

Forum: Practical Perspectives

The use of government purchasing power in industrial policies: a comparison between Brazil and Japan

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This article examines the policy implemented in 2010 by the Brazilian government that offers margins of preference in public bids to firms manufacturing their products or engaged in R&D activities in the country. It discusses how the Japanese government used public procurement as a tool to promote the growth of domestic firms before the country became a member of the WTO in 1995. This study argues that, while the Japanese approach adopted before 1995 was efficient for creating more significant partnerships between the government and key domestic firms to achieve industrial policy objectives in strategic sectors, the recently implemented Brazilian policy has the advantage of being more accountable and transparent.

Keywords: public administration; industrial policy; public procurement.

O uso do poder público de compra em políticas industriais: uma comparação entre Brasil e Japão

Este artigo examina a iniciativa implementada a partir de 2010 pelo governo brasileiro de concessão de margens de preferência em licitações para empresas que manufacturam seus produtos no Brasil ou realizam atividades de P&D em território nacional. Discute-se também como o governo japonês, antes de seu ingresso na OMC em 1995, utilizou-se de processos licitatórios como forma de promover o crescimento de empresas locais. O presente estudo argumenta que, enquanto a abordagem japonesa adotada antes de 1995 foi eficiente em criar parcerias entre o governo e firmas nacionais focadas no alcance de objetivos de políticas industriais em setores de impacto na economia, a política recentemente adotada pelo governo brasileiro apresenta a vantagem de possuir procedimentos mais transparentes e isonômicos.

Palavras-chave: administração pública; política industrial; licitação.

El uso del poder público de compra en políticas industriales: una comparación entre Brasil y Japón

Este artículo examina la iniciativa implementada por el gobierno brasileño a partir de 2010 de concesión de márgenes de preferencia en licitaciones para empresas que fabrican sus productos en Brasil o realizan actividades de I&D en el territorio nacional. Se discute también cómo el gobierno japonés, antes de su ingreso en la OMC en 1995, se utilizó de procesos licitatorios como forma de promover el crecimiento de empresas locales. El presente estudio argumenta que, mientras que el enfoque japonés adoptado antes de 1995 fue eficiente en crear alianzas entre el gobierno y las empresas nacionales enfocadas en el logro de objetivos de políticas industriales en sectores de impacto en la economía, la política recientemente adoptada por el gobierno brasileño presenta la ventaja de poseer procedimientos más transparentes e isonómicos.

Palabras clave: administración pública; política industrial; licitación.

DOI: <http://dx.doi.org/10.1590/0034-761220170186>

Article received on August 13, 2017 and accepted on May 04, 2018.

[Translated version] Note: All quotes in English translated by this article's translator.



1. INTRODUCTION

This article examines the policy implemented by the Brazilian government from 2010, focused on providing margins of preference for firms manufacturing products in Brazil or engaged in Research & Development (R&D) activities in the country. In addition, it analyzes how the Japanese government used public procurement to promote the growth of domestic firms before the country signed the World Trade Organization's Government Procurement Agreement (GPA) in 1995. A brief comparison is made between the current Brazilian policy of margins of preference concession and the approach used by the Japanese government before it ratified the GPA.

To examine the Japanese approach of nurturing domestic firms in the post-war period, this study relied on a comprehensive literature review. For the Brazilian experience, in addition to secondary sources, quantitative data provided by the Federal Government regarding the margins of preference were used. Despite the time gap between the two cases, this comparative study is relevant as it contrasts two approaches adopted by different countries when they were not bound by the GPA — Brazil has not yet signed the GPA, while Japan ratified this Agreement in 1995. Both countries were thus under less pressure to open their procurement processes to international competition and had greater flexibility to use their government purchasing power to stimulate the national industry.

Public procurement can be defined as the process through which governments generate, manage and consolidate contracts for product and service acquisition, public works construction and consultancy services hiring. As public procurement involves a significant amount of financial resources — estimated at 15% of gross domestic product (GDP) for developed countries and 20% for emerging economies (Padhi and Mohapatra, 2011:207) —, it can be used as a pull strategy to stimulate local production and investment in R&D (Chaudhuri, 2010:62).

In the international scenario, the GPA is focused on promoting greater competition in government procurement at the global level, encouraging member countries to open their domestic procurement processes to international competition. (The National Board of Trade, 2004:107). Before endorsing the GPA, Japan made a broad use of protectionist measures to nurture the development of domestic firms. As Brazil has not yet signed this agreement, the country still has flexibility to provide special treatment for selected types of firms in its domestic procurement processes. In view of the expressive volume of financial resources allocated in public procurement and the imperative to promote a greater dynamism in the industrial sector of developing countries, it is relevant to compare different approaches of using government procurement as a tool for nurturing local firms.

2. THE PROCUREMENT SYSTEM IN JAPAN AND THE RELATIONSHIP BETWEEN THE STATE AND LOCAL FIRMS

Japan has a long history of collaborative partnership between public and private sectors toward economic growth. The high rates of growth recorded in the country during the 1970s and 1980s were a result of industrial policies focused on fostering industrial sectors considered strategic to promote industrial dynamism (Johnson, 1982; Evans, 1995). Dore (2000:44) asserts that the Japanese public bureaucracy played an active regulation role in the market, through the widespread use of administrative guidance (*gyōsei shidō* 行政指導). This mechanism was extensively used by the

Japanese public administration as a recommendation, which, despite its informal character, was promptly obeyed by private firms (Haley, 1991). In fact, studies on the Meiji period (1868-1912) already show the strong interventionism of the Japanese state, revealing that “early Japanese capitalism has grown under the shelter of state protection and subsidy” (Norman, 2000:111). In the postwar period, the Japanese government used several mechanisms to nurture the growth of domestic firms, such as tariffs on imported goods, and export promotion policies.

In the case of the automobile industry, for instance, the Japanese government adopted export-oriented policies to improve the quality of Japanese cars and to generate demand for domestically produced vehicles. In other industrial sectors, however, the government used different mechanisms to stimulate domestic firms, including public procurement (Lember, Kattel and Kalvet, 2014b:2). Woodall (1996:34-35) contends that several major Japanese firms in the construction business appeared in the Meiji period and prospered due to government orders for administrative offices, railroads, etc. Moreover, in high-tech sectors, the Japanese government relied on procurement to create assured demand for domestic products. According to Patrick (1986:24-25), government procurement, including that of public corporations such as NTT, provides an immense market protected by a wide range of regulations and tax incentives that stimulate the acquisition of Japanese products. Therefore, the pattern of close relationships between the public and private sectors in Japan can also be observed in procurement processes, in which the government prioritized contracting domestic firms, as a way of fostering local entrepreneurs.

The main Japanese regulations on public procurement were passed in the mid-1940s, i.e., during the Shōwa period (1926-1989), and they are still in effect, although they have been amended several times since then. These regulations are: (i) the Accounting Act (Law No. 35 of 13 March 1947), which governs public procurement at the national level; and (ii) the Local Autonomy Act (Law No. 67 of 17 April 1947), which rules on government procurement at the local level (Kusunoki, 2007:525-526).

There are three main types of contractor selection procedures under the Japanese procurement system: (1) open competitive bidding; (2) designated competitive bidding; and (3) noncompetitive bidding or direct negotiation (Kusunoki, 2007:526; Griek, 2014:25).

For open competitive bidding, any registered firm that meets the requirements and pre-qualifications may submit a bid. Open competitive bidding is the general rule for government acquisitions, according to Art. 29-3 of the Accounting Act.

Conversely, for designated competitive bidding, only firms invited by the public agency may submit a bid. This procedure can be used when only a small number of firms are expected to participate in the bidding, due to the specialized nature of the contractual object. It is noteworthy, however, that Art. 29-3, sections 3 and 5 of the Accounting Act allow for the use of this procedure in other cases where specific laws so provide (Kusunoki, 2007:527; Griek, 2014:28).

Finally, for noncompetitive bidding or direct negotiation, the governmental agency contacts specific suppliers and directly negotiates with them. This type of procedure is used in the cases described in Art. 29-3, sections 4 and 5 of the Accounting Act, especially when there are time constraints or in the event of absence of bidders (Kusunoki, 2007:527; Griek, 2014:29). This procedure is also used when the nature of the contract is incompatible with competition, such as in cases where the change of a supplier can be detrimental to the interchangeability with existing equipment (Griek, 2014:29).

Japan started a process of adapting its procurement system to the requirements of the WTO in January 1995, after the country ratified the GPA (Kusunoki, 2007:523). The GPA's purpose is to open the procurement processes of member countries to international competition (The National Board of Trade, 2004:107) and it contains a number of restrictions on discriminatory practices, such as providing special treatment based on the degree of foreign affiliation of suppliers or of their products and services. Japan's ratification of the GPA increased pressure for changes in domestic regulations in order to enable the participation of foreign firms in the country's procurement processes (Gier, 1996:639). Demand for reforms in the Japanese procurement law also intensified during the 1990s due to widespread criticism of bid rigging practices (*dangō* 談合) in bids for public works contracts, involving politicians, civil servants and local firms (Woodall, 1996:2; Ohashi, 2009:268; Ohno and Harada, 2006:54; Arai, 2013).

In reaction to such pressure, a number of legal changes were introduced, which included broadening the coverage of the procurement law to local governments and the adoption of international procurement standards, in order to increase the participation of foreign firms in Japanese public bids (Gier, 1996:656).

A consequence of such changes was an increased use of the open competitive bidding by the central government. In fact, before the General Agreement on Tariffs and Trade (GATT) came into force in Japan in 1981, the country made limited use of open competitive bidding and designated competitive bidding was more widely employed (Gier, 1996:620). It was common for local government to extensively use mechanisms and legal provisions to prioritize local firms in their procurement processes. Gier (1996:639-640) argues that providing preferential treatment for local firms by local governments was an "unwritten law" in public bids. This was implemented by establishing preconditions that firms located in other prefectures could not fulfil, such as requiring suppliers to maintain their headquarters within the local government's jurisdiction to be eligible to participate in a public bid. Although the use of designated competitive bidding is still frequent by local governments, the Japanese central government currently conducts approximately 80% of its procurement processes through open competitive bids (Griek, 2014:27-28).

Therefore, before signing the GPA, Japan made extensive use of designated competitive bids as a way of selecting specific suppliers instead of promoting more open and competitive procurement processes. This enabled the creation of a closer relationship between the government and its suppliers, facilitating the construction of joint projects to use the government purchasing power to foster local entrepreneurs. This article argues that such a close relationship between government and private firms in strategic sectors is fundamental for planning and implementing policies focused on stimulating the domestic industry.

As a final note, it is worth mentioning that the close relationship between representatives of the public and private sectors also resulted in several cases of fraud in public bids. Nonetheless, according to Woodall (1996:50), despite the existence of a network of cartels in public construction in Japan during the 1990s, the level of quality of Japanese infrastructure is high. While in other countries public works are paid but never built, poor quality construction of roads, tunnels or other public structures is extremely rare in Japan. In other words, even when the public bid is rigged,

the contracted firms maintain high levels of commitment to deliver according to government specifications.

3. THE CONCESSION OF MARGINS OF PREFERENCE IN PUBLIC BIDS TO STIMULATE THE DOMESTIC INDUSTRY IN BRAZIL

From 2013 to 2017, the Brazilian Federal government expended a significant amount of financial resources in public procurement, estimated at approximately R\$ 95 billion (Painel de Compras do Governo Federal, 2018). There is thus economic rationale to try to allocate some of this amount to promote industrial dynamism in the country.

Brazilian Public procurement is primarily regulated by Law nº 8,666, of 21 June 1993. Scattered legislation, however, provides preferential treatment to some types of firms, such as Small and Medium Enterprises (SMEs), or other enterprises that fulfill specific conditions. One method devised by the Brazilian state of using the government purchasing power to foster local firms was implemented by Law nº 12,349, of 15 December 2010. This law introduced an important amendment to Law nº 8,666/93, ruling that public bids should be guided not only by the imperative to promote equal treatment of all potential bidders and to ensure the best value for money, but also by the commitment to promote the country's sustainable development. In this manner, the principle to promote national development should now be harmonized with the principles of efficiency and equal treatment in public bids.

In fact, efforts to use public procurement to nurture the domestic industry have already been undertaken by the Brazilian government in the past. For instance, there are several regulations to provide preferential treatment in public bids for SMEs, as well as private local firms and companies investing in R&D in the country, such as Law nº 8,248, of 23 October 1991, Law nº 11,196, of 21 November 2005 and Complementary Law nº 123, of 14 December 2006. In addition, the industrial policy implemented in 2008, the Productive Development Policy, explicitly stated that the government purchasing power would be used to nurture the Brazilian industry in several sectors. Nonetheless, Law nº 12.349/2010 is notable as it provides a substantial margin of preference to domestic firms, and objectively states that Brazilian public procurement is now also guided by the principle to promote sustainable development in the country.

The aforementioned law established the concession of a normal and an additional margin of preference for firms manufacturing and engaged in R&D activities in Brazil. The normal margin of preference may be granted to firms manufacturing their products in Brazilian territory and is calculated from the lower price submitted by a company offering a product manufactured abroad. The additional margin of preference may be complementarily offered to a firm that manufactures their products in Brazil and is also engaged in R&D activities in the country. The percentage of each of these margins is defined by decrees, which are specific for each industrial sector. The enactment of these decrees is a requirement for the actual concession of such margins in public bids. Together, these margins of preference cannot exceed 25%.

Data presented in table 1 shows that the value disbursed in public bids that granted the aforementioned margins of preference from 2013 to 2017 accounts for an expressive amount, which exceeds the average of R\$ 1.8 billion.

TABLE 1 CONCESSION OF MARGINS OF PREFERENCE IN PUBLIC BIDS CONDUCTED BY THE FEDERAL GOVERNMENT (R\$ BILLION)

	2013	2014	2015	2016	2017
Bids in which the margins were not applicable	48.31	55.18	50.66	61.20	52.28
Bids in which the margins were applicable, but not granted	43.39	62.48	41.29	25.11	25.80
Bids in which the margins were applicable and granted	1.72	2.10	1.83	2.41	1.28
Total	93.42	119.76	93.78	88.72	79.36

Source: Painel de Compras do Governo Federal, 2018.

It can be observed in Table 1 that in the majority of bids eligible for the concession of margins of preference, this benefit was not granted. Moreover, it can be noted that the margins of preference are a general incentive and cannot be granted directly to specific firms with which the government may have interest in building a joint plan focused on industrial development and expansion. The way in which this policy is currently implemented, it is difficult to evaluate and monitor whether the financial resources allocated for the concession of the margins of preference are effectively promoting national development.

To foster strategic local firms, it is not sufficient simply to create a potential consumer market for their products. It is necessary to establish a closer relationship between the government and these firms for a more efficient nurturing process. By building such a partnership, the government is able to properly respond to the demands of domestic firms, so that they may invest in manufacturing and R&D activities in line with the government expectations. Thus, although the margins of preference are an important pull strategy, they should be complemented with other mechanisms to ensure the achievement of government policy objectives in strategic industries.

4. USING THE GOVERNMENT PURCHASING POWER TO STIMULATE THE NATIONAL INDUSTRY: A COMPARISON BETWEEN BRAZIL AND JAPAN

There are significant differences between the approaches presented above regarding the use of government purchasing power to nurture the growth of the local industry. Before ratifying the GPA, although the Japanese legislation ruled that governmental agencies should use open competitive bidding as the main procedure for public procurement, Japan made a greater use of designated competitive bidding, as a way of prioritizing local firms in public bids. This is in line with the approach adopted by the Japanese government to promote collaborative partnerships between public and private sectors to achieve higher levels of industrial growth, especially in the postwar period, in industrial sectors identified as strategic (Dore, 2000; Evans, 1995; Johnson, 1983; Wade, 2004).

It is true that this tendency to prioritize local firms had created strong tension between Japan and other developed nations, particularly the United States, and Japan was under pressure to intensify the participation of foreign firms in Japanese procurement processes (Woodall, 1996). Nonetheless, such a close relationship between the government and its suppliers was a key driver to foster local firms and ensure the delivery of public works according to the specifications.

The mechanism created by the Brazilian government to prioritize local firms in public bids, on the other hand, has the advantage of being more transparent. The Brazilian Public Procurement Act was amended to describe the situations in which the margins of preference can be used as well as the requirements firms should fulfill in order to become eligible for the benefit. The mechanism was established by law and its implementation follows technical procedures. It is more accountable, as citizens can follow-up and question the application of the margins of preference in any given public bid. However, the drawback is that Brazilian public authorities have less autonomy to select the firms they are willing to foster and it is not possible to grant this benefit to a specific manufacturer in an industrial niche considered strategic to promote the country's growth. In this manner, public authorities cannot build a long-term partnership with domestic suppliers with growth potential in strategic industrial sectors. There is nothing they can do, for instance, if a contract that could be used to nurture a promising domestic firm engaged in significant R&D activities is awarded to a foreign firm with no investments in manufacturing or R&D in the country. In addition, there is a risk that the margins of preference may assist local firms that are not involved in activities that can generate industrial dynamism in strategic sectors. Opportunistic businesspersons, for instance, may initiate a temporary production of goods in the country by importing completely Knocked-down parts or CKD and still be eligible to receive the benefit, although they would not be engaged in value-adding manufacturing activities. In this manner, the Brazilian government may be purchasing goods and services at a premium over the market price, but without any assurance that the financial resources are flowing into domestic firms with real growth potential and capacity to generate industrial growth.

Another relevant difference between the two approaches is that Japan, before signing the GPA, strongly focused on the development of Japanese companies, while the Brazilian policy of margins of preference concession is centered on providing incentives to induce manufacturing and R&D activities in the country, regardless of the recipient firms' country of affiliation.

5. CONCLUSION

This article focused on the comparative analysis of two approaches of using the government purchasing power to foster the national industry: the Japanese approach adopted before the ratification of the GPA in 1995 and the Brazilian approach implemented with the enactment of Law nº 12.349/2010.

The Brazilian approach has the advantage of being a more transparent mechanism, which is easier to monitor and control, since it was established by law. Its main positive impacts are: (i) providing information about the benefit, so that interested firms can adapt their manufacturing process to receive this preferential treatment; (ii) stimulating competition among domestic firms entitled for receiving the margins; and (iii) being open with non-eligible firms, so that they understand why they are not receiving the benefit and how they should proceed to become eligible. The disadvantage of

the Brazilian initiative, however, is that it tends to be less efficient in building long-time relations with strategic local suppliers with growth potential in strategic industrial sectors.

The Japanese approach, on the other hand, is more efficient in creating a long-term partnership with domestic suppliers, enabling public authorities to nurture, on a comprehensive manner, Japanese firms considered pivotal for promoting industrial dynamism in strategic areas. The disadvantage of the Japanese method, however, is its lack of commitment with transparency, which causes a strong sense of injustice among firms that did not receive preferential treatment, particularly foreign firms interested in participating in Japanese public bids, and generates latent tensions with other nations, in particular between Japan and the United States (Woodall, 1996).

An ideal approach would be the combination of the two systems. The process of using public procurement to nurture domestic firms should be transparent, but should also focus on key firms in strategic industrial sectors, as a way of fostering long-term partnerships between the public and private sectors toward the achievement of industrial growth.

Finally, it is important to highlight some limitations of this study. Firstly, it should be noted that the world today has a more dynamic global economic environment than in the postwar period. Nowadays, it is more difficult for governments to exercise control over their internal markets and to resist external influence, particularly regarding the pressure for market liberalization. This is the result of several factors, such as: greater mobility and flow of financial resources across borders; the ease and speed of information exchange; greater interdependency among countries; and operation of private firms on a regional or global level, instead of merely within the national market as in the past. Therefore, there are intrinsic limitations to the proposal of comparing a policy recently implemented in Brazil and initiatives adopted in Japan before 1995. Secondly, this study relied on a qualitative and quantitative analysis of the Brazilian experience of margins of preference concession on public bids, but only on qualitative analysis for examining the Japanese approach. In fact, a cross-country comparative study demands the adoption of a similar method for the analysis of different countries (Lember, Kattel and Kalvet, 2014a:288). The problems related to the lack of a common research method, however, were minimized by the existence of vast secondary literature that examines the role of the Japanese government in promoting the high level of economic and industrial growth in the postwar period. Thirdly, it is important to highlight that Brazil has not signed the GPA, but may decide to ratify this agreement in the future. The impacts of this possible decision to become a signatory country of the GPA, as well as a detailed description of the changes that occurred in Japan after its ratification of this agreement, are issues not discussed in this article. Since authors such as Kattel and Lember (2010:371) advise emerging economies to make ample use of their governments' purchasing power to stimulate the growth of their industries, instead of joining the GPA, future articles devoted to exploring such issues would be of great relevance for the area of public policy.

REFERENCES

- ARAI, Koki. Effect of institutions: analysis of Japanese municipal public procurement. *International Journal of Public Administration*, v. 36, n. 9, p. 638-648, 2013.
- CHAUDHURI, Sudip. R&D for development of new drugs for neglected diseases in India. *International Journal of Technology and Globalisation*, v. 5, n. 1/2, p. 61-75, 2010.
- DORE, Ronald. *Stock Market Capitalism: Welfare capitalism — Japan and Germany versus the Anglo-Saxons*. New York: Oxford University Press, 2000.
- EVANS, Peter. *Embedded autonomy: States and industrial transformation*. Princeton: Princeton University Press, 1995.
- GIER, Jean H. Japan's implementation of the WTO agreement on government procurement. *Journal of International Economic Law*, v. 17, n. 2, p. 605-657, 1996.
- GRIEK, Lyckle. Government procurement in Japan: obstacles and opportunities for European SMEs. *EU-Japan Centre for industrial Cooperation*, 2014. Available at: <www.eu-japan.eu/sites/default/files/publications/docs/public-procurement-japan-report_2014.pdf>. Accessed on: 20 Mar. 2018.
- HALEY, John O. *Authority without power: law and the Japanese paradox*. New York: Oxford University Press, 1991.
- JOHNSON, Chalmers A. *Miti and the Japanese miracle: the growth of industrial policy, 1925-1975*. Stanford: Stanford University Press, 1982.
- KATTEL, Rainer; LEMBER, Veiko. Public procurement as an industrial policy tool: an option for developing countries? *Journal of Public Procurement*, v. 10, n. 3, p. 368-404, 2010.
- KUSUNOKI, Shigeki. Japan's government procurement regimes for public works: a comparative introduction. *Brooklyn Journal of International Law*, v. 32, n. 2, p. 523-552, 2007.
- LEMBER, Veiko; KATTEL, Rainer; KALVET, Tarmo. How governments support innovation through public procurement: comparing evidence from 11 countries. In: LEMBER, Veiko; KATTEL, Rainer; KALVET, Tarmo (Ed.). *Public procurement, innovation and policy: international perspectives*. Heidelberg: Springer, 2014a. p. 287-309.
- LEMBER, Veiko; KATTEL, Rainer; KALVET, Tarmo. Introduction. In: LEMBER, Veiko; KATTEL, Rainer; KALVET, Tarmo (Ed.). *Public procurement, innovation and policy: international perspectives*. Heidelberg: Springer, 2014b. p. 1-11.
- NORMAN, Herbert E. *Japan's emergence as a modern State — political and economic problems of the Meiji period*. Edição comemorativa de 60 anos. Vancouver: University of British Columbia Press, 2000.
- OHASHI, Hiroshi. Effects of transparency in procurement practices on government expenditure: a case study of municipal public works. *Review of Industrial Organization*, v. 34, n. 3, p. 267-285, 2009.
- OHNO, Taishi; HARADA, Yuhei. A comparison of tendering and contracting systems for public works between Japan, the United States and EU countries. *Government Auditing Review*, v.13, p. 49-71, 2006.
- PADHI, Sidhartha S.; MOHAPATRA, Pratap K. J. Detection of collusion in government procurement auctions. *Journal of Purchasing & Supply Management*, v. 17, n. 4, p. 207-221, 2011.
- PAINEL DE COMPRAS DO GOVERNO FEDERAL. *Painel de compras do governo federal*. Available at: <www.comprasgovernamentais.gov.br/index.php/painel-de-compras-de-governo>. Accessed on: 15 Feb. 2018.
- PATRICK, Hugh. *Japanese high technology industrial policy in comparative context*. Working Paper n. 1, Center on Japanese Economy and Business, Graduate School of Business. Columbia: Columbia University, 1986.
- THE NATIONAL BOARD OF TRADE. *Consequences of the WTO-agreements for developing countries*. Stockholm: Kommerskollegium, 2004.
- WOODALL, Brian. *Japan under construction: corruption, politics, and public works*. Berkeley: University of California Press, 1996.

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