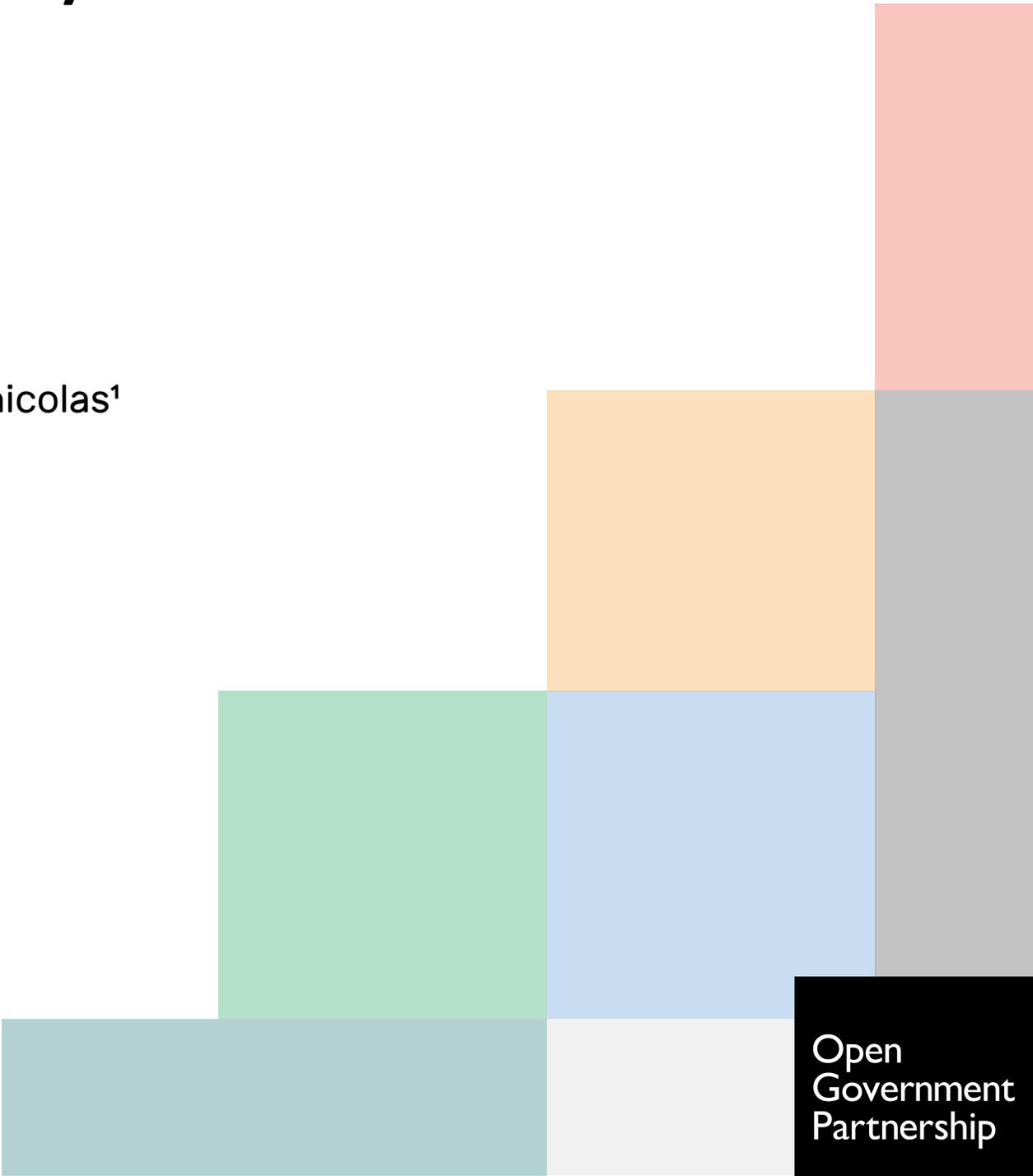


The Costs of Secrecy: Economic Arguments for Transparency in Public Procurement

Michael Karanicolas¹



Open
Government
Partnership

1. Introduction

Every government in the world, from the richest to the poorest, works within a limited budget, and every public body faces pressure to bring down costs, or to maximize what they deliver with the budget they are allocated. As a consequence, when a new tool, procedure, or innovation has the potential to reduce costs or to enhance the quality of goods and services, it should naturally be of interest to governments. The vast sums of money at stake in public procurement mean that even tiny efficiencies can be enormously valuable. Procurement is estimated to comprise of around 30% of government expenditure worldwide,² and around 50% in developing countries.³ This money drives human development, including funding the rollout of critical infrastructure, the expansion of education and healthcare, and the general functioning of the state. Public procurement spending is a matter of life and death, as every dollar lost to inefficiency, waste, or theft means less clean water, less food aid, and less medical supplies to those who need it most.

This report examines data from three selected procurement systems to demonstrate the practical benefits of openness in public contracting, and specifically to demonstrate that the adoption of open contracting leads to more competitive procurement processes, and ultimately to cost-savings and gains in efficiency. While the heavily contextual nature of pricing and procurement processes make causation difficult to prove, the trend around the world among countries that have incorporated greater openness into their contracting schemes suggests that there is indeed a relationship between openness and competitiveness, and that open contracting has a tendency to lower prices paid. In particular, analysis of contracting data from three robust open procurement systems reveals significant increases in competition and in contracting diversity following the systems' adoption. Although basic economics suggests that increased competition should decrease prices, this impact is also supported by analysis of indicators such as whether contracts were awarded for less than their estimated budget, as well as the decline in prices for relatively stable procurement categories. In some instances, these savings can be tracked in the hundreds of millions or billions of dollars. Together with the relatively modest costs of

¹ Drafted by Michael Karanicolas, President, Right to Know Coalition, with research by interns Paul Conrod, Jeremy Ryant, Basia Sowinski and Keith Johnson. Thanks to Adriana Homolova, Seember Nyager and Jonathan Ebe of the Public & Private Development Centre, Luis Insua of Paraguay's Dirección Nacional de Contrataciones Públicas, Georg Neumann and Karolis Granickas of the Open Contracting Partnership, and Kathy Kleiman, Internet Counsel with Fletcher, Heald & Hildreth, all of whom were tremendously helpful in this research.

² "Size of public procurement," OECD, 6 July 2015. Available at: <https://bit.ly/2qxQ0IQ>

³ "Many developing countries can improve public services through fair and open procurement practices, says WBG report," World Bank, 18 November 2015. Available at: <https://bit.ly/2H330Ks>



establishing an effective open contracting system, these research findings present a convincing case for why transparency in procurement makes sound fiscal sense.

2. Background: What is Open Contracting?

Open contracting aims to improve the availability of information, both to potential contractors and to the public at large, about planning, contracting, and assessing the efficacy of public procurement, while simultaneously centralizing and modernizing the tendering process. While every procurement system is different, recent years have seen the emergence of a set of better practice standards for types of information that should be published, as noted in the chart below.⁴

Publications Categories for a Strong Open Contracting System	
Information to be published at the outset of a contracting process:	<ul style="list-style-type: none"> • Budget allocations • Needs assessments • Risk assessments • Procurement plans • Dispute resolution mechanisms and procedures
Information to be published alongside the contract:	<ul style="list-style-type: none"> • Technical specifications • Selection criteria
Information to be published when a decision is made:	<ul style="list-style-type: none"> • Justifications and reasoning • Information about all bids received (including beneficial ownership information) • Any conflicts of interest uncovered
Information to be published about the contract itself:	<ul style="list-style-type: none"> • Performance, delivery and payment schedules • Specific pricing • Information about any subcontracting arrangements
Information to be published upon the contract's conclusion:	<ul style="list-style-type: none"> • Final financial information (including regarding cost-overruns, if there have been any) • Performance evaluations.

⁴ For a more thorough list of types of information which may be published under a robust open contracting system, see: "Open Contracting: A guide for practitioners by practitioners," Open Contracting Partnership, 2013, p. 21-22. Available at: https://www.open-contracting.org/wp-content/uploads/2016/02/OCP2013_OpenContracting-Guide.pdf.



Material published under a robust open contracting framework should be freely available online at a granular level as well as, where resources permit, in aggregated and easier to digest formats. All data should be distributed in open and machine-readable formats with no restrictions on reuse and, ideally, in line with the Open Contracting Data Standard.⁵ In general, strong open contracting systems tend to take the approach that information about procurement should be open by default. Although there may be a need to redact some information, for example, where bids or contracts include security arrangements whose disclosure would compromise their efficacy, or where their disclosure would cause legitimate commercial harm to the contracting parties, the scope of restrictions on disclosure should be clearly spelled out in law, and applied in a careful and limited manner with proper consideration of the broader public interest in maximum disclosure. Any entity contracting with the government should expect to be subject to greater scrutiny and greater transparency requirements as part of the transaction. As the Australasian Council of Auditors-General noted:

Those in the private sector who wish to gain commercial advantage from dealings with the Government cannot seek to escape the level of scrutiny that prevails in the public sector. Such scrutiny is required because of the non-commercial nature of much Government activity, the non-voluntary relationship between individuals and their Government, and the different rule of law which applies in the public sector compared to the private sector.⁶

3. Scoping the Benefits of Open Contracting

The financial benefits of open contracting can be understood in three ways. First, open contracting aims to enhance the ability of businesses to understand and engage with the public procurement system, in order to increase competition and level the playing field among potential contractors. It is easy to understand why enhancing the flow of information to businesses should provide economic benefits. Joseph Stiglitz, whose work on the economic implications of asymmetries of information won a Nobel Prize, explained the importance of openness in the context of leveling the playing field for competitiveness:

It is now generally recognized that better and timelier information results in better, more efficient resource allocations. The increasing proportion of the work force involved in gathering, processing, and disseminating information bears testimony to its importance. Ironically, many of these people are engaged in ferreting out information from the public sector, information that one might argue should be publicly available. If better information leads to better resource allocations, does

⁵ "Release Reference," Open Contracting Data Standard, Available at: <http://standard.open-contracting.org/latest/en/schema/reference/>.

⁶ "Commercial Confidentiality and the Public Interest", Australasian Council of Auditors General. Available at: www.acag.org.au/ccpi.htm.



it make sense for the government to deliberately not disclose information instead of letting the market itself decide what is or is not relevant?⁷

Second, open contracting helps to enhance the ability of the public, in particular watchdog groups like non-governmental organizations (NGOs) and investigative journalists, to track public procurement expenditure, promoting efficiency and accountability by making it easier to uncover waste, mismanagement, and corruption. It is intuitive that corruption, like all crimes, would be more difficult to commit when one is being publicly watched, but the value of fiscal transparency to fighting corruption has also been demonstrated by longitudinal studies showing a negative correlation between these two.⁸ When considering the harms of corruption, it is important to consider both the fact that it can not only increase the prices paid for goods and services, but also raise costs over the long term due to increased need for repairs, shorter lifespan of deliverables, etc. Corrupt procurement processes that result in inferior goods or services, such as shoddy construction, can also generate additional health, safety, and environmental concerns.⁹ These potentially catastrophic consequences are in addition to the subtler, systemic harms of corruption—eroding public trust and confidence in governments.

Third, open contracting generally aims to centralize and digitize procurement processes, creating greater reliability and integrity by distancing decision-makers from bidders as well as creating efficiencies of scale by combining the collective buying power of governments. Allowing commercial entities to have access to the entire catalogue of available tenders creates obvious advantages as far as competition goes. It levels the playing field, reducing the advantages of incumbency as established players lose their ability to obtain new contracts by capitalizing on existing relationships with officials. There are also natural efficiencies as far as reducing the workload for the public body in processing tenders, and reducing the workload for commercial entities in submitting tenders, which should in turn result in lower bid prices. Digitization and centralization also plays a role in combating corruption since it reduces direct interactions between officials charged with overseeing procurement and potential contractors.

⁷ “Transparency in Government” in *The Right to Tell: The Role of Mass Media in Economic Development*, 2002, World Bank Institute, p. 35. Available at: <https://openknowledge.worldbank.org/bitstream/handle/10986/15212/multi0page.pdf>.

⁸ See, in particular, Elina De Simone, Giuseppe Lucio Gaeta, and Paulo Reis Mourão, *The Impact of Fiscal Transparency on Corruption: An Empirical Analysis Based on Longitudinal Data*, Published Online 10 October 2017. Available at: <https://doi.org/10.1515/bejeap-2017-0021>.

⁹ One particularly tragic example of this is the Sichuan schools corruption scandal, where poor construction, due to corruption and mismanagement, led to large numbers of schools collapsing during a 2008 earthquake. Estimates of the death toll vary, due to government suppression of information about the impacts, but a baseline estimate is that at least 5,000 schoolchildren died. See: “Sichuan earthquake killed more than 5,000 pupils, says China,” *Guardian*, 7 May 2009. Available at: <https://www.theguardian.com/world/2009/may/07/china-quake-pupils-death-toll>.



Beyond these direct commercial benefits, it is also worth bearing in mind that the symbolic value of transparency can also translate to tangible benefits. When a government opens its processes to the public eye, it sends a strong signal to the outside world that it has nothing to hide. This can provide a boost for foreign investment, particularly in a developing world context where economic uncertainty may otherwise be pervasive. Indeed, major development funding agencies and international financial institutions have become significant drivers for robust transparency among project recipients, as they seek maximum impact for funds they provide.¹⁰

While these benefits have been understood for decades, the propagation of open contracting systems around the world now provides a relatively rich source material to examine their impact on pricing more carefully, as explored in the following sections.

Nigeria: The Importance of Public Transparency to Tracking Development

Over the past few years, Public & Private Development Center (PPDC), a Nigerian NGO, filed freedom of information requests with the National Primary Health Care Development Agency, seeking procurement information for primary healthcare centers constructed in the states of Benue, Delta, and Kano. PPDC followed up by visiting the sites of 25 centers, and found that only ten were functioning, and at least four of the centers had either been abandoned midway through construction or had never been built at all, suggesting the funds were diverted to corrupt purposes.

Examining the procurement data connected to these centers revealed that 17 of the 26 construction contracts, including three of the four “missing” centers, were concluded for the exact same amount: ₦21,986,893. This is despite the fact that these contracts were negotiated with 17 different contractors, across three states. It is likely that a single person or organization is actually behind all of these bids.

A key takeaway from this is the necessity of public oversight. While some of the benefits of open contracting may flow from centralizing and digitizing the process, along with enhancing the information provided to potential bidders, broad public oversight is the only avenue to checking the veracity of official reporting, and to look behind the numbers to see the actual impact. This is particularly true among countries that lack strong internal auditing institutions,

¹⁰ See, for example, *Guidelines for Procurement of Goods, Works, and Non-Consulting Services Under IBRD Loans and IDA Credits and Grants by World Bank Borrowers*, World Bank, January 2011. Available at: <https://bit.ly/2JOFvCG>.



procurement, but it could just as easily be the result of the government deciding to shift priorities away from defense. These types of shifts can be very difficult to track, without an intimate knowledge of the country's political context and budgeting process. Third, consideration of pricing alone fails to account for the quality of goods or services received. If, for example, inefficiencies or corruption in the previous system meant that the government was receiving substandard materials, and expanding openness meant that they were able to demand better quality for the same price, this would not be reflected in pricing changes, though the outcome would unquestionably be better.

Although these challenges cannot be entirely nullified, the case studies in this section are considered in a manner that helps to mitigate their effect as much as possible. In particular, the impact of open contracting on pricing and competitiveness is assessed based on three indicators: the prices paid for budget items that are relatively resistant to political and budgetary fluctuations, the differential between budgeted (estimated) prices and prices actually paid, and the diversity of bidders and awardees.

In terms of the first indicator, while military, education, or healthcare spending can ebb and flow significantly based on the government's priorities, other budget items are less likely to be influenced by contextual factors. These types of expenditures, such as office supplies and cleaning services, tend to exist in the political background, and are unlikely to be the focus of a concerted increase or decrease in spending. Other important factors in selecting these indicators are that they do not rely on volatile global commodities prices, and that they are spent domestically rather than imported, the latter of which is important to insulate costing against currency fluctuations. Although spending data for these indicators do not by themselves make a complete case for the impacts of contracting reforms, the fact that they tend to be relatively stable and resistant (though not immune) to contextual impacts makes them a useful gauge of how effectively the government is spending its money over time.

A second useful indicator is to consider the differential between the costs which have been budgeted (i.e. the price that the government expected to pay when it planned for the contract) and the actual price of the contract. Since these prices should typically be set based on previous costing trends by officials who have considered the broader context surrounding the tender, contracts coming in consistently below expectations would suggest that prices are being depressed. However, a complicating factor here is that officials overseeing the budgeting process may consider these improvements dynamically, and over time reduce their budgeted prices as a result. In other words, if budgeting officials are doing their job well, these differentials may shrink, or disappear entirely, within a few years of implementation, even as the public body continues to reap savings from the open contracting system.



A third potential indicator for assessing the efficacy of open contracting systems is the diversity of bids, which is suggestive of strong competition and, in turn, usually leads to better value for money spent. Indicators to consider here include the number of bids each tender attracts, the diversity of participants in the tendering process, and the diversity of successful bidders across the entire system. It is generally accepted that more competitive processes (i.e. those with a higher diversity of bidders and successful contractors) should provide better value. Strong diversity among successful bidders also suggests that contracts are being awarded on merit, rather than as a result of patronage or corruption.

5. Case Studies on the Benefits of Openness in Procurement

A. Ukraine's ProZorro System

For years, Ukraine has struggled with high levels of corruption and inefficiency across its public sector. Since the dissolution of the Soviet Union, there have been several revolutions in Ukraine where corruption was cited as a major driving factor.¹³ In 2015, *The Guardian* dubbed the country Europe's most corrupt,¹⁴ and officials estimated that around 20% of spending in public procurement was lost due to corruption and limited competition.¹⁵ Stories of waste and mismanagement were commonplace, from fruit and vegetables purchased by the State Administration of Affairs for USD 75 per kilogram,¹⁶ to the country's roads, 97% of which were in dire need of repair as of April 2016.¹⁷

Beginning in 2014-2015, the government of Ukraine began to pilot a centralized database, known as ProZorro, where all tender announcement and procurement plans would be published. In this pilot phase, the program's authors reported that, based on budget estimates, the system led to savings of approximately UAH

¹³ Andrew Roth, "The corruption that fueled Ukraine's 2014 revolution won't go away," Washington Post, 28 February 2016. Available at: <https://wapo.st/1OFhgYb>.

¹⁴ Oliver Bullough, "Welcome to Ukraine, the most corrupt nation in Europe," Guardian, 6 February 2015. Available at: <https://www.theguardian.com/news/2015/feb/04/welcome-to-the-most-corrupt-nation-in-europe-ukraine>.

¹⁵ Sophie Brown, "'Everyone sees everything': Overhauling Ukraine's corrupt contracting sector", Medium, 28 November 2016. Available at: <https://medium.com/open-contracting-stories/everyone-sees-everything-fa6df0d00335>.

¹⁶ *Ibid.*

¹⁷ "Movement is death. 97% of roads are broken in Ukraine," Korrespondent, 27 April 2016 [in Russian, translated via Google]. Available at: korrespondent.net/business/economics/3675432-dvyzhenye-smert-v-ukrayne-razbyty-97-doroh.



1.5 billion (US\$55 million) for more than 3,900 government agencies and state-owned enterprises across Ukraine.¹⁸

The success of this initial pilot led the program to be rolled out across government procurement systems in 2016. Although the tendering processes themselves were carried out on a series of separate commercial web marketplaces, such as e-tender.biz, the data was linked through a central website, which also includes a business intelligence tool for assessing tender data, a public monitoring platform, an open complaints mechanism for bidders, and a portal with information on the legal framework and practical function of procurement programs.

In the aftermath of ProZorro's introduction, several of the earliest adopting sectors, and particularly the healthcare sector, reported dramatic drops in the prices paid for essential goods and services. For example, the Regional Clinical Oncology Dispensary in Poltova, in central Ukraine, purchased chemotherapy drugs for two-thirds the price expected, in addition to reporting cuts in procurement times.¹⁹

Georgia: E-Procurement Generates Hundreds of Millions in Savings

In 2010, Georgia implemented a transparent and mandatory e-procurement system, which later became the inspiration for Ukraine's ProZorro. By 2011, the total number of competitive tenders run in the country had risen from 1,933 to 33,000, which greatly increased market competition. Within five years the country had saved US\$400 million, according to World Bank estimates.

See: "Benchmarking Public Procurement: Assessing Public Procurement Regulatory Systems in 180 Economies", World Bank, 2016. Available at: <http://bpp.worldbank.org/~media/WBG/BPP/Documents/Reports/Benchmarking-Public-Procurement-2017.pdf>.

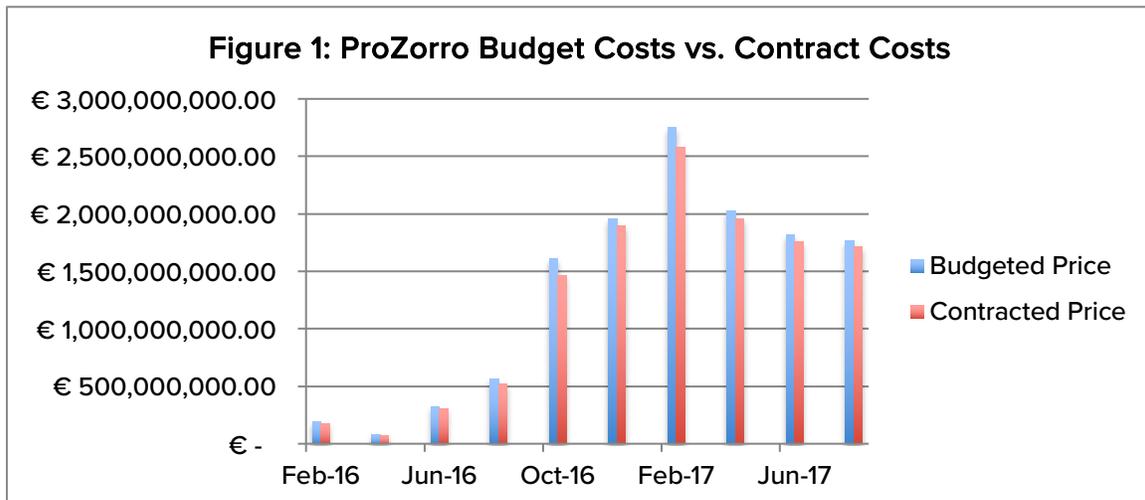
Although ProZorro has only been implemented on a major scale for just over a year, as of the time of research, an impressive statistical picture emerged regarding its impact on competition. In particular, it is possible to point to a trend of prices consistently falling below the budgeted threshold (see Figure 1). ProZorro statistics show the system ramping up throughout 2016, from 13,160 processes in February to 19,960 processes in June to 84,280 processes in February 2017, with overall costs rising from €180,420,000 to €312,010,000 to €2,577,700,000. However, during 2017 the total number of processes appeared

¹⁸ Sophie Brown, "Everyone sees everything": Overhauling Ukraine's corrupt contracting sector", Medium, 28 November 2016. Available at: <https://medium.com/open-contracting-stories/everyone-sees-everything-fa6df0d00335>.

¹⁹ *Ibid.*

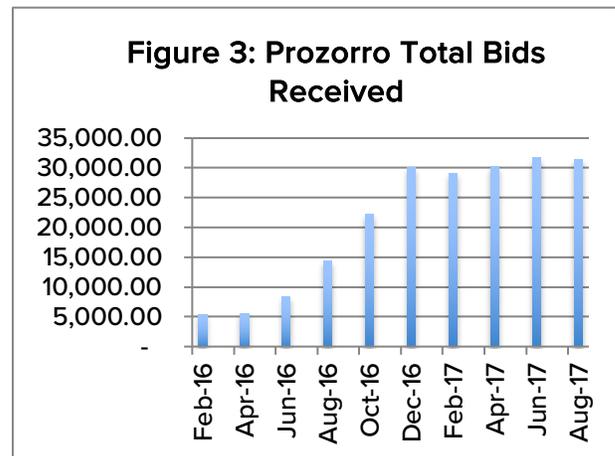
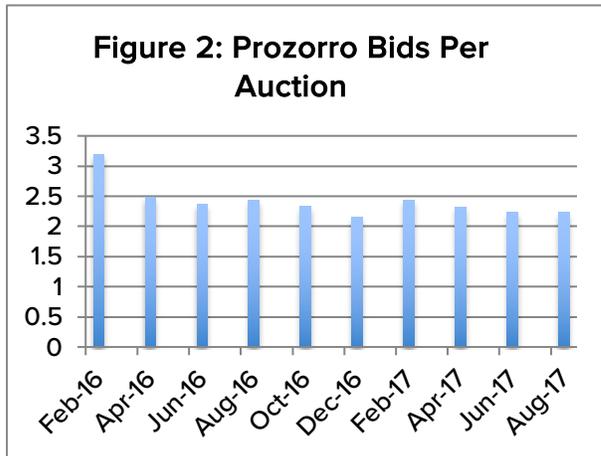


to level out, from 72,470 in April, to 78,300 in June, to 76,550 in August. This is potentially significant, as both costs and budget estimates continue to drop throughout these months, which could indicate that budgets are being revised downward to take into account of the boost in competition, but that the ProZorro system continues to outperform them.



Another indicator to consider is the diversity of the bidding processes. Here the picture is less clear. Although the total number of bids received through the ProZorro system ramps up as its use is expanded, the number of bidders per contract remains relatively stable (Figures 2 and 3). However, it is worth noting that the number of unique suppliers per procuring entity grew consistently from 1.71 in February 2015, to 9.4 in July 2016 to 11.4 in July 2017. One way to interpret this is that while the ProZorro system succeeded in bringing new participants in and in leveling the competitive playing field, the analytical tools that the website provided simultaneously enhanced business-intelligence among potential contractors, so that firms were less likely to bid for contracts they were unqualified for or were otherwise unlikely to win. It is also noteworthy that, over the same time period, the percentage of non-Ukrainian bidders grew from 0.15% to 0.2%. The fact that tenders under the new system are attracting more international bidders supports





the notion that competition has improved over the life of the system.²⁰

Slovakia: Promoting Competition through Centralized E-Procurement

As a result of intense pressure from journalists and civil society, and in particular Transparency International Slovakia, the country passed a law that deemed public contracts could only come into effect once they had been published in a single, online public registry. As a result of these changes, the average number of bidders per tender went from 2.3 to 3.6, and the percentage of tenders that involved auctions rose from 1% to 20%.

See: Marcela Roza Rincon, "Procurement Innovation Challenge," World Bank, 1 January 2015, p. 31-35. Available at: <https://bit.ly/2HsT0cE>

While overall perceptions of corruption in Ukraine remain relatively high, as of the most recent Transparency International Index in 2016,²¹ a survey by United States Agency for International Development (USAID) released in July 2016 shows that, among entrepreneurs, 80% of respondents believed that the ProZorro system had reduced or eliminated corruption.²² Among these respondents, 67% attributed this impact to openness and accessibility of information about bidders and winners.

²⁰ Numbers here are courtesy of Open Contracting Partnership.

²¹ Conny Abel, Svetlana Savitskaya, and Valentina Rigamonti, "Europe and Central Asia: An Overall Stagnation," Transparency International, 25 January 2017. Available at: https://www.transparency.org/news/feature/europe_and_central_asia_an_overall_stagnation.

²² "Technical Assistance for ETender Initiative (Phase II)," USAID, 29 July 2016. Available at: <https://bit.ly/2qC6h9a>.



B. Paraguay: Open Contracting and the DNCP

Like Ukraine, Paraguay has traditionally faced major governance challenges from corruption and mismanagement. Between 2002 and 2009, it consistently placed among the bottom 4% of countries listed in Transparency International's Corruption Perceptions Index.²³ Paraguay also has one of the lowest Human Development Index scores in South America, ahead of only Bolivia and Guyana, despite having rich hydroelectric resources.²⁴ However, unlike ProZorro, which was first piloted in 2014, Paraguay's procurement reform processes began much earlier, and were implemented gradually.

In 2003, the government passed Law 2051/03 on Public Procurements, Paraguay's first significant step towards modernizing the contracting process.²⁵ However, implementation was slow and uneven. The framework as originally drafted included loopholes for avoiding the procedure.²⁶ One of the most significant aspects of the reform package, the introduction of electronic reverse actions,²⁷ was not implemented at all until 2008. This roughly coincided with a new requirement that companies participating in the procurement system would have to electronically register. As a consequence, while the law dates back to 2003, the first phase of open contracting in Paraguay essentially began between 2009-2011, when the system was actually implemented.

It is important to note that this first phase of implementation was mainly targeted towards digitizing and centralizing the process, and enhancing information delivered to potential bidders, rather than enhancing public oversight. The newly created public body tasked with overseeing the procurement system, the Dirección Nacional de Contrataciones Públicas (DNCP), had a limited web presence, with an impractical interface and intermittent connectivity.²⁸ As a result,

²³ Emmanuelle Auriol, Stephane Straub and Thomas Flochel, "Public Procurement and Rent-Seeking: The Case of Paraguay," 25 March 2015, p. 37. Available at: https://www.tse-fr.eu/sites/default/files/TSE/documents/doc/by/auriol/rent_seeking_sep_2015.pdf.

²⁴ "Human Development Report 2016: Paraguay," United National Development Program, 2016. Available at: hdr.undp.org/sites/all/themes/hdr_theme/country-notes/PRY.pdf.

²⁵ "LEY N° 2.051: DE CONTRATACIONES PÚBLICAS," Available at: <https://www.contrataciones.gov.py/documentos/download/marco-legal/12760>.

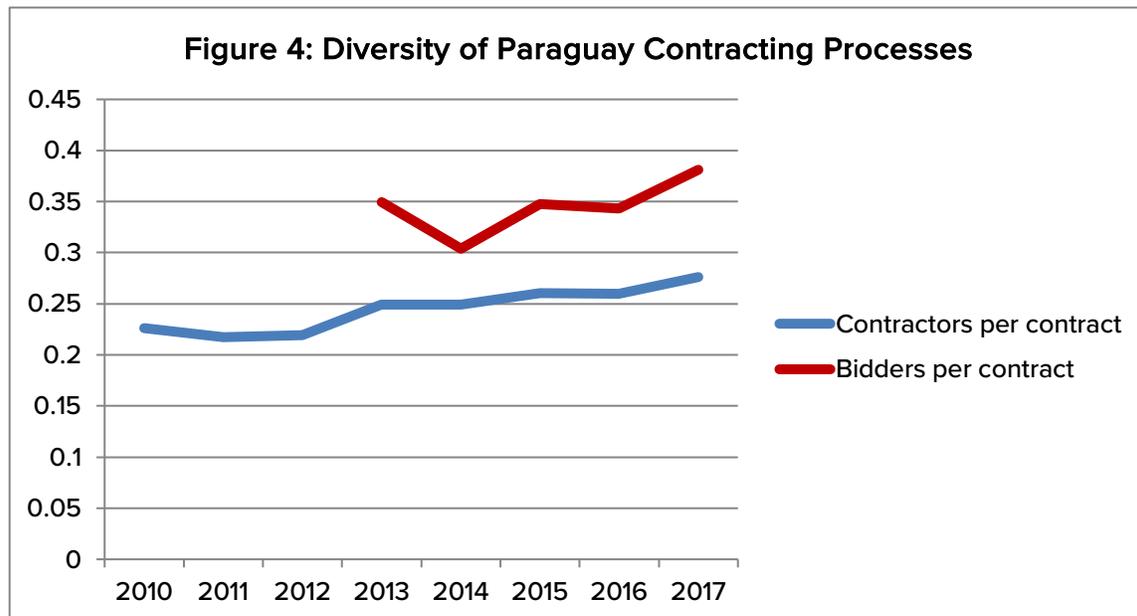
²⁶ Emmanuelle Auriol, Stephane Straub, and Thomas Flochel, "Public Procurement and Rent-Seeking: The Case of Paraguay," 25 March 2015, p. 37. Available at: https://www.tse-fr.eu/sites/default/files/TSE/documents/doc/by/auriol/rent_seeking_sep_2015.pdf.

²⁷ Electronic reverse actions allow vendors to post bids to an open forum, compare their bid to the lowest bid submitted, and then re-submit their bid, creating real-time competition for tenders.

²⁸ Emmanuelle Auriol, Stephane Straub and Thomas Flochel, Public Procurement and Rent-Seeking: The Case of Paraguay, March 25, 2015, p. 9. Available at: <https://www.tse->



public engagement with the DNCP was limited, and the data it collected was mostly used by suppliers, economists and computer scientists.²⁹ Nonetheless, the diversity of successful contractors has gradually risen since 2010, as noted in figure 4. The impact of the system on the diversity of total bidders is more difficult to assess, since figures for this are not available before 2013, though the general trend appears to be going up.



In considering pricing data, it is important to bear in mind that a second major phase of transparency reforms took place in Paraguay from 2013 onwards, in connection with an election that year that produced a change in government. An energetic civil society campaign targeting corruption and mismanagement and Paraguay's participation in the Open Government Partnership (OGP) also played a significant role. The country's second OGP action plan, from 2014-2016, included broad campaigns to enhance public capacity to engage on budgetary issues (Commitment 3), to expand the dissemination of information on public development projects (Commitment 4), and to publish contract information on the DNCP website (Commitment 9).³⁰

fr.eu/sites/default/files/TSE/documents/doc/by/auriol/rent_seeking_sep_2015.pdf. It is important to note that the DNCP's web presence has improved significantly since then, as discussed in more detail below.

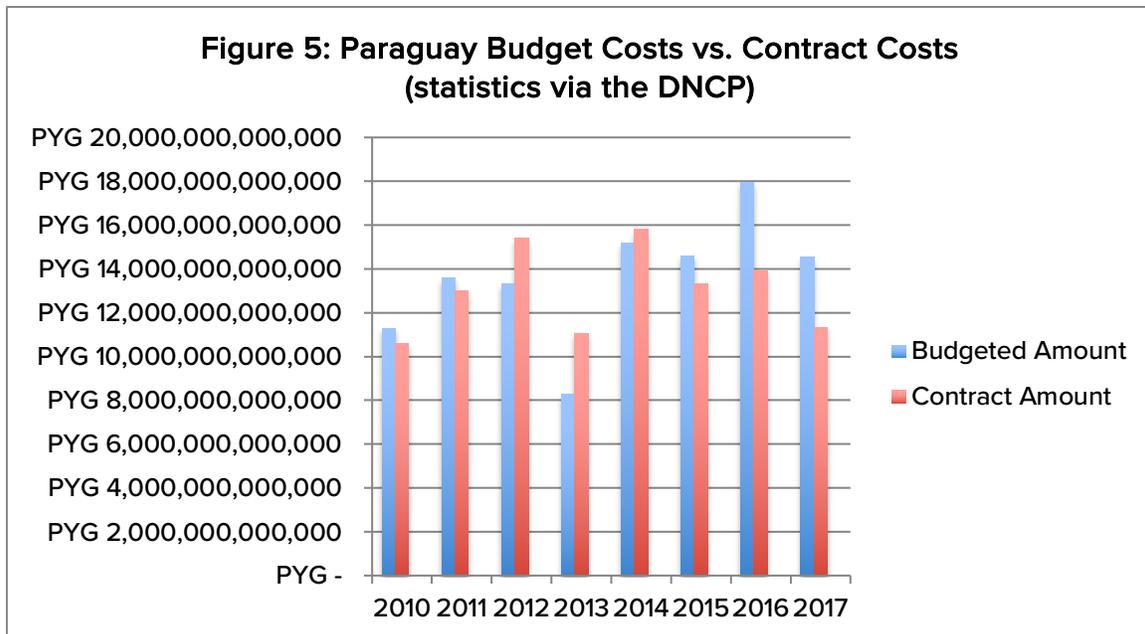
²⁹ Sophie Brown and Georg Neumann, "Paraguay's transparency alchemists," Medium, 2 October 2017. Available at: <https://medium.com/@opencontracting/paraguays-transparency-alchemists-623c8e3c538f>.

³⁰ Centro de Políticas Públicas, "Independent Review Mechanism End of Term Report," Open Government Partnership, 2017. Available (in Spanish) at: https://www.opengovpartnership.org/sites/default/files/Paraguay_EOTR_2014-2016.pdf.



These reforms were complemented by training and education sessions for journalists and NGOs, as well as other steps to make the system more user-friendly for public queries. Following these changes, a series of procurement-related scandals were uncovered in 2016. These included the “cocido de oro” (golden tea) scandal, which involved a USD 35,000 catering contract from the Ministry of Education that included enormous fees for basic catering items³¹ and a contract by the federal police to buy chairs for ten times their market value, using funds which had been earmarked for improving infrastructure of police stations.³² In both cases, the contracts were uncovered by journalists using the DNCP online contracting portal, two examples of a broader trend of reporters making use of the procurement data.

Statistics from the DNCP show that, in terms of reducing prices and enhancing efficiency, the procurement system had a relatively mixed record in the early years following its introduction (see Figure 5). However, contracting prices have consistently come in under the budgeted rates since the business-focused component began to be complemented by public outreach in 2014-2015.



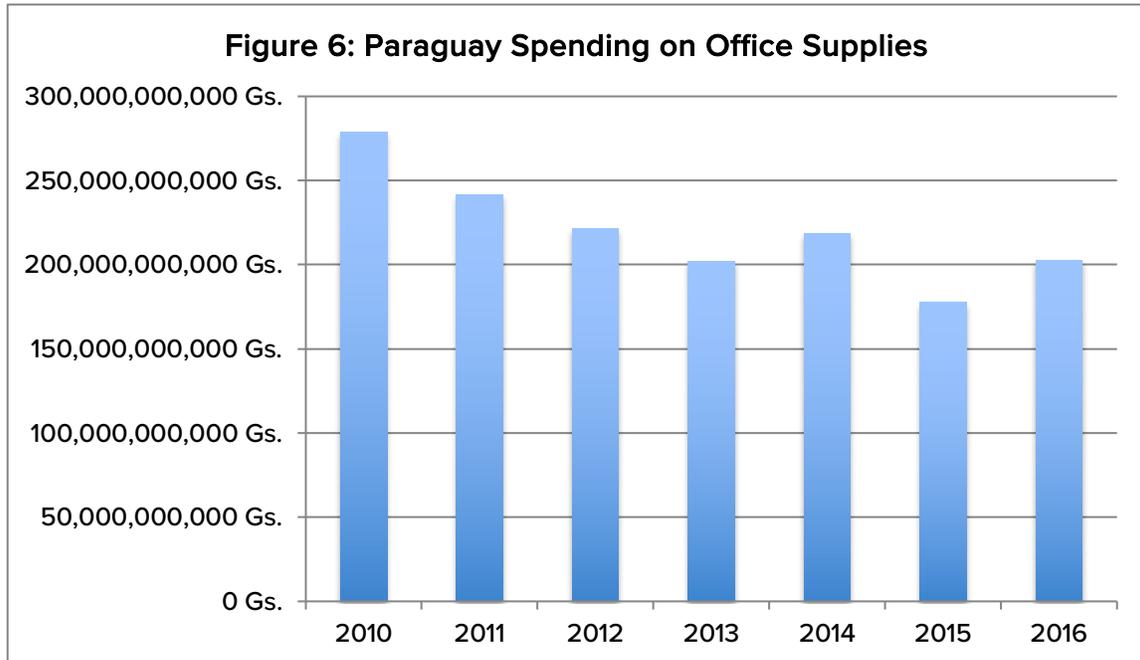
Digging more deeply into costing indicators that tend to be most insulated from public policy decisions around budgeting, costs for office supplies have steadily decreased since the system was first introduced (see Figure 6). If spending on this

³¹ "El MEC adjudica botellitas de agua a G. 10.000 y cocido negro a G. 80.000," Última Hora, 28 March 2016. Available (in Spanish) at: <https://bit.ly/1VPOWTI>.

³² Juan Carlos Lezcano, "Mientras comisarías caen, la Policía compra ‘sillas de oro,'" ABC, 23 December 2016. Available at: www.abc.com.py/edicion-impresa/politica/mientras-comisarias-caen-la-policia-compra-sillas-de-oro-1549795.html.



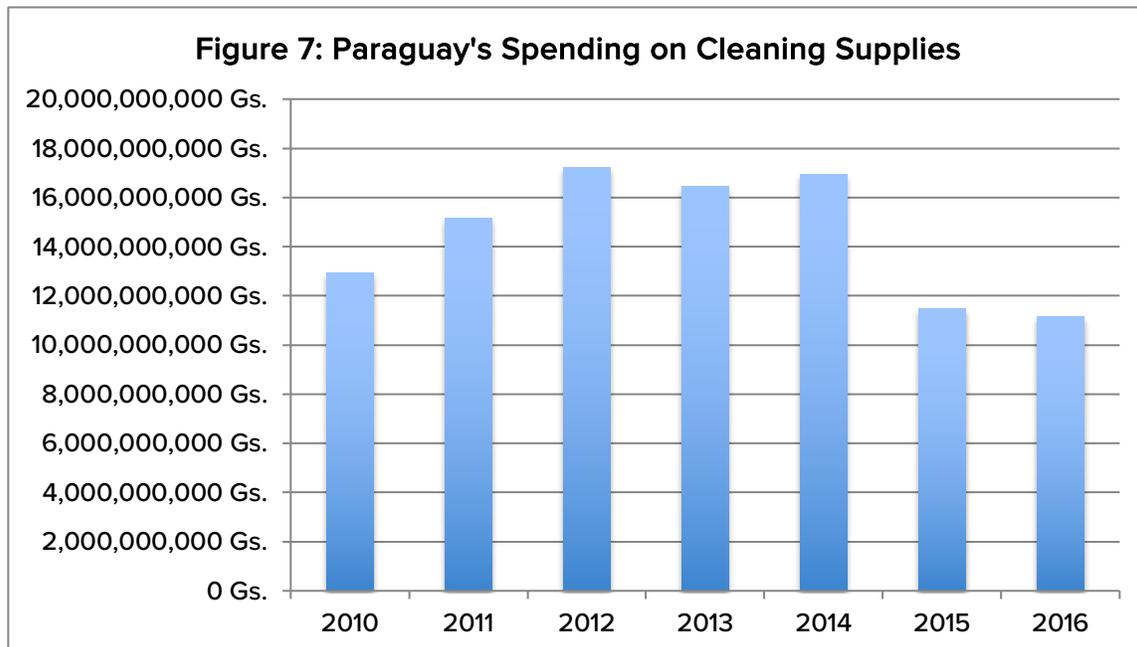
category had remained consistent at 2010 levels, the government would have incurred an additional ₡ 408,398,791,340 in costs over what was actually spent between 2010-2016, equivalent to almost USD 72 million at current exchange rates.³³ It is worth noting that this calculation does not take into account inflation or the weakening of the Paraguayan guaraní over this interval, both factors which would make the difference even greater.



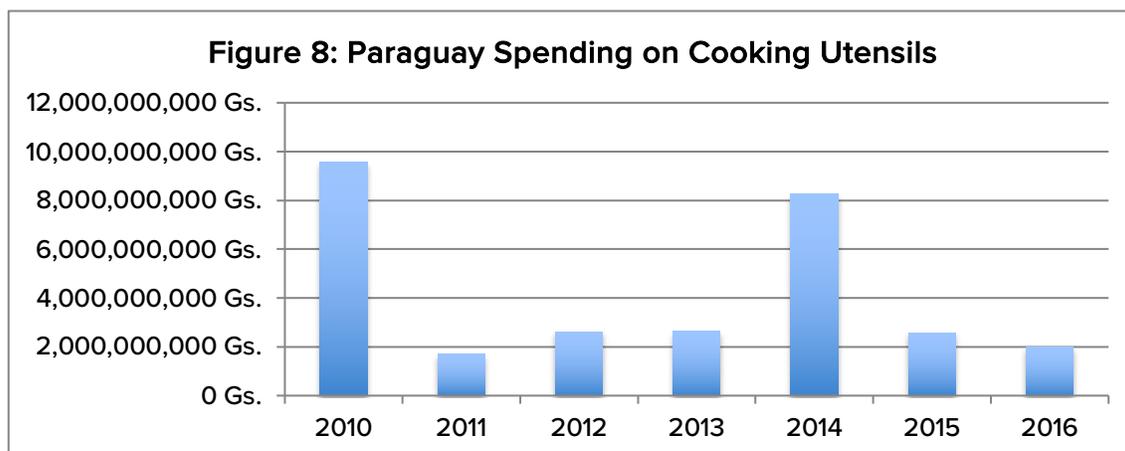
By contrast, costs for cleaning supplies continued to rise in the aftermath of the centralized contracting system, but began to fall after 2014, again coinciding with the introduction of more public-facing accountability and transparency measures (see Figure 7).

³³ Exchange rates via www.xe.com.



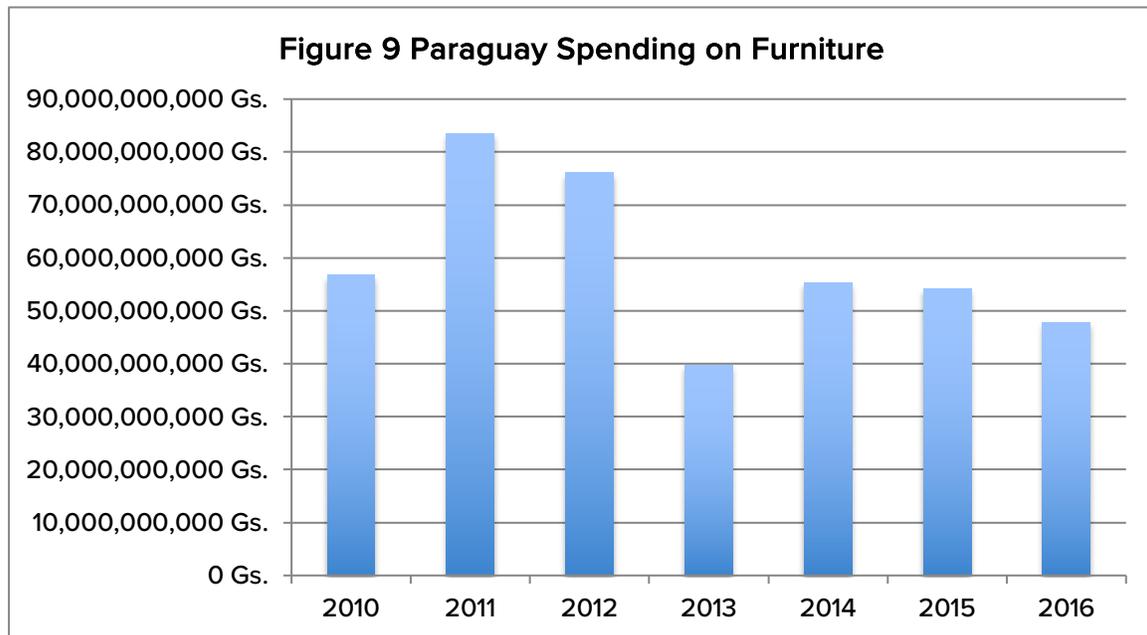


Not all of the data lines up so neatly. Costs for kitchen and dining utensils, porcelain, glass, and earthenware products show a distinct spike in 2014 (see Figure 8). This may be related to the fact that Paraguay held general elections in 2013 that led to a change in government. It is possible that the new administration bought entirely new supplies upon entering office (or, potentially, that their predecessors took the old sets with them when they left).



Spending on furniture also does not fit neatly into this narrative, though there is an overall downward trend both since 2010 and since 2014 (see Figure 9). It is worth bearing in mind that the first stage of openness reforms were phased in gradually between 2009-2011, so it is possible that the impacts on this category of procurement were felt at the tail end of the process. The spending bump in 2014 may also, potentially, be connected to the new administration taking power.





As noted earlier, it is difficult to attribute specific causal relationships between any particular reform process and increasing rates of savings, or the lowered costs on some indicators. However, there is no question that the corruption and waste uncovered in 2016 was a direct result of the reform processes that began in 2014, and which substantially expanded the use of open contracting data by journalists. Moreover, although it is too early to see the impact of these scandals reflected in procurement statistics, high profile scandals can have a substantial chilling effect on entrenched cultures of waste and corruption, in particular where these result in significant professional consequences (“cocido de oro” ultimately led to the resignation of the education minister). This impact is difficult to accurately measure, but there are clear indications that it exists.

Canada: The Systematic Impacts of Transparent Government

In July 2010, Canada’s Defence Minister, Peter MacKay, requested that the military provide him with a search-and-rescue helicopter to take him back from a fishing holiday. The initial response by the military officials was telling. “If we are tasked to do this, we of course will comply,” the official said. But he added that, “Given the potential for negative press though, I would likely recommend against it, especially in view of the fact the air force receives (or at least used to) regular access-to-information requests specifically targeting travel on Canadian Forces aircraft by ministers.” In other words, officials in this case specifically cited transparency rules in pushing back against the abusive use of public resource, a clear example of how openness can impact attitudes. The Minister decided to overrule their objections and go ahead with his request. Sure enough, the military indeed received a media request for the information, and the trip caused a significant uproar.



See: Adrian Wyld, "E-mails contradict MacKay's explanation for chopper request," Canadian Press, 1 December 2011. Available at: <https://tgam.ca/2HCny9H>.

C. Virginia, USA: eVA and the Sub-national Context

Every US state has an independent procurement mechanism. These vary significantly in terms of their transparency, accessibility, and general technical sophistication. Virginia's E-Procurement Portal (eVA) system was selected as a case study for this report because it is generally considered to be one of the best.³⁴ In addition to operating at the sub-national level, an important difference between this case study and the previous two is that Virginia's starting point, in terms of corruption and the general integrity of procurement processes, was relatively healthy when the system was first introduced. This is not to say that corruption in contracting processes is unheard of in the United States, of course,³⁵ but the scale of the problem is far lower than in Ukraine or Paraguay and in the global south in general. If transparency in procurement delivers positive results in Virginia's context, it helps to demonstrate the benefits of open contracting beyond its utility as a tool against corruption, and boosts the case for prioritizing open contracting reforms in the developed, as well as the developing, world.

In addition to contextual differences, the eVA system also differs from its counterparts in Ukraine and Paraguay in that it is older, having been first introduced in 2000. One consequence of this is that it is not nearly as user-friendly or visually attractive as the other two systems, though the information is available free-of-charge, and, for the most part, can be downloaded in open formats. Although the eVA site can be challenging to navigate, and aggregated or historical information is difficult to collect, it nonetheless provides for robust transparency around public procurement and, in particular, discloses a high level of detail around competitive bidding processes. In addition to information about contracts awarded, eVA publishes detailed bid tabulations, including the proposed pricing structures for all bids submitted. This can even include the unit prices and daily/hourly rates, information that some contractors would potentially consider commercially sensitive. There are relatively few procurement systems that provide this level of

³⁴ See: Liz Farmer, "Purchase Power: A Special Report on State Procurement," *Governing*, 17 February 2016. Available at: www.governing.com/topics/finance/gov-procurement-special-report.html.

³⁵ For a particularly prominent recent example, see the decision to award a contract for USD 300 million to repair Puerto Rico's power grid to a company with two full time employees, but with close ties to the United States' Secretary of the Interior: Deborah Acosta and Jack Healy, "From Montana to Puerto Rico, a Small Firm Strikes a Powerful Deal", *New York Times*, 24 October 2017. Available at: <https://www.nytimes.com/2017/10/24/us/from-montana-to-puerto-rico-a-small-firm-strikes-a-powerful-deal.html>.



significant savings. The eVA website also reports that the electronic system helps to expedite delivery times and to reduce the length of tendering periods, as well as reducing duplication in the system by harmonizing the process across the State.

An ancillary benefit to these savings is that the eVA system has helped to level the playing field for smaller, women-owned, and minority-owned businesses, which otherwise would be at a marketing disadvantage against better established competitors. Between 2004-2010, DGS reports that procurement awards to woman-owned businesses increased by 1,626%, and awards to minority-owned businesses increased by 811%.³⁸ Moreover, the proportion of contracts awarded to small businesses grew from 45.45% in 2003 to 57.46% in 2008.³⁹ In total dollar terms, the proportion of money channeled to small business rose from 33.72% in 2003 to 42.69% in 2008. These gains are partly due to the centralization and digitization of the e-procurement system, which makes it easier for smaller entities to bid, but cannot be completely divorced from the publicly facing aspects of eVA either, since these are a point of entry for bringing smaller and newer businesses into the process. Small businesses and startups are less likely to be formally registered, and less capable of paying fees for registration. Allowing public access is the only way to fully eliminate these barriers to entry, and is likely a substantial component of eVA's success in bringing more diversity into the public contracting process.

Malawi: Moving Forward with the Open Contracting Data Standards

After years of chronic shortages of learning materials, civil society advocates in the district of Kasungu carried out a public expenditure tracking exercise to find out why they were being neglected. They discovered that the District Education Manager (DEM) for Kasungu had awarded a contract and paid a supplier to deliver teaching and learning materials for the past two years, but that the supplier had been simply pocketing the money while delivering nothing. Indeed, it turned out that the contract had been awarded to a company that did not even deal in educational materials, but instead sold phone and electrical supplies. This investigation led to the termination of the contract, and the company was forced to refund money it had been paid.

³⁸ "Information About Virginia's Enterprise Electronic Procurement System: Small, Woman-owned, Minority-owned Business," Virginia Department of General Services, November 2015. Available at: <https://eva.virginia.gov/cd/files/evafact2swam.pdf>.

³⁹ "Report of the Joint Legislative Audit and Review Commission To the Governor and The General Assembly of Virginia on the Impact of eVA on Small Virginia Businesses," Commonwealth of Virginia, 13 July 2009. Available at: <https://eva.virginia.gov/library/files/evafacts/JLARCSmBuseVA7-13-2009.pdf>.



See: "Access to information aids tracking of non-delivered teaching and learning materials in Malawi," Africa Freedom of Information Centre. Available at: <https://bit.ly/2H2619J>.

6. Conclusion

Although, as noted at the outset, one must be cautious about overstating conclusions in such a heavily contextual field, the fact that all three systems seemed to enjoy substantial savings and increases in the competitiveness of their procurement processes, strongly suggests that open contracting reforms are instrumental in delivering economic benefits. This is further reinforced by the multiple anecdotal accounts, as documented throughout this report, of reductions in contract prices, increased competition, and decreasing losses to corruption as a direct result of open contracting reforms. Despite the challenges in separating out the advantages of e-procurement, centralization, and digitization from those of transparency, Paraguay's case in particular seems to point to public-facing systems as a necessary component in bringing down costs, while the investigations by PPDC in Nigeria are an excellent example of why watchdog groups play such a vital role in guaranteeing accountability.

Overall, what is particularly striking about these research results are the enormous scale of the benefits that open contracting systems provide, as set against their very modest costs. A study by Results for Development suggests that ProZorro's system cost approximately €4.69 million to establish and run through the end of 2017,⁴⁰ whereas official statistics claim that it has led to €1.19 billion in savings thus far.⁴¹ This is a staggering rate of return. While similar costing estimates have not been carried out for Paraguay's open contracting systems, their total cost is likely well below the USD 72 million that the government has saved on office supplies alone. Even Virginia, which comes from a relatively high starting point in terms of integrity and efficiency, claims reduced costs of around USD 450 million thus far as a result of the eVA system. Even if the open contracting reforms were only responsible for a proportion of these savings, these numbers suggest that they could be among the best investments a government can make. Given these levels of return on investment, the proper question to ask is not whether governments can afford to implement robust open contracting systems, but whether they can afford not to.

⁴⁰ Praneetha Vissapragada and Naomi Joswiak, "Priceless? A new framework for estimating the cost of open government reforms," Results for Development, August 2017. Available at: www.r4d.org/wp-content/uploads/R4D_OpenGov_Priceless_web.pdf.

⁴¹ See: <http://bi.prozorro.org/sense/app/e1a87316-d81e-4142-bd2b-5f2cae95b136/sheet/HEjZR/state/analysis>.

