisdiction where the bidding takes place. Moreover, the effect of the cartel is mainly domestic so that the firms are subject to the jurisdiction of the domestic antitrust authority.

Recently, both the U.K. Office of Fair Trading (OFT) and the Dutch Nederlandse Mededingingsatoriteit (NMA) have discovered a major bid-rigging cartel in the construction industry.

Alberto Heimler

Europe: Combating Collusion, practice

In both jurisdictions, the number of firms in the cartel was around 100 (94 in the United Kingdom and 103 in the Netherlands), and the cartel had lasted for years. In both jurisdictions, the cartel had been discovered in a different way than in the case of normal cartels, where a leniency applicant is the most frequent source of information.

In the Netherlands, the case originated from a television news program that revealed the existence of secret financial accounts at a major construction company. This led to the discovery of a network of anticompetitive agreements among construction firms that for years illegally divided up public procurement bids among themselves. In the United Kingdom, it was the bidding organizers that noticed the rig.

The interesting characteristic of these bid-rigging cartels in construction is that the participating firms operated both in normal and in bidding markets. While they colluded only in the bidding segment of the market, they fully competed elsewhere. The same happened in Italy, where the antitrust authority discovered a cartel in the market for the supply of meal vouchers to the public administration. The same firms acted independently in the rest of the economy and competed there. **This is very simply the result of the very different degree of stability cartels enjoy in normal and in bidding markets.**

Alberto Heimler

Spotting a cartel in PP - 1

- Unusual bidding patterns: regular incremental difference among bids; vastly increased value of a bid compared with a bid from the same bidder on a similar contract;
- Communications of Trade Associations;
- Identical/similar phrases, excuses, spelling mistakes;
- Deliberate unacceptable terms or mistakes;
- Subcontracting by winner to unsuccessful competitor (forbidden?);
- Same professional advisor representing more than 1 bidder.
- **MORE TO COME?**

PUBLIC PROCURERS'S NIGHTMARE NUMBER 1?

NOT AWARD THE CONTRACT!

PUBLIC PROCURERS TAKE CARTELS AS A GIVEN: IF THE CARTEL IS STRONG, THERE IS NOTHING THEY CAN DO ABOUT IT, AND THIS DOES NOT NECESSARILY IMPLY CORRUPTION.

FIGHTING CARTELIZED MARKET STRUCTURES IS THE JOB OF ANTITRUST AUTHORITIES

Spotting a cartel in PP - 2

Too hard to do:

a) Cartels can be done over time (today I go, tomorrow you go) or over space (I go to Monterrey you go to Mexico City): how can one notice?

b) Stopping a cartel might mean stopping sourcing of urgent services or delivery of goods: organizational problem and internal resistance.

So….

a) Antitrust authorities and availability of public procurement data, together with whistleblowing legislation are the best instruments to fight it.

b) Internally, **competences** and **the right procurement strategy** might still help to make **cartels' life miserable**.

Let's not forget!

- If, when cartels are around, one does ….

a) 2 lots for 2 firms;

b) 1 lot, allowing temporary consortia or sub-contracting among large firms;

c) Choose a high base price or

d) A descending price auction

Why?

Incompetence, corruption, or…

FIGHTING CARTELS IN PUBLIC PROCUREMENT

What do we Know about Collusion in PP?

Cartel	Frequency
Only Cartel	29%
Cartel and Corruption	24%
Cartel Corruption, Criminality	32%
Other	15%
Total	100%

Analysis of final judgments by High Court (Cassazione) (2016-2020)

Iossa, Raganelli (2023)

Estimating Need

Favoritism through tender specifications is an Important Channel of Corruption/Collusion.

- Soreide: “41% of the firms said that tender specifications happen to be designed to fit the offer of one specific company”.
- Kosenok and Lambert-Mogiliansky show that **favoritism** facilitates collusion because ‘it induces …. the selected contract specification reflecting the cartel’s interests instead of social preferences’.
- They find that overall favoritism ‘exacerbates the cost of collusion for society. The contract specification is socially inefficient and the price is higher than with collusion alone’.
- So do Scoring Rules appropriately targeted to specific firm’s characteristics.

What do we Know about Collusion?

Corruption and Collusion are strategic complements.

a) Collusion benefits from corruption:

- To make defection harder or impossible;
- To make cartels even more profitable.

b) Corruption can be facilitated by collusion

- Rents (extra profits) are resources for corruption.
- Lower probability to blow the whistle against corrupt officers.

Winner is: the best BRIBE offerer

	No Corruption	Infinite Bribes Possible CARTEL	Only Finite Bribes Possible (Risk) CARTEL	What if one FIRM cannot bribe?	Corrupt officer can choose winner beyond minimum price CARTEL
Government	R	0	0	R	0
Firms	0	0	R-B	0	R-B
Bureaucrat	0	R	B	0	B
Price	Best Marginal Cost	Reservation Price	Reservation Price **NOT P +B**	Best Marginal Cost	Higher than Marginal Cost
Bribe	0	Reservation Price - MC	B < Reservation Price – MC	0	B

Governance Implications

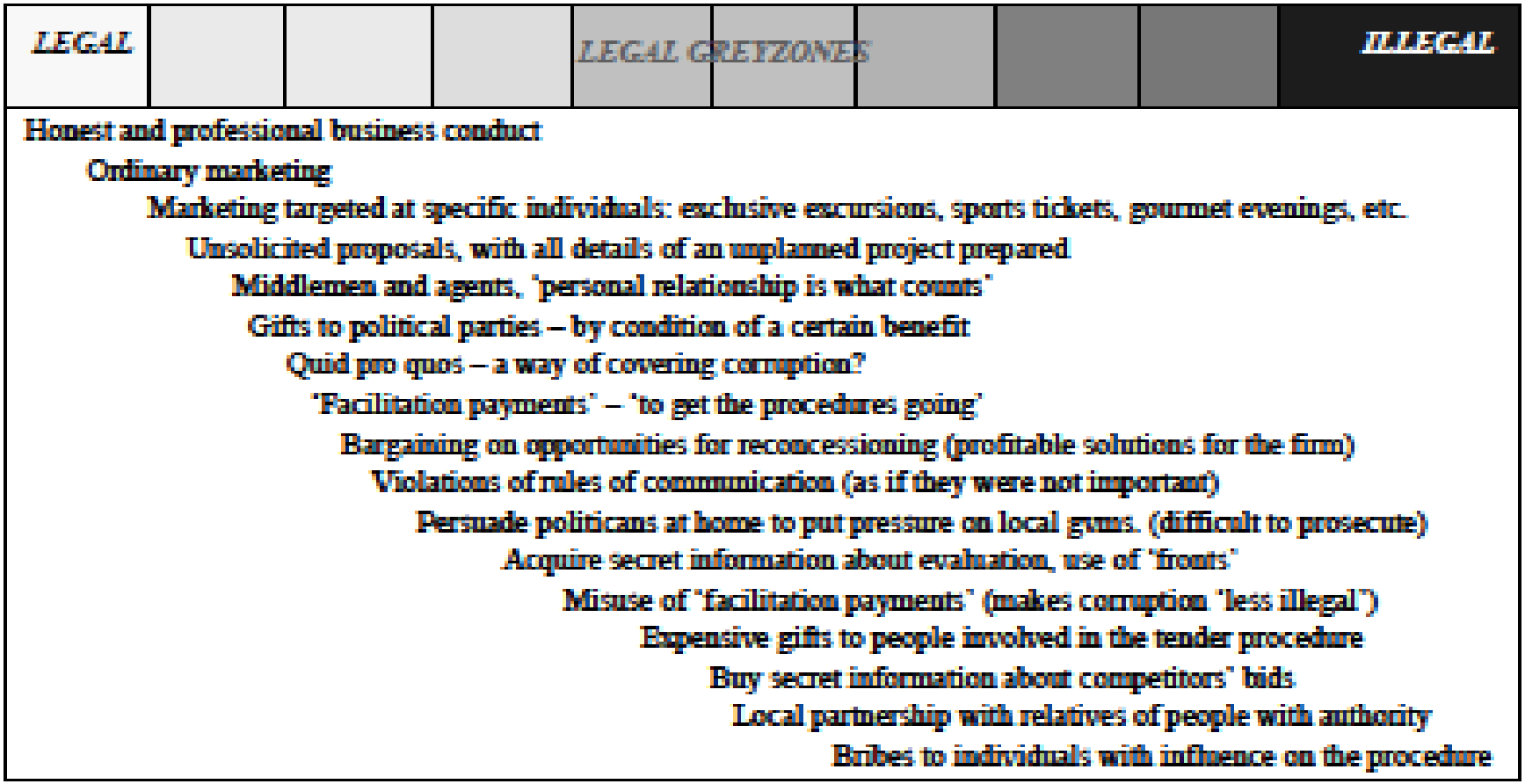
Fighting Cartels in Public Procurement can be one of the Best Tools to Fight Corruption

- If Authorities are not Captured.
- Cooperation Between Antitrust and Procurement Authorities.

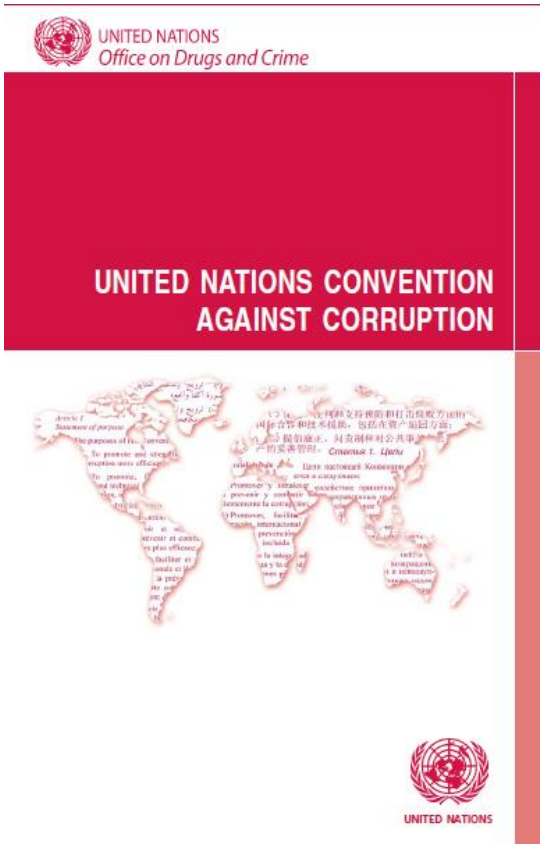
CORRUPTION

DEFINING CORRUPTION

What is Corruption? Soreide (2005)



What is Corruption?



No definition

UN Convention Definition (of Bribery!)

- "(a) The promise, offering or giving, to a public official, directly or indirectly, of an undue advantage, for the official himself or herself or another person or entity, in order that the official act or refrain from acting in the exercise of his or her official duties; (b) The solicitation or acceptance by a public official, directly or indirectly, of an undue advantage, for the official himself or herself or another person or entity, in order that the official act or refrain from acting in the exercise of his or her official duties." (article 15).

http://www.unodc.org/unodc/en/treaties/CAC/index.html

Semantics

Definition that seems to imply:

- essentially a **bilateral relationship;**
- the existence of a **“First Mover”**;
- An almost **“contemporaneous”** exchange.

It does little to perimeter around **systemic corruption**

Systemic Corruption

«According to the Federal Public Prosecutors' Office (Ministério Público Federal) (FPO), Operation Car Wash exposed an arrangement involving large Brazilian companies, organized in cartels, paying bribes of between 1 per cent and 5 per cent of the value of the contracts won to high-level executives of state-owned enterprises (SOEs), including the oil and gas exploration giant Petrobras—Petróleo Brasileiro S/A. These executives took a cut of the bribes, before passing the remainder to senior politicians responsible for their appointment, and their political parties, so enriching politicians and helping to finance their electoral campaigns.»

Alison Jones, Chapter 7, Brazil: Lessons from Operation Car Wash, in R. Anderson et al, Combatting Corruption and Collusion in Public Procurement , Oxford University Press, 2024

Implications of Systemic Corruption

The paradox of the right solution.
It works best there where needed the least.

Anticorruption Authorities

Michela Wrong – *It is Our Turn to Eat*

Whistleblowers

Søreide (2008)

firms will not engage in whistleblowing against corruption- related challenges in the local business climate unless local levels of corruption are considered to be low

Centralization – The Bulgarian example

- **"The Bulgarian Cabinet has appointed Finance Minister Simeon Djankov in charge of all public procurement procedures handled by the state. "Minister Djankov becomes the Central Unit for Public Procurement," states the government's decision made Wednesday the rationale for the decision being that the new arrangement will help reduce spending and corruption when it comes to tenders.**

  The centralization of the public procurement procedures is supposed to save money and to hinder corruption schemes."

http://www.publictendering.com/corruption-costs-make-bulgarian-minister-take-over-public-procurement/

CPBs: 1 Big Bribe instead of 1000 small ones or 0 bribes?

Definition
(fit for systemic corruption)

Misuse of public **power** [in procurement] for private benefits.

Lambdsorff (2007)

Both politicians and bureacrats alike

Definition
(fit for systemic corruption)

Misuse of public power [in procurement] for private benefits.
Lambdsorff (2007)

No reference to specific time or specific exchange nor to two main individuals.
Beyond Bribery toward Corruption: Bribery AND Cronysm, Patronage….

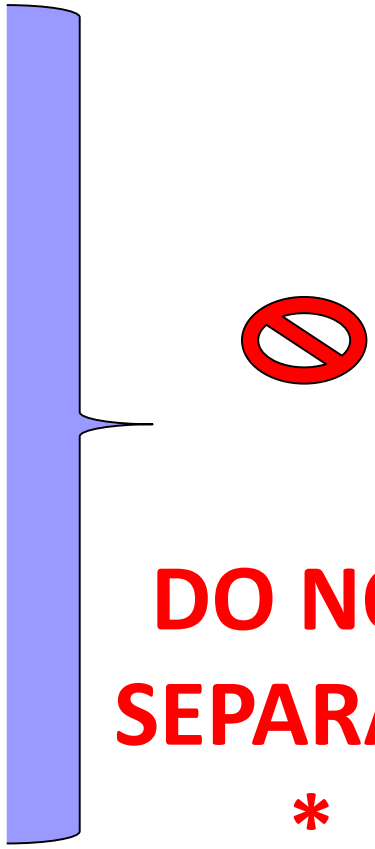
CORRUPTION IN PROCUREMENT

Key Moments in Procurement

Q^s . **Demand Management.**

P^s x (Q + ΔQ^p). **Sourcing .**

P x (Q – ΔQ^e). **Supply Management.**



DO NOT SEPARATE

*

DEMAND MANAGEMENT

Tender specifications matter. Favoritism

- Once upon a time, the Department of the Interior decided it wanted to move to the cloud, and issued a procurement request asking vendors to send it bids, as is typical with government procurements. However, in the fall of 2010, Google filed suit against this process, noting that it required any bidder to be compliant with Microsoft's Business Productivity Online Suite — needless to say, a provision with which only Microsoft products could comply. This is typically thought to be a no-no in government procurements.

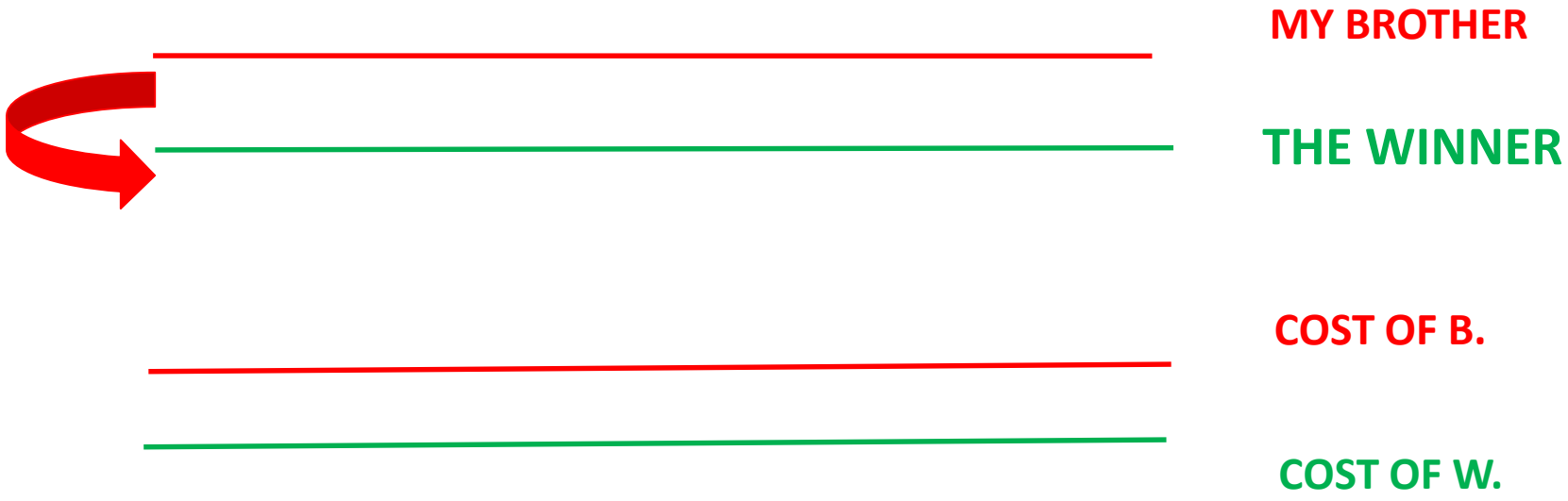
- Google has ended up being awarded a gigundo contract to supply Google Apps to the U.S. Department of the Interior, over Microsoft. Google withdrew its lawsuit in September 2011 after the Interior Department relinquished its rights to the Microsoft contract, claiming the research it used in picking Microsoft was "**stale.**"

- The contract provides email and collaboration software to 90,000 Interior employees, for $34.9 million over seven years -- or $14 million less than Microsoft would have been paid.

http://blogs.wsj.com/cio/2012/05/01/google-defeats-microsoft-in-epic-battle-of-department-of-interior-email-contract/

SOURCING

An Example. Where is Corruption? The Envelope



The Workings of C.: my brother won already

The Workings of C.: my brother does not win

MY BROTHER

COSTS OF B.

THE WINNER

COSTS OF WINNER

Another invisible impact

Corruption Impact Must Also be Evaluated Taking Into Account its Invisible Effects

a) Quality points, important for good procurement, may also be a vehicle for corruption;

b) [N]arrowing discretion . . . while preventing the agent from doing (corrupt) things that are slightly injurious to the principal it may at the same time prevent him from doing (non- corrupt) ones that would be very beneficial to him. If simply to prevent corruption an agent is given a narrower discretion than would be optimal if there were no corruption, whatever losses are occasioned by (lower) discretion must be counted as costs of preventing corruption.

SUPPLY MANAGEMENT

Renegotiation

- Renegotiation can help: unforeseen events, new advantages
- But:
- Renegotiation can reduce the benefits of competition: he who wins is the best renegotiator (with a very low, renegotiable, price) rather than the best quality provider.
- The ethics of renegotiating are set in stone?

During Contractual Life and in Systemic Corruption

Who Monitors and who Monitors the Monitor?

Quis custodiet ipsos custodes?

FIGHTING CORRUPTION IN PP

Dont' Fight It! Useless!

- **What does a Mayor learn fom his first term in Office? Italy, 2000-2005.**
- **The longer the years in office, the lower the number of participants to the tenders, the lower price discounts.**
- **2.8 years of political longevity reduce the number of tender participants by at most 14% and discounts by 1.6 to 8%.**
- **For 500.000 euro tenders, a mayor with long tenure spends 10.000 euro more than a novel mayor. The long tenure mayor sees an increase of 24.5% probability that the tender is allocated to a local firm.**

(Coviello-Gagliarducci)

But … (Ferraz-Finan)

- **The reduction in corruption practices induced by electoral accountability is not only statistical significant, but economically important.**
- **Assuming that, in the absence of reelection incentives, first-term mayors would behave as second-term mayors, we estimate that reelection incentives are responsible for inducing a reduction in resources misappropriated in the order of R$600 million (US$205 million).**
- **Accountability affects incentives (to be continued).**

What do we Know about fighting Corruption?

Some things that do not fight corruption inequivocally well

a) Rotating Officers/Commissioners: raising the bribe?
b) Central Purchasing Bodies and Authorities: capturing the leaders?
c) E-procurement:

c1) corruption through «low price+low quality» arrangements goes through also with offers in encrypted files;

c2) however, tampering with an envelope vs. tampering with an encrypted file is not the same thing.

Governance Implications

Fighting Cartels in Public Procurement can be one of the Best Tools to Fight Corruption

- **If Authorities are not Captured**.
- Cooperation Between Antitrust and Procurement Authorities.

Challenges of ACAs

- **Tension between prevention and prosecution**
- **Big fishes or small ones?**
- Clear mandate leads to better coordination among different agencies
- Need for clear agreements among agencies
- …resources are a constraint.
- Accountability: administrative and judicial

FIGHTING CORRUPTION OR …

Corruption in Procurement

L'utilizzo delle risorse per la costituzione dello stock di capitale pubblico

Regione	Inventario permanente/ inventario fisico (con correzione per le differenze di costo)
Umbria	1.77
Emilia-Romagna	1.66
Toscana	1.56
Liguria	1.55
Marche	1.42
Lombardia	1.42
Piemonte	1.35
Veneto	1.15
Friuli Venezia-Giulia	1.02
Lazio	1.02
Abruzzi	0.86
Puglia	0.80
Sicilia	0.74
Sardegna	0.56
Campania	0.54
Calabria	0.49
Molise	0.45
Basilicata	0.39

Lucio Picci's work.
In every Italian region spending was 100?
In Umbria 1.77 bridges, in Sicily 0.74.

P.S.: why this **waste**?

Italy, Goods and Services

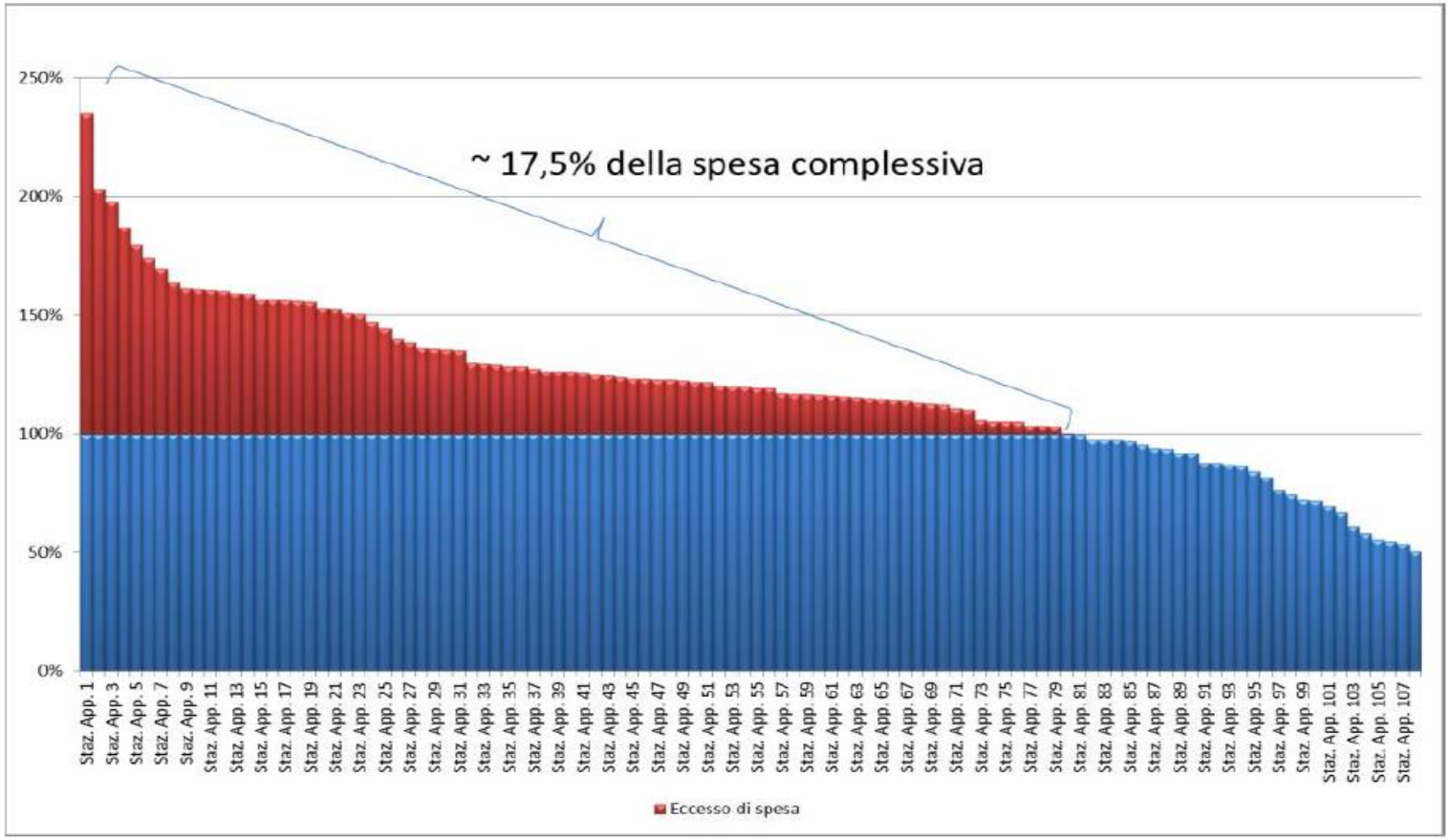
How Much Public Money Is Wasted, and Why? Evidence from a Change in Procurement Law - Oriana Bandiera, Andrea Prat, Tommaso Valletti, *American Economic Review*

How much waste in purchases could be eliminated by bringing "the worse at the level of the best"? "If all public bodies were to pay the same prices as the one at the 10th percentile, sample expenditure would fall by 21% . . . Since public purchases of goods and services are 8% of GDP, if sample purchases were representative of all public purchases of goods and services, savings would be between 1.6% and 2.1% of GDP!"

p.s: worldwide phenomenon

Understanding Waste

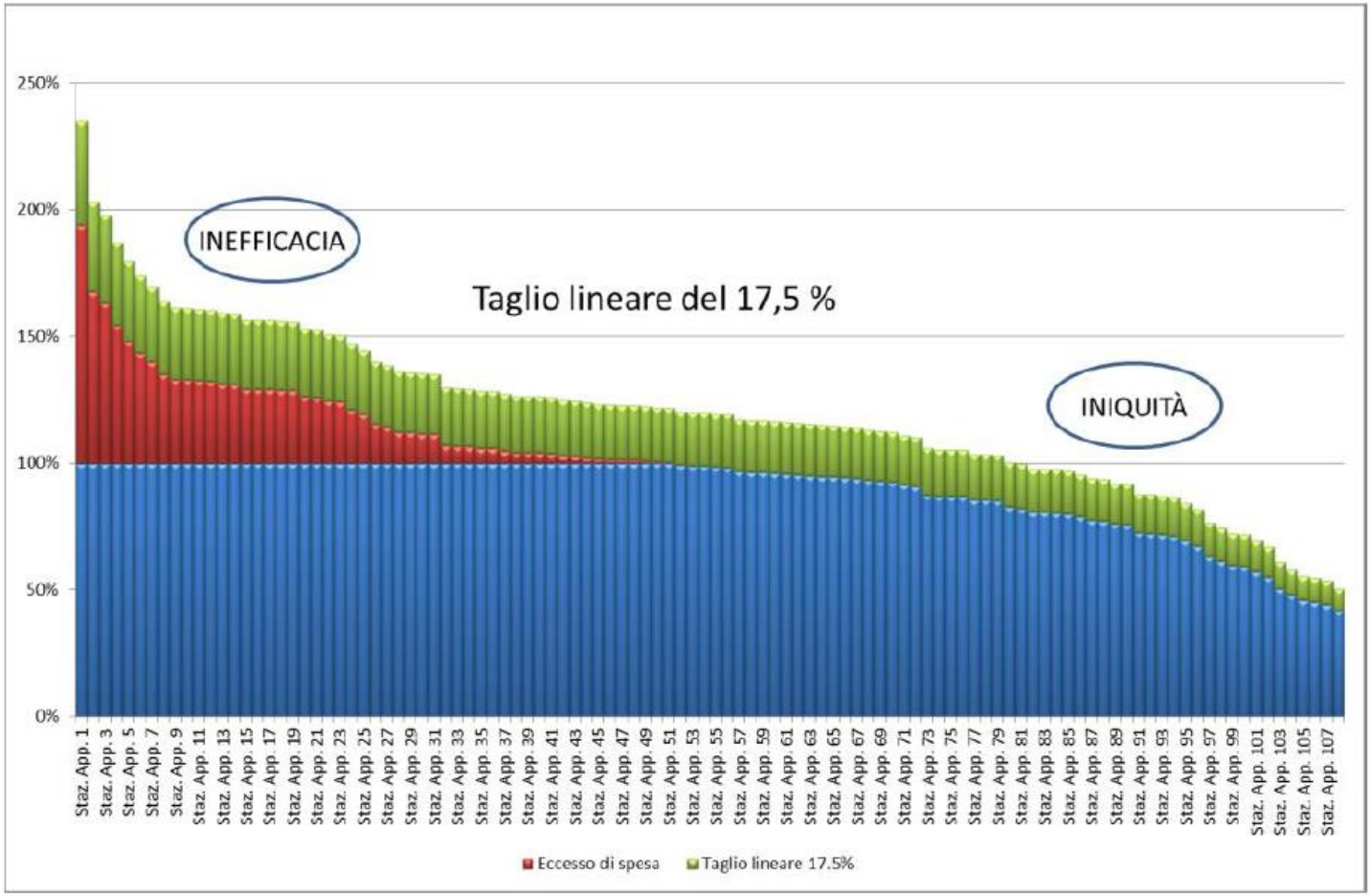
Figura 11.1 Eccesso di spesa imputabile alla componente prezzo.
Stime relative al servizio di pulizia in ambito sanitario (2015)



Fonte: ANAC

Understanding Waste

Figura 11.2 Eccesso di spesa imputabile alla componente prezzo e tagli lineari. Stime relative al servizio di pulizia in ambito sanitario (2015)



Fonte: ANAC

Understanding Waste

- Spend 600 euro
- 400 + 200 for 2 identical ambulances
- Stop the 400 purchase
- Cut spending at 400
- No impact on unemployment or real GDP
- Cut? In transfer
- Resource? 200 for…
- Lower taxes
- Third ambulance
- Reducing debt

- Spend 600 euro
- 200 + 200 + 200 for 3 identical ambulances
- Stop one 200 purchase
- Cut spending at 400
- Impact on unemployment or real GDP? Yes.
- Cut? In spending of third ambulance

Bandiera, Prat and Valletti
American Economic Review 2009

How much of this waste is passive (inefficiency [and capture from ignorance?]) vs. active (corruption)? "On average, at least 82% of estimated waste is passive and that passive waste accounts for the majority of waste in at least 83% of our sample public bodies."

Good news! Corruption is harder to eradicate than ignorance.

Ignorance can be eradicated, with knowledge-sharing practices.

The Carabiniere's story: no, 100% Corruption!

"Have you ever wondered why…?"

P.S.

Corruption and Incompetence in Procurement are strategic complements (like…): corruption makes competence valued less and incompetence makes corruption work better.

But the Message remains the same: Foster Competence Building!

To be continued.

Incompetent Waste (USA)

A one standard deviation increase in competence reduces cost overruns by 29 percent and the number of days of delay by 23 percent. It also reduces by half the number of renegotiations. This implies that, if all federal bureaus were to obtain NASA's high level of competence (corresponding to the top 10 percent of the competence distribution), delays in contract execution would decline by 4.8 million days and cost overruns would drop by $6.7 billion over the entire sample analyzed.

BUREAUCRATIC COMPETENCE AND PROCUREMENT OUTCOMES
Francesco Decarolis, Leonardo M. Giuffrida, Elisabetta Iossa, Vincenzo Mollisi and Giancarlo Spagnolo
Working Paper 24201, http://www.nber.org/papers/w24201

Competence, again

«Centralization of public procurement can lower prices for the government's direct purchase of goods and services. This paper focuses on **indirect savings**. Public administrations that do not procure directly through a central procurement agency might benefit from the availability of centrally-procured goods. We exploit the introduction of a central purchasing agency in Italy and find that prices came down by 22% among administrations that bought autonomously.

This allows public administrations purchasing outside Consip (the Italian CPB) to learn and benchmark their reserve prices against those of the CPB.

A publicly observable benchmarking price from a well-informed central buyer may also discourage or limit corruption, as prices can no longer be easily inflated without raising suspicion about the purchase.

These indirect effects appear to be driven by informational externalities, especially for **less competent public buyers** purchasing technologically more complex goods».

Not a paper on centralization: savings that can be achieved also with competence-building policies or with monitoring

Lotti, Clarissa, Arieda Muço, Giancarlo Spagnolo and Tommaso Valletti. 2024. "Indirect Savings from Public Procurement Centralization." *American Economic Journal: Economic Policy*, 16 (3): 347–66.

Beyond Mere Competence

Cooperation in the bureau seems to be by far the **most important component of bureau competence** in terms of the effects on procurement performance. This result is … linked to the complexity and multidisciplinarity typical of procurement. The need to master legal, engineering, economic/strategic and merceological skills for different types of goods, works and services and to coordinate the various phases of the procurement cycle (market analysis, tender design and implementation, contract management and evaluation) makes **good procurement primarily the outcome of team-work**. Cooperation among employees is therefore a crucial ingredient for a well functioning procurement office.

Existing certification programs, however, have mainly targeted individual contracting officers. Our results on the role of cooperation suggest that, **while certification of individual contracting officer's capabilities is certainly welcome and important, it may not be sufficient.**

What does cooperation require?

Internal Trust

Open and honest communication;

Acting ethically has priority;

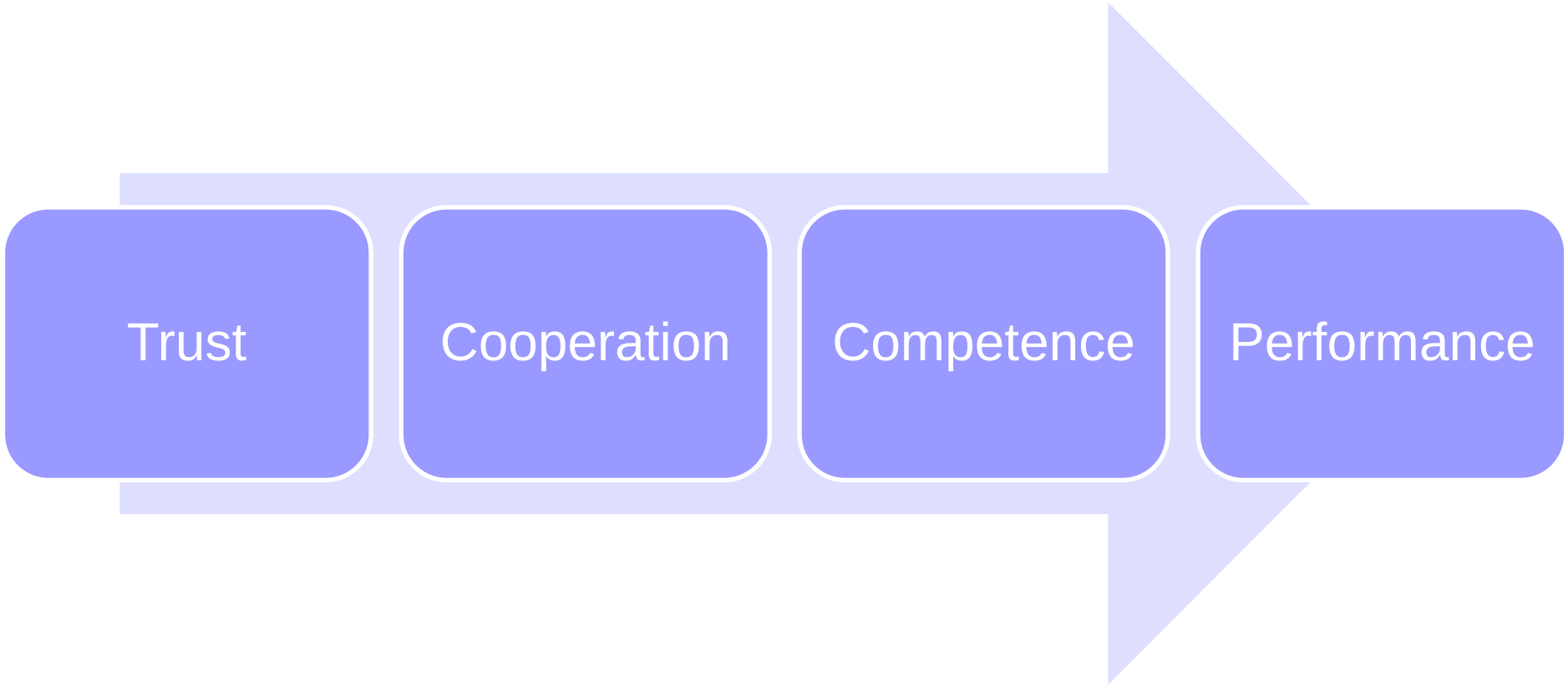
No fear of reprisal for reporting misbehavior;

Encouragement and promotion of diversity of backgrounds, talents and perspectives;

Genuine effort to elicit opinions and thoughts of workers;

Coherence of senior leadership with company's communication pillars.

Motivational Chains

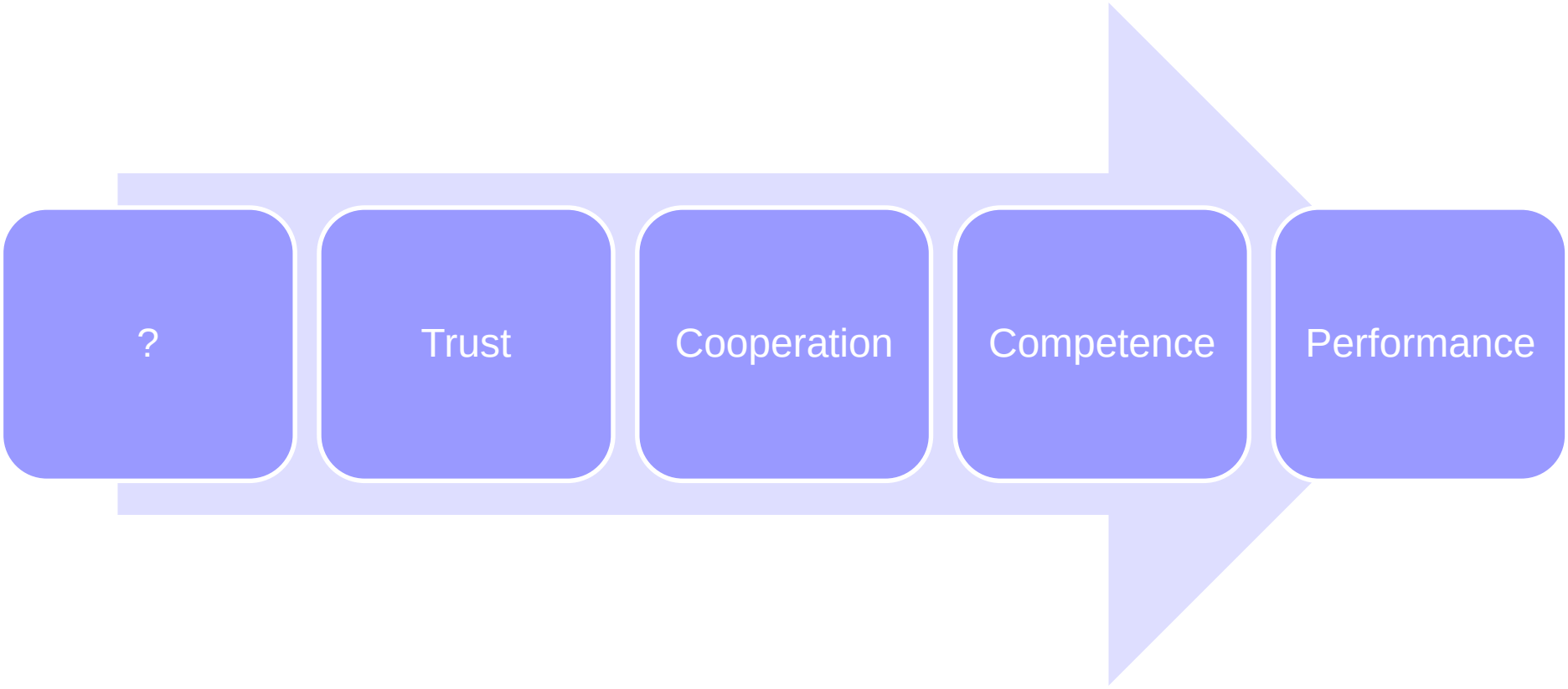


Italian Public Procurement Law, art. 2

1. The allocation and exercise of power in the field of public contracts is based on the **principle of mutual trust** in the legitimate, transparent and correct action of the administration, its officials and economic operators.

2. The principle of trust promotes and enhances the initiative and decision-making autonomy of public officials, with particular reference to evaluations and choices for the acquisition and performance of services according to the **principle of performance**.

Is Trust Endogenouus?



Trust, the virtuous circle

Inhibiting trust:
Quis custodiet ipsos custodes?
(Kenya story)

Who/What activates trust?
Primum movens?

«The fish smells from the head»?

Leadership and…?

TRUST

2011. A trip to Russia during a reform

European Bank
for Reconstruction and Development

2 different views of public procurement

Glauco or Socrate in Russia

Who can avoid to do evil to another being for its own gain if he is not or badly monitored?

Repubblica, Plato

- Socrates: **all**,

  Man chooses always to do good and if he does evil it is only by intellectual mistake. Justice, indeed, gives happiness to those who exert it.

- Glaucon" (Gige's Myth): **no one**,

  Injustice provides more joy than justice.

Is it an issue of human nature? Or also **of incentives**?
And of **trust**?

A European (?) Directive

… that introduces more **discretionality** for public buyers.

Why?

United Kingdom.

0) The Crisis = political support
1) Organization: career structure and incentives
2) Professionalization
3) Accountability (with data)
4) Trust (the competitive dialogue signal)
5) **Discretionality as a need/necessity**
6) The EU Directive = The Law

Internal Knowledge-Sharing UK 2009

Recommendations:

"Attract, Reward, Retain and Develop".

A European (?) Directive

Same Directive, Different Law, Different Trust

Imagine a country with …

0) No … crisis
1) With «rotation» of employees
2) No resources for employees nor for data
3) Maybe a **law** encouraging professionalization (but no … €)
4) Without competitive **dialogue**
5) **With discretionality as fear/headache**
6) The Law ≠ The EU Directive

7 years ago…

EUROPEAN
COMMISSION

Strasbourg, 3.10.2017
C(2017) 6654 final

COMMISSION RECOMMENDATION

of 3.10.2017

on the professionalisation of public procurement

Building an architecture for the professionalisation of public procurement

(Text with EEA relevance)

A revolution in the making?

I. **Policy …** Developing the appropriate policy **architecture** for professionalisation: to have a real impact, any professionalisation policy should count on **high level political support.**

II. **Human Resources** … must have the **right qualifications**, training, skills and experience needed for their level of **responsibility**. This means **securing** experienced, skilled and motivated staff, offering the necessary **training** and continuous professional development, as well as developing a **career structure** and **incentives** to make the public procurement function **attractive** and to **motivate** public officers to deliver on strategic outcomes.

III. **Systems** … ensuring the availability of **tools** and **processes** to deliver smart procurement, such as: e-Procurement tools, guidelines, manuals, templates and **cooperation** tools, with corresponding training, support and expertise, **aggregation of knowledge** and **exchange of good practice**.

Without Forgetting Data

Centralize Data but…

1) … not procurement

2) … not (necessarily) publishing them to a wide audience?

Korea's KONEPS e-proc system

The degree of transparency in public procurement in Korea has also been greatly expanded by KONEPS. Real-time disclosure of tender notices, bidding details and results, awarding information and contracting information is now available. On a per-contract level, the general public can track the history of each transaction, from tendering through to invoicing. Publication of all tender notices through KONEPS also allows for ready comparisons of terms and conditions, and tenders published by PPS also require a five-to-seven-day advertisement for preliminary specification review. This period allows for challenges to tenders that may contain unnecessarily restrictive terms and conditions, which fosters fair and open competition. Such challenges and any responses are also publicly available.

This increased data collection and consolidation also yields benefits for strategic planning and accountability. Public buyers have access to procurement records to a

OECD Public Governance Reviews, *The Korean Public Procurement Service - Innovating for Effectiveness*, 2016.

Policy

Foster Organizational Change Toward Performance

- Use Data for Internal Improvement
- Use Data for Setting Targets, Motivations, Rewards
- Use Data that are oriented toward output-based measurement of **performance**
- Organize Institution **around Self-Improvement.**
- **The Philippines** example stands out as a potential benchmark:

A comprehensive approach

- *The results should **not be used to compare** the agency's score against that of other agencies but to provide a benchmark **against which it will measure its own subsequent performance**. The assessors shall then identify areas of strength (sub-indicators receiving a satisfactory or Very Satisfactory score) where it can continue to improve and weaknesses (sub-indicators rated poor or acceptable) where it needs to develop a specific plan of action.*
- ***A Plan of Action** to Improve Procurement Capacity will then be developed …*

SUMMING UP

Tale of 2 countries

	RULES	DISCRETION
TRUST		HIGH (GOOD) EQUILIBRIUM
NO TRUST	LOW (BAD) EQUILIBRIUM	

Tale of 1 journey

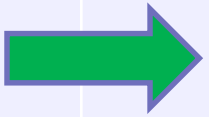
	RULES	DISCRETION
TRUST		HIGH (GOOD) EQUILIBRIUM
NO TRUST	LOW (BAD) EQUILIBRIUM	

Tale of 2 countries

	Low Competence	High Competence
Low Corruption		GOOD EQUILIBRIUM
High Corruption	BAD EQUILIBRIUM	

Tale of 1 journey

	Low Competence	High Competence
Low Corruption		GOOD EQUILIBRIUM
High Corruption	BAD EQUILIBRIUM	REWARDING COMPETENCE



In one quote?

"Investing in the function tasked with delivering these (**efficiency**) targets is a clear **spend to save** business case"

OGC (UK) presentation, Rome, September 2009

Other country? **Save to spend (badly)**

«We have no Money for Competences!»

How much?

≥2%

Why?

≤83%

How Much Public Money Is Wasted, and **Why**? Evidence from a Change in Procurement Law - Oriana Bandiera, Andrea Prat, Tommaso Valletti, American Economic Review

Summing Up


Resources
Competences
Talent Management
Leadership
Careers
Goals
Discretionality
Resources
Data
Team Performance
Accountability
TRUST

History, again

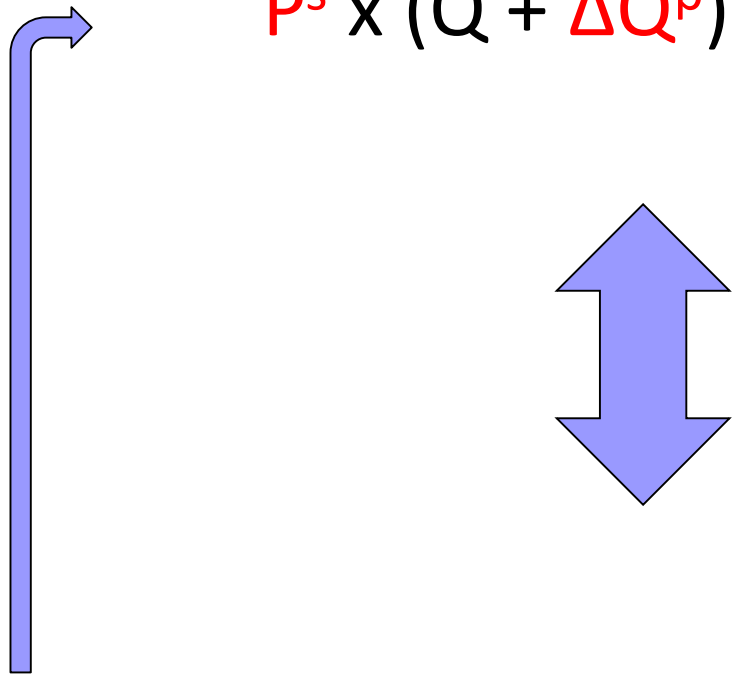
«To those unbridled excesses of wicked men, to the daily protest of the Roman citizens, to the disrepute of the judicial system, I assert that the following is the only remedy to so many evils: competent and honest men that embrace the cause of the State and of the rule of law».

Conjectural speech against Quinto Cecilio, Cicerone

QUALITY

Sourcing. The tender: Look ahead and reason backward

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



$P^s + \Delta P \times (Q^p - \Delta Q)$. **Contract management?**

Why is quality a challenge?

Because **fines** are often the last remedy.

Fines

- Long-term relationship creates softness of monitoring;
- Often very few suppliers: to lose one ...
- Albano et al. (2008): 800 inspections between 9/2006 and 4/2007 on behalf of a CPB. 437 were not at the required contractual level. In only 16 cases (3,66%) penalties where enforced. Resistance to monitoring is natural in some centralization schemes that eliminate empowerment of local, smaller bodies (internal clients);
- But Service Level Agreement, monitoring and customer satisfaction well-set can go a long way.

Why is quality a challenge?

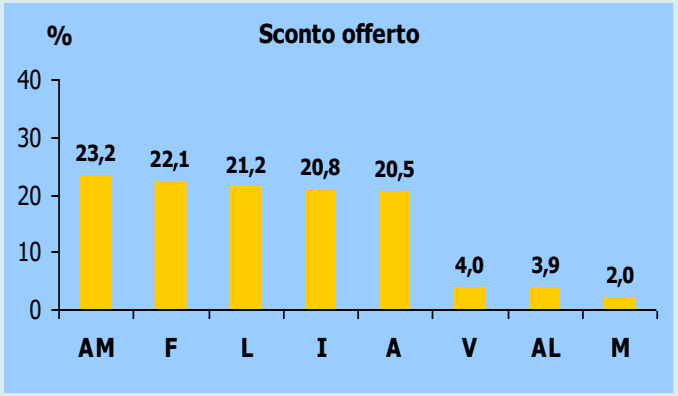
Because **fines** are often the last remedy.

Because **reputation** is hard to reward, unlike in the private sector.

A criterion that rewards reputation

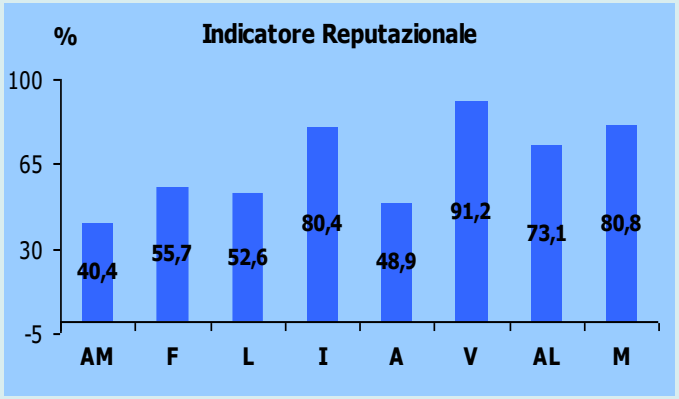
$$Punteggio = a\frac{P_B - P_O}{P_B} + b * IR$$

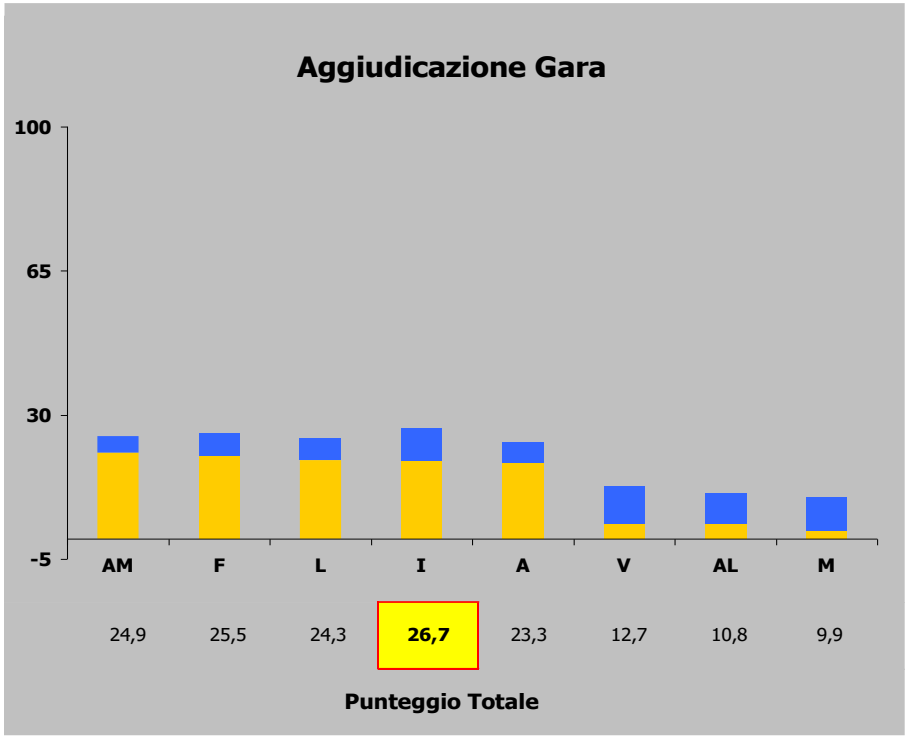
$a *$



+

$b *$





Con i parametri della formula che assumono i seguenti valori:

- a = **90**
- b = **10**
- **PB = € 250.000**

A criterion that rewards reputation

- Depresses participation for newcomers?
- Does not exclude opportunistic behavior from well-reputed firms that decide not to deliver?
- Does not guarantee selection of firms that *can* deliver?
- Requires non corrupt and competent inspectors?

- Not if you start with everybody at the maximum level of reputation (trust/driving licence).
- Not if punishments are strong.
- True. For that you need screening mechanisms before the award stage.
- True.

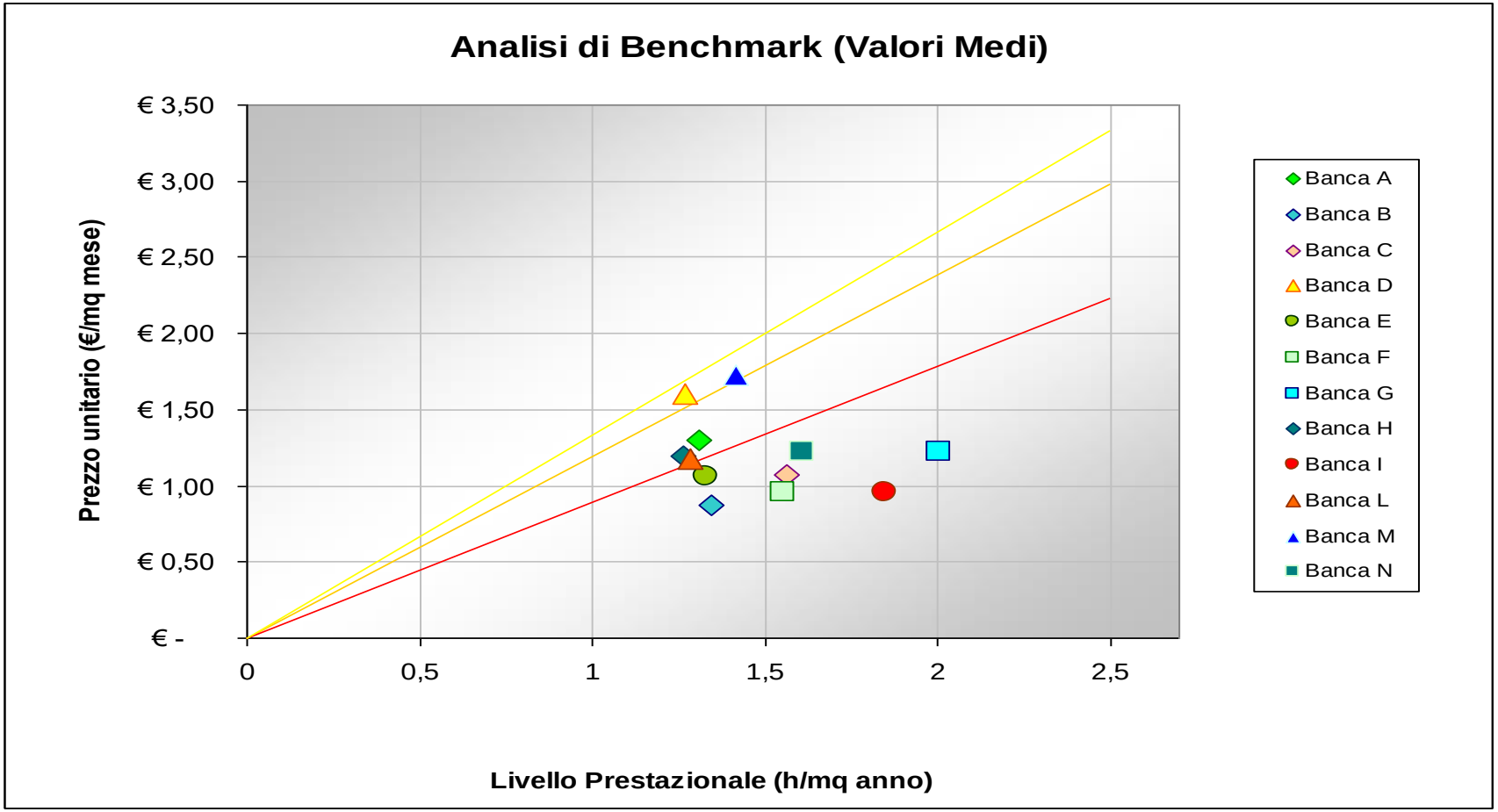
Why is quality a challenge?

Because **fines** are often the last remedy.

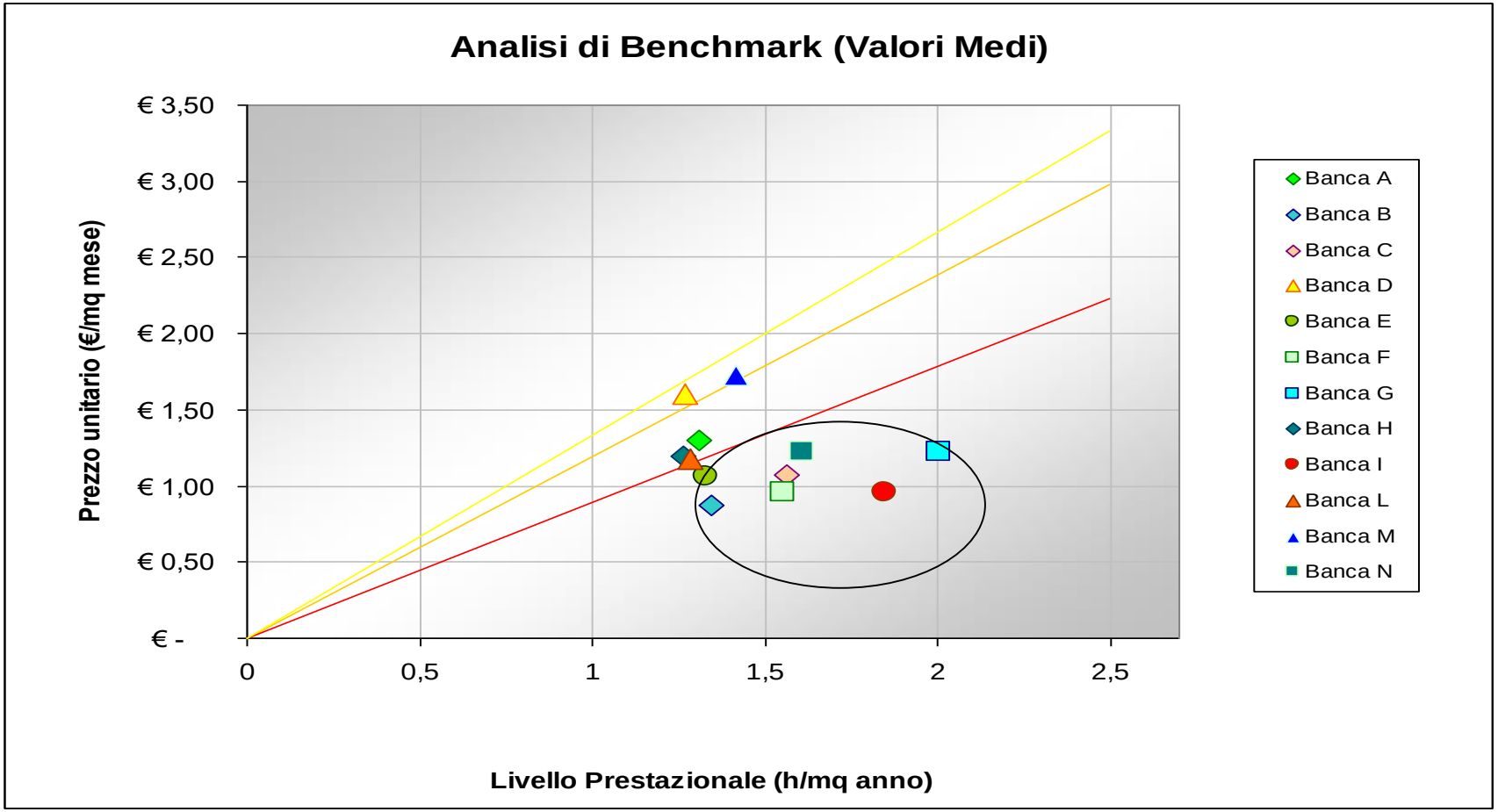
Because **reputation** is hard to reward, unlike in the private sector.

Because **MEAT** criteria that reward quality only reward **promised** quality.

Who performed worse?



(Keeping in mind that low prices are not always *good news*)



Why is quality a challenge?

Because **fines** are often the last remedy.

Because **reputation** is hard to reward, unlike in the private sector.

Because tenders that demand quality only obtain (for sure) **promised** quality.

Focus on the Consulting Industry

"I was complaining about the low consultants' quality to a Partner of **one of the big four** that won a tender to work for Consip (Italy CPB) … guess what he answered me?

"Of course you get the worse staff, what do you expect? You cannot prove they are bad, as they do not violate KPIs, and their low quality cannot be observed by a court in a legal action. Hence you cannot exclude or penalize us in this or future tenders…

If we sent these people to a private customer, he'll stop the contract immediately and never hire us again… so they get our good people, you get the worse ones.""

Source: Giancarlo Spagnolo, Global Procurement Conference .

Focus on the Consulting Industry

Procuring consultancy is tricky: huge heterogeneity, huge variation in technical knowledge, hard-to-measure 'intangible' quality

a) Be suspicious of 'cheap' consultants, they'll find other ways to earn, damaging your interests. Would you run a low price auction to choose your cardiologist?

b) Competent consultants are in demand, need to pay the necessary price; separate different types/markets!

c) With hard to verify performance, no 'threat' to punish low quality: discretion on future contracts (or contract extensions) is a crucial incentive to perform. Past performance schemes are important (vendor rating).

d) Surveys of users' satisfaction in the contract, they can create 'contractible' performance signals/ KPIs. But careful how you design them, easy to manipulate…

e) Better than CVs, PAY level of staff is a reliable measure of staff quality (good people leave otherwise…).

Source: Giancarlo Spagnolo, Global Procurement Conference .

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Because **MEAT** criteria that reward quality only reward **promised** quality.

Because **external checks by competitors** are cumbersome or infeasible.

Why is quality a challenge?

ARMINFO News 3 March 2021 © 2021 ARMINFO News Agency.

Yerevan, Armenia, March 03.

New mechanisms to control the public procurement process will be created in Armenia.

The RA National Assembly, at its sitting on March 3 in the second and final reading, made amendments and additions to the law "On State Procurements". The amendments provide for mechanisms that reduce corruption risks to zero, increase the transparency of the public procurement process, which, as a result, will lead to an increase in the level of public confidence in these processes.

The authors of the bill propose to ensure the participation of representatives of the defeated companies in the tender in the procedure for accepting state purchases. Along with this, interested public organizations and the media will also take part in the procedure. All of them will be able to check the conformity of the goods supplied as part of public procurement with the parameters described in the application. Such mechanisms will operate under contracts worth over 1 million drams. "In other words, new mechanisms of public control over the public procurement process are being created," the deputy concluded.

WILL NOT WORK!

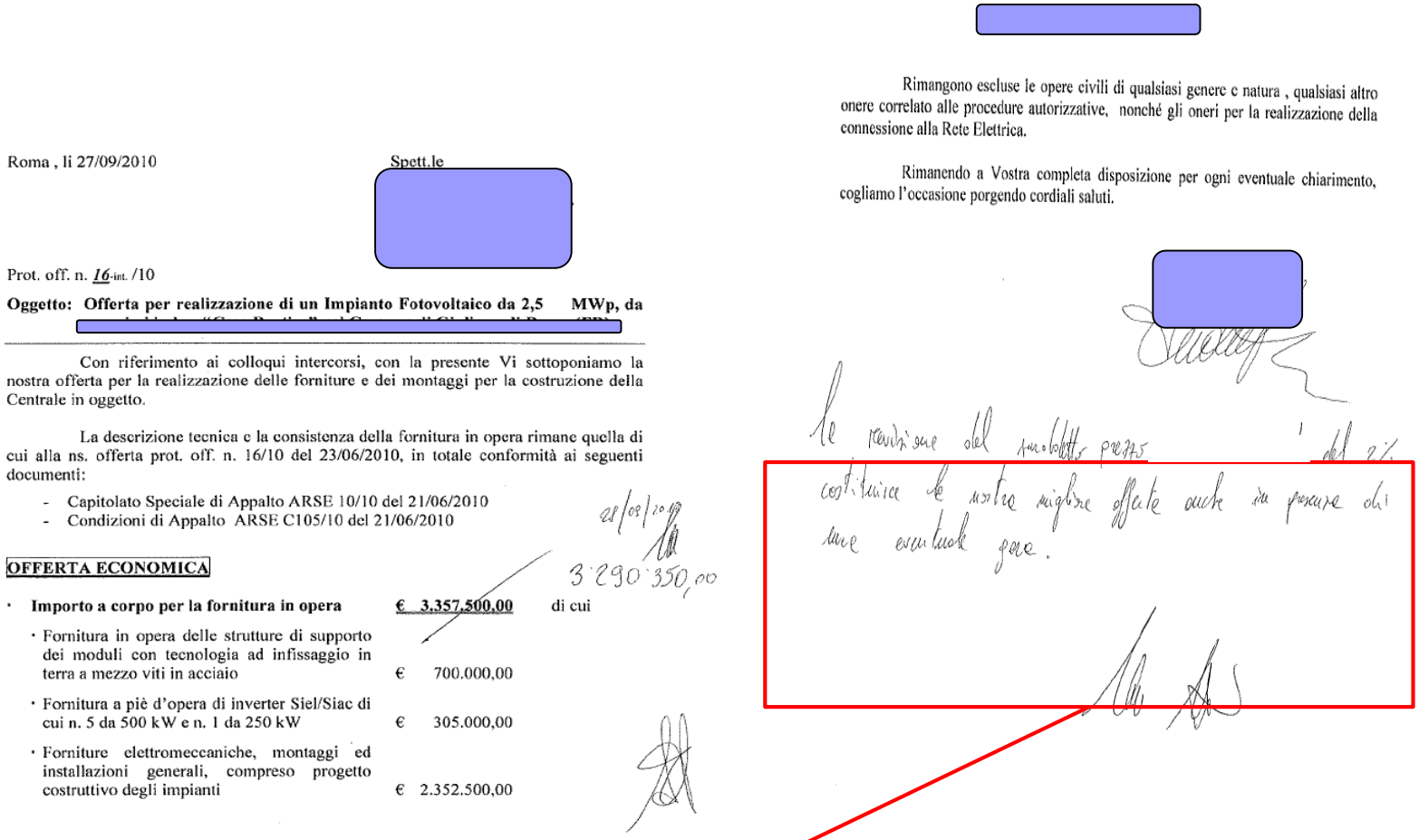
Why is quality a challenge?

Because **fines** are often the last remedy.
Because **reputation** is hard to reward, unlike in the private sector.
Because **MEAT** criteria that reward quality only reward **promised** quality.
Because **external checks by competitors** are cumbersome or infeasible.
Because **competitive tenders** often create more problems than they do solve.

Competitive Tenders?
Not always … Harmful – A Case Study

- The Head of Procurement of my company XXX asks me to award directly to a known supplier, considered trustable, a photovoltaic installment. Price: euro 3.357.500
- I don’t like the idea: I decide to negotiate.
- The supplier grants a discount of 2%: new price euro 3.290.350.
- I am still unhappy: I ask the supplier to confirm in writing that 3.290.350 is the lowest price he can quote and anyway that this would be the price he could quote in a competitive tender. He does so (see next slide)
- I am still not happy: I don’t give a damn and force a competitive tender.
- The same supplier wins, but with a price of euro 2.660.157.

"Buyer, beware!"



Roma , li 27/09/2010

Spett.le

[redacted]

Prot. off. n. 16-int. /10

Oggetto: Offerta per realizzazione di un Impianto Fotovoltaico da 2,5 MWp, da [redacted]

Con riferimento ai colloqui intercorsi, con la presente Vi sottoponiamo la nostra offerta per la realizzazione delle forniture e dei montaggi per la costruzione della Centrale in oggetto.

La descrizione tecnica e la consistenza della fornitura in opera rimane quella di cui alla ns. offerta prot. off. n. 16/10 del 23/06/2010, in totale conformità ai seguenti documenti:

- Capitolato Speciale di Appalto ARSE 10/10 del 21/06/2010
- Condizioni di Appalto ARSE C105/10 del 21/06/2010

OFFERTA ECONOMICA

Importo a corpo per la fornitura in opera	**€ 3.357.500,00**	di cui
Fornitura in opera delle strutture di supporto dei moduli con tecnologia ad infissaggio in terra a mezzo viti in acciaio	€ 700.000,00	
Fornitura a piè d'opera di inverter Siel/Siac di cui n. 5 da 500 kW e n. 1 da 250 kW	€ 305.000,00	
Forniture elettromeccaniche, montaggi ed installazioni generali, compreso progetto costruttivo degli impianti	€ 2.352.500,00	

3.290.350,00

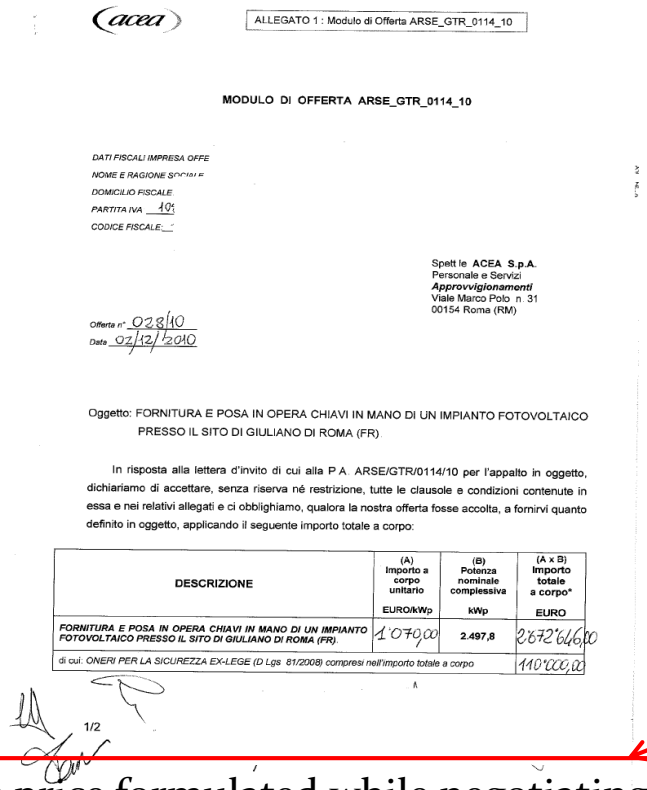
Rimangono escluse le opere civili di qualsiasi genere e natura , qualsiasi altro onere correlato alle procedure autorizzative, nonché gli oneri per la realizzazione della connessione alla Rete Elettrica.

Rimanendo a Vostra completa disposizione per ogni eventuale chiarimento, cogliamo l'occasione porgendo cordiali saluti.

[redacted]

The change of price with a discount of 2% represents our best offer even in case of tender.

"Buyer, Beware!"



acea

ALLEGATO 1 : Modulo di Offerta ARSE_GTR_0114_10

MODULO DI OFFERTA ARSE_GTR_0114_10

DATI FISCALI IMPRESA OFFE
NOME E RAGIONE SOCIALE
DOMICILIO FISCALE
PARTITA IVA 10
CODICE FISCALE:

Spett le **ACEA S.p.A.**
Personale e Servizi
Approvvigionamenti
Viale Marco Polo n. 31
00154 Roma (RM)

Offerta n° 028/10
Data 02/12/2010

Oggetto: FORNITURA E POSA IN OPERA CHIAVI IN MANO DI UN IMPIANTO FOTOVOLTAICO PRESSO IL SITO DI GIULIANO DI ROMA (FR).

In risposta alla lettera d'invito di cui alla P.A. ARSE/GTR/0114/10 per l'appalto in oggetto, dichiariamo di accettare, senza riserva né restrizione, tutte le clausole e condizioni contenute in essa e nei relativi allegati e ci obblighiamo, qualora la nostra offerta fosse accolta, a fornirvi quanto definito in oggetto, applicando il seguente importo totale a corpo:

DESCRIZIONE	(A) Importo a corpo unitario EURO/kWp	(B) Potenza nominale complessiva kWp	(A x B) Importo totale a corpo* EURO
FORNITURA E POSA IN OPERA CHIAVI IN MANO DI UN IMPIANTO FOTOVOLTAICO PRESSO IL SITO DI GIULIANO DI ROMA (FR).	1'070,00	2.497,8	2672646,00
di cui: *ONERI PER LA SICUREZZA EX-LEGE (D Lgs. 81/2008) compresi nell'importo totale a corpo*			110'000,00

1/2

acea

ALLEGATO 1 : Modulo di Offerta ARSE_GTR_0114_10

e termini di pagamento (non saranno prese in considerazione cifre inferiori a 150):

TERMINI DI PAGAMENTO : 150 **giorni fine mese data ricevimento fattura**

L'Impresa

Qualora la Stazione Appaltante decidesse, a suo insindacabile giudizio, di applicare le seguenti modalità di pagamento a vista (anziché quelle indicate nella Richiesta di offerta n. 6100036495):
- 80% del corrispettivo contrattuale alla messa in esercizio;
- 20% del corrispettivo contrattuale al verbale di collaudo positivo;

l'importo offerto sarebbe pari a:

DESCRIZIONE	(A) Importo a corpo unitario EURO/kWp	(B) Potenza nominale complessiva kWp	(A x B) Importo totale EURO
FORNITURA E POSA IN OPERA CHIAVI IN MANO DI UN IMPIANTO FOTOVOLTAICO PRESSO IL SITO DI GIULIANO DI ROMA (FR).	1'065,00	2.497,8	2'660157
di cui: *ONERI PER LA SICUREZZA EX-LEGE (D Lgs. 81/2008) compresi nell'importo totale a corpo*			110'000

Tale offerta non costituirà termine di giudizio ai fini dell'aggiudicazione

Allegare documento d'identità del legale rappresentante dell'impresa in corso di validità

The price formulated while negotiating was **euro 3.290.350**, declared lowest price and as the same price that would be formulated in case of competitive tender.
When the tender occurred, the final price quoted by the same supplier was **euro 2.660.157**

Open Tenders: Harmful Competition? Sometimes, with complex projects

Lowest price *selects* the worse supplier when:

- Supplier knows more than procurer about contract features;
- Supplier expects not to be asked to provide the required quality;
- Supplier underestimates cost;
- Supplier is near bankrupt and bids aggressively, relying on limited liability.

Better *sometimes* to do …

a) **direct negotiation** with a supplier with good reputation;

b) **competitive dialogue** to keep head to head suppliers with a competitive and informative advantage;

c) selection from a carefully-built **list of preferred vendors** based on vendor ratings;

d) a **framework agreement** with more than 1 supplier.

Why is quality a challenge?

Because **fines** are often the last remedy.

Because **reputation** is hard to reward, unlike in the private sector.

Because **MEAT** criteria that reward quality only reward **promised** quality.

Because **external checks by competitors** are cumbersome or infeasible.

Because **competitive tenders** often create more problems than they do solve.

Because supplier is **near bankrupt** and bids aggressively, relying on limited liability.

Premise on “defaults”

US data: the problem of defaults

- bankruptcy: 80.000 between 1990 ad 1997;
- costs are high for public purchaser. Delays, courts: 7,5 to 20% of the procured amount;
- rising level of costs during contract life explain 60% of bankruptcies in USA constructions;
- renegotiations are frequent.

“Managing risky bids”, Engel, Ganuza, Hauk e Wambach, in *Handbook of Procurement*, Dimitri, Piga e Spagnolo (2009)

Overrun Data in Big Projects (Flyvbjerg)

Project	Cases	Average Cost Overrun %	Inaccuracy of demand forecast
Rail	58	44,7	-51,4%
Bridges and Tunnels	33	33,8	
Road	167	20,4	

Boston's Big Dig Tunnel:

275%
(111 bn. $)
over budget
when it
opened.

If you have to do a tender how do you avoid the limited liability problem that pushes price cutting?

- Raise the probability that the healthiest firms will win;
- Reduce the impact of bankruptcy;
- Reduce competition so as to … raise the price.

Raise the probability that the healthiest firms will win

a) Tenders with “uncertainty” raise aggressive bidding by «bad» firms. Communicate information. Avoid MEAT?

b) Truncated tender? First stage N firms, then screen (N-x) best offers;

c) Vendor Rating systems. But … liquidity problems are one-off emergencies and are not visible from past performance (short memory of indicators?).

Reduce the impact of bankruptcy

- Multisourcing (if there are no large costs of changing supplier and risks are uncorrelated): “the bench player”?;
- Surety Bond: screening, fees higher for the worse guys, lower bankruptcies. Only US does it?
- (Financial) Guarantees. No true screening.

Reduce competition so as to … raise the price.

* Entry fees? Guarantees? Ambiguous effect. Less participation but remaining players might be more aggressive;

* Truncated tender.

*Exclusion of aggressive bids (average bid method?). Lower bankrupcty probabilities by raising price bids but do not exclude the riskiest. And…

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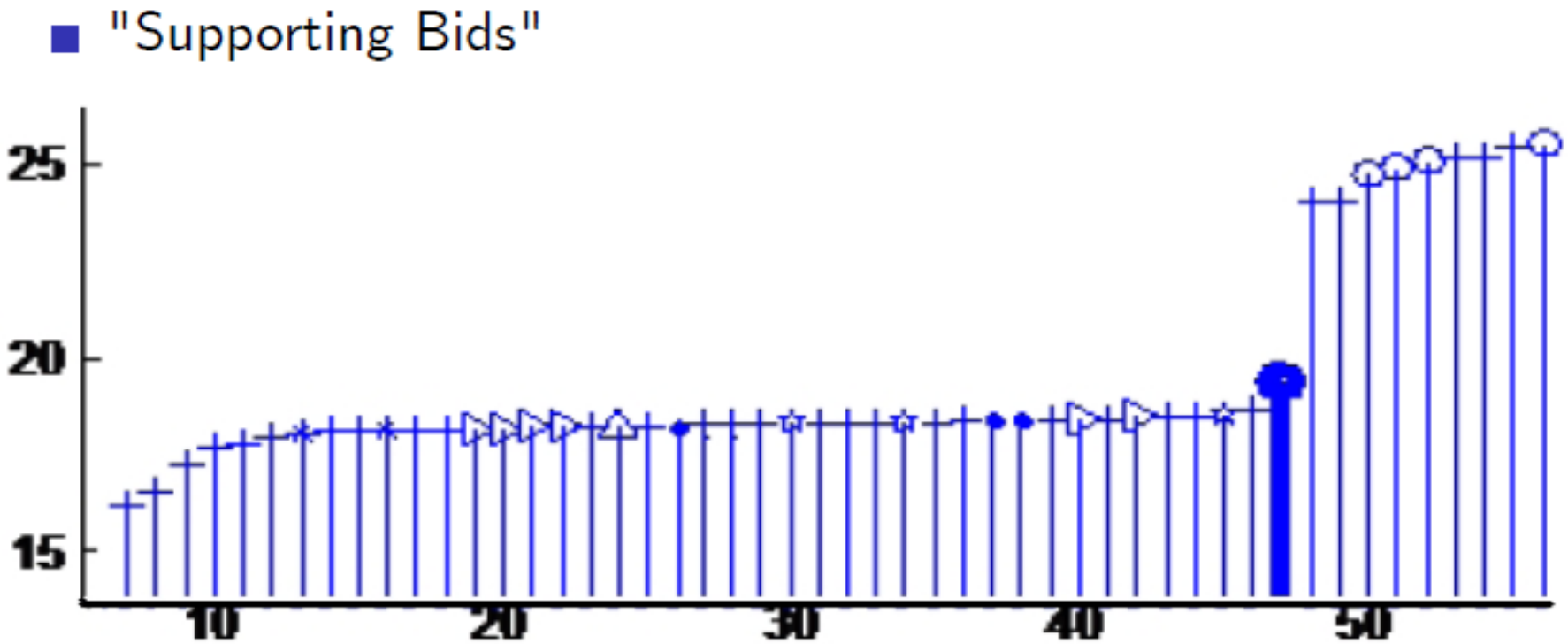
Because supplier is **near bankrupt** and bids aggressively, relying on limited liability.

Because **point mechanisms** which **limit** price competition often generate collusion.

Cartel through … «Participation» in average bids tenders



THANK YOU