

Final report



International
Growth Centre

Bolstering SME participation in public procurement

Policy options for
Lebanon

Bernard Hoekman
Moussa Saab
Bedri Tas

August 2019

When citing this paper, please
use the title and the following
reference number:
F-19056-LBN-1



DIRECTED BY



FUNDED BY



Bolstering SME Participation in Public Procurement: Policy Options for Lebanon*

Bernard Hoekman (European University Institute)

Moussa Saab (International Growth Centre)

Bedri Kamil Onur Taş (TOBB University of Economics and Technology)

Abstract: The government of Lebanon is working on a new public procurement law and implementing regulations to unify and modernize public sector procurement. Based on a review of the literature and analysis using available data on procurement policy, this report explores options to enhance participation by SMEs in public procurement. Six areas for actions are suggested for consideration. They include (i) measures to improve the integrity and quality of procurement processes, bringing these closer to best practice standards; (ii) improving transparency and lowering transactions costs by implementing e-procurement systems; (iii) defining the size of public procurement contracts so as to facilitate SME engagement, (iv) measures to ensure timely payments and address financial constraints that affect SMEs ability to bid for contracts; (v) specific measures that explicitly target greater participation by SMEs; and (vi) action to solicit information and feedback from stakeholders on procurement policies.

* This report draws in part on meetings and interviews held in Beirut in July 2019. We are grateful to Iskandar Boustany, Basma AbdulKhalek, Rana Rizkallah, Abdelmajid Nasser, Sabine Hatem, Jean Ellieh, Ghinwa Haddad, Rafif Kobeissi Berro, Rouba El-Kik and Joseph Haddad for meetings, information and assistance. The views expressed are personal and should not be attributed to the International Growth Centre.

Introduction

SMEs are the backbone of every economy. They account for more than half of total employment globally and play a vital role in improving and sustaining social cohesion and integration (OECD, 2018). SMEs are particularly important in Lebanon (Meghana et al., 2007). The economic significance of SMEs is above average compared to developing economies (Lukacs, 2005) and transition economies (Smallbone and Welter, 2001). Some 93-95% of enterprises qualify as SMEs in Lebanon.¹

Government policy has an important impact on the growth and performance of SMEs, both indirectly by influencing the general business environment, including through taxation and regulation of economic activity and factor markets, and directly through sector-specific and industrial policies. Both types of policies affect the incentives for agents to invest in different types of activities. Many countries pursue policies aimed at supporting the growth of SMEs. These generally seek to offset the disadvantages of small size in terms of access to (cost of) finance or compliance with regulation. Public procurement is one instrument government can use to support SMEs.

Governments around the world purchase a wide range of products to provide public goods and services to citizens. Such public procurement often accounts for a significant share of GDP and aggregate demand. In low-income countries, public procurement constitutes 14.4 percent of GDP on average (Djankov et al., 2016). Public procurement is estimated to account for an average of 13% of the Lebanese budget and 4% of GDP (Institut des Finances Basil Fuleihan, 2014a, 2014b). However, this figure is probably underestimated as it does not include procurement made at the local government level (i.e. municipalities) nor by autonomous agencies. In the Arab world, this share is estimated by the World Bank to be in the range of 15-20% of GDP.

The focus of this report is on public procurement as a potential tool of a broader SME policy. It discusses the state of play on public procurement in Lebanon and assesses the availability of data on procurement. Following a review of approaches used in different jurisdictions to promote SME engagement in public procurement and summary of the relevant literature on the determinants and economic effects of participation of SMEs in government procurement, the report puts forward recommendations regarding options to support SME engagement through procurement. The report

¹ Lebanon does not have a commonly used definition of what constitutes an SME (Invaritis, 2014). Criteria that have been used to definitions identify SMEs include “enterprises with less than LBP 15 billion in annual turnover” (Banque Du Liban) and firms “having less than 40 employees” (Kafalat).

also provides recommendations to improve data collection to be able to monitor and assess the effectiveness of procurement policies.

The report is organized as follows. Section 1 discusses basic principles of public procurement policy and the characteristics of SMEs that have led many governments to put in place measures to promote SME participation in public procurement. Section 2 briefly reviews the current public procurement regime in Lebanon. Section 3 provides a selective survey of extant research on participation in procurement, with an emphasis on SMEs. Section 4 discusses the available data on public procurement in Lebanon. Section 5 undertakes an illustrative empirical analysis of the importance of regulation quality in promoting participation by SMEs in public procurement. Section 6 provides some tentative policy recommendations. Section 7 concludes.

1. Public Procurement, Policy and SMEs

Much of the academic as well as practitioner-centric literature on public procurement focuses on the design of procurement procedures. Most national public procurement systems seek to achieve value for money by awarding contracts to the lowest cost suppliers able to meet technical specifications required by a project. Most empirical research on public procurement centres on whether contract award procedures and mechanisms result in (support) realization of value for money goals, with a specific focus often being on control of corruption and anti-competitive behaviour (e.g., bid rigging). Wittig (2002) and OECD (2012) emphasize the significance of public procurement regulation quality on public procurement outcomes like competition and cost-effectiveness that correlate with “value for money” policy goals.

Value for money is not the only goal of public procurement systems, however. Public procurement may also be a tool of industrial policy or used to pursue sustainable development goals (Kattel and Veiko, 2010; OECD, 2013; UNIDO, 2017). This may be reflected in “buy national” policies, local content or technology transfer requirements for foreign bidders (e.g., Altenburg and Lütkenhorst, 2015), and measures to facilitate the participation of SMEs. As government procurement can represent a meaningful source of demand for firms, a government contract may encourage firms to invest more, expand employment and increase productivity – in the process helping to attain industrial development objectives (Geroski, 1990; Acemoglu et al., 2013; Ferraz et al., 2015).

The basic features of what is considered to be good practices in public procurement from a value-for-money perspective are well known. They are embedded in the procurement guidelines used by multilateral development banks, the EU, the provisions of the WTO Government Procurement Agreement and international model laws developed by UNCITRAL. These call for agencies to conduct procurement in a transparent and impartial manner and to use open (competitive) tendering

methods to allocate contracts above a minimum value threshold to avoid conflicts of interest and prevent corrupt practices.² Notices of intended or planned procurement should be published (including information on timeframe, technical requirements, the treatment of tenders and contract awards, and terms of payment). Procedures should ensure transparency, including clarity on the evaluation criteria that will be used to determine the winning bid. Implementing regulations should specify whether procuring entities may (or must) treat domestic bids more favourably than those from foreign companies or consortia, what such treatment comprises and the criteria that apply.³

Transparency is critical both to make firms aware of opportunities – entailing publication of notices, ensuring there is sufficient time to prepare bids, making clear what the performance requirements are. This is particularly important to permit SMEs to participate as small firms have less capacity to keep informed about procurement opportunities. One way of doing is to utilize e-procurement, especially for contracts above a certain minimum threshold. Another good practice relating to transparency is to publish data on both procurement processes and outcomes to allow for ex post analysis. This is a precondition for evaluation of the effects of processes and learning about how they might be improved.

As in any area of regulation, different countries may pursue different approaches to public procurement. Although there is a strong presumption that principles such as transparency and competition are important features of efficient procurement regimes, there is no one-size-fits-all optimal procurement mechanism that is appropriate for all situations and all countries. For procurement projects involving long-lived infrastructure projects, new technologies or outsourcing of public services, learning from experience through feedback mechanisms and international cooperation is of great importance. For more complex projects, efficiency may require procuring entities to engage in negotiations and to interact with potential suppliers (see e.g., Spiller, 2009). Such ‘competitive dialogue’ permits companies to engage with procuring entities, allows the latter to consider alternative solutions and technologies and to determine what would be most appropriate in addressing their specific needs.

Although the focus of policy and the associated implementing legislation in most countries is on achieving value for money, governments may also use procurement policy to support local economic

² Open tendering is any method that allows any supplier to bid (e.g., international competitive bidding). Selective tendering is a method where only suppliers that satisfy specific criteria for participation may bid (usually prequalified suppliers). Limited tendering is non-competitive and usually involves a procuring entity approaching one or more potential suppliers of its choice.

³ See <http://www.sigmaweb.org/publications/key-public-procurement-publications.htm> for a set of policy briefs summarizing EU procurement rules and guidance as well as general good procurement practice.

activity, especially by SMEs.⁴ Many jurisdictions have put in place procedures to “level the playing field” for SMEs, given a presumption that standard procurement procedures and requirements may be too burdensome for SMEs to comply with. Good practices include requiring procuring entities and government agencies to consider the effects of procurement processes on the ability of SMEs to pursue procurement opportunities, e.g., ensuring that (pre-)qualification criteria do not inadvertently exclude SMEs. A basic aim – see e.g., European Union (2008) – is generally to develop approaches in the design and implementation of general procurement legislation that facilitate SMEs access to procurement contracts. Actions that can be taken in this regard include defining the appropriate size of public procurement contracts so as to facilitate SME engagement; encouraging procuring entities to sub-divide contracts into smaller lots where this will not be detrimental to the realization of project objectives;⁵ simplifying and standardizing public procurement processes; implementing e-procurement systems; ensuring timely payments; and using central purchasing bodies to reduce transactions costs for SME participation in public procurement.

Policy can go beyond efforts to assure equality of opportunity, i.e., avoiding large firm bias, and seek to tilt the playing field in favour of SMEs through supply-side or demand-side policies, or a mix of both. Supply side policies often are not procurement-specific. Examples include subsidies and tax incentives, e.g., to support specific types of investment such as R&D, and measures that help SMEs to overcome financial constraints that preclude them from having access to lines of credit for working capital needed to execute a contract. Procurement-specific supply side examples of policy intervention is to make advance payment facilities available to winning SME bidders or to develop instruments to lower the cost of bid security requirements. Giving SMEs explicit preferential treatment in the award of procurement contracts is an example of a demand-side policy. Such policies may take the form of price-preferences or simply earmarking a share of total procurement for SMEs. A price preference involves giving SMEs a leg up in competing for tenders by requiring procuring entities to subtract a certain percentage from the price offered by SMEs for purposes of bid evaluation or requiring winning bidders to offset (set aside) part of the work to SMEs through sub-contracting. The former is found in the procurement law of India, for example; the latter types

⁴ See World Bank (2017) and at <https://ppp.worldbank.org/public-private-partnership/promotion-smes-local-content-public-procurement-laws-and-regulation>.

⁵ The 2014 EU directive on public procurement requires procuring entities to consider at the planning stage whether to divide a contract into lots and justify the reasons for decisions not to do so. Such sub-division into lots is not permitted as a means to circumvent thresholds established in legislation to determine when competitive tendering procedures must be used. Israel, Japan, South Korea, New Zealand, Egypt and Albania have similar provisions (Nielsen, 2017; OECD 2018).

of preferences are observed in many countries, both high- and low-income).⁶ For example, US federal procurement law gives preferences for small businesses owned by women and firms based in or owned by businesspeople from socially disadvantaged groups.

There are various arguments to consider measures to address the specific characteristics of SMEs that may impede their ability to bid for public contracts (OECD, 2018). SMEs are less able to incur the cost of lengthy payment delays that may prevail in some countries. They also may find it difficult to satisfy bid security requirements, to meet turnover or experience criteria, and to obtain loans for the working capital needed to execute a contract on a timely basis at a cost that permits them to be competitive. Human resource capacity constraints are likely to be more severe for SMEs than large firms, with implications for the (opportunity) cost and capability to deal with the administrative requirements associated with bidding for public contracts. More generally, SMEs may have more limited productive capacity, limiting their ability to rapidly ramp up production to deliver on a contract if they win a tender.

Nielsen (2017) reviews preferential procurement policies targeting SMEs, distinguishing between measures aimed at levelling the playing field and in doing so, are expected to disproportionately benefit SMEs and SME-specific assistance designed to provide direct support to SMEs and only SMEs. Nielsen concludes that the rather limited extant research on the impact of SME-specific assistance suggests such policies increase SMEs engagement, with transparency and E-procurement policies generally benefiting SMEs, especially when combined with training and improved access to ICT technologies. The number of times contracts are divided into smaller lots influences the size of firms participating in tenders, with varying impacts on micro enterprises vs. SMEs. Reserving products, imposing contract thresholds and using set asides increases the number of SMEs engaged in procurement. The possible costs of such policies in terms of value for money forgone is a matter on which there is limited evidence as most of the extant research and case studies has not focused on this question (Nielsen, 2017, p. 9). This is a difficult issue to assess empirically given the need to establish an appropriate counterfactual. The extent to which there is effective competition between SMEs will be one important variable in this regard.

To provide some colour regarding the types of measures that are used, Australian procurement rules require that at least 10% of all purchases are sourced from SME.⁷ Entities may increase the

⁶ Examples include the United States, China, Japan, Algeria, Dominican Republic, Morocco, and Kenya (Nielsen, 2017). Nakabayashi (2013) assesses such policies in Japanese public procurement projects and concludes that set-aside programs increased SME participation in public procurement auctions by approximately 40 percent.

⁷ SMEs are granted almost one quarter of all tenders by value and three-fifths of all tenders published in Australia (Hoekman, 2018).

weighting for elements of bids that involve SME participation in awarding of tenders...⁸ Canada and Mexico also encourage sub-contracting by allocating additional points (weight) to bids where lead contractors subcontract with SMEs. Argentina's procurement legislation stipulates that SMEs be granted a price preference margin of 7%. In Brazil, government purchases that are below a minimum threshold must be allocated to small firms. In the case of contracts above R30 million, the 2011 South African Preferential Procurement Regulations call for procuring entities to subcontract 30 percent of the value of the contract to SMEs or designated disadvantaged groups. In Ecuador, procurement of public works with a value below 0.0007% of the total government budget must be allocated to SMEs, through a random on-line lottery with the winner drawn from a pool of registered and pre-qualified SMEs that expressed interest in executing a contract that has been put out to tender. Selected firms are not chosen based on their bid – they agree ex ante to the price offered by the procuring entity in the online portal (Fadic, 2018).

2. Public Procurement Policy in Lebanon

Procurement legislation in Lebanon dates back to 1963 and is embodied in the Public Accountability Law (No. 14969). Several other laws and decrees have been issued to complement this core law. A long-standing modernization and consolidation effort has been pursued to develop a new unified procurement law and legislation to establish a new Public Procurement Management agency but to date it has not proven possible to adopt these draft laws in the parliament (Institut des Finances Basil Fuleihan, 2012; 2014b).

In principle, Lebanon's procurement system is centralized, managed by the Tender Board, a core agency under the auspices of the President of the Council of Ministers. The Tender Board is complemented by the Council for Development and Reconstruction (CDR), through which both a large share of official development assistance funds are allocated and a significant share of ministerial budgets. The CDR reports to the Council of Ministers (i.e. cabinet) and coordinates its sector-based actions with the relevant ministries. A third agency attached to the Office of the

⁸ The Australian Industry Participation (AIP) National Framework requires bidders for Commonwealth procurement contracts above A\$20 million to prepare and implement plans outlining proposed actions to provide Australian suppliers, especially SMEs, with opportunity to supply goods and services to the project and maximize opportunities for Australian industry to participate in all aspects of the project. In the case of New South Wales (NSW), an Australian state, procuring entities must take reasonable steps to obtain at least one written quotation from a prequalified SME supplier for contracts below A\$1 million and report on the impact of their procurement activities on SMEs. In South Australia for contracts in the A\$4-50 million range (and A\$1 million and above in regional areas), bidders must submit industry participation plans that specify how they will provide full, fair, and reasonable opportunities for local SMEs to compete for contracts or participate in projects (Hoekman, 2018).

Minister of State for Administrative Reform (OMSAR) manages donor funded programmes on behalf of ministries, local governments and public agencies (Saad, 2010).

Ministries may solicit services valued below LBP 100 million as long as these are published. For works that exceed the threshold, the Tender Board is in principle responsible for launching the tenders, unless the cabinet authorizes the relevant ministry to manage this directly. In practice most procurement by value is undertaken by the CDR, line ministries and other public authorities such as municipalities and utilities.⁹ Because a substantial share of total procurement is funded by foreign financial entities and government agencies, donor-specific procurement rules and procedures apply to many projects that are implemented by the CDR. In some cases donors or financial partners require joint ventures to be established to implement contract awards. Sub-contracting to Lebanese companies is a feature of the procurement landscape but there are no general requirements to this effect.

An EU supported project implemented by the Office of the Minister of State for Administrative Reform (OMSAR) has proposed a number of reforms at both legal and institutional levels, including the training of 900 civil servants, the use of a public procurement Code of Ethics, the introduction of standard procurement templates and the e-procurement system with a view to contribute to creating a more transparent, efficient and reliable environment for public procurement in Lebanon.¹⁰

Of particular salience to this report is that current legislation and procedures do not have provisions specific to SMEs. A provision in the current procurement legislation allowing for a 15% set aside reportedly was never applied.¹¹ Current regulations do not include provisions commonly found in other jurisdictions that seek to facilitate participation by SMEs, whether through supply- or demand-side measures. Lebanon also has yet to put in place e-procurement systems although this is a goal and has been the focus of substantial technical assistance. Implementation requires complementary reforms to become operational – e.g., legislation regarding e-signatures.

In 2012, draft legislation modernizing public procurement processes were developed and submitted to Parliament. Deliberation on adoption of a new, unified and modern law has not resulted in ratification of a new law. Two draft decrees prepared in 2017 in the framework of the project “Technical Support for Modernization of Public Procurement” implemented by OMSAR have yet to

⁹ We discuss available data on procurement in Section 4 below.

¹⁰ See https://eeas.europa.eu/delegations/lebanon/54528/modernizing-public-procurement-achievements-and-perspectives_en.

¹¹ Interviews with staff of the Central Tender Board and Ministry of Finance.

be submitted to the Council of Ministers. The same applies to draft standard bidding documents for all public procurement (Institut Basil Fuleihan, 2018). The absence of standard bidding documents and a unified e-procurement system used by all public sector agencies are specific features of Lebanon's procurement regime that reduces the ability of SMEs to participate in tenders. A new draft public procurement law is being developed by the Ministry of Finance as is projected to be finalized by the end of 2019. The new law is expected to support and be consistent with international good practices with respect to policy objectives such as sustainability and contract awards and management, and include provisions for framework agreements and performance-based contracts.

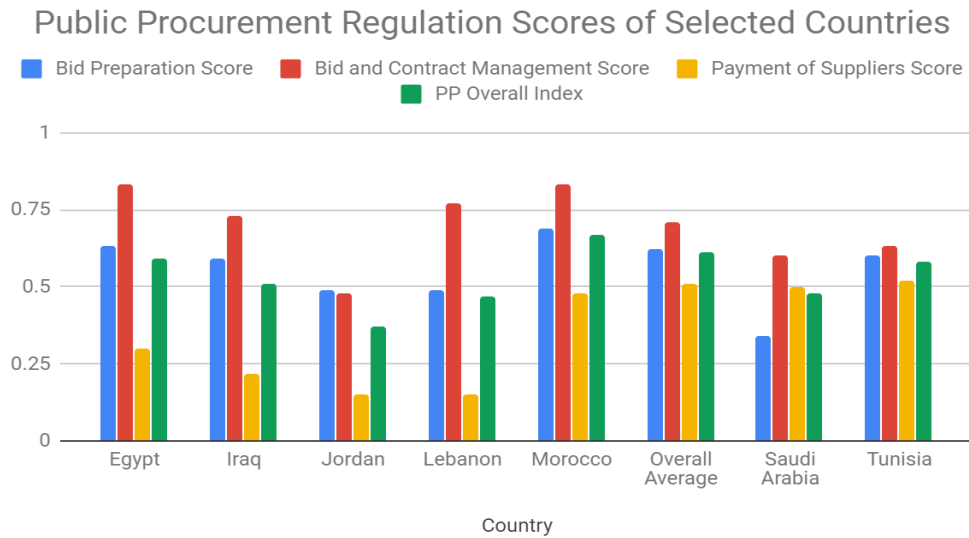
Perceptions of Lebanon's public procurement regime

The governance of public procurement in Lebanon is generally perceived to be weak, with companies reporting that contract awards may be influenced by relationship networks and bribes that result in favouritism towards well-connected companies.¹² The World Bank Benchmarking Public Procurement database (World Bank, 2016) ranks country procurement systems on the basis of several criteria including (i) the quality of the process used to assess needs, calls for tender, and bid preparation; (ii) bid submission procedures (iii) bid opening, evaluation and award processes; (iv) the content and management of procurement contracts that are issued; (v) requirements for performance guarantees by suppliers; (vi) the timeliness of payments to suppliers; and (vii) the existence and effectiveness of review (complaints) mechanisms.

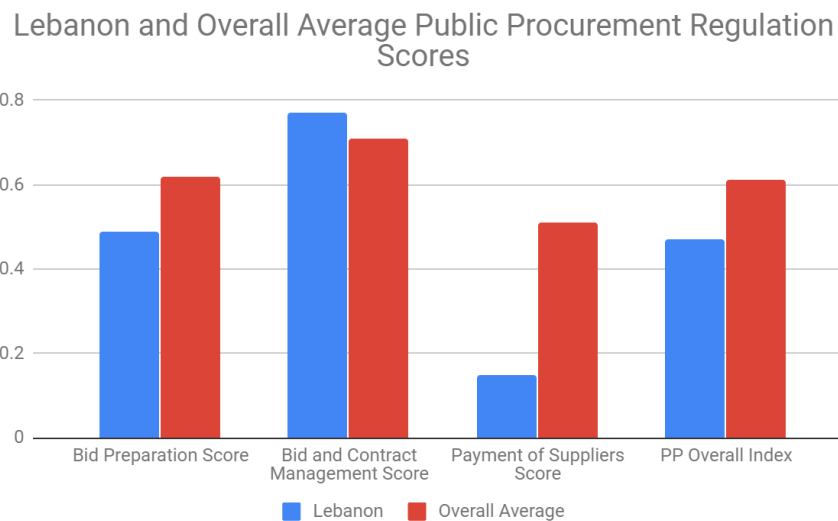
On many of these indicators Lebanon has below average scores compared to other countries with similar levels of per capita income. For example, the decision time for complaints (review) averages 247 days in Lebanon, as compared to 25 days on average for other upper middle income countries. Figure 1 plots the scores for Lebanon for three relevant areas as well as the overall score, and compares these to the averages for comparator MENA countries. Lebanon scores particularly badly on timeliness of payments – a variable that is particularly important for SMEs. Lebanese banks reportedly are averse to providing bid security guarantees, which acts as a disincentive for participation by Lebanese firms and gives foreign (international) groups an advantage as they are less financially constrained.

¹² See <https://www.ganintegrity.com/portal/country-profiles/lebanon/> and the sources listed there.

Figure 1: Public procurement regulation scores



h



3. Selective Literature Review

Of particular relevance to this report are two strands of research on public procurement that are pertinent from the perspective of SMEs. One deals with access to the procurement market with a focus on whether SMEs can contest and participate in procurement on an equal (nondiscriminatory) basis as large firms. The other deals with the economic development implications of participation in procurement.¹³ The first strand focuses on participation in public procurement by different types of firms, motivated by the fact that many procurement regimes seek to steer government expenditures

¹³ Carbone et al., (2018) is a recent survey of market access related studies; Hoekman (2017) reviews the literature on the effects of trade agreements.

to local firms. From an economic welfare or efficiency perspective questions of interest in this literature include the distribution of contract awards – local vs. foreign firms – and the size distribution of awards across local firms, including the share of sub-contracting. A stylized fact emerging from this research is that home bias is very strong, i.e. in most countries most procurement is allocated to domestic (locally-based) firms.¹⁴ Much of this literature tends to focus on the extent and determinants of home bias and devotes less attention to the size distribution of the local firms that win contracts.

A second strand of the literature focuses on the effects of government contracts (participation in public procurement) on different dimensions of economic development, including the productivity performance of firms. A hypothesis informing research in this area is that public procurement can complement national supply-side policies aimed at enhancing competitiveness of firms – such as providing access to finance, management consulting type support or information on market opportunities – by generating demand for the products of domestic firms that helps them to expand and improve overall productivity performance.¹⁵ In developing economies, firms generally have low levels of productivity and are often growth constrained, reflecting poor business environments, limited access to credit and structural characteristics such as small size and limited international exposure (Iacovone et al. 2014). Public procurement may help offset such supply side constraints by increasing demand for firms' output. Such "demand shocks" have been identified in the literature as a channel through which success in a procurement bid leads to improvements in firm performance. In response to the demand shock, firms become able to mobilize additional resources to invest.

Hebous and Zimmerman (2016) investigate the nexus between public procurement and capital investment for a sample of US firms and show that sales to the government relax financial constraints, permitting firms to increase capital investment. Ferraz et al. (2015) exploit a large dataset on procurement tenders in Brazil and show that winning a government contract increases overall employment growth of the firms concerned. They argue that learning processes help the firms to compete on new markets and to develop new products, with the government contracts acting as the trigger for such "downstream" effects. Lee (2017) obtains similar results using Korean

¹⁴ See, e.g., Branco (1994), Francois et al. (1997), Evenett and Hoekman (2005), Evenett and Shingal (2006), Ramboll and Chur (2011), Kutlina-Dimitrova and Lakatos (2016). Most of the trade literature also finds that international disciplines embodied in trade agreements are not associated with a reduction in home bias. See e.g., Rickard and Kono (2014), Shingal (2011, 2015). Gourdon and Messent (2017) and Tas et al. (2018) analyze the determinants of foreign sourcing in EU procurement awards using the EU Tenders Electronic Daily database (which reports information on procurement awards).

¹⁵ Edler and Georghiou (2007) discuss the role of public procurement as a demand-side policy. Georghiou et al. (2014) analyse the design of procurement policy if governments desire to use procurement to promote innovation.

procurement data: firms allocated public procurement contracts experience increased growth and activity generally, over and above the effects of the activity associated with the public contract. This is the case in particular for small, young and financially constrained firms. Government demand may incentivize pursuit of more risky activities, such as development and introduction of new (differentiated) products and new investments in R&D (Edler and Georghiou, 2007; Aschhoff et al., 2009; Slatchev and Wiederhold, 2016).

These potential channels may not apply equally to all types of firms and sectors – the relationship is likely to be heterogeneous, reflecting firm characteristics. While the literature suggests that government demand may be important for firms that are smaller and younger and/or have limited access to finance and high innovative potential (Acemoglu et al., 2013; Ferraz et al, 2015), the effect of public procurement (government demand) need not be positive. In practice, the design of procurement policy and its implementation will matter. If procurement reflects a process of generating and sharing rents between “connected” firms and government officials, positive performance effects either may not be observed or be smaller than they would otherwise be.

Knack et al. (2017) examine firm-level data in 88 countries. They find that firms are more likely to participate in public procurement markets in countries with more transparent procurement systems and higher implementation of open competition. Additionally, better advertisement of public procurement contracts increases competition and lower procurement prices. (Kenny and Crisman, 2016 and Coviello and Mariniello, 2014) Ghossein et al. (2018) extend the analysis to 109 economies and 59,000 firms. They find that countries that have higher public procurement quality experience higher firm participation in public procurement markets. Additionally, they find that public procurement quality promotes innovation and research and development. Tas (2019) empirically examines public procurement in the European Economic Area, Switzerland, and Macedonia. The empirical analysis concludes that improvements in regulation quality significantly increases competition and lower contract prices. Similarly, Lewis-Faupel et al. (2016) show that better public procurement practices significantly improve infrastructure such as road quality in India.

Hoekman and Sanfilippo (2019) analyse the relationship between public procurement participation and firm performance using a firm-level dataset for 19 African countries. In one of their regressions they differentiate between firms according to size (SMEs vs. larger companies). They find a statistically significant positive correlation between participation and labor productivity for smaller firms. Further disaggregating SMEs into firms with less than 50 employees and those with less than 20 employees, the size of the coefficient is larger the smaller the size of the firm. This suggests the positive demand shock represented by winning a public procurement contract has proportionally

higher potential effects for smaller, presumably more demand-constrained, companies. They do not find a statistically significant relationship for larger firms, which is expected because such firms tend to have higher levels of productivity. Conversely, the additional demand stemming from government contracts may positively affect the performance of the set of firms that are more likely to be growth constrained, i.e. SMEs.

SME-specific analyses

These papers are not concerned with firm size per se, although it plays a role in some of the empirical findings. Public procurement can be an effective tool to promote a variety of government objectives, including support for SMEs. If demand factors are important in explaining the growth of firms, policies that “steer” demand to SMEs might have positive productivity and other performance effects.

Dennis (2011) and Harland et al. (2019) show that public procurement policy can effectively be implemented to encourage SME entrepreneurship. Public procurement is essential to stimulate innovation. (Lember et al., 2011 and Uyarra and Flanagan, 2010) Georghiou et al. (2014) conducts a survey about the impact of public procurement practices on innovation on the UK. They conclude that deficiencies in the implementation of these policies limit their impact. Specifically, “lack of coverage, lack of ownership by purchasers, failure to address the whole cycle of acquisition and to address risk aversion” have adverse effects on SMEs. They suggest that actions such as extension of the procurement timeframe and better communication with SMEs are needed.

Fadic (2018) estimates the causal effects of positive government procurement demand shocks on the growth of small firms in Ecuador, using a unique dataset based on administrative sources and, as identification strategy, exploit a governmental procurement process that allocates public contracts through a randomized contest. The analysis finds a positive and significant effect of demand shocks on firm growth. On average, an increase in demand of 10% is associated with a 4% increase in wage expenses and 5% higher fixed assets during the year of the shock. No evidence is found for spillover effects from demand shocks on sales to the public or private sector. Government demand positively impacts firm growth but this effect is temporary and only observed during the year of the shock.

OECD (2011) examines the experiences of 6 EU countries in implementing public procurement policies to promote “demand-side” innovation policies. The report concludes that governments should prioritize innovation when evaluating public procurement offers and that this requires greater professionalism and better quality procurement regulation. Uyarra et al. (2018) conduct an empirical analysis to examine the public procurement factors that influence innovation ability of firms. They identify lack of communication, the use of over-specified tenders, low professional

abilities and poor management of risk as major barriers. In addition to promoting individual innovation performance of SMEs, public procurement policies can be designed to encourage SME networks and collaborative innovation activities. Edler and Yeow (2016) note that SMEs need incentive structures to sustain the risk of innovation. Laforet and Tann (2006) argue that SMEs can develop co-operation and partnerships to share risks and achieve success in innovation. Networks formed by SMEs have the potential to reduce the risk failure and increase chances of success by providing SMEs with the means to acquire required external resources (Watson, 2007).

Sasstamoinen et al. (2018) conduct an empirical analysis using survey data on SME networks, innovation and economic performance in Finland and conclude that SME networks are significantly more successful in supplying innovative products to public sector customers.

Several studies provide country level analysis of the impact of public procurement. Lember et al. (2011) examine procurement practices in six Baltic cities. They present the positive impact of public procurement on providing innovative urban solutions. Additionally, they suggest that hesitation by public officials to promote innovation diminishes potential positive impact of public procurement. They show the need for risk management practices. Rullan et al. (2012) examine public procurement policy in Argentina, Brazil, Chile, and Mexico. They find that low levels of administrative and policy competency hinder the effectiveness of public procurement policy in promoting SME innovation. Cooper (2003) argues that the Small Business Innovation Research program of the United States has promoted innovation by eliminating the barriers faced by SMEs when contesting federal R&D contracts and participating in federal and state procurement processes.

Guerzoni and Raiteri (2015) use data on over 5000 EU firms listed in the Innobarometer survey to compare the effectiveness of supply-side policies such as R&D subsidies and tax credits and with demand side, innovative public procurement policies. Their empirical analysis concludes that innovative public procurement has a significant positive impact on firms' innovative behavior. They conclude "Supply-side policies reduce the cost of inventive activities, while demand-side ones increase the incentives and reduce the uncertainty of the process of innovation" (p. 745).

Timmermans and Zabala-Iturriagoitia (2013) propose that "coordinated unbundling" can be effective to promote participation of SMEs in public procurement. They argue that large tenders should be divided into smaller units that are manageable by SMEs.

Liao et al. (2017) examine 10,397 Canadian SMEs. They find that major restrictions faced by SMEs are low awareness about public procurement advertisements and high administrative costs of bidding. Ancarani et al. (2019), based on a survey of SMEs in three countries (Canada, Hungary and Italy) find that some potential constraints, such as burdensome administrative requirements and an inability to compete in tenders where the primary criterion is price, are not perceived to be major

barriers to participation. However, they do find that the specific characteristics of SMEs – in particular limited human resources capacity and lack of financial strength as well as limited experience with public procurement system requirements and processes are impediments. These factors commonly are found to be participation constraints in the literature. The policy implications that are suggested include direct targeting of these factors, including timely payment for services, access to advance payments (e.g., through low-cost (reverse) factoring services, and training of SME staff. Saastamoinen, Reijonen and Tammi (2017), for example, find that a lack of ongoing training is associated with SME perceptions of resource constraints and lack of practical skills that limit their participation in public procurement—i.e., they find a positive correlation between pro-active training programs and SME participation rates.

Flynn and Davies (2017) test whether and how SME participation and success in public procurement is determined by firm-level capabilities, distinguishing between relational and procedural dimensions. They used a survey of 3000 firms that had bid for contracts with Irish procuring entities to test the model. The survey was repeated one year later to permit tests of stability of findings (robustness). The analysis concluded that procedural capability is associated with frequency of tendering and the typical value of contract sought. In contrast, relational capability was not found to be determining factors. Procedural and relational capabilities were both significant in accounting for success rates in contract competitions and commercial orientation towards the public sector.

To sum up, theoretical and empirical studies show that governments can implement public procurement policies to promote SME innovation and economic growth. Policies used by countries include targeted support such as preference programs, SME subcontracting requirements, and training programs to improve SME legal and technical expertise as well as more general interventions such as training to raise awareness of public officials, the adoption of e-procurement systems, and simplification of public procurement procedures.

4. Data on Public Procurement in Lebanon

Statistics on public procurement in Lebanon is collected by several government agencies. The Central Tender Board and Council for Development and Reconstruction (CDR) publish some of the data online. Our interviews with public officials concluded that there is no centralized data set about public procurement in Lebanon. Each authority collects and stores data about the contracts that they conduct. The CDR collects some the contract information by contacting each authority.

Currently, public procurement data is available only for around 10% of total central procurement. This is compiled and reported by the Central Tender Board of Lebanon (CTB) since 2017 and is available online. Additionally, limited annual statistics are reported in Council for Development and

Reconstruction (CDR) annual reports since 1998. Information on contracts managed by individual authorities that conduct procurement is not necessarily shared with the CBT and the data that are available data are not standardized in a single format. The data limitations inhibit quantitative assessments of total procurement in Lebanon and preclude analysis of the participation by SMEs in public procurement, the potential to increase their engagement or the effects of such participation. What follows provides an initial view of what is publicly available. The latest IMF Lebanon Country report (IMF, 2017) contains information about total government expenditure for years 2013-2021. Starting from year 2016, IMF (2017) presents the projected values. Table 1 below presents the total government expenditure and total amount of public procurement data publicly available from the CDR reports that are publicly available.

Table 1: Publicly Available Data on Lebanese Public Procurement

Year	Total Government Expenditure (LBP bn)	Total Amount of Publicly Available Data	Percentage of Procurement with Publicly Available Data
2013	20,512	954.27	4.65
2014	20,939	648.75	3.1
2015	20,066	1073.97	5.35
2016 (IMF Projection)	21,029	1255.32	5.97
2017 (IMF Projection)	22,099	1127.2	5.1

Source: IMF

The annual CDR reports are available online at the CDR web site. These reports provide data in a structured format. CDR officials stated that these reports contain data for about 5% of total public procurement contracts. Since, authorities are not required by law to submit detailed data to the CDR, CDR manages to collect information about 5% of annual public procurement. The CDR web site contains progress reports for year 2005-2017 from which we compiled data summarizing total procurement across sectors and the share of procurement funded by foreign donors and development finance institutions. The figures below summarize the data reported in these sources.¹⁶

Figure 2 reports the total reported amount of procurement by sector for 2010-2017. Figures 3 and 4 report data on the share of procurement that is funded by foreign financial sources and the sectoral distribution of such foreign financed projects. Almost two-fifths (38%) of total public procurement in the 2010-2017 period was foreign funded. Data retrieved from CDR reports indicate that public procurement in sectors like electricity, health, environment and agriculture have foreign funding sources. An implication of the significant role of foreign funding is that policy efforts to enhance the

¹⁶ The figures are drawn using data from the CDR annual reports, which cover roughly 5% of total annual Lebanese public procurement.

ability of SMEs to participate in public procurement could start with selected donor agencies, given that these entities have strong procurement procedures that must be followed, thus allowing for experimentation and learning.

Figure 2: Distribution of Total Public Procurement by sector, 2010-2017

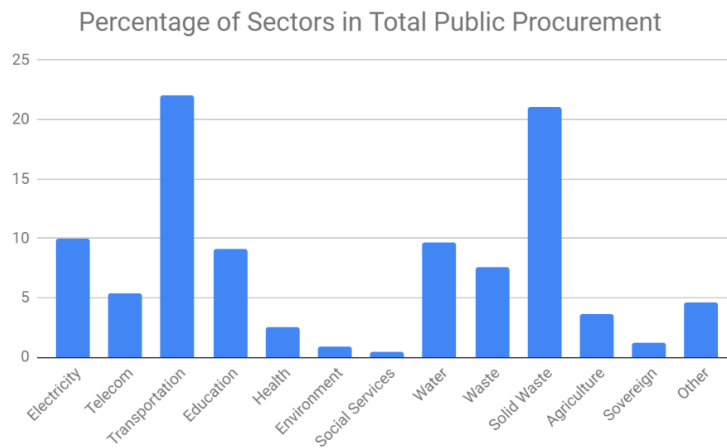
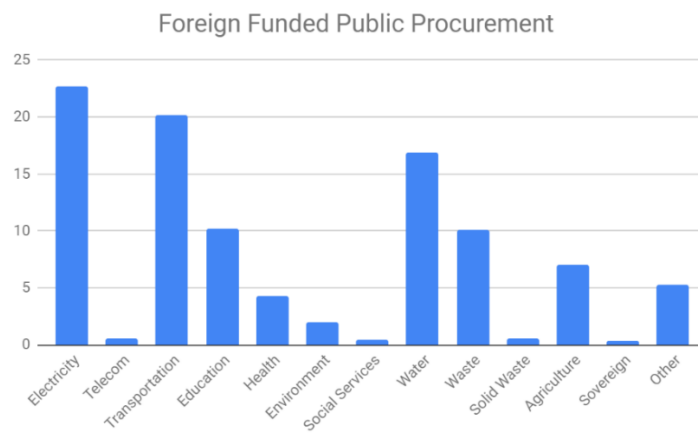
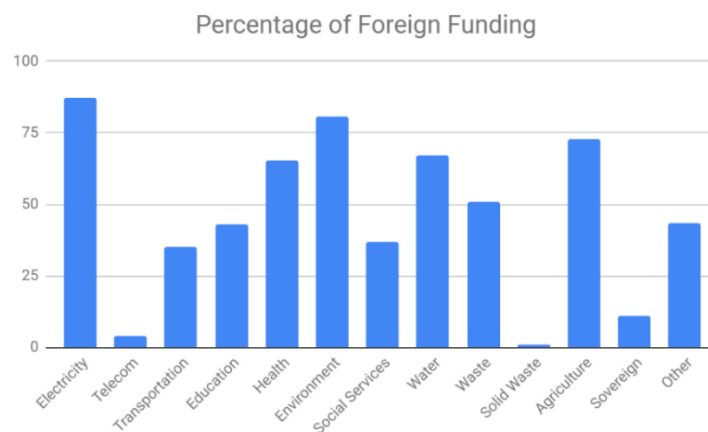


Figure 3: Public Procurement in years 2010-2017



Source: CDR.

Figure 4: Percentage of Foreign Funding in each sector



Source: CDR.

Perceptions by Lebanese companies on constraints to growth

The most recent World Bank Enterprise Survey (WBES) for Lebanon was conducted in 2013. This includes limited information on SMEs and public procurement. The survey data span 561 firms in Lebanon: 21% in Beirut, 14% in Bekaa Valley, 24.8% in Mount Lebanon, 7.7% in Nabatieh, 13.9% in North Lebanon and 16.7% in South Lebanon. One-third (32.3%) of the surveyed firms are small firms with 5-19 workers and 27.6% are classified as medium-sized firms with 20-99 employees. The WBES does not include questions that specifically relate to public procurement participation but does have questions about more general factors that constrain profitability and growth of SMEs. Among 336 SMEs, 166 firms do not perceive transportation and trade regulations as a major obstacle (Figure 5a, b). The most frequently mentioned obstacle by Lebanese SMEs that participated in the survey was access to finance (Figure 5c).

Figure 5a: Obstacle Perception of SMEs in Lebanon: Transport

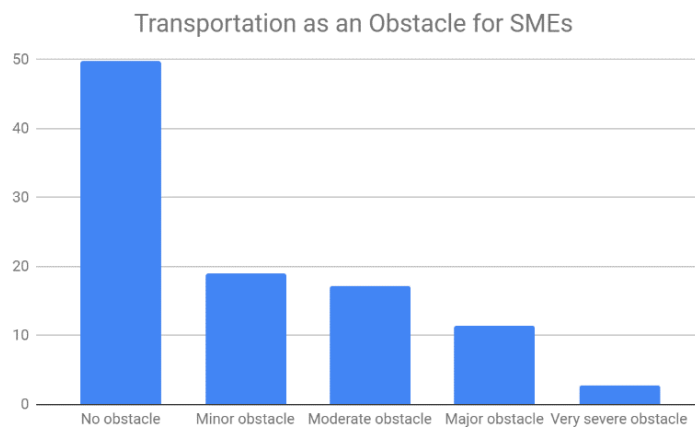


Figure 5b: Obstacle Perception of SMEs in Lebanon: Trade regulations

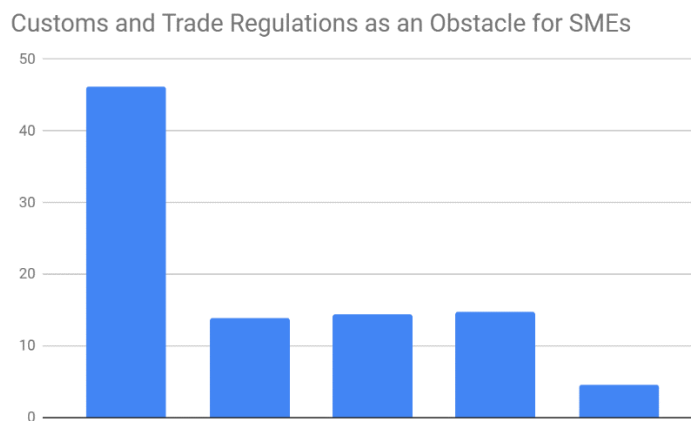
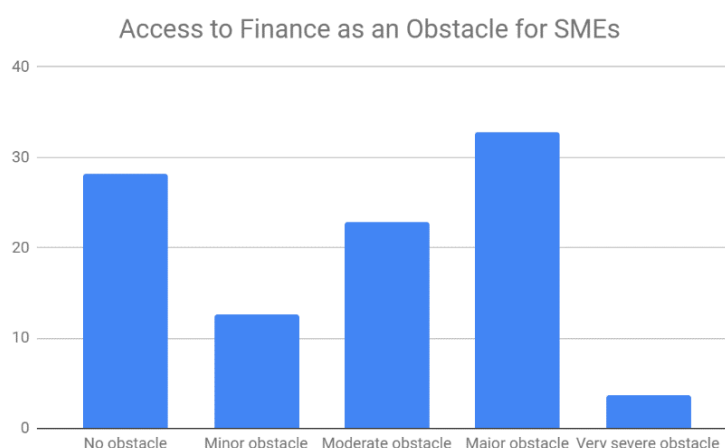


Figure 5c: Obstacle Perception of SMEs in Lebanon: Access to Finance



Of the 336 SMEs, 48 firms stated that they conducted active R&D activities. Logistic regression analysis identifies access to finance as a major obstacle to R&D activities by SMEs (Table 2). Higher barriers (more constrained) access to finance is associated with a lower probability that an SME will engage in R&D activities.

Table 2: Effect of Perceived Obstacles on SME R&D Activities

Variable	Coefficient
Access to Finance	-1.66 (6.33)**
Regulation Quality	-0.42 (1.37)
Number of Observations	366

Note: z statistics below each coefficient in parentheses. * $p < 0.05$; ** $p < 0.01$.

5. Public Procurement Regulation and SMEs: Illustrative Empirical Analysis

In this section, we examine the impact of public procurement regulation quality on behaviour of SMEs in public procurement using data on European Union public procurement to obtain empirical results applicable to Lebanon. The empirical analysis provides insights that can inform the design of public procurement reforms in Lebanon.

We employ two comprehensive data sets. The first is the Tenders Electronic Daily (TED) data set of the European Union. This contains information on 5,303,219 public procurement contracts for the European Economic Area, Switzerland, and the Former Yugoslav Republic of Macedonia for the period 2006-2017. The cross-country structure of the TED data set allows identification of the effect of public procurement regulation quality. The second dataset is the World Bank's Benchmarking Public Procurement database which characterizes the quality of public procurement regulation for

142 countries in 2016 (World Bank, 2016). Djankov et al. (2017) assess three aspects of public procurement: the bidding process, the content and management of tenders and contracts, and the payment of suppliers involved in public procurement as well as an Overall Public Procurement Score (PP Overall) as the arithmetic mean of all scores. The data used for the indicators were collected using expert surveys of more than 1,900 national procurement experts. A higher score indicates that the country has a higher quality procurement regime.

The bid preparation score gauges the quality of the needs assessment associated with procurement projects and the call for tender process. The bid and contract management score considers the processes used for submission and evaluation of bids. The payment of suppliers score measures payment time frames and the procedures for request of payment. Figure A1 in the Appendix reports the public procurement scores of EU countries. Figure 1 above reports the public procurement regulation scores for Lebanon.¹⁷ As noted previously, Lebanon's scores for bid preparation, bid and contract management, payment of suppliers and overall are below the average observed in a sample of 142 countries compiled by the World Bank.

Table 3 reports the results of an empirical analysis of the effect of public procurement regulation quality scores on SME participation in the EU public procurement market. This makes use of the TED data set, which includes information whether a firm that has won a public procurement contract is an SME. TED also reports the total number of bids submitted by SMEs. These variables can be used to examine the impact of public procurement regulation quality on participation of SMEs in public procurement. The results indicate that regulation quality has a significant positive impact on a SME submitting a bid to a government contract. In addition to affecting the probability that SMEs submit tenders, the quality of public procurement regulation also affects the probability that an SME wins a government procurement contract (Table 4).

An implication of these findings that is relevant for the design of procurement regulation is that generally applied measures – that is, actions that do not specifically target SMEs – may have significant positive effects on SME participation and the likelihood that SMEs win tenders. An area of procurement quality that is particularly important to SMEs such as reducing payment delays, has the expected effect and is statistically significant, but general improvements in bid preparation and the management of tenders and contract awards have larger positive effects on SME engagement, both in terms of participation and in terms of expected success rates.

¹⁷ Djankov et al. (2017) calculates the scores for Lebanon as: bid preparation score 0.49, bid and contract management score 0.77, payments of suppliers score 0.15, public procurement overall index 0.47.

Table 3: SME Participation*Effect of Public Procurement Regulation Quality on the Probability that an SME Submits a Bid*

	OLS			
	(1)	(2)	(3)	(4)
Bid Preparation	0.99 (89.81)**			
Management		1.08 (89.80)**		
Payment			0.12 (89.81)**	
PP Overall				1.08 (89.80)**
Observations	146,741	146,741	146,741	146,741
Procedure Fixed Effects	Yes	Yes	Yes	Yes
Authority Fixed Effects	Yes	Yes	Yes	Yes
Sector Fixed Effects	Yes	Yes	Yes	Yes
Country Fixed Effects	Yes	Yes	Yes	Yes

Notes: * $p < 0.05$; ** $p < 0.01$. Robust z-statistics in parentheses.**Table 4: SME Success in Winning a Contract***Effect of Public Procurement Regulation Quality on the Probability that SMEs Win Contracts*

	OLS			
	(1)	(2)	(3)	(4)
Bid Preparation	0.13 (10.77)**			
Management		0.09 (11.04)**		
Payment			0.002 (19.39)**	
PP Overall				0.38 (23.78)**
Observations	146,741	146,741	146,741	146,741
Procedure Fixed Effects	Yes	Yes	Yes	Yes
Authority Fixed Effects	Yes	Yes	Yes	Yes
Sector Fixed Effects	Yes	Yes	Yes	Yes
Country Fixed Effects	Yes	Yes	Yes	Yes

Notes: * $p < 0.05$; ** $p < 0.01$. Robust z-statistics in parentheses.

6. Policy discussion and recommendations

As discussed previously, policy towards SMEs may focus on the supply-side, the demand side or both. It is important to recognize that procurement is only one potential tool in this regard – other SME-specific policies are also called for, but we abstract from this more general context in what follows to focus on the procurement policy dimension. Even if attention is restricted to procurement law and regulation, it is necessary to distinguish between generally applicable procurement policies and measures that target SMEs more narrowly.

General reforms that are important in themselves from a good governance perspective can have disproportional effects on SMEs. The results of the regressions reported in Tables 3 and 4 illustrate this point. As public procurement regulation quality plays an integral role in supporting both SME participation in the procurement process and the probability that SMEs win government contracts, efforts to improve the overall quality of public procurement regulation is likely to help foster greater engagement by SMEs. This will benefit all firms, not just SMEs, but because procedures have greater effects on SMEs than other (larger) firms, horizontal measures that seek to increase the quality of procurement processes can benefit SMEs disproportionately. This is case in particular for reforms that address weaknesses many SMEs will have compared to larger and international firms, for example in terms of financial capacity (for bid security; access to working capital; etc.).

Improve access to information and transparency of procurement processes

A particularly important need that should be considered in any procurement reform is to ensure that SMEs have easy access to information on procurement opportunities and on procurement outcomes. The former is a necessary condition for participation in tenders. The latter is critical in addressing longstanding concerns regarding the integrity of procurement processes and award decisions. Firms must be able to ascertain why a contract was awarded to a particular bidder and understand why the winner was determined to have made the best offer. Better information transmission can be realized through adoption and use of e-procurement systems and through dedicated web portals and specialized facilities where SMEs can obtain both information and assistance in understanding both specific project requirements and more generally the benefits of participation in public procurement. Specific initiatives aimed at educating and training SME personnel and requiring procuring entities to post opportunities on a central web platform can help reduce information costs for SMEs. Suggestions made at the 2018 Forum on public procurement for resilience and sustainable growth to create a help desk at the Tender Board to assist SMEs prepare bids and to create a facility where training is offered to SMEs on how to pursue procurement opportunities are examples of specific actions that should be considered.

The most effective and efficient action that can be taken to enhance access to information is by putting in place e-procurement systems. This has already been the focus of substantial attention and effort in Lebanon although such systems have yet to be implemented. E-procurement will benefit all firms by lowering transactions costs, enhancing transparency and reducing the scope for corruption and collusion. On the margin the benefits will accrue more to SMEs given they are less likely to be able to incur the fixed costs of a procurement regime where inter-personal relationships and contacts is important, public sector governance is weak and tendering involves significant paperwork and associated complexity and investment of human resources and time. There is substantial

evidence of the efficiency enhancing effects of e-procurement and its impacts in facilitating participation by SMEs (Ancarani, et al., 2019; Saastamoinen et al, 2018; Fernandes and Vieira, 2015).

Use of e-procurement will have the added benefit of generating more comprehensive and comparable data on procurement opportunities and awards. Manual public procurement data collection initiatives depend on reports by public officials. However, this process is slow and susceptible to reporting errors. Additionally, critical information about competition and contract price might not be filed for substantial number of tenders. For example, the Tenders Electronic Daily (TED) data set of the European Union contains data about millions of public procurement contracts. Contract price is missing for 15% of the contracts in the TED. For auctions that are conducted by an electronic auction system, contract price is missing for less than 1% of all contracts. Additionally, more than 5% of tenders have unrealistically large contract prices compared to estimated prices when an electronic auction system is not used. Erroneous recording of contract prices is less than 0.1 % for tenders that are conducted using e-procurement systems.

E-procurement systems automatically record procurement outcomes in a standard format. However, manual recording is inconsistent especially about sector and product description. Turkish public procurement system implemented the Electronic Public Procurement Platform (EKAP in Turkish) in 2010. Comparison of data collected by manual system before 2010 and EKAP show that sector and product description data is consistently recorded after 2010. The electronic systems have pull-down menus to record information. Additionally, EKAP checks the validity of the data automatically while an official is registering a tender. This feature allows researchers and policy makers to examine sectoral differences and assess impact of policies on different sectors. Finally, economic analysis of competition and cost-effectiveness requires the complete bidding history (bids submitted by all firms) E-procurement systems automatically record the bids submitted by all participants. This feature provides valuable information to examine collusive behavior and level of competition.

Specific actions to enhance SME participation opportunities

Good practices in the design and implementation of procurement processes to support SME participation have been the focus of extensive deliberation in many countries, the EU and international organizations such as the OECD. We have summarized the basic elements in Section 2. What is called for is that procuring entities consider how procurement-related requirements impact on the ability of SMEs to participate in tenders and the probability of winning contracts. Measures to this effect can be general as well as specific (targeting SMEs). In considering new procurement

legislation and associated implementing regulation it is important that adequate attention be given to the various options that can be considered by the Lebanese government.

Bid eligibility and contract award criteria. One good practice is to consider the effects that eligibility criteria may have in excluding SMEs from bidding if these simply cannot be met by most SMEs as a result of their size. Examples are high turnover requirements that exceed the annual revenue of an average SME, or requiring a long track record of previous experience with public contracts. Actions that can be taken in this regard include calling on agencies to define the size of contracts so as to facilitate SME engagement. Procuring entities can also be encouraged to sub-divide large contracts into smaller lots where this is feasible and unlikely to have adverse consequences for the attainment of value for money objectives or the technical quality of a project. If such provisions are considered in the reform of Lebanon's procurement legislation and associated implementing regulation, these should call on procuring entities to justify decisions not to sub-divide contracts into smaller lots (as is current practice in the EU) and permit firms to challenge instances where this is not done through a dedicated domestic review (complaints) mechanism.

Minimizing payment delays. As noted previously, Lebanon scores particularly badly on the timeliness of payments to suppliers, suggesting a specific focus on improving payment terms will be beneficial to SMEs. This should include provisions in procurement legislation imposing mandatory maximum time limits for payments to SMEs and penalty charges for procuring entities that exceed the time limits that are high enough to cover the costs for small firms associated with the delay – such as interest and fees charged by their banks. Measures to address specific constraints related to access to finance could encompass interventions to make advance payment facilities available to winning SME bidders and to develop instruments to lower the cost of bid security requirements. Identifying what may be appropriate requires detailed sectoral analysis, both of the financial services sector as a provider of credit and guarantees for bid securities, working capital, and insurance products, and the various sectors that produce goods and services demanded by procuring entities. Different sectors will have different needs and constraints. A firm-level survey that generates information on current participation in public procurement and perceptions on factors that inhibit SME engagement can help to identify priority areas for action and research to determine what could be done. We discuss this further below.

Pro-active preference policies. According SMEs specific preferential treatment in the award of procurement contracts is a feature of the legislation of some countries. Most countries have decided not to do because of concerns that this will increase expected costs of projects excessively, including transactions costs for procuring agencies, and because such policies are frowned upon by multilateral procurement agreements such as the WTO Agreement on Government Procurement.

Demand-side procurement measures found in procurement laws include price-preferences – subtracting a certain percentage (often 10 to 15%) from the price offered by SMEs for purposes of bid evaluation – and provisions that call on winning bidders to offset (set aside) a minimum share of the project for local SMEs. Such offsets may be associated with weighting in bid evaluation criteria, for example, giving credit for sub-contracting arrangements or allocating a certain share of the total contract for SMEs. As discussed in Section 2, empirical research suggests such preference policies increase the number of SMEs that participate in public procurement, but also that this can come at a cost in terms of value for money forgone. Such costs will be a function of the types of products procured, the degree of competition and the economic magnitude of the preference. If there is effective competition between SMEs in bidding for contracts, the potential costs may be small. They will also be more limited the smaller is the effective margin of preference, as this will determine the upper bound impact on potential excess procurement costs. In practice, relatively low preferential margins – e.g., the 5% applied in California – are likely to have limited downside total cost effects given that preferences will also incentivize large – and presumably more efficient – firms to lower their bids to take into account the preference for SMEs.

Another policy that could be considered in the reform of Lebanon’s procurement regime to encourage SME participation while at the same time addressing prevailing concerns regarding weak governance of procurement tender and award processes is to emulate the type of program put in place in Ecuador. This regime, discussed above (see Fadic, 2018) , reserves contracts for certain types of procurement below a certain value threshold for (pre-qualified) SMEs. A key feature of the program is that contracts are allocated randomly to qualified firms, reducing concerns that contracts may be allocated on the basis of patronage and networks. An ancillary benefit of this approach is that it permits researchers to determine the effect of participation in procurement, as it removes selection bias and thus allows assessment of the causal effects of winning a public contract on the performance of firms.

Subsidies such as tax exemptions for SMEs, whether applied to indirect taxes on inputs used or on the outputs (profits) generated by a public contract, are best avoided in the context of procurement legislation. Tax policy is an economy-wide matter in that it should consider incentives more generally across all markets and not just the market for public contracts. Insofar as a policy objective is to assist SMEs as SMEs, tax incentives of other fiscal subsidies may be appropriate, but this is a matter that should be kept separate from the procurement context and considered on its own merits. International procurement practice and experience, reflected in the guidelines of international organizations such as OECD (2018), suggests the focus should be on measures that level the playing field for SMEs, i.e., encouraging procuring agencies to avoid anti-SME bias in the design of calls for

tender. Care is in order before adopting specific preferences for SMEs in procurement regimes, but if the government wishes to go beyond leveling the playing field and pro-actively encourage SME participation, such measures should be specific to procurement.

Experimentation and pilot projects. As an input into considering and assessing specific interventions it would be valuable to identify the scope for encouraging greater SME engagement in public procurement in Lebanon through pilot projects and experimentation that leverages the fact that Lebanon relies to a significant extent on foreign sources of finance and external donors. Given that foreign donor agencies and development finance institutions play a substantial role in financing procurement projects in some sectors in Lebanon, donor-specific requirements must be followed in the associated procurement processes through which contracts are awarded. This creates the possibility of engaging with one or more donors to apply on a pilot basis possible modalities to encourage greater participation of SMEs. For example, one possibility would be to apply what is done in the EU in regard to subdivision of contracts into lots. Another initiative would be for the CDR to seek agreement from donors to experiment with creating stronger incentives for sub-contracting by winning tenderers – e.g., by making this one factor that is considered for award of contracts, or increasing the weight of sub-contracting if this already used as a criterion. The specifics of what might be considered, both the intervention and the types of projects, contract sizes, etc. is a matter that requires deliberation and further research. The main point is that there is scope for experimentation, especially by the CDR, given its extensive experience with foreign donor procurement systems and its institutional capacity in this area.

Survey stakeholders to solicit information and feedback

A final recommendation is to engage with SMEs and ask them what the main constraints are that inhibit them from greater engagement in public procurement. This can be done through a survey. If repeated periodically, a survey can also generate information on the effects of (changes in) procurement policy and help monitor the implementation of policy reforms. To assess the effects of procurement policies on firms – their productivity, employment, R&D, innovation, etc. – data is required. This is not available in Lebanon. Such micro data is particularly important if future procurement legislation includes targeted demand-side measures such as set asides in order to evaluate the benefits and costs of such policies.

The limited extent of data on SME participation in the Lebanese public procurement market impedes a more detailed assessment of the potential for government demand to support SMEs. A survey will produce much needed information about SMEs and their role in the Lebanese public procurement market. Drawing on the lists of pre-qualified firms that are maintained by CDR can provide one

element of the sampling frame for such an exercise. Undertaking a representative survey of firms can help to improve both knowledge of the state of play and the design of possible policy reforms, and be used by researchers and policy makers to improve the design of policies to promote SMEs in Lebanon.¹⁸

One step that could be taken in the short run in this direction is to leverage the consultations with stakeholders in Lebanon as part of the ongoing MAPS (Methodology for Assessing Procurement Systems) project with the OECD. The MAPS initiative is crosscutting in nature – it is not centered on SMEs. Including a focus on SMEs in the consultations can help to refine the types of questions a firm-level survey should include as regards the factors that firms perceive as affecting (constraining) participation by SMEs.

Periodic, representative surveys of firms are needed to track progress in implementing reforms, enhancing accountability and identifying shifts over time in priorities for SMEs. Improving data collection and transparency of the procurement process and outcomes will also help the government and stakeholders identify when collusion (bid-rigging) may have taken place. Better data on the procurement process and outcomes can help to identify instances of anti-competitive behaviour. This is in principle a matter for competition authorities, but can be helped by soliciting anonymous information on perceptions of corruption and collusion as well as objective indicators – such as number of firms bidding – that inform assessments of the extent of effective competition. While companies may not feel secure enough to bring forward cases of improper procurement to domestic review (complaints) mechanisms, generating data may empower third parties such as think tanks and researchers to play a helpful role in combating corrupt and collusive practices.

7. Concluding remarks

The research literature on factors affecting SME participation and the role of public procurement policies in promoting entrepreneurship, innovation, inclusion and growth of SMEs illustrate the importance of ensuring that public procurement regulation is designed to facilitate active engagement by SMEs in public procurement opportunities. This need not take the form of specific preferences for SMEs – more important is to design procurement systems and associated regulation in ways that the inherent characteristics of SMEs do not automatically preclude them for participation. Incorporation of the types of good practices and recommendations in Section 6 as

¹⁸ Appendix 2 presents some elements of the types of questions that can be the basis for future empirical research on issues that are relevant for the design and assessment of procurement policies.

part of the reform of Lebanon's procurement legislation will help to ensure that SMEs have greater opportunities to participate in public procurement opportunities.

A precondition for such benefits is that procurement is transparent and applied according to the rules of the game specified in the law and its implementing regulations. Improving public sector governance and addressing private anti-competitive behaviour is a core goal of policy and institutional reform efforts. Procurement is just one, albeit important element, of this broader challenge. Whatever is decided in terms of specific and general provisions in a new procurement law, from an accountability perspective a priority should be to generate reliable and comprehensive data on procurement processes and contract awards. Ideally this would be complemented by a census of firms to allow matching firms that win and lose procurement contests with balance sheet information to permit assessments of the productivity impacts of procurement participation. In the absence of a census of firms in Lebanon, efforts should focus on using firm-level surveys to generate such information.

References

- Acemoglu, D., Akcigit, U., Bloom, N., and W. R. Kerr. 2013. "Innovation, Reallocation and Growth," NBER Working Paper 18993.
- Altenburg, T. and W. Lütkenhorst. 2015. *Industrial Policy in Developing Countries: Failing Markets, Weak States*, Edward Elgar: Cheltenham
- Ancarani, A., C. Di Mauro, T. Hartley and T. Tünde Tátrai. 2019. "A Comparative Analysis of SME Friendly Public Procurement: Results from Canada, Hungary and Italy," *International Journal of Public Administration*, DOI: 10.1080/01900692.2019.1575853.
- Aschhoff, B. and W. Sofka. 2009. "Innovation on demand—Can public procurement drive market success of innovations?," *Research Policy*, 38: 1235-47.
- Auriol, E., S. Straub and T. Flochel. 2016. "Public Procurement and Rent-Seeking: The Case of Paraguay," *World Development* 77(C): 395–407.
- Best, M.C., Hjort, J. and D. Szakonyi. 2017. "Individuals and Organizations as Sources of State Effectiveness, and Consequences for Policy," NBER Working Paper 23350.
- Cooper, R. S. 2003. "Purpose and performance of the Small Business Innovation Research (SBIR) Program", *Small Business Economics*, 20:137-151.
- Branco, F. 1994. "Favouring domestic firms in procurement contracts," *Journal of International Economics* 37, 65–80.
- Carbone, C., Iossa, E. and G. Mattera. 2018. "Barriers towards foreign firms in international public procurement markets: a review," *Economia e Politica Industriale* 45: 85-107.
- Coviello, Decio and Mario Mariniello. 2014. "Publicity requirements in public procurement: Evidence from a regression discontinuity design." *Journal of Public Economics* 109: 76-100.
- Czarnitzki, D., P. Hünermund and N. Moshgbar. 2018. "Public procurement as policy instrument for innovation," ZEW - Centre for European Economic Research Discussion Paper No. 18-001

- Dennis Jr, W. J., 2011, "Entrepreneurship, small business and public policy levers", *Journal of Small Business Management*, 49:92-106.
- Djankov, S., Islam, A. and F. Saliola. 2016. "How Large Is Public Procurement in Developing Countries?" Peterson Institute for International Economics: Washington, DC.
- Djankov, S., T. Ghossein, A. M. Islam and F. Saliola, 2017, "Public Procurement Regulation and Road Quality", World Bank Policy Research Working Paper 8234.
- Edler, J and L. Georghiou. 2007. "Public procurement and innovation—Resurrecting the demand side," *Research Policy* 36: 949–963.
- Edler, J. and J. Yeow, 2016, "Connecting demand and supply: the role of intermediation in public procurement of innovation", *Research Policy*, 45:414-426.
- European Commission, 2008. "European Code of Best Practices Facilitating Access by SMEs to Public Procurement Contracts," Brussels: SEC(2008) 2193. At https://www.ecec.net/fileadmin/user_upload/smecodeofbestpracticesen1.pdf
- European Commission, 2017. "European Innovation Scoreboard 2017", Available online at: <http://ec.europa.eu/DocsRoom/documents/24829>. (Accessed July 14, 2019).
- Evenett, S. and B. Hoekman. 2005. "Government Procurement: Market Access, Transparency and Multilateral Trade Rules," *European Journal of Political Economy*, 21(1): 163-183.
- Evenett, S. and A. Shingal. 2006. "Monitoring Implementation: Japan and the WTO Agreement on Government Procurement," in S. Evenett and B. Hoekman (eds.), *Economic Development & Multilateral Trade Cooperation*, London: Palgrave-McMillan.
- Fadic, M. 2018. "Letting Luck Decide: Government Procurement and the Growth of Small Firms," mimeo.
- Fernandes, T. and V. Vieira, 2015. "Public e-procurement impacts in small- and medium-enterprises", *International Journal of Procurement Management*, 8(5):587-607.
- Ferraz, C., Finan, F. and D. Szerman. 2015. "Procuring Firm Growth: The Effects of Government Purchases on Firm Dynamics," NBER Working Paper No. 21219.
- Flynn, A. and P. Davis. 2017. "Explaining SME participation and success in public procurement using a capability-based model of tendering", *Journal of Public Procurement*, 17(3): 337-72.
- Georghiou, L., J. Edler, E. Uyarra and J. Yeow, 2014, "Policy instruments for public procurement of innovation: Choice, design and assessment", *Technological Forecasting and Social Change*, 86:1-12.
- Georgopoulos, A., B. Hoekman and P. Mavroidis (eds.) 2017. *The Internationalization of Government Procurement Regulation*. Oxford University Press.
- Geroski, P.A. 1990. "Procurement policy as a tool of industrial policy," *International Review of Applied Economics*, 4 (2), 182-198.
- Ghossein, T., Islam, A. M., & Saliola, F. 2018. Public Procurement and the Private Business Sector: Evidence from Firm-Level Data. The World Bank.
- Gourdon, J. and J. Messent. 2017. "How government procurement measures can affect trade," OECD Trade Policy Papers No. 199, OECD Publishing: Paris.
- Guerzoni, M. and E. Raiteri, 2015, "Demand-side vs. supply-side technology policies: Hidden treatment and new empirical evidence on the policy mix", *Research Policy*, 44:726-747.
- Harland, C., J. Telgen, G. Callender, R. Grimm and A. Patrucco, 2019, "Implementing government policy in supply chains: an international coproduction study of public procurement", *Journal of Supply Chain Management*, 55:6-25.

- Hebous, S. and T. Zimmerman. 2016. "Can Government Demand Stimulate Private Investment? Evidence from U.S. Federal Procurement," IMF Working Paper No. 16/60
- Hoekman, B. 2017. "International Cooperation on Public Procurement Regulation," in A. Georgopoulos, B. Hoekman and P. Mavroidis (eds.), *The Internationalisation of Government Procurement Regulation*, Oxford University Press.
- Hoekman, B. 2018. "Government Procurement," in J. Drake Brockman and P. Messerlin (eds.), *Potential Benefits of an Australia-EU Free Trade Agreement: Key Issues and Options*. Adelaide: University of Adelaide Press, pp. 123-48.
- Hoekman, B. and M. Sanfilippo. 2019. "Foreign Participation in Public Procurement and Firm Performance: Evidence from Sub-Saharan Africa," *Review of World Economics*. At <https://doi.org/10.1007/s10290-019-00357-y>.
- Iacovone, L., Ramachandran, V. and M. Schmidt. 2014. "Stunted Growth: Why Don't African Firms Create More Jobs?" Center for Global Development Working Paper 353
- International Monetary Fund, 2017, IMF Country Report No.17/19, Available online at: <https://www.imf.org/en/Countries/LBN>.
- Institut des Finances Basil Fuleihan. 2012. *Review of the Public Procurement Legal Framework in Lebanon: Possibilities for Incorporating Environmental and Social Sustainability Criteria*. At www.institutdesfinances.gov.lb.
- Institut des Finances Basil Fuleihan. 2014a. *Professionalizing Public Procurement in Lebanon: Diagnostic Review and a Vision Forward*, at www.institutdesfinances.gov.lb.
- Institut des Finances Basil Fuleihan. 2014b. "Better Value for Taxpayers Money : Public Procurement in Lebanon," at <http://www.institutdesfinances.gov.lb/publication/better-value-for-taxpayers-money/>
- Institut des Finances Basil Fuleihan. 2018 "Public Procurement Modernization in Lebanon: Current Situation and Way Forward," Strategic Note. Mimeo.
- Inventis, 2014, "Lebanon SME Strategy: A Roadmap to 2020", at https://www.economy.gov.lb/public/uploads/files/6833_5879_4642.pdf
- Kattel, R. and L. Veiko. 2010. "Public procurement as an industrial policy tool: an option for developing countries?," *Journal of Public Procurement* 10(3): 368–404
- Kenny, Charles and Ben Crisman. 2016. "Results Through Transparency: Does Publicity Lead to Better Procurement?" Center for Global Development Working Paper 437. Washington DC.
- Knack, S., Biletska, N. and K. Kacker. 2019. "Deterring Kickbacks and Encouraging Entry in Public Procurement Markets: Evidence from Firm Surveys in 90 Developing Countries," *World Bank Economic Review*, DOI: [10.1093/wber/lhy016](https://doi.org/10.1093/wber/lhy016).
- Krasnokutskaya, E. and K. Seim (2011), "Bid preference programs and participation in highway procurement auctions", *American Economic Review*, 101: 2653-86.
- Kutlina-Dimitrova, Z. and C. Lakatos. 2016. "Determinants of direct cross-border public procurement in EU Member States," *Review of World Economics*, 152: 501-28.
- Laforet, S. and J. Tann, 2006, "Innovative characteristics of small manufacturing firms", *Journal of Small Business and Enterprise Development*, 13:363-380.
- Lee, M. 2017. "Government Purchases, Firm Growth and Industry Dynamics," University of San Diego (mimeo).
- Lember, V., T. Kalvet and R. Kattel, 2011, "Urban competitiveness and public procurement for innovation", *Urban Studies*, 48:1373-1395.

- Lewis-Faupel, S., Y. Neggers, B. A. Olken, and R. Pande, 2016, "Can electronic procurement improve infrastructure provision? Evidence from public works in India and Indonesia," *American Economic Journal: Economic Policy* 8(3): 258-283.
- Liao, D., B. Orser and A. Riding, 2017, "Canadian Federal Procurement as a Policy Lever to Support Innovation and SME Growth", at: http://telfer.uottawa.ca/assets/documents/2017/Federal-Procurement-and-SMEs-report-Telfer_web.pdf. (Accessed on 25 July 2019).
- Lukacs, E., 2005, "The economic role of SMEs in the world economy, especially in Europe", *European Integration Studies*, 1:3-12.
- Marion, J. 2007. "Are bid preferences benign? The effect of small business subsidies in highway procurement auctions", *Journal of Public Economics*, 91(7-8): 1591-1624,
- Meghana, A., T. Beck and A. Demircuc-Kunt, 2003, "Small and Medium Enterprises across the Globe: A New Database", Policy Research Working Paper 3127. World Bank, Washington, DC.
- Nakabayashi, J., 2013 "Small business set-asides in procurement auctions: An empirical analysis", *Journal of Public Economics*, 100:28-44.
- Nielsen, W. 2017. "Technical Report: Policies that Promote SME Participation in Public Procurement," report for Business Environment Working Group (Donor Committee for Enterprise Development).
- Nicholas, C. and M. Fruhmann. 2014. "Small and medium-sized enterprises policies in public procurement: Time for a rethink?" *Journal of Public Procurement*, 14(3): 328-60.
- Obwegeser, N., & Müller, S. D. 2018. "Innovation and public procurement: Terminology, concepts, and applications," *Technovation*, 74, 1-17.
- OECD. 2011. "Demand Side Innovation Policy", OECD, Paris.
- OECD. 2012. "Guidelines for Fighting Bid Rigging in Public Procurement: Helping Governments to Obtain Best Value for Money", At <https://www.oecd.org/competition/cartels/42851044.pdf>
- OECD. 2015. *OECD Recommendation of the Council on Public Procurement*, At <https://www.oecd.org/gov/ethics/OECD-Recommendation-on-Public-Procurement.pdf>
- OECD, 2018, "SMEs in Public Procurement: Practices and Strategies for Shared Benefits", OECD Public Governance Reviews, At <https://www.oecd.org/publications/smes-in-public-procurement-9789264307476-en.htm>.
- Rullan, S., Saucedo, E., Bacaria, J., 2012. Public procurement for innovation: Challenges and prospects for Latin America. In: Proceedings of the 2012 IEEE ISMOT 599–601.
- Saad, Y. 2010. "Public Procurement Reform: Tensions, Challenges and the Road Ahead: The Case of Lebanon," *Public Procurement: Global Revolution IV Conference Proceedings*, University of Nottingham, U.K. At: https://www.researchgate.net/publication/273409113_Public_Procurement_Reform_Tensions_Challenges_and_the_Road_Ahead_-_the_Case_of_LEBANON
- Saastamoinen, J., H. Reijonen and T. Tammi, 2017. "The role of training in dismantling barriers to sme participation in public procurement." *Journal of Public Procurement*, 17(1): 1-30.
- Saastamoinen, J., H. Reijonen and T. Tammi, 2018, "Should SMEs pursue public procurement to improve innovative performance?" *Technovation*, 69:2-14.
- Shingal, A. 2011. "Services Procurement under the WTO's Agreement on Government Procurement: Whither market access?" *World Trade Review*, 10:4, 527-49.
- Shingal, A. 2015. Econometric Analyses of Home Bias in Government Procurement, *Review of International Economics*, 23: 188–219.

- SIGMA. 2016. *Small and Medium-sized Enterprises (SMEs) in Public Procurement*. Paris: OECD.
- Smallbone, D. and F. Welter. 2001. "The role of government in SME development in transition economies", *International Small Business Journal*, 19:69-77.
- Spiller P. 2009. "An Institutional Theory of Public Contracts: Regulatory Implications," in C. Menard and M. Ghertman (eds.), *Regulation, Deregulation, Reregulation: Institutional Perspectives*, Cheltenham: Edward Elgar.
- Taş, B. K. O., 2019, "Effect of Public Procurement Regulation on Competition and Cost-Effectiveness," EUI Robert Schuman Centre for Advanced Studies working paper No. RSCAS 2019/22.
- Timmermans, B., J.M. Zabala-Iturriagoitia. 2013. "Coordinated unbundling: a way to stimulate entrepreneurship through public procurement for innovation" *Science and Public Policy*, 40(5), 674-685.
- Uyarra, E. and K. Flanagan. 2010. "Understanding the innovation impacts of public procurement", *European Planning Studies*, 18:123-143.
- Uyarra, E., E. Jakob, J. Garcia-Estevéz, L. Georghiou and J. Yeow, 2014, "Barriers to innovation through public procurement: A supplier perspective", *Technovation*, 34:631-645.
- Watson, J. 2007. "Modeling the relationship between networking and firm performance", *Journal of Business Venturing*, 22:852-874.
- Wittig, W. 2002. "Public Procurement and the Development Agenda", at: https://www.wto.org/english/tratop_e/gproc_e/wkshop_tanz_jan03/itcdemo1_e.pdf.
- World Bank. 2016. *Benchmarking Public Procurement 2017: Assessing Public Procurement Regulatory Systems in 180 Economies*. Washington, DC: World Bank.
- World Bank. 2017. "SMEs and Local Content Inclusion in Countries' PPP Legislations," at <https://ppp.worldbank.org/public-private-partnership/library/smes-and-local-content-inclusion-countries%E2%80%99-ppp-legislations-summary-table>.
- Zhang, C. and J. Gutman. 2015. "Aid Procurement and the Development of Local Industry: A Question for Africa," *Brooking Institution Global Economy and Development Working Paper* 88.

Appendix 1

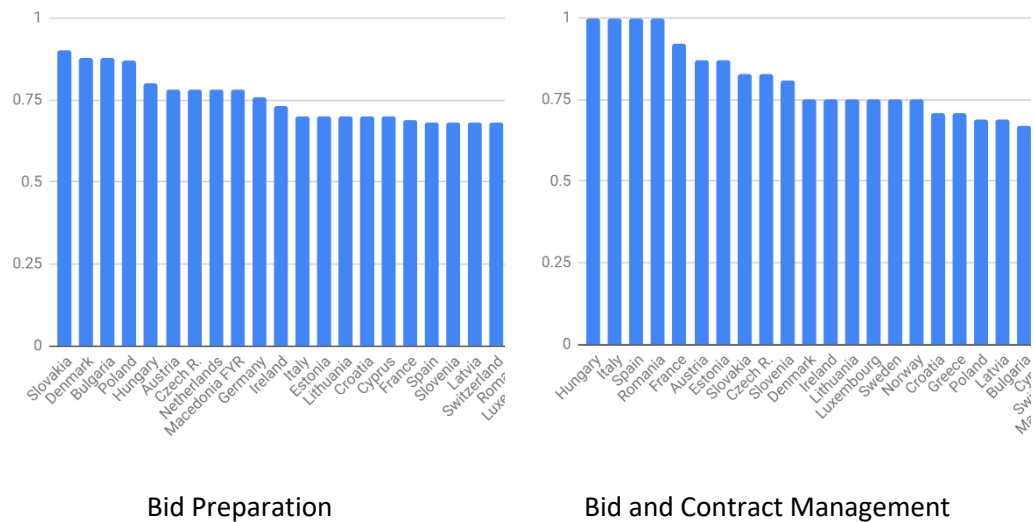
Empirical Specification in Section 5

In section 5, we estimate the coefficients of the following linear probability model using Ordinary Least Squares estimation. Additionally, we employ a logit model to assess the robustness of the results to alternative regression specifications.

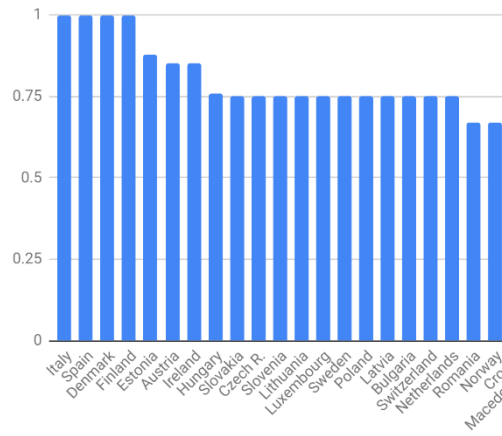
$$SME - Winner_c = \beta_1 PPQ_c^i + \sum_{k=1}^5 \beta_{k+1} PM_c^k + \sum_{z=1}^9 \beta_{z+6} PA_c^z + \theta FE + \varepsilon_c$$

$SME - Winner_c$ is the dummy variable that is one if an SME has won the contract c . PPQ_c^i is the public procurement quality; PM_c^k is the dummy variable for procurement method k and PA_c^z denotes the type of public procurement authority. Additionally, FE is the vector of 71 sector and 30 country fixed effects variables.¹⁹ All estimations use robust standard errors.

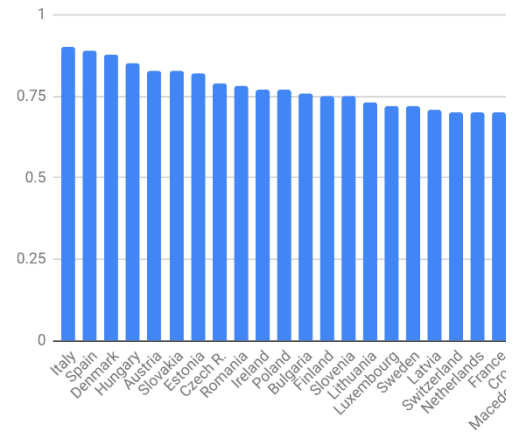
Figure A1: Public Procurement Scores of EU Countries



¹⁹ Djankov et al. (2017) does not have public procurement regulation scores for Liechtenstein and Malta. The TED data set contains 311 contracts for Liechtenstein and 2,518 for Malta.



Payment of Suppliers



Overall Public Procurement Index

Appendix 2

Possible Firm-level Procurement Participation Survey Questions

A. Basic information:

Size of the firm (number of employees)

1-9

10-25

26-100

> 100

Location (region of Lebanon)

Industry (use same ISIC codes as WBES)

Agro-food

Manufacturing

Services

Construction

All other

Revenue (Lebanese pounds)

< 250 million

250 million – 500 million

500 – 1 billion

1 billion – 5 billion

> 5 billion

Market focus (% share of total sales)

Local/Regional

National

International

Firm age

0-5 years

6-10 years

11-20 years

21+ years

Does your company have more than 10% foreign ownership?

If so, how much is of this is a Diaspora investment?

B. Procurement questions

1. Has the firm tried to secure a government contract in the past 3 years?
2. Has the firm sold goods or services to government agencies in the past 3 years?
3. If 2=yes, what share (%) of total revenue came from government contracts?
 - a. <10%; b. 10-25%; c. 25-40%; d. >40%
4. In the last 3 years, has the company been a sub-contractor for another firm that was granted a public procurement contract?

C. Procurement policy perception questions

1. The turnover requirements needed to participate in a tender procedure are too high
2. There is a lack of skills and capacity in the firm to prepare bids
3. Selection processes favour insiders and established firms
4. Procuring agencies prefer to contract with large firms
5. Contract sizes are generally too large for us to be able to bid
6. There is insufficient time to submit bids (too short a time provided to draw up tenders)
7. Technical requirements are too high
8. Bid specifications are written too narrowly to permit us to compete
9. There is too much paperwork required for application
Documentation requirements for procurement procedures are too cumbersome)
10. We lack of knowledge about public procurement opportunities
There is inadequate advertising of contract opportunities
11. Award criteria put too much weight on lowest price
12. Tenders do not provide us with the opportunity to become sub-contractors to lead contractors
13. The likelihood of payment delays inhibits us from bidding on contracts
Late payments or lengthy terms of payment

The International Growth Centre (IGC) aims to promote sustainable growth in developing countries by providing demand-led policy advice based on frontier research.

Find out more about our work on our website
www.theigc.org

For media or communications enquiries, please contact
mail@theigc.org

Subscribe to our newsletter and topic updates
www.theigc.org/newsletter

Follow us on Twitter
[@the_igc](https://twitter.com/the_igc)

Contact us
International Growth Centre,
London School of Economic and Political Science,
Houghton Street,
London WC2A 2AE

IGC

**International
Growth Centre**

DIRECTED BY



FUNDED BY



Designed by soapbox.co.uk