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Governance and export performance of modern services in Latin America and India

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Editors



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Executive Secretary



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| | |
|--------------------------------------------------------------------------------------|-----------|
| Foreword | 16 |
| Introduction and summary | 18 |
| A. Exporting modern services from Latin America and the Caribbean..... | 21 |
| B. Public policies and governance in promoting modern services..... | 26 |
| C. Analysis of public policies and their governance to promote modern services | 30 |
| Bibliography..... | 38 |

CHAPTER I

Argentina: the continuity of policies during changes of government.....40

Andrés López

| | |
|----------------------------------------------------------|----|
| Introduction..... | 40 |
| A. Exports of modern services in Argentina..... | 43 |
| B. Policies applicable to modern service sectors..... | 50 |
| 1. General promotion instruments..... | 51 |
| 2. Instruments aimed at modern service sectors..... | 54 |
| C. The policy governance scheme for modern services..... | 61 |
| D. Conclusions..... | 66 |
| Bibliography..... | 70 |

CHAPTER II

Brazil: Government initiatives focused on the domestic market.....72

Vivian Couto

Joanna Peluffo

| | |
|------------------------------------------------|----|
| Introduction..... | 72 |
| A. Performance of modern services exports..... | 74 |

| | |
|---------------------------------------------------------------------------------------|------------|
| B. Policy governance for the export of modern services | 82 |
| 1. Description of entities involved in the governance of modern services..... | 85 |
| 2. Main initiatives to promote exports of modern services | 89 |
| C. Assessment of governance quality in the modern services export sector | 96 |
| D. Conclusions | 99 |
| Bibliography | 100 |

CHAPTER III

Chile: Tension between sector

and horizontal policies.....**104**

Dorotea López

Felipe Muñoz

| | |
|---------------------------------------------------------------------------------------|------------|
| Introduction..... | 104 |
| A. Evolution of modern services exports in Chile, 2005-2017 | 106 |
| B. The promotion of modern services exports and their institutions | 109 |
| 1. Ministry of Foreign Affairs..... | 110 |
| 2. Ministry of Finance..... | 111 |
| 3. Ministry of Economy, Development and Tourism... | 112 |
| 4. The private sector and services..... | 113 |
| 5. Policies implemented for the export of services..... | 114 |
| C. Public-private policy governance of the modern services export sector | 125 |
| D. Conclusions and recommendations | 129 |
| Bibliography | 131 |
| Appendix III.A1 | 133 |



CHAPTER IV**Colombia: the atomized execution of policies between different public entities..... 134***Carmen Astrid Romero*

| | |
|------------------------------------------------------------------------------------------------|-----|
| Introduction..... | 134 |
| A. The services sector in Colombia..... | 135 |
| 1. Context of the policy to promote competitiveness..... | 139 |
| 2. Institutionality and governance to promote the export of modern services..... | 142 |
| 3. Advantages and challenges to improving governance in promoting modern services exports..... | 156 |
| B. Policy challenges..... | 159 |
| Bibliography..... | 160 |

CHAPTER V**Costa Rica: Success based on long-term coordination..... 164***Arlina Gómez
Sandro Zolezzi
Francisco Monge*

| | |
|-----------------------------------------------------------------------------------------|-----|
| Introduction..... | 164 |
| A. Evolution of the attraction of FDI and exports of modern services in Costa Rica..... | 166 |
| 1. Historical overview of the establishment of modern service companies..... | 166 |
| 2. Evolution of modern services exports..... | 171 |
| 3. Exports of modern services from free trade areas..... | 174 |
| B. Main policies to promote exports of modern services..... | 177 |
| 1. Human capital..... | 177 |
| 2. Tax incentives..... | 178 |
| 3. Foreign direct investment (FDI)..... | 179 |
| 4. Free trade agreements and export promotion..... | 181 |
| 5. Intellectual property protection..... | 183 |

| | |
|--------------------------------------------------------------------------------------------------------------------------------------|------------|
| C. Governance of public-private policies aimed at the modern services export sector | 184 |
| 1. Strategy and clear goals on the exports of modern services..... | 184 |
| 2. Main public and private stakeholders in charge of establishing and executing specific policies in the modern services sector..... | 185 |
| 3. Coordination mechanisms..... | 188 |
| 4. Mechanisms to create working groups between exporting companies and government institutions..... | 191 |
| 5. Institutionalality and operation of the main institutions..... | 192 |
| D. Conclusions and policy lessons | 196 |
| Bibliography | 198 |

CHAPTER VI

Mexico: Scope and limitations of a policy focused on ICT services.....**200**

Alfredo Hualde Alfaro

Celina López Mateo

| | |
|-----------------------------------------------------------------------------------------------------------------------|------------|
| Introduction | 200 |
| A. Exports of services in Mexico | 203 |
| B. Policies to promote the export of services | 205 |
| 1. Policies, objectives and stakeholders | 205 |
| 2. Innovative Development Program (PRODEINN) 2013-2018..... | 208 |
| 3. The Special Program for Science, Technology and Innovation (PECiTI) 2013-2018..... | 210 |
| 4. United States-Mexico Foundation for Science (FUMEC) programs..... | 210 |
| 5. Stakeholders' perspectives..... | 211 |
| C. Scope and limitations of the Program for the Development of the Software Industry (PROSOFT) in Mexico | 212 |
| 1. PROSOFT 1st stage (2002-2009)..... | 212 |
| 2. 2nd stage: PROSOFT 2.0 (2008-2013)..... | 217 |
| 3. Recent stage: el PROSOFT 3.0 | 220 |



| | |
|---------------------|-----|
| D. Conclusions..... | 222 |
| Bibliography..... | 226 |

CHAPTER VII

Peru: the exclusive focus on promoting local exporters.....228

Manuel Angel Quindimil

| | |
|------------------------------------------------------------------------------------|-----|
| Introduction..... | 228 |
| A. The performance of modern services exports..... | 229 |
| 1. Promoting the export of modern services..... | 233 |
| 2. Governance of public-private policies in the modern services export sector..... | 241 |
| B. Conclusions and proposals..... | 248 |
| Bibliography..... | 252 |

CHAPTER VIII

Uruguay: dynamism fueled by lasting incentives254

*Federico Bermudez
Mariana Ferreira
Javier Peña Capobianco*

| | |
|------------------------------------------------------------------------|-----|
| Introduction..... | 254 |
| A. The trade in modern services in Uruguay in the last decade..... | 256 |
| 1. Exports of modern services from free trade zones..... | 260 |
| 2. Impact of modern services on employment..... | 261 |
| 3. Innovation in modern services in Uruguay..... | 262 |
| B. Promoting the export of services in Uruguay..... | 263 |
| 1. Value proposition for the provision of modern services..... | 264 |
| 2. Policies and incentives for the development of modern services..... | 266 |
| 3. Institutions and modern services..... | 267 |
| 4. Specific programs for modern services..... | 271 |

| | |
|---------------------------------------------------------------------------|------------|
| C. Policy governance in Uruguay for modern services exports | 275 |
| 1. Strategy to develop the sector in the short, medium and long term..... | 275 |
| 2. Public and private institutions and stakeholders..... | 276 |
| 3. Areas to consider with a medium or long-term vision..... | 277 |
| 4. Specialist agency..... | 277 |
| 5. Teams of professionals..... | 277 |
| 6. Coordination of incentives between tools and agencies..... | 278 |
| 7. Policy effectiveness..... | 278 |
| 8. Evaluation of promotion instruments..... | 278 |
| 9. Which are the most important issues and challenges of governance?..... | 279 |
| 10. Recommended actions to improve the governance of modern services..... | 279 |
| D. Conclusions | 280 |
| Bibliography | 282 |

CHAPTER IX

India: from private to public coordination to boost exports.....**284**

Prachi Agarwal

| | |
|----------------------------------------------------------------------------|------------|
| Introduction | 284 |
| A. The modern services sector in India | 286 |
| B. Policy formulation: stakeholders and processes | 292 |
| 1. The stakeholders..... | 294 |
| 2. Policies to promote exports of modern services..... | 300 |
| C. Governance of policies to promote modern services in India | 308 |
| D. Final comments | 311 |
| Bibliography | 313 |



INTRODUCTION AND SUMMARY

1. Classification of traditional and modern services19
2. Good governance principles27

CHAPTER I

- I.1 Argentina: Exported goods and services, 2016.....43
- I.2 Argentina: Exports by item, 201644
- I.3 Argentina: Exports, imports and trade balance, 2016....45
- I.4 Argentina: Modern services exports, 2000-2016.....46
- I.5 Summary of the measures
and actions described.....50

CHAPTER II

- II.1 Global Services Location Index, 2017.....77
- II.2 Brazil: Public stakeholders involved in
governance for the export of modern services85
- II.3 Brazil: Private stakeholders involved in
governance for the export of modern services86

CHAPTER III

- III.1 Public-Private Technical Committee for the
Export of Services: lines of work, 2017.....123

CHAPTER IV

- IV.1 Colombia: Ministry of Commerce, Industry
and Tourism and related entities.....147
- IV.2 Colombia: Ministry of Information and
Communication Technologies.....151

CHAPTER V

- V.1 Costa Rica: exports through information and
communication technology (ICT) networks,
by type of service, 2017.....175
- V.2 Costa Rica: foreign direct investment (FDI) goals
established in the national development plans
and results obtained, 2002-2018.....181
- V.3 Costa Rica: service export goals established
in the national development plans
and results obtained.....185

- V.4 Costa Rica: main strategies, policies and programs applied to modern services by entities related to the sector.....187

CHAPTER VI

- VI.1 Mexico: summary of modern services export policy, 2013-2018.....207
- VI.2 Mexico: general description of the Innovative Development Program (PRODEINN), 2013-2018.....209
- VI.3 Mexico: national software industry development investment by stakeholders, 2004-2006.....215

CHAPTER VII

- VII.1 Latin America and the Caribbean (selected countries): position in the A.T. Kearney Global Services Location Index and Tholons Services Globalization Index, 2009 and 2017233
- VII.2 Peru: evaluation of the adoption of new technologies, 2016.....240
- VII.3 Peru: public policies to promote digital transformation.....240

CHAPTER VIII

- VIII.1 Uruguay Free trade zones: exports of services according to ISIC, Rev.4, 2016260
- VIII.2 Uruguay: employment in the export of modern services, according to ISIC, Rev. 4, 2016261
- VIII.3 Uruguay: innovation activities in modern services, 2013-2015.....262
- VIII.4 Uruguay: type of innovation activities, 2013-2015.....263
- VIII.5 Summary of stakeholders linked to modern services in Uruguay.....274

CHAPTER IX

- IX.1 India: key ministries and policies to promote modern services, 2018297
- IX.2 India: compliance with the principles of good governance in the policy to promote exports of modern services, 2018.....311



INTRODUCTION AND SUMMARY

1. World exports of traditional and modern services, 2005 to 201722
2. Main categories of modern services exports in the world, 2017.....23
3. Latin America and the Caribbean: exports of goods and services, 2005-2017.....24
4. Latin America and the Caribbean: main categories of modern services exports, 2017.....25
5. Latin America and the Caribbean: main exporting countries of modern services, 2005 and 201726

CHAPTER I

- I.1 Argentina: Export growth and trade balance, 2005-201645
- I.2 Argentina: Evolution of modern services exports, 2000 and 201647
- I.3 Argentina: Modern services (as a percentage of total) service exports, 2000 and 2016.....47
- I.4 Argentina: Annual income from modern services exports, 2000-2016.....48
- I.5 Argentina and the world: exports of telecommunications, computing and information services, 2006-201649
- I.6 Argentina and the world: Business service exports, 2006-2016.....49

CHAPTER II

- II.1 Brazil: Service exports by category, 2005-201774
- II.2 Brazil: Changes in Services exports worldwide, by category, 2007-2017.....75
- II.3 Brazil and other countries: selected modern services sectors in the Services Trade Restrictiveness Index (STRI).....78
- II.4 Brazil: tax burden by service sector, 201381

CHAPTER III

| | | |
|-------|-------------------------------------------------------------------|-----|
| III.1 | Chile: Exports of goods and services, 2005-2017..... | 106 |
| III.2 | Chile: Export basket, 2005-2016..... | 107 |
| III.3 | Chile: Evolution of services exports, 2005-2017..... | 108 |
| III.4 | Chile: Breakdown of the 'other services' category, 2005-2017..... | 108 |

CHAPTER IV

| | | |
|------|----------------------------------------------------------------------------|-----|
| IV.1 | Colombia: exports of modern and traditional services, 2005-2018..... | 136 |
| IV.2 | Colombia: composition of traditional services exports, 2005 and 2018 | 136 |
| IV.3 | Colombia: composition of modern services exports, 2005 y 2018..... | 138 |

CHAPTER V

| | | |
|-----|----------------------------------------------------------------------------------------------------------------------|-----|
| V.1 | Costa Rica: companies established in the country engaged in knowledge-intensive activities, 1960-2018 | 167 |
| V.2 | Costa Rica: total foreign direct investment, 2000-2017..... | 168 |
| V.3 | Costa Rica: exports of traditional and non-traditional products, 1986-2017..... | 169 |
| V.4 | Costa Rica: companies operating in the information technology and computing services sector, 1960-2018..... | 170 |
| V.5 | Costa Rica: modern services exports and their share of total exports, 2005-2017..... | 172 |
| V.6 | Latin America (15 countries): modern services exports relative to GDP, 2017..... | 173 |
| V.7 | Costa Rica: share of travel and modern services in total exported services, 2005-2017..... | 173 |
| V.8 | Costa Rica: companies according to the type of information technology and computing service provided, 1970-2018..... | 174 |
| V.9 | Costa Rica: exports of services through information and communication technology (ICT) networks, 2017 | 176 |



CHAPTER VI

| | | |
|------|--------------------------------------------------------------------------------------------|-----|
| VI.1 | Mexico: services exports, 2005-2017..... | 203 |
| VI.2 | Mexico: modern services exports as a percentage of total services exported, 2005-2017..... | 203 |
| VI.3 | Mexico: breakdown of modern services exports, 2005-2017..... | 204 |

CHAPTER VII

| | | |
|-------|------------------------------------------------------------------------------------|-----|
| VII.1 | Latin America and the Caribbean: main exporters of services, 2005 and 2016..... | 231 |
| VII.2 | Latin America and the Caribbean: main exporters of modern services, 2005-2016..... | 232 |
| VII.3 | Selected countries: use of technologies according to companies, 2018..... | 239 |

CHAPTER VIII

| | | |
|--------|--------------------------------------------------|-----|
| VIII.1 | Uruguay: breakdown of exports, 1990 and 2017.... | 258 |
| VIII.2 | Uruguay: service exports, 2005-2017..... | 259 |
| VIII.3 | Uruguay: modern services exports, 2017..... | 259 |

CHAPTER IX

| | | |
|------|--------------------------------------------------------------------------------------------------------------|-----|
| IX.1 | India: services exports and their share of the country's total exports of goods and services, 2005-2017..... | 287 |
| IX.2 | Top Modern Services Exporting and Importing Countries in the World, 2017..... | 287 |
| IX.3 | India: share of modern services in total services exports and their composition, 2005-2017..... | 288 |

DIAGRAMS

| | | |
|-------|------------------------------------------------------------------------------------------------------------------------|-----|
| 1. | Global services value chain | 20 |
| III.1 | Chile: Public institutions related to the export of modern services | 110 |
| III.2 | Chile: services commitment agreements | 117 |
| III.3 | Chile: sectoral brands in services | 119 |
| III.4 | Chile: Members of the Public-Private Technical Committee for the Export of Services..... | 122 |
| IV.1 | Colombia: National System of Competitiveness, Science, Technology and Innovation | 139 |
| V.1 | Costa Rica: foreign direct investment in modern services, 2000 y 2017 | 171 |
| IX.1 | India: decision-making power levels in the service sector, 2019 | 294 |
| IX.2 | India: central ministries, departments and other public and private institutions involved in policy making, 2018 | 295 |

MAPS

| | | |
|-------|----------------------------------------------------------------|-----|
| III.1 | Chile: Preferential trade agreements signed (up to 2018) | 116 |
|-------|----------------------------------------------------------------|-----|



Foreword

The spread of technological innovations, mostly linked to the fourth industrial revolution, is transforming the nature of production and trade. While world trade in goods has experienced a marked slowdown in the last decade, new technologies —such as additive manufacturing, artificial intelligence, digital platforms and the Internet of things— have made it easier to produce, transfer and sell products and services across the world.

The dynamism in traditional trade in goods from the 1980s to the 2000s has shifted in the last decade to activities based on new digital technologies. In fact, the growth rate of cross-border trade flows has increased in proportion to their digital intensity. The components of international trade with the fastest-growing supply and demand and which have performed best are modern services, including information and communication technologies (ICT) services. However, supply dynamics depend to a large extent on the policies implemented in this sector, and this issue has not been analysed in sufficient depth in Latin America and the Caribbean.

Although services have traditionally been considered non-tradable, the spread of ICT has prompted many multinational companies in developed countries relocate certain administrative and strategic services to emerging economies. These countries can provide services of equal or higher quality but at lower cost, especially in the case of modern services.

From 2005 onwards, several countries in Asia, Eastern Europe, Latin America and the Caribbean and, to a lesser extent, Africa began to actively export modern services, making the sector an important source of job creation, especially for young people and women. In addition, countries providing modern services have achieved a greater degree of technical sophistication, adding value to their exports. Ultimately, what started off with call-centre activities and basic information technology services has been transformed into the provision of modern services, such as research and development or data analysis.

The United States has been the main export market for modern services from Latin America and the Caribbean, given the region's advantages in terms of geographical proximity and low labour costs. Although the region has expanded sales to other markets, its share in world exports of modern

services is still marginal (1.8% in 2017), particularly when compared with its share of the world trade in goods (5.4%). The top 10 Latin American and Caribbean exporters of modern services in 2017 were Brazil, Argentina, Costa Rica, Mexico, Chile, Panama, Uruguay, Colombia, Peru and Guatemala (in descending order). However, development in the sector has varied greatly from country to country. Seeing in modern services an opportunity to enter the knowledge economy, some countries created incentives for multinational companies to use them as services exports platforms and for mechanisms promoting national companies. In turn, many of these countries adopted human capital development policies, which helped to launch a new phase of industrial policy.

This publication aims to analyse the policies and initiatives implemented by the governments of eight countries in the region as well as India, with special emphasis on governance. The inclusion of India as a benchmark is of particular interest, as it is the leading exporter of modern services among developing countries. The document finds that policies that were actively adopted by and coordinated among sectoral stakeholders had a greater impact on the development of the industry. This is all the more relevant in initiatives to attract foreign investment and those related to the development of human capital. In the modern services sector, worker skills are the cornerstone for upgrading value chains.

Most countries of the region are lagging behind in both the design and implementation of policies promoting modern services exports, not least with regard to institutional frameworks and governance. Modern services constitute the fastest-growing sector in world trade, yet the region is at risk of being left behind in this area because it lacks an adequate promotion system supported by good governance. In the current complex international context, Latin American and Caribbean countries must implement public policies to take advantage of these new growth opportunities.

Alicia Bárcena,
Executive Secretary,
Economic Commission for Latin America
and the Caribbean (ECLAC)

Introduction and summary

Mariano Alvarez
Karina Fernández-Stark
Nanno Mulder

Services have historically been considered non-tradable. Thus, the relocation of productive activities was focused on the manufacturing industry (Baldwin, 2016). However, with the spread of information and communication technologies (ICT), many multinational companies from developed countries began to relocate certain administrative and strategic services to emerging countries; this provides the companies with services of equal or higher quality, but at lower labor costs.

Countries such as India and the Philippines specialized in exporting these types of services to developed markets, and thus increased their income from activities related to this sector by a factor of two and more in the last two decades. Other emerging countries have also joined this new global or modern services industry (ECLAC, 2017; Gereffi and Fernandez-Stark, 2010a). Competition has intensified, highlighting the importance of public policies for the sector. However, its optimal development cannot be understood or addressed without the participation of the private sector and long-term planning, so good governance is key.

Modern services are mainly intended for other companies and make intensive use of ICT. The following categories, taken from the 6th edition of the Balance of Payments and International Investment Position Manual, the international reference nomenclature for official statistics on trade in services, are included in the



group: telecommunications, computing and information, financial, insurance and pension services, charges for the use of intellectual property and other business services (Loungani and others, 2017; see Table 1).

TABLE 1
Classification of traditional and modern services

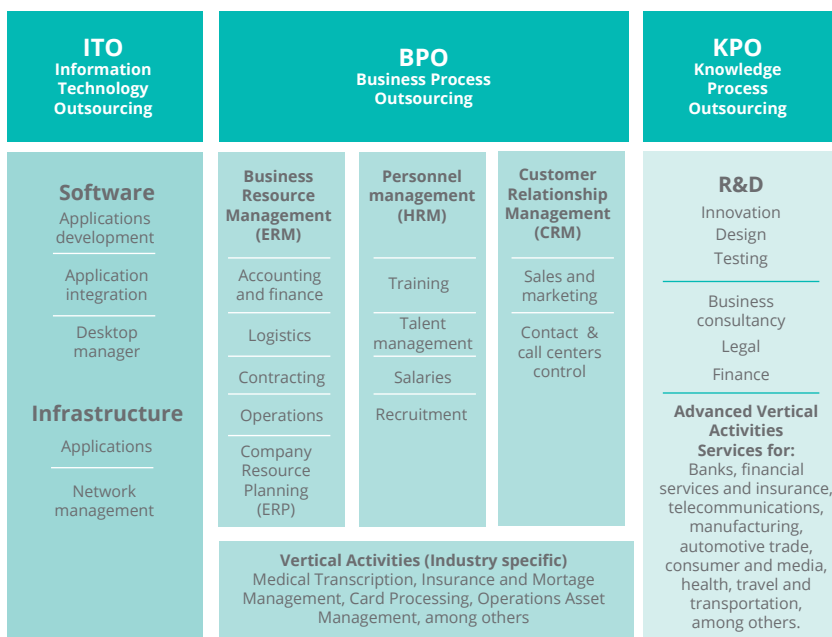
| Services | Balance of Payments and International Investment Position Manual 6th edition |
|-------------|---------------------------------------------------------------------------------|
| Traditional | Manufacturing on physical inputs from third parties |
| | Maintenance and repair |
| | Transport |
| | Travel |
| | Construction |
| | Personal, cultural and recreational |
| Modern | Telecommunications, computing and information |
| | Financial |
| | Insurance and pensions |
| | Charges for the use of intellectual property |
| | Other business services |

Source: Elaboration by the authors on the basis of P. Loungani et al., “World trade in services: evidence from a new dataset”, IMF Working Papers, 17/77, Washington DC, International Monetary Fund (IMF), March 2017.

Several countries in Asia, Eastern Europe, Latin America and, to a lesser extent, Africa, began to actively export modern services during the 2000s. This sector has represented an important source of job creation, especially for young people and women (Fernandez -Stark, Bamber and Gereffi, 2011). In addition, modern service provider countries have become more sophisticated and have added value to their exports. What began as simple call center activities and

basic IT-related tasks have been transformed into sophisticated services, such as research and development and data analysis. In the global services value chain, a distinction is made between 3 major outsourcing segments or stages: (i) information technology outsourcing (ITO); (ii) business process outsourcing (BPO); and (iii) knowledge process outsourcing (KPO), (see diagram 1). In addition, there are services aimed at specific sectors of the economy, such as those provided to the financial, manufacturing or pharmaceutical industries, among others (see diagram 1). This classification of modern services has been widely used in academic circles and by governments as a basis to formulate public policies leading to an upgrading of activities exported.¹

DIAGRAM 1
Global services value chain



Source: Compiled by the authors from G. Gereffi and K. Fernandez-Stark, *Global Value Chain Analysis: A Primer*, Durham, Center for Globalization, Governance and Competitiveness (CGGC), Duke University, 2016.

¹ Economic upgrading is the movement of a company, sector or economy, within global value chains, towards segments or activities of higher added value, with the aim of improving benefits, remuneration, profitability, technological intensity and job skills and abilities.

The first segment refers to information technology outsourcing (ITO) services, which include a wide range: information technology infrastructure management, software development, information technology (IT) consulting and specialized software for research and development activities. This segment of the global service chain was the first to develop and is currently the largest. It contains low, medium and high added value activities, each with its corresponding personnel educational level requirements.

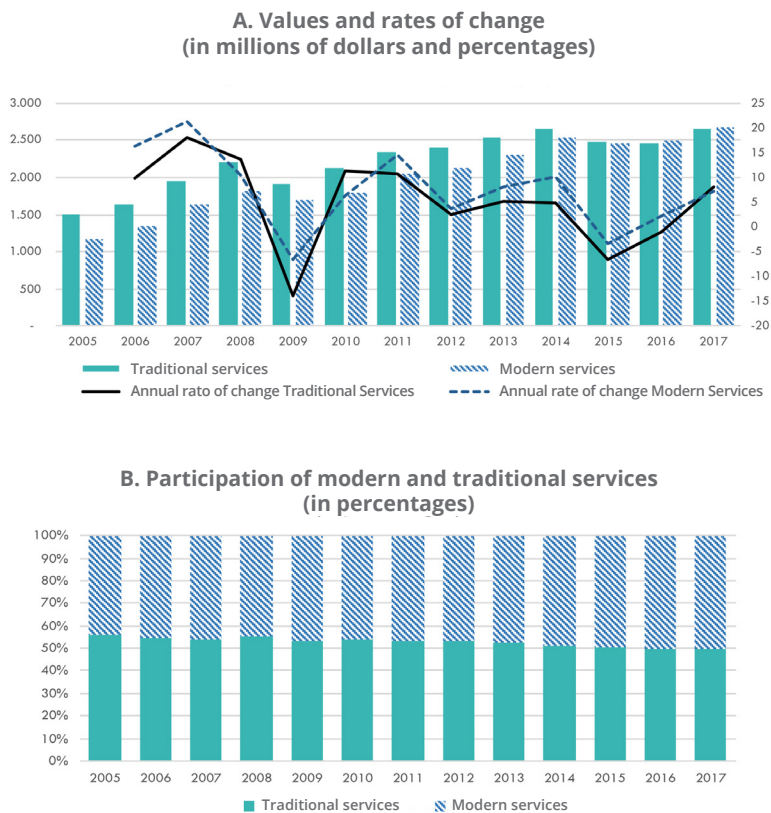
The second segment refers to business process outsourcing (BPO) which are services associated with business activities or administrative functions. It focuses on the areas of company resource management, human resource management, and consumer relationship management. It is characterized by low and medium value added activities. For the former, companies require high scalability and employ university students or young people with basic technical degrees. Companies that provide medium-value-added BPO services are less employment-intensive. The importance of scalability is less in this case and it mainly employs young graduates with more advanced technical or university degrees.

The third segment is related to knowledge process outsourcing (KPO) and incorporates activities of high added value only, such as legal consulting, market intelligence and business consulting. Personnel in this segment are highly skilled with a significantly lower level of scalability compared with the other two segments.

A. Exporting modern services from Latin America and the Caribbean

Modern services have proven to be the most dynamic export sector worldwide in the last decade, as well as one of the most resilient to international financial crises. Between 2005 and 2017, exports of these services grew at a higher rate than traditional services (see Figure 1A). Furthermore, during the global financial crisis of 2009, the contraction of exports in the first group was less than that of the second (Gereffi and Fernandez-Stark, 2010a). As a result, modern services increased as a share of total service exports from 44% to 50% between 2005 and 2017 (see Figure 1B).

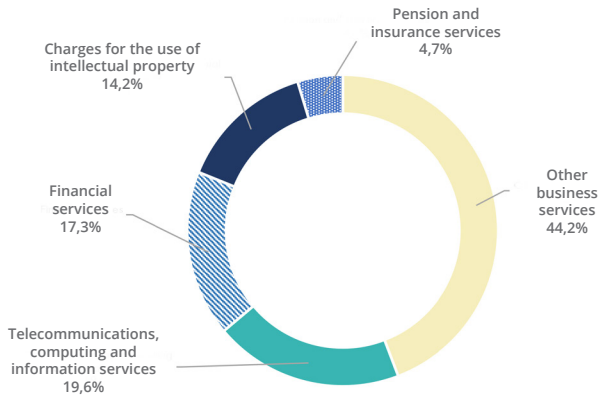
FIGURE 1
World exports of traditional and modern services, 2005 to 2017



Source: Elaboration by the authors on the basis of World Trade Organization (WTO) data.

The most significant part of modern services in 2017 was Other business services, which accounted for 44% of world exports. In second place were telecommunications, computer and information services, with almost 20% (see Figure 2). Both categories share their dependence on a well-established digital ecosystem, which facilitates information sharing and communication. Other business services are a mixture of tasks requiring highly skilled personnel (e.g. legal, engineering and research and development services) and others which are not very intensive in specialized human capital.

FIGURE 2
**Main categories of modern services exports
in the world, 2017**
(Percentage of total)



Source: Elaboration by the authors on the basis of World Trade Organization (WTO) data.

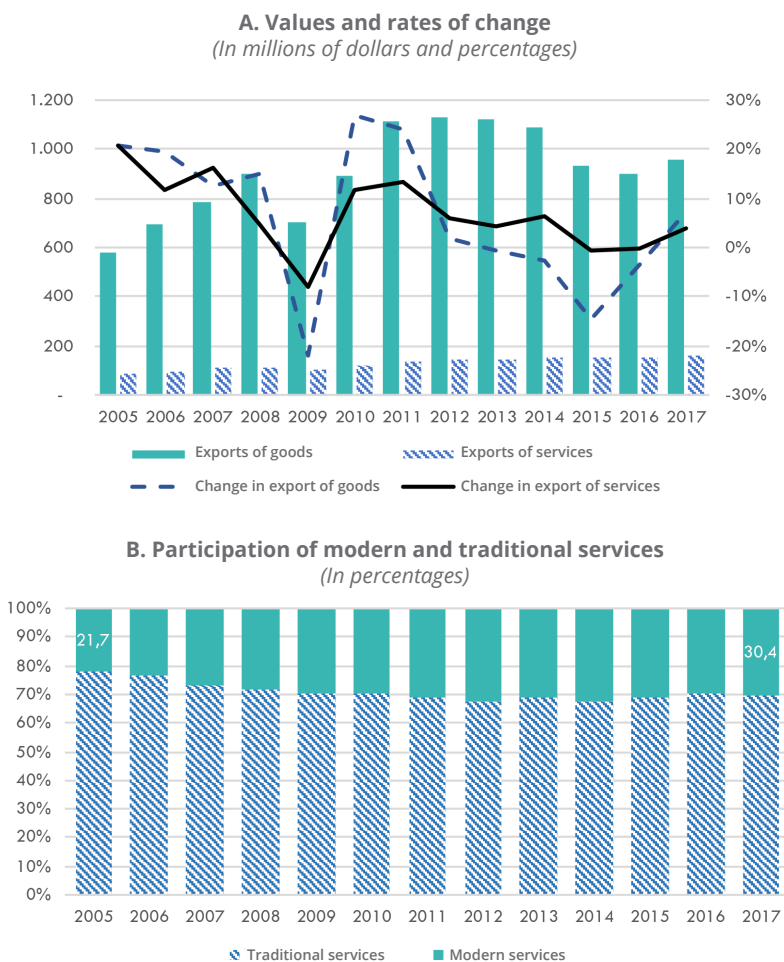
Latin America and the Caribbean emerged as exporters of modern services at the beginning of the 2000s. Their main market was the United States, due to the advantages of geographical proximity and low labor costs. Although the region has expanded these services since then, it still has a marginal share in world modern services exports (1.8% in 2017), particularly when compared to the region's importance in the world trade in goods (5.4%).

Between 2005 and 2017, service exports from the region grew at an average annual rate of 5.6% and represented 3.0% of world service exports in 2017. Meanwhile, the trade for goods exported from the region was less dynamic, with an annualized growth rate of 4.2%; however, it represented a higher proportion of the world export of goods (5.4%). The value of services exported from the region in 2017 was \$162,225 million, while the value for goods was \$959,968 million (see Figure 3A). The share of services in total exports from the region was 15% in 2017, which was lower than the world share (23%).²

² The data for these last two paragraphs were taken from World Trade Organization (WTO) information.

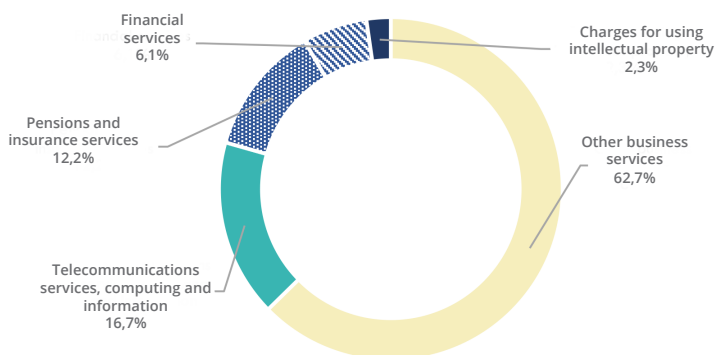
Traditional services are the main category of service exports from Latin America and the Caribbean; with travel and transport accounting for almost 70% of the region’s foreign trade in services in 2017 (see Figure 3B). Modern services are less significant at a global level. Other business services were the main category of modern service exports in the region, accounting for 63% in 2017 (see Figure 4).

FIGURE 3
Latin America and the Caribbean: exports of goods and services, 2005-2017



Source: Elaboration by the authors on the basis of World Trade Organization (WTO) data.

FIGURE 4
Latin America and the Caribbean: main categories of modern service exports, 2017
(Percentage of total)



Source: Elaboration by the authors on the basis of World Trade Organization (WTO) data.

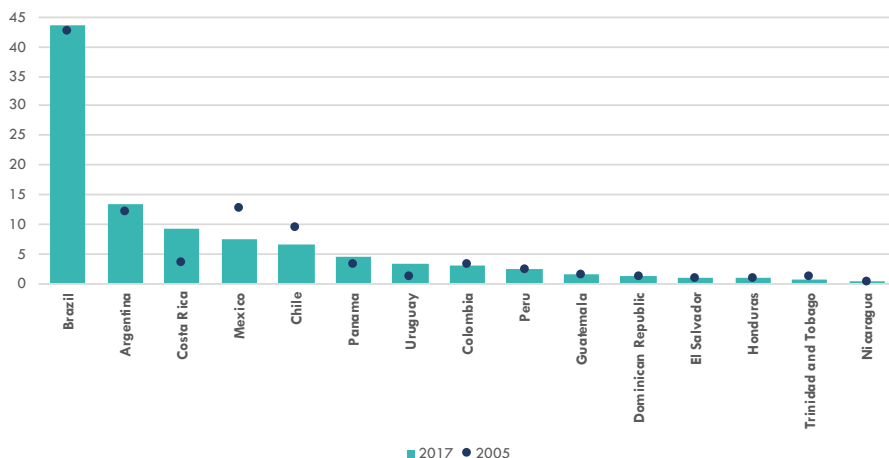
However, the distribution is not homogeneous throughout Latin America. South American countries export three-quarters of modern Latin American and Caribbean services. Likewise, within each subregion, a few countries lead the exports of these services.

Within the region, the top 10 modern service exporters in 2017 were Brazil, Argentina, Costa Rica, Mexico, Chile, Panama, Uruguay, Colombia, Peru, and Guatemala (in decreasing order); see Figure 5.³ The presence of small countries in this classification shows that performance does not only depend on the size of the economy. In fact, several papers by consulting firms and academic analysts highlight that competitiveness in the global trade of modern services depends crucially on the availability and cost of skilled labor, IT infrastructure, taxes, regulations, the protection of intellectual property and the business climate, among other factors (Gereffi and Fernandez-Stark, 2010a; Sethi and Gott, 2017; ECLAC, 2017; Tholons, 2018).

³ It is striking that Mexico ranks only fourth among the main exporters in the region. There may be a significant underreporting of the value exported by this country, especially in the case of other business services, as suggested by the mirror data for the United States for 2016 and 2017.

FIGURE 5
Latin America and the Caribbean:
main exporting countries of modern services,
2005 and 2017

(As a percentage of the total exported by the region)



Source: Elaboration by the authors on the basis of World Trade Organization (WTO) data.

B. Public policies and governance in promoting modern services

Some countries saw modern services as an opportunity to enter the knowledge economy, and therefore created a series of incentives, either for multinational companies to export services from their country or to privilege national companies in their promotion systems. Several of them also adopted policies aimed at fostering the development of human capital. All of this helped to launch a new phase in industrial policy. The purpose of this book is to analyze these policies, as well as certain initiatives, with special emphasis on their governance.

Governance refers to the formal and informal interaction, coordination and collaboration processes between public and private stakeholders established for the purpose of making decisions, implementing policies and evaluating their results. The three key features of governance are: (i) similar importance between tangible and intangible aspects; (ii) balance between advantages and disadvantages, and (iii) adaptation to the local context, while applying good general principles (Devlin, 2016).

The issue of governance has been little analyzed in the region, especially in the context of modern services. The fact that several Latin American countries have not managed to significantly increase their exports of modern services despite having implemented active policies could be due to the insufficient quality of governance of these policies. This depends mainly on the modalities of public-private collaboration to synchronize and prioritize efforts in different areas. Based on the experience of more than 20 countries, both inside and outside Latin America and the Caribbean, Devlin and Mognillansky (2011) established 9 principles to be taken into account in these public-private strategies (see Table 2).

These principles can be summarized or categorized in 3 groups: (i) adopt a proactive national strategic vision in the medium and long term for economic transformation and the strengthening of international insertion; (ii) create public-private alliances and seek consensus for the construction of the future, and (iii) produce and achieve capacities for implementation.

Using a similar logic, Listeri, Pietrobelli and Larsson (2011) analyze innovation systems by taking into account the relationship and production of policies from private and public stakeholders and academic circles with a view to upgrading economically in certain industries. Rodrik (2007) confirms that institutional coordination is critical for establishing industrial policies and that each country should design its own policies, according to its idiosyncrasies and its opportunities and disadvantages; that is, there are no generic recipes (Aboal et al., 2015). Meanwhile, Fernández-Arias et al. (2016) highlight the great importance of public-private coordination to the design and implementation of policies aimed at economic transformation in Latin America.

TABLE 2
Good governance principles

| Principle | Features |
|----------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Give responsibility to “real” sector ministries | Technical leadership or industrial policy should be in the hands of key ministries (e.g. of industry or of trade and industry) and implementing agencies. |
| 2. Promote medium- and long-term strategic thinking about the policy | The importance of allowing ministries and implementing bodies to carry out industrial policy is emphasized. Like governments themselves, bureaucratic units can get caught up in a short-term mindset that discourages strategic thinking and careful action. |

| | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>3. Each priority area or activity in a strategy should have at least one dedicated implementing body</p> | <p>While the problem of coordination is recognized, specialist units are required to manage and oversee an effective industrial policy program. Each major function required in industrial policy should be carried out by a responsible body.</p> |
| <p>4. The more structured and specific a strategy is, the greater the need for coordination between ministries and agencies, and the more likely high-level coordination is not enough</p> | <p>Coordination of an industrial policy program is a difficult task in practice but can be achieved by establishing a clear mandate and hierarchy of functions for each agency involved.</p> |
| <p>5. For medium- and long-term strategies to be effective, public sector staff must be highly professional, career-oriented, and non-politicized.</p> | <p>Competent and meritocratic bureaucracies are widely seen as conducive to industrial policy. This requires competitive recruitment, above-average pay and working conditions, continuous (technical) training, promotion on merit, and isolation from the political process.</p> |
| <p>6. Effective application of incentives must be assessed not only by their individually management, but also by their coordination to achieve a systemic effect</p> | <p>Sectors and activities are often interconnected. Coordination of incentives between agencies is therefore important to ensure the coherence of industrial policies to maximize long-term impact.</p> |
| <p>7. The effectiveness of programs and instruments is closely linked to the way the process of formulating industrial policies is managed</p> | <p>Functional industrial policies do not require extensive public-private consultation and deliberation. However, selective policies and collaborative endeavors are required. Sufficient funding for programs and knowing how to formulate and implement policies is essential to building credibility and thus engaging the private sector.</p> |
| <p>8. The effectiveness of strategies depends on an objective evaluation of their implementation and impact on the objectives established</p> | <p>This principle emphasizes the importance of evaluating industrial policies to ensure that scarce resources contribute to established objectives.</p> |
| <p>9. The risk of government sequester can be minimized through the use of structured public-private partnerships that represent a diversity of interests, with well-established rules on transparency and evaluation, backed by a professional bureaucracy</p> | <p>Capturing the special interest of the government is the main criticism of industrial policy by its opponents, so attention should be paid to this issue. Therefore, the need to carry out independent evaluations and establish clear objectives beforehand is essential, in addition to maintaining a high level of transparency and having a properly compensated public bureaucracy.</p> |

Source: United Nations Conference on Trade and Development (UNCTAD), "Industrial policy: a theoretical and practical framework for analyzing and applying industrial policy", Teaching material from the Virtual Institute on Structural Transformation and Industrial Policy (UNCTAD / GDS / 2016/1), Geneva, 2016, on the basis of R. Devlin and G. Mogueillansky, *Breeding Latin American Tigers: Operational Principles for Rehabilitating Industrial Policies*, Santiago, Economic Commission for Latin America and the Caribbean (ECLAC) / World Bank, 2011.

The chapters of this book lead us to conclude that policies related to the development of human capital have been the basis for upgrading the global value chains of modern services. In certain countries of the region, such as Costa Rica and Uruguay, this has been the central theme of their programs and initiatives. However, in countries where there has not been good coordination between stakeholders, these programs have almost always failed, highlighting the crucial importance of good governance to achieve these goals.

Having a long-term strategy that includes clear guidelines on the objectives to be achieved is essential. This strategy should be designed in consensus with industry players, but the State should not limit itself to being a facilitator. The strategy must have continuity over time and ensure its resilience and persistence in the face of management changes so that these policies can continue to work. One of the recipes to give continuity to public strategies and policies is to involve the private and academic sectors through the creation of empowered public-private alliances in the formulation and implementation of each strategy. Then, if one of the stakeholders within the alliance changes, the others can continue and prevent the strategy from being disrupted.

This incorporation of the private sector not only contributes to continuity, but also crystallizes a new reality regarding interaction within the private sector itself. The complex dynamics of executive branch changes, intense competition and rapid technological advances in these global sectors require a strategy that focuses local attention on collaboration rather than competition. In turn, this implies the active participation of multiple stakeholders. An analysis of countries that have successfully entered global value chains shows that numerous institutional stakeholders (including governments, companies, industry associations, NGOs and international organizations) must be committed to addressing the challenges (Fernandez-Stark, Bamber and Gereffi, 2011).

In parallel, the plurality of stakeholders involved makes greater coordination imperative. Studies from the Global Value Chains Center at Duke University show that industrial upgrading depends, to a large extent, on coordination and collaboration between stakeholders in the chain to ensure that interests are aligned. Collaboration also allows for a strategic agenda for growth to be established in the short, medium and long term. Other benefits are the reduction of skills gaps and the adaptation of regulation

to development needs. Effective public and private boards have proven to be a valuable means of improving the industry over time. In addition, they provide a continuity of policies for companies when faced with changes in governments (Devlin and Moguillansky, 2011).

Coordination in global value chains can take various forms, depending on the local context. These include political and macroeconomic stability, labor laws, and the educational system. However, there are certain common conditions in coordination between different countries. In the first place, collective representation of each industry is necessary, for example, through chambers, associations or unions. When a sector is dominated by multinational companies established in free trade zones, they may not be incentivized to join. Therefore, to drive the growth of industries, channels of communication and coordination between policy makers and associations must be created.

Secondly, public-private initiatives that bring together companies, investment and export promotion agencies, regulatory agencies, and educational institutions, among other entities, are essential to identify restrictions and prioritize solutions to boost competitiveness in global value chains. The authorities responsible for public policies are those who can guarantee their effective implementation.

Third, expanding this dialogue to address civil society concerns enhances the sustainability of development strategies. Labor strife or environmental challenges can affect the functioning of global value chains, which require the continuous and timely delivery of products and services (Gereffi and Fernandez-Stark, 2016). By facilitating an open channel to civil society, it is empowered to promote services and work with government strategy.

C. Analysis of public policies and their governance to promote modern services

The main purpose of this book is to analyze the extent to which policies to promote the export of modern services are based on good governance principles. Second, it is proposed to observe how these principles are linked to lesser or greater success in export activity. The work has been carried out by national experts in the field of modern services, who have evaluated the development and evolution of public policies in their countries, as well as the

incorporation of the principles of good governance and its possible impact on the promotion of exports. In addition, the case of India was added to selected countries in Latin America and the Caribbean as an extra-regional example of great export success.

The initial aim of each chapter is to assess the dynamism of modern services exports in the country in question, by comparing it with the results in the areas of transport and travel. Then, the general context of the policies to promote production and exports for these services is described and an overview of the main institutions responsible for promoting modern services is given, together with their main support instruments. On this basis, the authors assess the extent to which these institutions and their instruments comply with the principles of good governance. To that end, the most salient elements of governance and the greatest challenges are highlighted. As far as possible, links are established between these aspects and the export performance of modern services. Finally, the chapters conclude with recommendations regarding possible improvements in the governance of public policies for the promotion of modern service exports.

Each of the chapters contains valuable information about the public policies implemented in the modern service sector and its governance. The studies reviewed allow a comparative analysis to be made of how these policies have contributed to achieving export success. Included are cases with very favorable results in development, cases of large exporters that have had weak public policies, and of countries that have not been able to link with global value chains, in part due to a lack of good governance in their policies related to the sector.

As part of this comparison, two countries that have successfully entered the international modern services industry are worth highlighting: Costa Rica and Uruguay. The first represents a showpiece in the region since it has been one of the favorite countries for international companies to establish and develop their business services. Its exports in this area have grown at an annualized rate of 18% during the last decade. Costa Rica prioritized the modern services industry and designed specific policies and strategies for its development. This was reflected in the formulation of 4-year national plans, mainly focused on two areas: the attraction of international companies and the development of human capital. As a result, modern service exports reached 23% of the total exported by the country in 2017, starting from a base in 2005 of only 6%.

These policies have been very successful in Costa Rica, not only due to their design, but also due to the coordination between the main players in the industry and their continuity over time. There are 3 fundamental agents that have worked hand in hand to promote the sector: (i) the Ministry of Foreign Trade (COMEX); (ii) the Foreign Trade Promoter (PROCOMER); and (iii) CINDE, the body responsible for attracting foreign direct investment (Costa Rican Coalition of Development Initiatives). These 3 organizations have established clear goals for the export of services and have also created public-private working groups to solve the main challenges in the sector. At the same time, they have established a powerful link with the private sector, with which they constantly work with a view to strengthening the industry.

Uruguay is the other country in the region that has been successful in exporting modern services. It has also established clear development policies and has involved highly committed stakeholders. Its modern services sector went from representing 2% of exports in 1990 to 12% in 2017. In a period during which Uruguayan exports of goods increased 6 fold, those for modern services multiplied by more than 50; such that this sector has become a major industry for the country. The numerous existing incentives for attracting foreign investment are also applicable to national investment, which has made it possible to maintain a healthy coexistence between companies of international and local origin. Other policies that have produced very good results are those related to the development of human capital, such as the Finishing Schools, Smart Talent and Fast-Track programs. The Global Export Services Program (PSG) is a very good example: it is a government initiative financed by the Inter-American Development Bank (IDB) and executed by Uruguay XXI, which aims to increase foreign direct investment, exports and employment in global services. This program has made it possible to create a specialized institutional framework and have strategic internationalization plans. In addition, it contributed to aligning Uruguay XXI's promotion strategies with the private sector and with high-ranking public authorities.

A significant feature of both Costa Rica and Uruguay is continuity in public policies. From the beginning, when these countries outlined and embarked on their specific strategies to promote the development of modern services, they had the support of different governments. In other words, the changes in government have not affected the programs

that encourage the industry. Furthermore, each government has considered modern services to be a key sector for the economic and social development of the country. Another distinctive feature of both countries is the search for excellence among the main institutions in charge of policies related to this sector. A special administrative regime has been established within the public sector that allows them to attract highly qualified personnel, with salaries similar to those of the private sector.

Continuing the analysis of these countries, Brazil and Mexico are notable for their significant export of modern services. However, per capita, the values are much lower than in Costa Rica or Uruguay. On the one hand, this reflects weak export promotion policies and, on the other, a sector oriented mainly to the local market.

Although Brazil is the largest regional exporter of modern services, it does not have a national strategy for promoting its exports. During the last 20 years, sporadic programs have been created that have been dismantled again shortly thereafter. Recently, a statistical platform for international trade in online services (the Integrated System for Foreign Trade in Services, Intangibles and Other Operations Producing Changes in Wealth (SISCOSERV)) was created to perform a thorough analysis by types of services, countries of origin and destination and mode of supply. Regarding the orientation of the sector, when the private association of information technology companies was founded (Brazilian Association of Information and Communication Technologies Companies (Brasscom)), one of its aims was to promote exports. However, today the group focuses on promoting electronic trade within the country.

As a result, most government initiatives have focused on the domestic market; and programs to support software developers are notable. Due to the absence of national programs, it is difficult to speak of sound institutions and governance promoting modern services. Nevertheless, certain positive experiences in the development of public-private partnerships have occurred. There is the case of Brasil Mais TI (which provides free distance training for programmers); Startup Brasil (which supports emerging technology-based companies); Brasil IT+ (which promotes software and information technology companies) and the Training Project in Socio-Emotional Skills. Although these initiatives are not sufficient for the creation of an institutional framework that prevents

political sequestering of initiatives, they do involve the private sector and contribute to the formulation of good practices in the governance of a sector that is still poorly considered in the internationalization of Brazil.

According to data from the World Trade Organization (WTO), Mexico was the fourth exporter of modern services in the region in 2017 and has similarities with Brazil. Most of the information technology promotion programs are oriented to the development of the sector to support other industries in the Mexican economy. One of the flagship initiatives is the Software Industry Development Program (PROSOFT). After 15 years of existence, this program is now an example of continuity in the sector's public policy, with a large number of stakeholders participating in it, including the Government, business chambers and companies, as well as various educational institutions. The program has healthy governance and has been adapted to different situations and new objectives. Another distinctive feature of PROSOFT is its periodic evaluation by independent institutions. However, there are other initiatives in Mexico that have not had the same success, often due to a lack of coordination among stakeholders.

In the absence of national public policies in Brazil and Mexico, the domestic sector has served as leverage for modern services exports. This is how companies that provide services to other local companies have developed their knowledge, which has served them in their internationalization. However, with more focused public policies and proper coordination, the exportable supply of these countries would likely be greater.

Argentina and Chile offer important lessons regarding the relevance of the continuity of sectoral policies when changing a government. In these countries, many programs were created by one administration, then dismantled by the next, for no other reason than a change of ruling party. This lack of continuity has been a major challenge in achieving sustainable support for the modern services sector.

Despite the lack of continuity in its policies, Argentina is the second largest exporter of modern services in the region, especially information technology, legal and accounting services. Until Mauricio Macri's inauguration as President, the country did not have a specific body dedicated to the modern services sector. When the Undersecretariat of Technological and Productive Services was established, it did not last even 3 years. For this reason, most of the initiatives were never part of a national

strategy, but rather programs aimed at developing a specific industry. A Strategic Plan for Software and IT Services 2004-2014 was established but was not renewed upon completion.

The most successful initiatives are those aimed at the development of human capital. Those with the greatest impact are those with good governance and coordination among all stakeholders. The most relevant program is Plan 111 Mil, which replaced the Empleartec Program and adapted it to new needs. These training activities required not only horizontal cooperation (among the different ministries), but also vertical (with provincial governments) and with the private sector and academic circles; thus demonstrating the potential impact of good governance. However, there were problems of continuity and sequestering of the agenda by the then minister. An analysis of this case leaves at least two lessons: The first is that if the programs are not considered a priority from the point of view of the highest authorities, they are more exposed to budget cuts; the second is that it is difficult to formulate policies that require cooperation with other areas of government, both central and subnational, without a clear mechanism for coordination and leadership.

Chile was the 5th country in the region regarding export of global services in 2017. The economy embarked on an intense promotion of the sector more than 10 years ago. Showpiece measures were implemented, such as the formation of the Public-Private Strategic Council for Global Services, chaired by the executive vice president of the Production Development Corporation (CORFO) and made up of representatives of companies, trade associations, higher education institutions and public sector entities. For a decade, the sector experienced a boom and a high level of coordination was achieved between the different stakeholders. However, with the arrival of the new administration in 2010, it was decided not to prioritize sectors of the economy, policies were reformulated, and the Strategic Council was dismantled.

Since the first strategy launched in 2007, a number of programs have been created and abandoned due to lack of consensus. This is due to the absence of the principle of having agencies for each strategic area. The prevailing policy in Chile is not to discriminate between sectors of the economy. In other words, incentives and promotional bodies cannot, for example, promote modern services above other sectors. As a result, one of Chile's greatest challenges is the lack of continuity in policies to support

the modern services sector. In 2016, the new Government reconstituted the Council and renamed it the Public-Private Technical Committee for the Export of Services and expanded its membership. This time, the institution remained after a change of government. This continuity was achieved in part thanks to a loan from the IDB through which some key policies are being promoted for the sector, aimed at improving access to credit and human capital. It remains to be seen whether this public-private partnership will prevent incentives from being eliminated by changing government policies.

In the cases of Colombia and Peru, no specific policy has been designed for the export of modern services, nor is this industry considered a priority for the economy. According to WTO data, these countries are in the last and penultimate positions among those studied in this book. However, good governance practices have been implemented that could reverse this situation.

Modern services in Peru are supported mainly by the export promotion agency, that is, the Peruvian Promotion Commission for Exports and Tourism (PROMPERU). However, there are no greater alliances with the private sector, nor with educational organizations. The two main initiatives are the organization of the Peru Service Summit event, an annual meeting of Peruvian service providers with potential foreign buyers, and the Foreign Markets Program (PROMEX), which combines market intelligence and Trade promotion instruments, to encourage companies to internationalize. It is expected that the new Law no. 29,646 will produce an increase in quality in the sector by establishing the Multisectoral Committee for the Development of Foreign Trade in Services. However, this committee has not yet been formed.

The situation in Colombia is very similar, but changes have been made to induce management to be more oriented to public-private partnerships with greater governance. Although a State policy has not been formulated to promote modern services and it is considered that these still do not represent a significant contribution, the first Vive Digital Plan was launched in 2010 (and was later extended), followed by the Colombia Export Services Strategy in 2014. The institution in charge of coordinating efforts to promote exports is the National System of Competitiveness, Science, Technology and Innovation (SNCCTel), which incorporates the private sector in the formulation of policies. However, subsequent

implementation is fragmented between different organizations that are not always coordinated in the field of services. Even so, the relative stability of middle managers and officials in the ministries and regional directorates has resulted in a certain continuity of policies, which contributes to their better governance.

Finally, India is the leader among developing countries in the export of modern services. The Government established the bases for its development, among which industrial parks are a notable example. The private sector, led by the National Association of Computing and Services Companies (NASSCOM), has been another key player in strengthening and developing the industry since its inception. Individual companies have also played a fundamental role in this escalation, especially through the training of their personnel. In the last decade, however, the public sector has played an increasing role in the development of this industry, with several coordinated policies: first, by the National Planning Commission and secondly by the National Institution to Transform India (NITI Aayog) since 2014. In addition, various agencies have structured committees for coordination and informal networks created by the professionals and officials themselves. The country has important consolidated policies, with great leadership from key ministries in areas such as the digital agenda, the attraction of foreign investors, human capital (especially in the areas of information technology), negotiations for trade agreements and double taxation, intellectual property, start-up companies and telecommunications. Several policies receive active feedback from private sector associations, through studies, recommendations, and coordination meetings.

In summary, the programs that have the active and coordinated participation of the sector's stakeholders have a greater impact on the development of the industry. This is even more relevant in initiatives related to attracting foreign investment, and those aimed at training human capital. In the service sector, worker skills form a fundamental basis for upgrading value chains. This book highlights the significant backwardness of most Latin American and Caribbean countries in the design and implementation of their policies, especially with respect to their institutional framework and governance. Thus, although modern services are the fastest growing sector in world trade, the conclusion is that the region risks falling behind in this trend due to lacking an adequate promotion system supported by good governance.

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Chapter I

Argentina: the continuity of policies during changes of government¹

Andrés López²

Introduction

Modern services have gained in importance in the world economy and the case of Argentina is no exception (López, 2018). Argentina is the second largest exporter of modern services in Latin America, worth almost \$6,000 million in 2016, behind only Brazil (although it should be clarified that Mexico has not reported complete data in this area). According to data from the World Trade Organization (WTO), in 2016 Argentina was ranked 37th among main exporters of telecommunications, information and computer services, and 36th in business services.

Several of the main global companies that lead the international markets for modern services (such as IBM, Accenture, Hewlett Packard, Tata

1 The valuable collaboration of Matías de Luca Andrés (Buenos Aires University, UBA) is much appreciated.

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and Capgemini) export from Argentina.^{3 4} Specialized companies, such as J. P. Morgan and Crisil-Irevna, also operate, providing knowledge process outsourcing services in the financial area. For its part, McAfee has a subsidiary (previously, a subsidiary of Intel) in Córdoba, dedicated to the development of computer security software. Likewise, several multinationals have established shared service centers, which consolidate and standardize certain internal functions (accounting, human resources, purchasing, IT and finance, among others), before providing the respective services to other company subsidiaries located in third countries (e.g. Chevron, Arcos Dorados (McDonald's), Exxon, Telefónica, Cargill and Philip Morris). There are also a large number of foreign laboratories and contract research organizations (CROs) that perform clinical trials in Argentina.⁵ Meanwhile, several large international advertising agencies

3 Before the boom in modern services exports, many of the multinational companies that took part in it were already established in Argentina, generally involved in other types of businesses (e.g. IBM, in the manufacture and supply of hardware equipment). This contributed to the rapid increase in exports, as these companies were well aware of the capacities available in the country.

4 Due to the growing relevance of these companies' businesses, the Argencon association was established in 2014. This concentrates the main exporters of basic knowledge-based services (SBC) in the country. Today it has more than 30 partners, which are generally large local and foreign companies.

5 CROs specialize in the provision of services related to the R&D process in the pharmaceutical industry, including performing clinical trials on humans.

have subsidiaries or companies with local links to export creativity from the country (e.g. Wunderman and R GA). Large foreign companies also operate in the engineering field, such as CH2M, Fluor, MWH and Pentech.

In parallel, several Argentine companies have established a regional or global presence for the development, implementation and integration of software applications and provision of different computer services, with their own offices abroad (e.g. ASSA, Globant and Prominente). INVAP, Techint and Tecna are some of the local companies that export engineering in technologically complex areas, such as the nuclear or energy sectors. There are also cases of successful and highly internationalized local companies that were pioneers in the area of electronic trade in Latin America (Mercado Libre, OLX and Despegar).

In this scenario, the main objective of this chapter is to analyze the public policy framework that affects modern service sectors in Argentina. This is relevant for a context where not only the economic importance of these sectors has increased, in line with global trends, but also because they have garnered growing interest by policy makers in the country. In fact, it is not unusual to hear from decision-makers, experts and academics that modern services could be one of the bases for the production and export transformation process in Argentina.

This chapter will not analyze the impact of policies on the modern services sector (as this would require a rigorous quantitative study) but will examine the extent to which they meet the good governance criteria for productive development strategies set out in Devlin (2016).

The work is organized according to the objectives pursued, as described below. Section A contains information about the evolution and situation of modern services exports in Argentina. Section B describes the policies that have an impact on these sectors, focusing on those adopted by the national government (excluding those at the provincial and municipal level), with an overview of the institutions involved in their design and implementation. Section C analyzes governance mechanisms and the operation of two specific advocacy initiatives. Section D presents the conclusions in light of the good practices proposed by Devlin (2016), as well as some policy lessons. While section A is fundamentally based on the use of statistical information from the World Trade Organization (WTO) and the Argentine Republic National Institute of Statistics and Censuses (INDEC), sections B and C are based on a review of publicly available documentation

and information, as well as on interviews with public and private officials and experts in the sector.

A. Exports of modern services in Argentina

An initial understanding of the relative importance of modern services exports is best achieved by comparing them with exports of the main groups of goods. This exercise reveals that sales of these services ranked third in 2016, only behind oilseed and cereal sectors, which are traditional export items from Argentina (see Table I.1).

TABLE I.1
Argentina: Exported goods and services, 2016

(In millions of dollars and percentage of total)

| Sector | Value | Percentage |
|------------------------|---------------|--------------|
| Oilseed | 20 320 | 28.8 |
| Cereal | 7 612 | 10.8 |
| Modern services | 5 980 | 8.5 |
| Automotive | 5 530 | 7.8 |
| Bovine origin | 2 596 | 3.7 |
| Oil-petrochemical | 2 579 | 3.7 |
| Fruit and vegetable | 2 269 | 3.2 |
| Gold | 2 042 | 2.9 |
| Fishing | 1 701 | 2.4 |
| Grape/wine | 993 | 1.4 |
| Pharmaceutical | 907 | 1.3 |
| Total | 70 528 | 100.0 |

Source: Elaboration by the authors on the basis of National Institute of Statistics and Censuses (INDEC) data.

The exports of different subgroups of modern services also compare favorably with those of relevant goods in the Argentine export basket. For example, sales abroad of business, professional and technical services were slightly lower than those of chemical products and higher than those of fish or meat. On the other hand, those of computer science and information were higher than those for metals and their manufacture, or machinery (see table I.2). These data clearly show that the modern services sector makes a significant contribution to foreign exchange earnings for

the Argentine economy; reaching almost \$6,000 million in 2016, compared to a total of just over \$70,000 million in the exports of goods and services.

TABLE I.2
Argentina: Exports by item, 2016

(In millions of dollars and percentage of total)

| Item | Value | Percentage |
|------------------------------------------------------|---------------|--------------|
| Food industry waste | 10 787 | 15.3 |
| Cereals | 6 976 | 9.9 |
| Land transport equipment | 5 009 | 7.1 |
| Fats and oils | 4 968 | 7.0 |
| Chemicals and related products | 4 514 | 6.4 |
| Business, professional and technical services | 4 257 | 6.0 |
| Oil seeds and oleaginous fruits | 3 840 | 5.4 |
| Stones, precious metals and their manufacture, coins | 2 238 | 3.2 |
| Fish and shellfish, unprocessed | 1 761 | 2.5 |
| Meat and meat products | 1 549 | 2.2 |
| Fuel | 1 446 | 2.1 |
| Computing and information services | 1 353 | 1.9 |
| Common metals and their manufacture | 1 276 | 1.8 |
| Machines and appliances, electrical equipment | 1 275 | 1.8 |
| Vegetable, legume and fruit products | 1 167 | 1.7 |
| Plastics manufacturing | 974 | 1.4 |
| Alcoholic and soft drinks and vinegar | 927 | 1.3 |
| Dairy products | 821 | 1.2 |
| Milling industry products | 755 | 1.1 |
| Total | 70 528 | 100.0 |

Source: Elaboration by the authors on the basis of National Institute of Statistics and Censuses (INDEC) data.

Another important point is that requirements of modern service sectors are often low. For example, according to the Trade in Value Added (TiVA) database (from 2011) of the Organization for Economic Cooperation and Development (OECD) and the World Trade Organization (WTO), it is considered that the foreign value added by Argentine software and computer services exports is 10.5%, compared to 14% for the country's total exports, 18.5% for industry and 32% for the automotive sector. Another interesting fact is that trade was balanced for modern services in 2016, which contrasts with the marked deficits registered in traditional services, such as travel and transport (see Table I.3).

TABLE I.3
Argentina: Exports, imports and trade balance, 2016

(In millions of dollars)

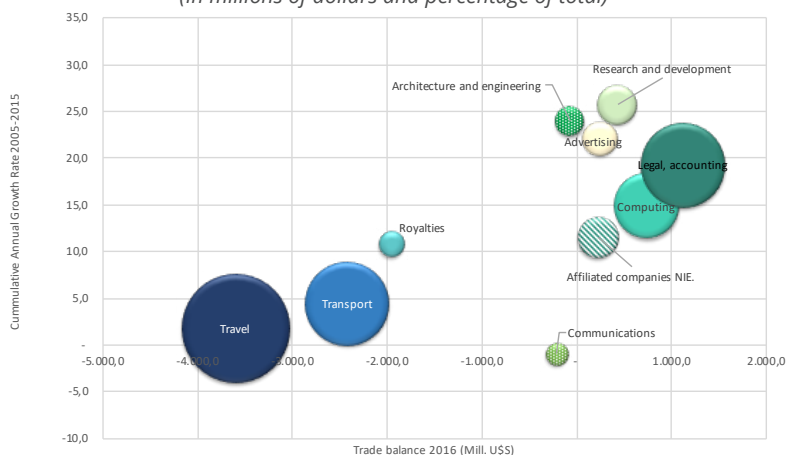
| | Exports | Imports | Balance |
|-----------------|---------|---------|---------|
| Goods | 57 733 | 53 243 | 4 490 |
| Services | 12 795 | 19 805 | -7 010 |
| Transport | 2 296 | 4 713 | -2 417 |
| Travel | 3 835 | 7 433 | -3 598 |
| Modern services | 5 980 | 5 984 | -4 |

Source: Elaboration by the authors on the basis of National Institute of Statistics and Censuses (INDEC) data.

Figure I.1 shows another way of comparing the behavior of various service sectors in terms of foreign trade. Export growth rates for modern services sectors were consistently higher than those for transport and travel. Furthermore, the trade balances of the first group are generally positive (except for royalties), while they are very negative in the second.

FIGURE I.1
Argentina: Export growth and trade balance, 2005-2016

(In millions of dollars and percentage of total)



Source: Elaboration by the authors on the basis of National Institute of Statistics and Censuses (INDEC) data. - NIE = not included elsewhere / Circle size is proportional to export value in 2016.

Modern services exports grew 15% annually between 2000 and 2016, compared to 6% for total services. The growth figures are even more striking in cases such as advertising, architecture, engineering and R&D (see table I.4 and figure I.2), with annualized growth rates above 20%. This dynamic gave rise to a pronounced rise in these sectors among total services exports, as can be seen in Figure I.3.

Table I.4
Argentina: Modern services exports, 2000-2016

(In millions of dollars and percentage)

| | 2000 | 2005 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | Annualized growth rate, 2000-2016 (Percentage) |
|------------------------------------------------------------|---------|---------|----------|----------|----------|----------|----------|----------|----------|------------------------------------------------|
| Total services | 4 935.5 | 6 634.4 | 13 549.8 | 15 442.2 | 15 185.5 | 14 733.1 | 13 877.2 | 14 046.0 | 12 794.8 | 6.1 |
| Telecommunications services | 138.9 | 170.0 | 240.3 | 241.7 | 196.6 | 237.7 | 204.3 | 180.7 | 123.1 | -0.8 |
| Insurance services | 12.4 | 0.0 | 26.8 | 41.8 | 35.6 | 36.5 | 39.9 | 34.7 | 30.4 | 5.8 |
| Financial services | 6.2 | 3.7 | 7.0 | 9.5 | 8.5 | 8.3 | 9.9 | 11.3 | 11.9 | 4.2 |
| IT and information services | 147.1 | 237.9 | 1 324.4 | 1 748.7 | 1 715.1 | 1 689.1 | 1 360.3 | 1 494.3 | 1 367.5 | 15.0 |
| IT services | 147.0 | 235.2 | 1 320.8 | 1 744.5 | 1 710.5 | 1 682.5 | 1 342.4 | 1 476.5 | 1 363.4 | 14.9 |
| Information services | 0.1 | 2.7 | 3.6 | 4.2 | 4.6 | 6.6 | 17.8 | 17.8 | 14.1 | 36.3 |
| Royalties and license fees | 36.8 | 51.1 | 147.2 | 177.5 | 178.9 | 226.0 | 208.0 | 171.1 | 189.6 | 10.8 |
| Business, professional and technical services | 286.4 | 1 456.5 | 3 870.8 | 4 765.2 | 4 937.4 | 4 893.3 | 4 245.8 | 4 530.2 | 4 257.2 | 18.4 |
| Legal, accounting, consulting advertising, market research | 138.5 | 491.2 | 1 994.5 | 2 405.4 | 2 778.0 | 2 638.5 | 2 257.2 | 2 408.3 | 2 312.9 | 19.2 |
| research and development | 14.5 | 174.1 | 518.0 | 603.6 | 493.0 | 494.4 | 421.5 | 449.8 | 363.6 | 22.1 |
| architecture and engineering | 12.0 | 127.2 | 359.0 | 446.2 | 442.5 | 484.3 | 510.5 | 544.7 | 463.8 | 25.7 |
| agricultural, mining and processing* | 8.4 | 67.2 | 350.9 | 446.2 | 372.8 | 329.4 | 299.9 | 320.0 | 259.4 | 23.9 |
| Other services | - | - | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | - | n/c |
| among affiliated companies (NIE) | 23.9 | 333.1 | 195.4 | 302.4 | 312.7 | 323.2 | 269.1 | 287.1 | - | 18.0 |
| Total, modern services | 89.1 | 263.7 | 453.0 | 561.4 | 538.4 | 623.5 | 487.7 | 520.3 | 508.0 | 11.5 |
| Total, modern services (indexed to 2000) | 627.7 | 1 919.1 | 5 616.5 | 6 984.5 | 7 072.1 | 7 090.8 | 6 068.2 | 6 422.3 | 5 979.7 | 15.1 |
| Total, modern services (indexed to 2000) | 100.0 | 305.7 | 894.8 | 1 112.7 | 1 126.6 | 1 129.6 | 966.7 | 1 023.1 | 952.6 | 15.1 |

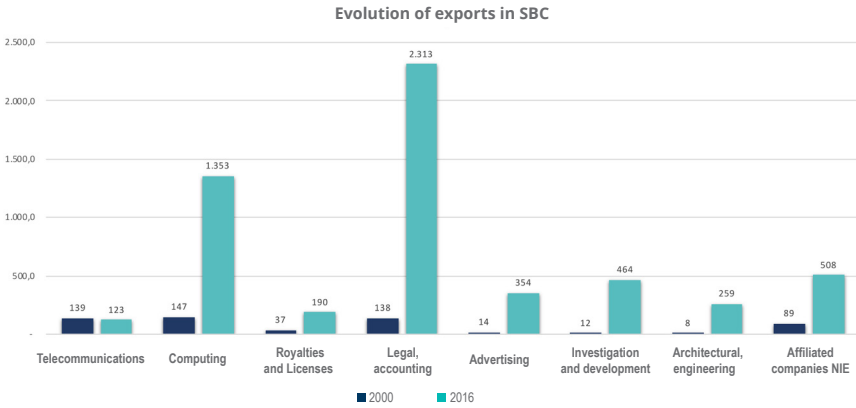
Source: Elaboration by the authors on the basis of National Institute of Statistics and Censuses (INDEC) data.

NIE = not included elsewhere

*Rate calculated for the period 2000-2015.

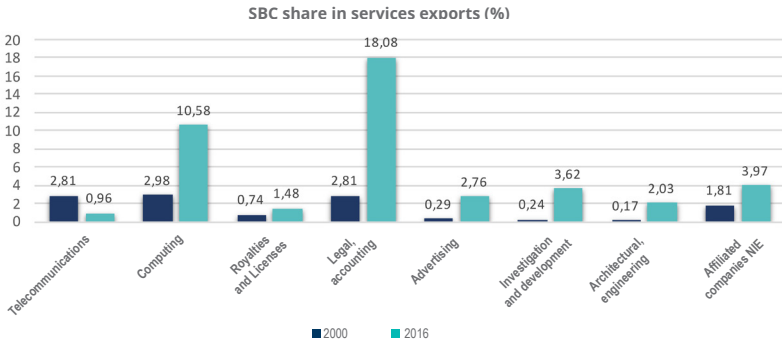
FIGURE I.2
Argentina: Evolution of modern services exports,
2000 and 2016

(In millions of dollars)



Source: Elaboration by the authors on the basis of National Institute of Statistics and Censuses (INDEC) data. - NIE = not included elsewhere

FIGURE I.3
Argentina: Modern services
(as a percentage of total)
service exports, 2000 and 2016



Source: Elaboration by the authors on the basis of National Institute of Statistics and Censuses (INDEC) data. - NIE = not included elsewhere

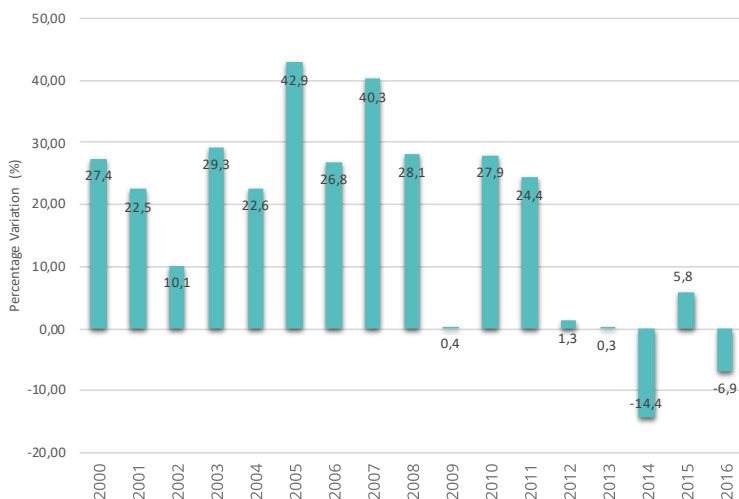
In 2016, almost 40% of modern services exports were for legal, accounting and consulting services; another 23% came from computer science, while each of the remaining items comprised less than 10%.

Although there are no official data on the destination of exports, previous studies (López and Ramos, 2013) found that modern services from the region were aimed mainly at the United States and Latin America. However, there are also companies that provide this type of service to various European countries, as well as others for countries in Africa, Asia and Oceania. In the specific case of the software sector, the Permanent Observatory of the Software and Information Services Industry (OPSSI), based on a survey of members of the Chamber of Software and Information Services Companies (CESSI), reported that 50% of exports in 2014-2015 went to the United States, 38% to Latin America (especially Uruguay, Mexico, Chile and Brazil) and 7% to Europe (OPSSI, 2016).

Modern services exports registered very high year-on-year growth from the beginning of the millennium to 2011 (with the exception of 2009, as a result of the systemic crisis of 2008). However, the dynamism of these sectors began to wane from 2012, with 2 years of sharp falls in exports (see Figure I.4).

FIGURE I.4
Argentina: Annual income from
modern services exports, 2000-2016

(In percentages)

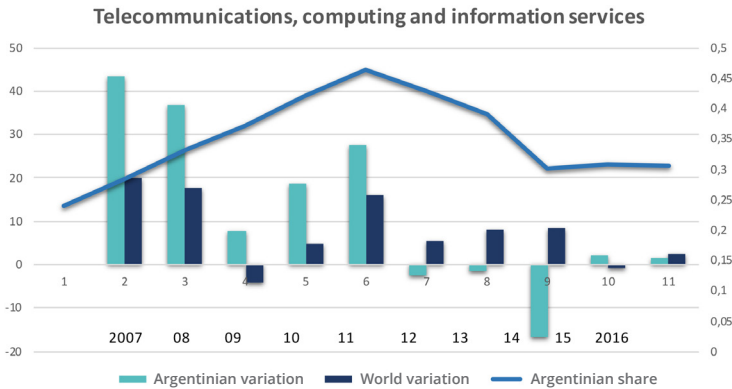


Source: Elaboration by the authors on the basis of National Institute of Statistics and Censuses (INDEC) data.

Following early growth in world exports of modern services, there was a foreseeable drop in Argentina's share after its peak in 2011 (see Figures I.5 and I.6). By 2016, the Argentine share had fallen from 0.46% at its peak to 0.31% in the case of telecommunications and computing services, and from 0.55% to 0.4% in business services.

FIGURE I.5
Argentina and the world: exports of telecommunications, computing and information services, 2006-2016

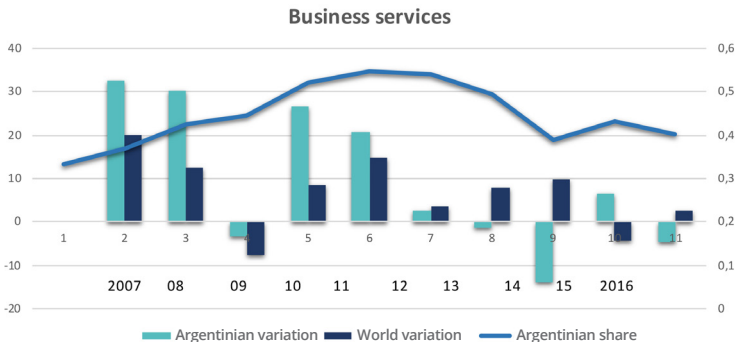
(Growth rates and percentage share)



Source: Elaboration by the authors on the basis of National Institute of Statistics and Censuses (INDEC) data.

FIGURE I.6
Argentina and the world: Business service exports, 2006-2016

(Growth rates and percentage share)



Source: Elaboration by the authors on the basis of World Trade Organization (WTO) data.

The main reason behind these negative trends was the dollar increase in local wages. Although starting from very low levels around 2003, following the devaluation of the peso in 2002, the increases observed from 2008 onwards reflected trends towards exchange rate appreciation, which had a negative impact on the competitiveness of the sector.⁶ However, the fact that Argentine exports have registered moderate absolute declines is proof of their resilience and an increase in the average quality of the services provided, with much less presence of call centers and a greater emphasis on “strategic” services (more stable in terms of the location from which they are provided) for external customers.

B. Policies applicable to modern service sectors

Table I.5 contains a summary of the promotion measures that will be analyzed in this section, as well as their objectives and main stakeholders. There are two fundamental types of promotional instruments that have an impact on modern service sectors. The former are general in scope but can also be used by companies that provide modern services, while the latter specifically target these sectors. This section briefly describes the situation in each of these areas, using information available in mid-2018.

TABLE I.5
Summary of the measures and actions described

| Stakeholders | Objective | Program |
|-------------------------------------|----------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| National and provincial governments | Software is considered an industrial activity for tax and promotional purposes | Law no. 25,856 |
| National government | Tax benefits and creation of the Software Industry Promotion Trust Fund | Law no. 25,922 |
| Ministry of Production and Labor | Financing programs for investment, internationalization and working capital | National Fund for the Development of Micro, Small and Medium-sized Enterprises (FONAPYME) and preferential credits from the Bank of Investment and Foreign Trade (BICE) |
| Ministry of Production and Labor | Non-refundable contributions for export projects, certification of quality standards and R&D consultancy | PRESOFT |

⁶ Data from the Ministry of Labor, Employment and Social Security (MTEySS) and the Argentine Republic Central Bank.

| Stakeholders | Objective | Program |
|---------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|
| MTEySS, CESSI and software companies | Free training in computing technologies | Empleartec |
| Ministry of Production and Labor and Ministry of Education, Culture, Science and Technology | Training of software programmers | Program 111 Mil |
| CESSI and Ministry of Education, Culture, Science and Technology | Grants for training and work in technological careers in Argentina | InverTI en Vos |
| Sadosky Foundation | Competition for secondary school students to promote ICT among young people | Dale Aceptar challenge |
| Ministry of Industry, Ministry of Education, Culture, Science and Technology and CESSI | Creation of areas in universities for students to work and study in the same place | La Empresa Informática va a la Universidad ("The IT Company goes to University") |

Source: Compiled by authors.

1. General promotion instruments

In general, there are no initiatives focusing strictly on the promotion of services exports in Argentina; however, it is possible to take advantage of most measures aimed at goods. This is the case with free trade regimes, tax exemptions and refunds related to value added tax (VAT) or lines of credit for exports offered by public banks.⁷ Exports of services are exempt from VAT. In turn, exporters recover the tax credit invoiced for purchases made to export services. Also, companies engaged in the export of services have to pay income tax in the buyer's country. When there is a double taxation agreement with the destination country (currently there are over 20), these expenditures can be used as payment on account in Argentina, which reduces the total tax burden associated with these operations.

In 2016, the Argentine Investment and International Trade Agency (a decentralized body of the Ministry of Production and Labor) assumed support tasks for exporters, which were previously performed by Fundación Exportar. The Agency provides information on international commercial events and on the country's position internationally in various sectors

⁷ According to the Free Trade Zones Law (number 24,331), free trade zone users cannot profit from the benefits of industrial promotion regimes. Thus, for the software and computer services sector, which has its own promotional framework, these zones are not applicable.

and subsectors considered strategic. It also supports the presence of exporters at international fairs and organizes trade missions and business roundtables, as well as providing services for the different stages of the export process through sectoral specialist groups. The Agency also seeks to promote the country as an attractive destination for foreign direct investment (FDI) and provides assistance to companies during the different stages of the investment process to build loyalty and support new projects from already established companies, as well as promoting improvements in the business environment. The branches of creative industries, cultural goods and modern services are among the Agency's priorities.

The main source of official financial support for exports (beyond the lines provided by national and provincial public banks) is the Bank for Foreign Trade and Investment (BICE). This is a decentralized entity of the Ministry of Production and Labor, whose sole shareholder is the State, and which operates as a second-tier bank, allowing it to grant loans both directly to companies and via commercial banks. Among the lines offered are Impulsa COMEX (export credits with a different rate for SMEs and large companies); Foreign Trade (credits for pre- and post-financing of exports); Promotion (subsidized credits for the internationalization of local leading firms, through both exports and FDI operations); and Long-Term Exports (financing exports of goods and services and industrial plants). BICE also has a team of specialists to assist firms in their export operations.

In Argentina, for regulatory issues associated with the movement of factors related to the exports of services, there are no restrictions or quotas for the employment of foreigners, provided they have a valid residence permit. In addition, companies that hire foreign scientists, professionals or technicians may request exemption from paying most of the social charges for these employees, as long as they are hired for a period of less than 4 years. Argentina also has social security agreements with various MERCOSUR and other countries: Chile, Colombia, France, Greece, Italy, Peru, Portugal, Slovenia and Spain. Under these agreements, workers from these countries are exempted from contributing to Argentine social security if they are protected by similar systems in their own countries.

Arza, Fressoli and López (2017), Lavarello and Sarabia (2015) and López and Svarzman (2016) include surveys of the productive development and innovation policies in force in Argentina at a national

level.⁸ Most of these policies are concentrated in the Ministry of Science, Technology and Productive Innovation (MINCyT); the Ministry of Production and Labor (formerly the Ministry of Industry); and the Ministry of Agriculture, Livestock and Fisheries. Some also have a sectoral dimension, while others target specific groups of companies, usually SMEs or young firms. However, there is little information on the sectors to which the beneficiaries of these programs belong, which makes it difficult to know to what extent they are used for the export of modern services.

According to Arza, Fressoli and López (2017), these initiatives include programs aimed at business development (technical assistance and extension), the creation of links (development of suppliers, clusters, value chains, industrial parks), the promotion of innovation (subsidies and tax credits for R&D, support for the adoption of technologies, cooperation between industry and universities), entrepreneurship (training, seed capital, angel investors, incubators, venture capital) and the facilitation of access to medium and long term financing. Most of these policies go through the channel of financial resources, while technical assistance (especially for SMEs) is the second most used mechanism. While a horizontal approach predominated in the 1990s, in the following decade vertical initiatives gained importance. These include both sectoral regimes (such as the one in force in the software industry) and instruments aimed at financing innovative activities in priority areas (e.g. ICT, biotechnology and nanotechnology).

Both Arza, Fressoli and López (2017) and López and Svarzman (2016) agree that there are very few impact evaluations of this set of policies. Most of the available evaluations are focused on MINCyT programs, and in general they find positive results for innovation activities, but there is almost never evidence of effects on innovative results or productivity (the standard argument is that these effects take time to materialize). Meanwhile, the few studies that examine policies to support groups and SMEs find positive results in employment, wages, sales and exports (Castillo, Figal-Garone and Maffioli, 2015; Castillo et al, 2010).

A more qualitative analysis, following López and Svarzman (2016), mentions the following factors: (i) the coverage or scope of the policies (in terms of the target population effectively benefited) is considerably lower than in developed countries and, in certain cases, than in some

⁸ There are numerous instruments that promote productive and technological development at the provincial and municipal level; an exhaustive survey of them is a pending task.

neighboring nations; (ii) this coverage is highly heterogeneous territorially, with a disadvantage for the most lagging regions; (iii) the degree of coordination of the different initiatives is limited, not only between different entities, but also within the same ministry; and (iv) their impact is limited by various instruments due to the lack of additional tools for their respective specific areas of action (e.g. innovation policies that promote technological developments that later find no support for scaling up production and market insertion). Furthermore, there are significant deficiencies and shortcomings in areas such as advanced knowledge training, demand side policies (including innovative public procurement), and instruments to support the expansion of young, high-potential companies (business accelerators, seed capital and risk capital, for example).

The aforementioned initiatives are based on the policy chart in force till the end of 2015 and, therefore, do not take into account changes introduced by the new administration from December of that year. Among the various developments introduced since then, two initiatives are worth mentioning that may have a significant impact on modern service sectors (in addition to others of a more general coverage, such as the SME Law, which gives these companies access to various tax benefits and credit): (i) the enactment of an Entrepreneurs Law (number 27,349), and (ii) the creation of a National Network of Entrepreneurs (INCUBAR). More recently, some policy tools used extensively in the last 20 years, such as subsidies for innovation and productive development, began to be reviewed. Several of these subsidies were cancelled and, in some cases, replaced with contingent repayment lines of credit.

2. Instruments aimed at modern service sectors

The IT software and services industry has benefited the most from specific promotion policies. In 2003, the Software and Information Services Industry National Competitiveness Forum was formed, with the participation of state, provincial, municipal, private sector and academic representatives. As a result, the Strategic Plan for Software and IT Services 2004-2014 emerged, which identified problems and opportunities in the industry and established concrete actions to be implemented. However, the plan did not effectively track its goals and actions, and newer ones have not been developed since that time.⁹

⁹ CESSI continued to develop strategic plans, but as sector exercises managed from the private sphere.

In 2004, two national promotion laws (numbers 25,856 and 25,922) were enacted for the sector for companies meeting certain conditions. The first law established that software production would be considered as an industrial activity for the purposes of receiving tax, credit and any other type of benefits;¹⁰ while the second provided significant tax benefits.¹¹ The law also founded the Software Industry Promotion Trust Fund (FONSOFT) to finance R&D projects, quality improvements, human resources training and new IT ventures.¹² The benefits of Law 25,922 were extended by Law 26,692 (regulated in 2014) until December 31, 2019.¹³ Over 300 companies had registered under the previous law; as of November 2017 there were 384 beneficiary companies and around 50 applications in the analysis stage (the changes introduced in the law made it necessary to establish a reenrollment mechanism).

Evaluations of the Software Act are scarce and limited in scope, due to a lack of sufficient data. Castro and Jorrat (2013) concluded that SMEs receiving tax benefits under this law were more likely to invest in innovation than non-beneficiaries. Meanwhile, the subsidy and preferential credit programs aimed at promoting innovation and productive development managed by the MINCyT (including the FONSOFT) and the former Ministry of Industry had a similar but less robust effect. Only the tax benefits under the Software Law seem to have had a significant impact on increasing the productivity of beneficiary firms. The authors attribute the lesser impact of the financing programs to the relatively low amount of funds granted, among other possible factors. A limitation of this work is that it cannot be guaranteed that the differences between the results

10 This brought the software sector in the provinces under the industrial sector tax regime, which was generally more beneficial in terms of rates and exemptions.

11 These include: (i) the establishment of a fiscal stability regime for 10 years; (ii) the deduction of 60% of taxable results for the determination of income tax; (iii) the possibility of obtaining tax credits for the payment of VAT and other national taxes for an amount equal to 70% of employer contributions actually paid; and (iv) the removal of restrictions on transferring foreign currency for the import of hardware and other computer components required for software production.

12 Two of the following three conditions must be met: (i) the accreditation of expenses in software R&D; (ii) the accreditation of a recognized quality standard applicable to software products or processes, or the pursuit of activities to obtain them; and (iii) the execution of software exports.

13 Some modifications were introduced with the extension, including a tax credit bonus of up to 70% of that paid for employer contributions, which can be used to cancel other national taxes. It was also established that the beneficiaries of the Law are not subject to VAT withholdings or perceptions.

of beneficiaries and non-beneficiaries are due to the effects of the Law and not to previous performance and capacity heterogeneity, due to not controlling for selection bias, as companies meeting the required conditions may be systematically different from those not.

Barletta, Pereira and Yoguel (2016) analyzed the impact of participating in the Software Law, specifically for FONSOFT and the Argentine Technological Fund (FONTAR).¹⁴ The authors found a positive impact from the support programs on the innovation of beneficiary companies, regarding measures such as the R&D spending; sales ratio; the percentage of workers dedicated exclusively to R&D; and the introduction of a new product or service to the market. These effects were greater for FONSOFT than for the other two instruments (unlike the findings of Castro and Jorrat (2014) cited above). The effect of participating in more than one program is zero, which suggests the need to establish criteria that limit the possibility of companies accessing instruments pursuing similar purposes. The programs had a positive effect on exports and employment, but not on labor productivity. This limited information from this work also constrained the validity of its conclusions, including its cross-sectional nature and the fact that the year when the companies received the benefits is not known.

Some sub-national districts have exemptions to local taxes (gross income tax)¹⁵ for exports of services, similar to those that exist for exports of goods (in the Autonomous City of Buenos Aires, Córdoba, Mendoza and Entre Ríos, for example). In addition, several districts have established incentives to attract investment in service sectors (with an emphasis on software, IT services and business services), which include subsidies, tax exemptions and preferential credits.¹⁶

The computer software and services sector was also a beneficiary of human resources training policies. For several years, a notable imbalance has been observed between the increase in the demand for IT professionals and the limited dynamism of the respective supply, at least in terms of personnel trained in related university degrees. Thus, while

14 Fund managed by the National Agency for Scientific and Technological Promotion, whose main mission is to grant preferential credits and subsidies for innovation activities.

15 Provincial tax levied at different rates on the turnover of companies and professionals, depending on the business.

16 See López and Ramos (2012) for a survey of these regimes at the beginning of this decade, and Gajst and Frugoni (2016) for an updated review of the software sector.

employment in the computer software and services sector increased almost four-fold between 2003 and 2014, there were fewer enrollees, students and graduates in 2013 than in 2003. In these cases, the lack of human resources forces companies to hire students, many of whom later drop out of their careers, creating a vicious cycle of highly trained staff shortages and excess demand for professionals in the marketplace. Although various studies suggest that having formal educational credentials is not an exclusive requirement for working in the IT sector, this does not seem to be the case when it comes to performing highly technologically complex tasks.

The quality of human resources is also demonstrated by the weak performance of Argentine students in PISA tests and the lack of ability among high school students to use computers for programming and creative tasks, according to some analyses (Gajst and Frugoni, 2016). This population would also have deficiencies in soft skills (leadership and teamwork, for example).

Thus, CESSI and the Ministry of Education, Culture, Science and Technology launched the *InverTI en Vos* program at the end of 2005, to disseminate the new possibilities of training and work in technological careers for students in the last years of secondary school; relying mostly on this ministry's ICT Scholarships program. At the end of 2006, a public-private campaign called *Generación TI* was launched to encourage young people to choose computing-related careers. Finally, the *Empleartec*¹⁷ plan (a successor to a similar one called *Becas Control +F/+A*) was a training initiative in information technology organized by the Ministry of Labor, Employment and Social Security (MTEySS) in conjunction with CESSI and several large sector companies (Bisang and others, 2016). The *Empleartec* plan offered free training courses in various areas within IT in most of the country's provinces. From its launch in 2008 to the end of 2016 (when it was discontinued), more than 35,000 people had received training.¹⁸

The *Desafío Dale Aceptar* program, launched by the Sadosky Foundation in 2012, is a notable example of programs with an impact

17 Part of the Continuous Training initiative of the MTEySS, with the support of the World Bank and the United Nations Development Program (UNDP). According to official sources, it was one of the 40 most successful sector programs undertaken within the framework of this initiative (Bisang and others, 2016).

18 See https://www.clarin.com/economia/campus/programadores-express-paliar-falta-perfiles_0_HJI_f_gjg.html.

on human resources for the information technology sector; it is a competition for secondary school students to promote ICT among them. Another notable one was the *La Empresa Informática va a la Universidad* (The IT Company Goes to University) initiative, created in 2013 for areas in universities for students to work and study in the same place, in order to reduce dropout rates (see Gajst and Frugoni, 2016). This program has now been discontinued, although the former one (*Desafío Dale Aceptar*) is still in force and implements successive annual editions.

In December 2015, the Technological and Productive Services Undersecretariat, under the Ministry of Production and Labor Secretariat of Industry and Services, was founded, representing a significant escalation in policies aimed at the modern services sector. It was headed by a person who had been president of CESSI and General Manager at Argencon, which reflected the priority the new Government conferred on modern services as key for its production and export transformation strategy.

The Undersecretariat launched initiatives in three areas (human resources, financing and regional development). At the same time, progress was made in the analysis and eventual reformulation of the current regulations on incentives (mainly the Software Law). In addition, the Undersecretariat authorities proposed the Government adopt a comprehensive plan for modern services sectors. In parallel, and showing a certain lack of coordination, other Ministry of Production and Labor secretariats commissioned studies from various international consulting firms to obtain diagnoses and propose policy initiatives for these sectors.¹⁹ The idea of forming an “advisory board” within this framework, made up of representatives of the private sector in different high-tech industries, circulated but was never established in practice.²⁰

These more ambitious initiatives entered an impasse in a context of strong fiscal restriction after the agreement reached by the Argentine

19 See <https://www.lanacion.com.ar/2111489-industria-40-presenta-el-gobierno-un-plan-para-modernizar-la-economia> and <https://www.infobae.com/economia/finanzas-y-negocios/2018/03/19/el-plan-del-gobierno-para-poner-en-el-centro-de-la-escena-productiva-a-la-economia-4-0/>.

20 See <https://www.infobae.com/economia/2018/03/24/consejo-de-notables-quienes-son-los-20-empresarios-elegidos-por-mauricio-macri-para-la-economia-del-futuro/>.

Government with the International Monetary Fund (IMF) in June 2018. In fact, in February of that year, before the agreement was concluded, as part of a significant cost-cutting exercise in the national public sector, the Technological and Productive Services Undersecretariat became the National Directorate of Knowledge-Based Services, within the Entrepreneurs and SMEs Secretariat of the Ministry of Production and Labor.

Before its dissolution, human resources was one of the areas in which the aforementioned Undersecretariat focused its attention to advance policy promotion: e.g. it launched the Knowledge Analysts Training Stimulus Program (*111 Mil*) in 2016. This initiative encompassed the teaching of both technical and soft skills to improve the employability of beneficiaries to access the labor market. Its specific objectives were to promote the following:

Technical capabilities in the modern service sector: it trained 100,000 knowledge analysts (computer programmers, audiovisual producers, engineering assistants or assistants in service companies) in 4 years.

Train 10,000 engineers related to the knowledge economy.

Find 1,000 entrepreneurs to create technology-based companies.

The first objective was the only one where practical progress was made. The program was structured through face-to-face courses of 500 hours duration aimed at youngsters over 16 years of age who had completed or were in the final year of secondary school. Although courses were planned for different job profiles, in practice only those aimed at training programmers were opened. This is not surprising, given that there was already a prior consensus on the need to train resources for this sector, as well as specific training initiatives that had been launched in the country (with the active participation of business associations), which did not occur in relation to the rest of modern services.

At the end of 2017, there were around 60,000 applications, half of whom were assigned courses, but only 18,000 actually began their studies. Throughout all provinces, 700 centers were opened (at both secondary- technical schools

and universities) with another 400 possible identified. Around half of the students had a secondary education and were inserted in the labor market but dissatisfied with their income or jobs. The rest were mainly computer science students looking for a quick job opportunity and professionals or technicians who wanted to reorient their career. Although only 600 course completion certificates were issued in 2017,²¹ it must be remembered that only a fraction of the 18,000 entrants had completed their studies by then, with many courses beginning in mid or late 2017. In interviews carried out within the framework of this analysis, it was mentioned that an average of 30% students completed the program and around 20% of the total took the final exam. Reasons given for dropping out included the lack of prior preparation; a disparity between the expectations of the entrants and the course content; and the difficulties in combining classes with working life.

From the financial point of view, the second key area of the former Technological and Productive Services Undersecretariat was that, within the framework of the FONAPYME program a special instrument for the software sector was included, intended for investment and working capital, with a determined quota, flexible guarantees and subsidized rates. For investment projects, there was a term of up to 7 years and a grace period, while for current expenses the term was up to 3 years. In addition, at the end of 2017, new credit lines were launched, in coordination with the BICE, aimed at software and computer services companies, with an interest rate discount for SMEs, applicable to advance investments, acquisition of local or foreign companies, pre-financing and financing of exports and guarantees of supply abroad.²²

As a final point, other initiatives from the Technological and Productive Services Undersecretariat were:

A program to strengthen regional capacities by developing strategic plans for technology poles and clusters linked to modern service sectors, and to detect the main obstacles to

21 See <https://www.infotechnology.com/online/Que-fue-del-plan-del-gobierno-para-crear-111-mil-empleos-20180323-0007.html>.

22 Also launched was the Presoft program, aimed at companies over 2 years old with up to 25 employees in a dependency relationship who were not included in the Software Law. The program granted non-reimbursable contributions (ANRs), which could represent up to 60% of the total cost of projects to develop external markets, certification of quality standards or R&D consulting. The intention was for companies to be in a position to benefit from the Software Law once these projects were completed. However, the program ended when the government decided to stop all existing ANR lines.

their development (e.g. business capacity and infrastructure). At present, there are 31 groups known with around 1,500 companies and 38,000 employees. However, the plans were not drawn up.

Sectoral meetings to develop action plans in areas such as marketing, advertising, architecture, engineering, video games, call centers, medical tourism, translations and electronic trade. These meetings made it possible to establish obstacles preventing export development in these segments.

Survey of regulatory obstacles to modern services exports in specific markets and participation in international negotiations related to the sector (including private sector training in this matter). One achievement in this regard was the signing of a double taxation agreement with Brazil, which was a long-standing request from local modern service providers.

The creation of the Knowledge Economy Observatory, mainly to monitor trends in modern service sectors at the global, regional and national levels. This observatory compiled periodic reports for public dissemination and provided information for government decision-makers.

C. The policy governance scheme for modern services

This section focuses on two human resources training initiatives for the sector mentioned in the previous section: the *Emploartec* and *111 Mil* programs. The first arrived at more than 80 stakeholders, including local and foreign companies, computer groups and poles, universities and other educational organizations. CESSI carried out the following tasks regarding the division of labor in the program: (i) preparation and presentation of the program to the MTEySS; (ii) coordination of the design and implementation of the courses together with the participating companies, institutions and universities; (iii) administration of funds received from the MTEySS; and (iv) control of program performance and results. The functions of the sponsoring companies were: (i) identify areas where there were gaps between supply and demand; (ii) establish the institutions to deliver the training courses; and (iii) ensure the technical and teaching quality of the

courses. The educational organizations and groups that taught the courses provided the infrastructure and logistics. The program paid for the teachers' and for the use of the training facilities. They also received state-of-the-art hardware to install in or improve their computer labs.

CESSI operated as the coordinator of the program on behalf of the private sector and as an interface with the MTEySS. In addition to financing the program, the role of the MTEySS consisted mainly of verifying whether its design and objectives were aligned with its own policy objectives; supervising proper implementation; and helping to disseminate employment opportunities among those trained. Other relevant features of the governance structure and operational dynamics of *Emptoartec* included:

Providing links between all the participants to facilitate their creation and implementation, together with the existing consensus regarding the need to increase the pool of qualified human resources. In particular, all the agents involved had participated in similar initiatives which were direct precursors of the *Emptoartec* program. This made it possible to better understand the supply and demand of the training market in this sector.

CESSI is a relatively young business association whose members are mostly university professionals working in a sector where technical change is rapid and the need to stay in touch with global business trends is pressing. This could help explain why CESSI has been so active in launching initiatives aimed at addressing the different challenges faced by the sector.

The main incentive for the private sector to participate was the fact that a lack of human resources is a problem for companies of all sizes and origins in any industry segment. In addition, the program was cheap, since the companies barely provided the educational material and partially allocated their employees' time to design and implementation. Participation not only made it possible for universities and groups to obtain financial resources and state-of-the-art equipment, but also helped in their institutional consolidation.

The division of labor established in the program was appropriate, insofar as the private sector better knows the skills required

and the entities that can deliver high-quality courses. Because of private participation, the state has access to information that would otherwise be very costly to compile. Meanwhile, the MTEySS has access to funds not available to the private sector; can establish adequate supervision mechanisms; and has a wide network of agencies to help disseminate the program and encourage the trained recipients to join the formal labor market. Finally, universities and other providers have contacts with the potential recipients of the courses and the teachers.

The program included courses that trained people in technologies owned by some of the sponsoring companies. However, the fact that many of the main market players were part of *Emploartec* and that it was open to the participation of all private companies contributed to reducing the risk that a small group of players could take advantage of it to reinforce use of its own technologies at the expense of other competitors; even certain open source technologies (like Linux) were part of the program. And although it could be thought that large companies benefited the most from the initiative, as they account for most of the demand for labor, the relief of the bottleneck in the labor supply favors all types of companies, as it helps to reduce pressures on wages and staff turnover.

Analysis of the program (Bisang et al., 2016) reveals that there was a learning curve during its implementation, as the composition, background and interests of potential students were not known at the beginning, so companies and trainers had to adjust the nature and content of the courses. According to some interviewees, this process helped improve the implementation of the courses and establish their target population more clearly.

The program ran for several years and was renewed on more than one occasion, until it was finally discontinued, largely due to the creation of the more ambitious *111 Mil* program. Its success was due the legitimacy and capacities of the private stakeholders involved; the consensus regarding the centrality of the problem of human resource training; and the creation of a specialized section within the MTEySS (Bisang et al., 2016).

The *111 Mil* Program is much more recent, and so a preliminary analysis only can be given. The curricular contents and courses are based on previous work carried out between the National Institute of Technological Education (INET) - under the Ministry of Education, Culture, Science and Technology, the CESSI and Argencon, which included an analysis of similar experiences carried out on a smaller scale in Argentina, as well as in other countries. This previous work led to the compilation of a document establishing the skills expected of a programmer, which was endorsed by the private sector as a way to facilitate the employment of graduates.

The courses are given free by the Ministry of Education, Culture, Science and Technology, which pays the instructors and educational entities, with the private sector and academia providing the teaching material. At the end, the students undergo an exam prepared and evaluated by a committee of academics, private sector representatives and the Sadosky Foundation. Teachers come from the educational field (secondary or university) or from the private sector. Among other functions, the Ministry of Production and Labor implements specific actions with a view to determining the training needs of knowledge analysts, in line with the demands and requirements of the production sector. In addition, it maintains a team of labor coordinators, whose function is to facilitate the access of graduates to jobs in the private sector. The program's advisory council is made up of a representative from each of the Technological and Productive Services Undersecretariat, the SME Policy and Management Undersecretariat and INET. The MTEySS and the Ministry of Health and Social Development also collaborate in the dissemination and implementation of the program (e.g. via leveling courses) and in the identification of trainers and beneficiaries.

A part of the analysis carried out for the *Emploartec* plan also applies to this initiative, including the existence of links between the stakeholders and consensus on the relevance of the problem addressed. However, the *111 Mil* program is more ambitious and involves more organizations and levels of government, which in turn caused some problems in its execution. In addition, the role of the state is more dominant with private participation limited to validation, dissemination, and support; in contrast with *Emploartec*, where the private sector played a key role in the design and implementation.

The resources to finance the *111 Mil* program come from pre-existing funds at the Ministry of Education, Culture, Science and Technology, which are transferred to the provinces and the university system. This can cause difficulties since the application of the funds to *111 Mil* may conflict with earlier objectives for these funds. It should also be noted that the promoter of the program is the Ministry of Production and Labor, while the interest of the Ministry of Education, Culture, Science and Technology depends largely on the objectives its authorities may have and the extent to which they internalize the training needs that come from the productive sector. Therefore, it is not surprising that, after the departure of the INET Executive Director, who had participated in the conception of the program, the enthusiasm (and willingness to contribute funds) on the part of the Education portfolio has waned.

A second conflict in coordination arises from the Argentine federal organization, where the provinces enjoy autonomy in terms of their educational system. As a result, the program had mixed results, both in terms of its dissemination and in opening the courses. This was not only due to the greater or lesser interest aroused in each case, but also to regulatory differences regarding the mechanisms for receiving and disposing of funds in each jurisdiction. The same happened with the level of teachers in charge (in some provinces the authorities rejected government assistance to select teachers, which in general ended up affecting the quality of teaching, taking into account the lack of trained teachers, particularly in the less developed provinces in the country). Finally, significant delays in teacher payments were found in some jurisdictions, and many teachers gave up taking part in the program.

This demonstrated the conflict between the good intentions of the program design and the complex reality resulting from implementing an initiative with a wide range of stakeholders, each with administrative autonomy and specific mandates. The Ministry of Production and Labor sought to federalize and expand the reach of the program to involve the provinces and their technical schools. In addition, since the Ministry of Education, Culture, Science and Technology was providing the funds, it was intended that the resilience of the program would be strengthened in the face of possible changes in authorities and priorities in the Ministry of Production and Labor. However, in practice, these intentions

faced barriers from the difficulty of coordinating agendas between organizations with different norms, objectives, cultures and interests, and in the absence of a clear superior mandate that would shield the program and legitimize it as a political priority at the highest level.

In fact, even when the curricular structure was agreed with the private sector, some observers questioned the relevance of the training offered.²³ Finally, the dissolution of the Technological and Productive Services Undersecretariat and resignation of the program promoter did not lead to the consolidation of an incipient initiative; with almost all the main officials of the former undersecretariat having left and work teams being disbanded (e.g. labor coordinators).

D. Conclusions

In the 2000s, Argentina seized the opportunities available in the global markets for modern services. Although export dynamism stagnated in the following decade, it continues to hold an important position in these markets, particularly when compared to other countries in the region.

No serious evaluation appears to have been made of the influence of public policies on this process. If there was one, it would probably have been limited to the software sector, which contributes just over 20% of the total exports of modern services. Even in this case, the impact of promotional laws is not clear, since large multinational software exporters, such as IBM, Tata and Hewlett Packard, are not beneficiaries of Law 26,692. This does not limit the interest in analyzing the governance of policies related to these sectors, but it highlights the need to implement permanent mechanisms for evaluating these policies as a central tool to decide on their continuity, objectives and features.

However, until Mauricio Macri became President, a body dedicated specifically to the modern services sector had not been created. Thus, the Technological and Productive Services Undersecretariat represented a step forward in forming a coherent strategy to support

²³ See <https://www.infotechnology.com/online/Que-fue-del-plan-del-gobierno-para-crear-111-mil-empleos-20180323-0007.html>.

these activities, which are of priority interest for the Government within its productive transformation project. The new body was constituted with professional personnel, and a leader who had extensive contacts and knowledge of the private sector, and who promoted a strategic agenda in the medium and long term, although this was never officially adopted.

Unfortunately, the continuity of public policies is not a strong point in Argentinian history and, just over two years after it was formed, the organization was replaced by a lower-level entity. Furthermore, in September 2018, within the framework of a significant adjustment of public accounts, the Government decided to add withholdings to exports of all services; although this went against the priority nature assigned to the sector.²⁴ This institutional breakdown did not necessarily translate into abandonment of the instruments; however, the initiatives introduced by the initial administration lost momentum, in part due to the general cuts in resources that had to be made in various areas of the State due to the need to reduce the fiscal deficit. Also, it seems to have been influenced by the fact that, even within the ministry itself that housed the dissolved undersecretariat, there was not total unanimity on the appropriateness of the policies it promoted.

Given that the flagship program of the undersecretariat, the *111 Mil* program, required not only horizontal cooperation (with other ministries), but also vertical (with provincial ones), the lack of a higher-level coordinating mechanism or body ended up seriously hindering its implementation. Furthermore, although the program, and in general the actions of the undersecretariat, were developed as part of the framework of express channels of cooperation and trust with the private sector, these alliances were not enough to give greater resilience to the policies. At this point, it is important to add that different indications suggest that the government sector itself may not be able to completely agree on who the valid interlocutors in the private sector are.

The analysis of this case provides at least two lessons: The first is that, if the highest authorities do not consider the programs to be a priority, they are more exposed to budget cuts (even when the benefited sector was considered a priority, as happened in this case). The second

24 Withholdings were set at values similar to that applicable to agricultural products and higher than for industrial goods.

is that it is difficult to propose policies that require cooperation with other areas of government, both central and subnational, each with their specific objectives, routines and interests, if there are no clear coordination or leadership mechanisms.

Before closing the chapter, a comment should be made about the almost exclusive centrality that the software and computer services sector has had in the policy agenda related to modern sectors. Possible explanations for this phenomenon include: (i) it was the first to show significant export dynamism in the new millennium, largely due to the accumulation of capacities in the two decades prior to the export boom; (ii) there is a representative business association for the industry (CESSI) recognized as a leader by companies which has been able to establish close relationships with the public sector at different stages and levels; (iii) software is recognized as a technology with a broad potential for production and technological transformation and the ability to contribute to the dissemination of knowledge across many sectors, and (iv) the software industry is more easily recognizable as a sector deserving of preferential treatment in public and political debate than other modern service sectors whose business is perhaps more difficult to explain to a non-specialist public. All of the above factors also contribute to explaining the intense lobbying of industry representatives to defend the extension of the benefits of the aforementioned Software Law (which lasted until 2019).

The following are potential future challenges: (i) expansion of the agenda to other modern service sectors, to avoid possible sequestering of that agenda by the software sector;²⁵ (ii) consolidation of leadership and coordination mechanisms for policies related to the sector at the national level and formation of stable spaces for articulation with the provinces and the private sector; (iii) incorporation of links with the local production fabric among policy objectives for modern sectors which go beyond the promotion of exports, while seeking to enhance the systemic competitiveness of the local economy; and (iv) strengthening

25 In fact, instead of extending the Software Law, a Knowledge Economy Law (number 27,506) was enacted in 2019 that partially reformulates the tax benefits scheme of the previous law and extends them to a set of knowledge-intensive sectors, including almost all modern services.

the institutional framework of territorial clusters and poles as a way to promote greater links between modern service providers and the flagship production activities of each region.

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Chapter II

Brazil: Government initiatives focused on the domestic market

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Joanna Peluffo²

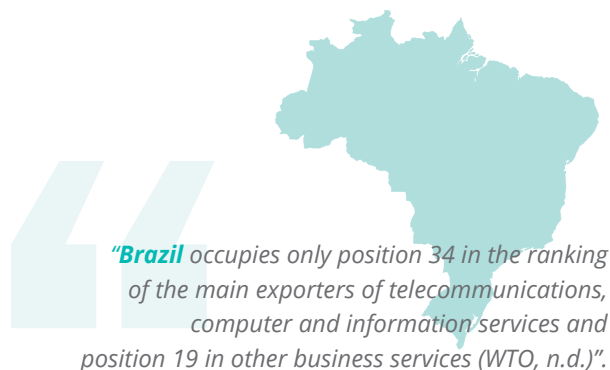
Introduction

Brazil is the largest exporter of modern services in Latin America; this is not surprising given that it is the largest economy in the region and the 8th in the world. However, compared to its developing peers in the BRIC group (Brazil, the Russian Federation, India and China), it has very low levels of penetration of international markets. Brazil occupies only position 34 in the ranking of the main exporters of telecommunications, computer and information services and position 19 in other business services (WTO, n.d.).

Between 2007 and 2017, Brazil's modern services exports grew at a rate higher than those of China and India (WTO, n.d.). Furthermore, at the beginning of that period, modern services surpassed traditional exports for the first time and, by 2017, accounted for two-thirds of total services exports (WTO, n.d.). However, modern services producers mainly focus on the domestic market. In

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2015, only 3% of Brazilian IT services companies sold their solutions to the international market (EUBrasil, 2015).

Brazil's poor performance in the international market is primarily due to its low labor productivity and strict regulatory barriers. Neither the industrial policies of the 2010s nor the science and technology strategies managed to change this situation. These challenges are closely linked to low awareness of the sector's potential among policy makers. As opposed to comprehensive awareness at the federal government level, the governance of the modern services sector has consisted of isolated efforts by a handful of government ministries or agencies.

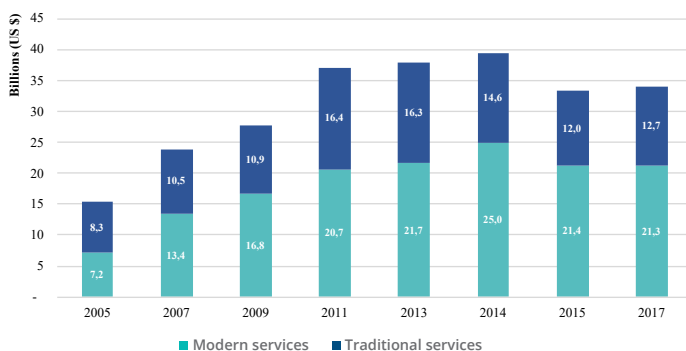
This chapter is organized as follows: Section A describes the evolution of modern services exports from Brazil; Section B analyzes the governance of the sector and describes the cross-sector and individual sector initiatives taken by the federal government over the last 10 years; Section C evaluates the quality of governance according to the principles of Devlin and Moguillansky (2011); and Section D sets out the findings in light of good practices and the challenges ahead, and provides some policy lessons. Section A is fundamentally based on the use of statistical information available from the World Trade Organization (WTO); while sections B and C are supported by the review of publicly available documentation and information, as well as interviews with public and private officials and sector experts.

A. Performance of modern services exports

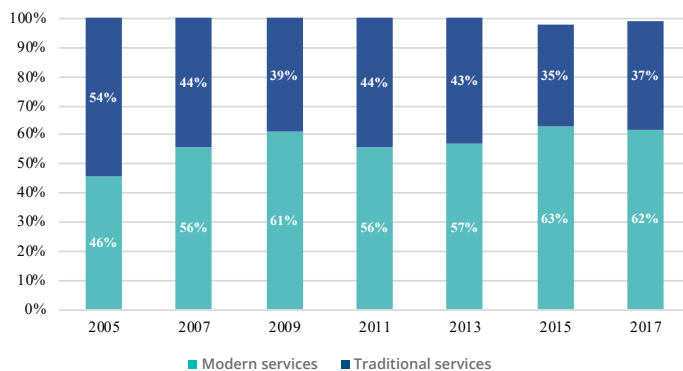
Brazil exported \$34.5 billion in services (WTO, n.d.) in 2017, of which 62% corresponded to modern services and 37% to traditional services. The former surpassed the latter for the first time in 2007, and from then, modern services exports grew at an average annual rate of 6%, until 2017, from \$7,200 million to \$21,300 million (see Figure II.1). During the same period, the annual average growth in traditional services was 3% (WTO, n.d.).

FIGURE II.1
Brazil: Service exports by category, 2005-2017

A. In billions of dollars



B. As a percentage

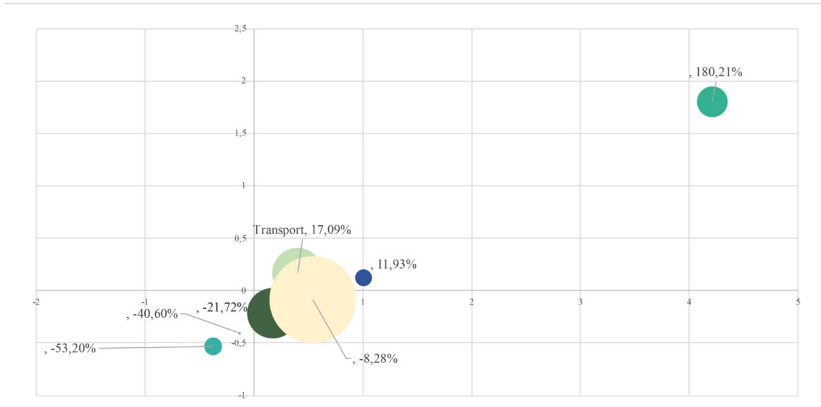


Source: Elaboration by the authors on the basis of World Trade Organization (WTO) data, "Statistics Database", Washington, DC <http://stat.wto.org/StatisticalProgram/WSDBStatProgramHome.aspx?Language=E>.

Figure II.2 illustrates the evolution of modern services exports compared to traditional services. Between 2007 and 2017, the most significant change was in telecommunications, computer and information services (or IT services), which more than quadrupled between 2007 and 2017 (WTO, n.d.). However, the most significant category in terms of exports in 2017 was that of other business services, which experienced substantially lower growth, with values slightly higher than that of transport services.

While modern services account for almost two-thirds of services exports, changes in world market share are similar to those of traditional services. The exception is the IT sector, which experienced an average annual growth of 18% in its share of world exports, driven by technological change and strong demand from customers in the United States (see Figure II.2).

FIGURE II.2
Brazil: Changes in Services exports worldwide,
by category, 2007-2017
(By percentage)



Source: Elaboration by the authors on the basis of World Trade Organization (WTO) data, “Statistics Database”, Washington, DC <http://stat.wto.org/StatisticalProgram/WSDBStatProgramHome.aspx?Language=E>.

N.B. The size of each circle represents the absolute value of Brazil's exports in the corresponding sector in 2017. The percentage shown in each circle represents the percentage change in the international market for the period 2007-2017.

Despite its continental dimensions, Brazil represents a very small share of the international modern services market compared to most of its peers: the world's 8th biggest economy accounts for 0.45% of world exports of computer services (30 times less than India) and 1.44% of the world total for other business services (4 times less than India) (WTO, n.d.). Unlike their peers in the BRIC group, where modern services have played a predominantly exporting role, in Brazil they continue to serve mostly the domestic market (Fleury and Fleury, 2011). In 2015, only 3% of Brazilian software companies were actively participating in the international market (EUBrasil, 2015).

The low international insertion of the country is linked to great challenges of competitiveness, related to low levels of labor productivity and high regulatory barriers (Arbache, Rouzet and Spinelli, 2016; Sturgeon, 2016).³ In the specific case of call center services, which are oriented to both exports and the domestic market, the shortage of English-speaking human capital is another bottleneck. Regulatory barriers and high operating costs affect not only trade in services, but also the attraction of foreign direct investment. Unlike peer economies such as China, India and Mexico, Brazil has not been able to attract export-oriented investment.

It should be noted that the presence of leading outsourcing service providers, such as Tata Consulting Services and Infosys, is due only to the attractiveness of the Brazilian market and not to the international offshoring model that these companies pursue. As with large high-tech multinationals, such as Dell, Samsung and Intel, the aforementioned Indian suppliers came to Brazil during the 2010s to capture a portion of the local market. In fact, if the Global Services Location Index (GSLI) of A.T. Kearney excludes the indicator that measures market size (see Table II.1), Brazil falls from position 5 to 24; above South Africa (26), China (28) and Argentina (29), but below Ghana (12), Pakistan (22) and Jamaica (23), (A.T. Kearney, 2017).

³ Brazil has very low productivity in the service sector, and international insertion is among the variables most closely linked to this. The low level of international integration and low productivity are two sides of the same coin.

TABLE II.1
Global Services Location Index, 2017^a

| Country | Financial attraction (a) | Availability and quality of talent (b) | Business environment (c) | (a)+(b)+(c) | GSLI Ranking | (a)+(c) | Ranking excluding (b) |
|---------------------|--------------------------|----------------------------------------|--------------------------|-------------|--------------|-------------|-----------------------|
| India | 3.30 | 2.63 | 1.14 | 7.07 | 1 | 4.44 | 6 |
| China | 2.37 | 2.69 | 1.26 | 6.32 | 2 | 3.63 | 28 |
| Malaysia | 2.92 | 1.47 | 1.72 | 6.11 | 3 | 4.64 | 1 |
| Indonesia | 3.25 | 1.53 | 1.20 | 5.98 | 4 | 4.45 | 5 |
| Brazil | 2.65 | 2.02 | 1.27 | 5.94 | 5 | 3.92 | 24 |
| Vietnam | 3.31 | 1.39 | 1.22 | 5.92 | 6 | 4.53 | 3 |
| Philippines | 3.13 | 1.57 | 1.17 | 5.87 | 7 | 4.3 | 10 |
| Thailand | 3.06 | 1.38 | 1.43 | 5.87 | 8 | 4.49 | 4 |
| Chile | 2.54 | 1.33 | 1.88 | 5.75 | 9 | 4.42 | 7 |
| Colombia | 2.85 | 1.45 | 1.43 | 5.73 | 10 | 4.28 | 11 |
| Sri Lanka | 3.42 | 1.07 | 1.22 | 5.71 | 11 | 4.64 | 2 |
| Mexico | 2.72 | 1.61 | 1.35 | 5.68 | 13 | 4.07 | 21 |
| Egypt | 3.37 | 1.26 | 0.99 | 5.62 | 14 | 4.36 | 9 |
| Peru | 2.97 | 1.19 | 1.25 | 5.41 | 20 | 4.22 | 13 |
| Bangladesh | 3.34 | 1.23 | 0.80 | 5.37 | 21 | 4.14 | 17 |
| Morocco | 2.90 | 1.10 | 1.29 | 5.29 | 27 | 4.19 | 16 |
| Pakistan | 3.35 | 1.30 | 0.63 | 5.28 | 30 | 3.98 | 22 |
| Ghana | 3.11 | 0.94 | 1.13 | 5.18 | 33 | 4.24 | 12 |
| Mauritania | 2.56 | 0.97 | 1.64 | 5.17 | 34 | 4.20 | 15 |
| Tunisia | 3.17 | 0.79 | 1.20 | 5.16 | 35 | 4.37 | 8 |
| Argentina | 2.37 | 1.53 | 1.25 | 5.15 | 36 | 3.62 | 29 |
| Turkey | 2.32 | 1.45 | 1.32 | 5.09 | 38 | 3.64 | 27 |
| Kenya | 3.03 | 0.97 | 1.09 | 5.09 | 39 | 4.12 | 18 |
| Trinidad and Tobago | 2.50 | 0.98 | 1.59 | 5.07 | 40 | 4.09 | 20 |
| Panama | 2.55 | 0.80 | 1.67 | 5.02 | 41 | 4.22 | 14 |
| Jamaica | 2.65 | 1.03 | 1.33 | 5.01 | 43 | 3.98 | 23 |
| South Africa | 2.42 | 1.15 | 1.36 | 4.93 | 45 | 3.78 | 26 |
| Uruguay | 2.27 | 0.97 | 1.65 | 4.89 | 46 | 3.92 | 25 |
| Senegal | 3.05 | 0.73 | 1.05 | 4.83 | 48 | 4.10 | 19 |

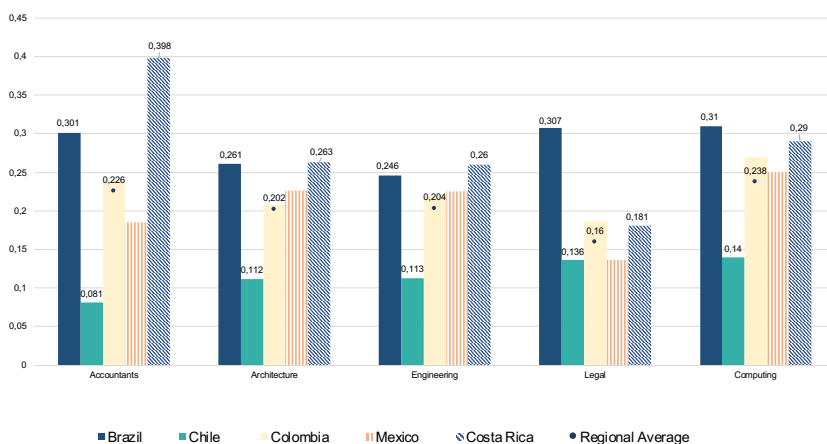
Source: A.T. Kearney, "The widening impact of automation", 2017 [<https://www.kenarney.com/digital-transformation/article/?a/the-widening-impact-of-automation-article>].

N.B. Countries considered high-income according to the World Bank are excluded.

Regarding the regulatory barriers that influence its low participation in the international market for modern services, Brazil is the most restrictive country in Latin America in the trade of modern services, including accounting, architectural, engineering, legal and computer science services, according to the Services Trade Restrictiveness Index (STRI), see Figure II.3.⁴

In recent years (2014 to 2017), Brazil experienced a slight deterioration of the STRI indicator in all the aforementioned categories, going from 0.26 to 0.28 on average (OECD, n.d.).

FIGURE II.3
Brazil and other countries:
selected modern services sectors in the Services Trade Restrictiveness Index (STRI)



Source: Elaboration by the authors on the basis of the Organization for Economic Cooperation and Development (OECD) data, “Services Trade Restrictiveness Database”, Paris, <http://www.compareyourcountry.org/service-trade-restrictions?cr=oe&lg=en&page=0&charts=1+c1489763242568+c1489763243858+c1489763957370&template=1> (s/fb).

⁴ STRI values range between 0 and 1, with 1 being the most restrictive. They are calculated from the STRI database according to the regulations of the 34 members of the OECD, plus Brazil, China, Russian Federation, India, Indonesia and South Africa. The index presents the first set of indicators related to computer services, taking into account the regulations in force in 2013. The scores for this category range from 0.08 to 0.34, with a sample average of 0.18.

The most significant restrictions in Brazil cut across the entire service economy, in addition to specific restrictions placed on certain sectors of modern services. Within the first group, the following 10 stand out:

- (i) To register a new company, it takes 11 administrative processes and 80 days; 50 days more than the Latin American average;
- (ii) Establishing a foreign affiliate requires the promulgation of an executive decree by the federal government;
- (iii) For any job vacancy in a service provider, preference has to be given to Brazilian citizens; with foreigners being employed only if they demonstrate superiority in the relevant skills;
- (iv) At least two-thirds of the workers in national companies must be Brazilian citizens;
- (v) Foreigners cannot acquire property owned by the federal government without the prior permission of the President;
- (vi) Royalty payments for the use of patents and trademarks between branches or subsidiaries located in Brazil and their parent companies abroad are not allowed (or when the majority of the company's capital in Brazil belongs to a foreign recipient);
- (vii) Registration with the Central Bank is required for foreign payments, repatriation of capital and control of profit reinvestment;
- (viii) Movements of personnel within the same company require a temporary visa by the transferred person and the period of stay must last as long as their employment contract, with a limit of 2 years;
- (ix) Work permits for foreigners traveling to Brazil for the purposes of technical assistance or technology transfer services are valid for 1 year, and may be extended for a further 24 months, as long as the foreign firm signs an agreement with a Brazilian resident, and
- (x) In the public procurement process, differential treatment between Brazilian and foreign firms is not allowed; however, the law provides for the possibility of establishing margins of preference by decree (Arbache, Rouzet and Spinelli, 2016; OCDE, n.d.).

These restrictions limit the entry of firms and non-residents or make it more expensive, acting as barriers to attracting multinationals. These operations usually lead to highly qualified jobs and technology spills through the movement of human capital (Couto, 2018).

Specific regulations are basically those that limit the movement of people through the obligatory nature of association in local organizations (Reis and others, 2018). These vary depending on the type of modern services sector:

Legal and Accounting Services: Only Brazilian licensed attorneys can hold shares in law firms. Foreign lawyers and accountants can register after passing an exam, or they can practice the law of their home country and international law, as foreign law consultants (OECD, n.d.).

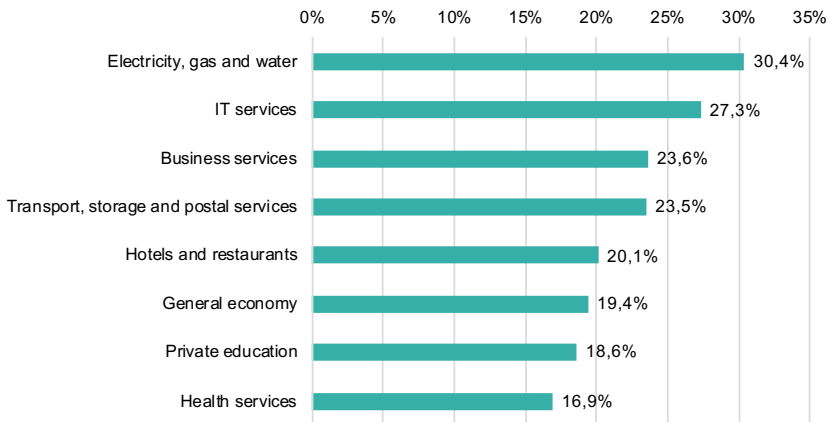
Engineering and architecture services: Law 5,194 (1996) obliges foreign engineers and architects to register with the Federal Council of Engineering and Agronomy (CONFEA) through the local Regional Council of Engineering, Architecture and Agronomy (CREA). This registration can take up to 3 years and is subject to the discretion of the corresponding CREA (Reis et al., 2018). In addition, foreign engineers and architects who want to provide services in Brazil must obtain a temporary or permanent work visa and have their university degree certified. Also, the management staff of companies in these sectors must be made up of residents (OECD, n.d.). CONFEA reserves the right to decide the tasks that registered engineers can perform; this is contrary to good practice that indicate these should be established in formal lists drawn up by independent bodies (Reis et al, 2018). Finally, Brazil is not a party to any of the international agreements for the mutual recognition of engineering programs.⁵

Another group of restrictions on trade in services is made up of differential tax regimes. In general, services are taxed more than other sectors of the economy (Arbache, Rouzet and Spinelli, 2016). In turn, the average tax burden on modern services is higher than that of traditional

⁵ These include the Washington Accord for Engineers; Sydney Accord for Engineering Technologists; Dublin Accord for Engineering Technicians.

services (see Figure II.4). Also, Law 10,168 (2000), which provides for the contribution and intervention in the economic domain (CIDE-Remessas), imposes a 10% trade tax on a wide range of modern services, including royalties, technical services and other payments for technology transfers and technical assistance (Arbache, Rouzet and Spinelli, 2016; OECD, n.d.).

FIGURE II.4
Brazil: tax burden by service sector, 2013
(Percentage)



Source: Elaboration by the authors on the basis of J. Arbache, D. Rouzet and F. Spinelli, "The role of services for economic performance in Brazil", Trade Policy Papers, no 193, Paris, Organization for Economic Cooperation and Development (OECD), 2016, p. 15 <http://dx.doi.org/10.1787/5j1pl4nx0ptc-en>.

Regulatory and tax obstacles are closely linked to the Government's lack of awareness of the potential of the sector. In general, government authorities are unaware of the economic, social and environmental benefits of modern services compared to those of the manufacturing sector or traditional services. Although this is common in developing countries, Brazil lags behind other countries in the region in this sense. While these countries have historically been agricultural or industrial, they have developed policies and strategies oriented towards the promotion of modern services exports.⁶

⁶ For example, the Uruguay XXI Global Services Program (Uruguay) and others cited in this chapter.

B. Policy governance for the export of modern services

After more than a decade of expansion of modern services (2007 to 2017), the Brazilian Government has not yet designed a comprehensive and specific public policy geared towards the development of the sector (Marconini, 2012; EUBrasil, 2015; Arbache, Rouzet and Spinelli, 2016; Cesar de Oliveira, 2017). The review of the industrial policies implemented between 2000 and 2018 reveals a lack of awareness about modern services. The manufacturing sector is at the epicenter of interventions; while the tertiary sector is referred to as a whole (goods and services), without explicit reference to modern sectors.⁷

Industrial policies lack strategies specifically directed towards the export of modern services. Along the same lines, no instruments have been formulated to facilitate trade or preferential treatment given to reduce regulatory, tax or administrative barriers. Finally, none of the industrial policies of the last few decades have created an effective governance structure for the export of modern services.

As is often the case in developing countries, the exception is the information technology sector, which was called “strategic” in industrial policies of the second half of the 2000s. The first support instrument, within the framework of industrial policies, was the Goods Law (still in force), which allows financing through non-reimbursable funds and tax credits, investment in R&D, scientific and technological research and the hiring of doctors in related subjects (Arbache, Rouzet and Spinelli, 2016; Santarcángelo, Schteingart and Porta, 2018).

The governance of modern services exports began to slowly bear fruit in the mid-2010s, with the formulation of the TI Mayor Program and the National Export Plan (PNE). These were designed by the Ministry of Science, Technology, Innovations and Communications (MCTIC) and the Ministry of Industry, Foreign Trade and Services, respectively. The TI Mayor Program (hereinafter, PTIM) is a broad scheme dedicated to enhancing Brazil’s competitiveness in the IT sector. Its main focus is the attraction of international R&D centers. While most of the instruments

⁷ Reference is made to the Industrial, Technological and Foreign Trade Policy 2004-2008 (PITCE), the Production Development Policy 2008-2010 (PDP), the Brazil Mayor Plan 2010-2015 and the Plan Brazil More Productive (from 2016 to present).

created by the PTIM continue to successfully promote the Brazilian IT sector (e.g. Startup Brasil and Brasil IT+), the innovation goals linked to attracting sophisticated foreign direct investment were not achieved. The operations established under the program are characterized by minimum levels of complexity and mainly serve the domestic market. Also, job creation and total investment is small considering the size of the Brazilian market; with just 300 people employed and \$400 million in total investment (OECD, 2015).

In 2015, the federal government announced the PNE 2015-2018, with the specific objective of promoting foreign trade opportunities and expanding the incorporation of value and technological intensity to exports (Arbache, Rouzet and Spinelli, 2016; Santarcangelo, Schteingart and Porta, 2018). Modern services were included in 4 of its 5 strategic lines, with no changes in tax made. Thus, no initiatives were envisaged to alleviate the tax burden of service imports or any tax reimbursement schemes for service exporters (Arbache, Rouzet, and Spinelli, 2016). The specific treatment granted to modern services is summarized below (Arbache, Rouzet and Spinelli, 2016; MDIC, 2015):

Access to markets:

Expand the Supplementary Economic Agreement, no 53 between Brazil and Mexico, to incorporate measures for services, electronic trade, intellectual property and others related to the trade of goods.

Continue negotiations on the thematic expansion of Brazil's trade commitments with Latin American countries, while highlighting matters concerning trade in services and government purchases.

Start trade and investment negotiations with new countries, including a regulatory convergence and trade facilitation agreement with the United States, the leading importer of Brazilian IT services.

Business promotion:

Develop a business intelligence methodology for the service sector, through market studies to 32 prioritized destinations.

Simplify the foreign trade operations in services registry within the scope of the Integrated System for Foreign Trade

in Services, Intangibles and Other Operations Producing Changes in Wealth (SISCOSERV).⁸

Trade facilitation:

Include the service sector in the Exporter Showcase program.⁹

Implement the WTO Agreement on Trade Facilitation.

Streamline administrative procedures related to importing services through the SISCOSERV platform.

Develop a unified system for collecting taxes.

Make progress in the implementation of authorized economic operators.

Financing and guaranteeing exports:

Include more service sectors (in addition to those related to information technology) in the eligibility and scope guidelines for credit instruments from the National Bank for Economic and Social Development (BNDES).

Towards the end of 2016, the PNE objectives still lacked concrete implementation; with only isolated and ineffective actions being undertaken (Arbache, Rouzet and Spinelli, 2016). Although the PNE was meant to function until 2018, its implementation was halted after the removal of President Dilma Rousseff in 2016. The Government has not officially closed it, but the organizations involved point out that the PNE no longer retains its national and strategic policy status (SCS, 2018).

Thus, as opposed to comprehensive awareness at the federal government level, governance of the modern services sector has been characterized by isolated efforts from a handful of government ministries or agencies, as described in the following subsections.

8 SISCOSERV is a computerized system developed to improve the formulation, monitoring and evaluation of public policies related to the export of modern services, as well as to guide business strategies. The system complies with the guidelines of the General Agreement on Trade in Services (GATS) of the World Trade Organization (WTO), approved by Legislative Decree no. 30, December 15, 1994, and promulgated by Decree No. 1,355, December 30, 1994.

9 The Exporter Showcase is a communication tool in a simple company search format, available in English, Spanish and Portuguese. Companies can be searched by name, balance of payments position, description of the services they provide, business sector, destination region and service value range.

1. Description of entities involved in the governance of modern services

The most relevant public and private agencies in the governance of the modern export services industry are described in Tables II.2 and II.3, respectively.

TABLE II.2
Brazil: Public stakeholders involved in governance for the export of modern services

| Name | Organizational structure | General description | Role in the services trade |
|-----------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Secretary of Commerce and Services (SCS) | Part of the Ministry of Industry, Foreign Trade and Services (MDIC) | First government agency focused on the sector | <ul style="list-style-type: none"> – Relatively little promotion of modern services exports – Serves broad segments of the economy, significantly different from modern services, particularly in terms of value added and intensity of highly qualified human capital. |
| Ministry of Science, Technology, Innovations and Communications | Part of the federal Government | Responsible for setting national scientific, technological, innovation and communications research policies | <ul style="list-style-type: none"> – Concentrates efforts to increase the export of IT services and improve its competitiveness. |
| APEX-Brasil | Governed by a council of 5 ministries within the federal government: Office of the Executive Secretariat of the Investment Alliances Program; Foreign Chamber of Commerce (CAMEX); BNDES and other government and private agencies. | Established in 2003 to promote Brazilian products and services abroad and attract foreign investment for strategic sectors of the economy | <ul style="list-style-type: none"> – There are 2 sector specialists responsible for the international promotion of Brazil as an exporter of video games and IT services; they collaborate with private sector representatives. – There are no known roadmaps or program guidelines for international promotion or attraction of specific investments for these services (video games and IT services) or other modern services. |

Source: Elaboration by the authors on the basis of the Brazilian Agency for the Promotion of Exports and Investments (APEX-Brasil), “Federal Incentives”, Brasília, <http://www.apexbrasil.com.br/incentivos-federais>; Presidency of the Republic, “Plan Alto. Lei N°10.668”, 2003 [en línea] http://www.planalto.gov.br/ccivil_03/leis/2003/110.668.htm; SCS (2018).

N.B. In October 2018, Federal Government announced the merger of this Ministry with the Ministry of Finance (América Economía, 2018).

TABLE II.3
Brazil: Private stakeholders involved in governance for the export of modern services

| Name | General description | Role in the services business |
|-----------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Brazilian Association of Information Technology and Communications Companies (BRASSCOM) | Private entity representing 68 companies and 24 institutions to promote communication between the ICT sector and public bodies. | <ul style="list-style-type: none"> - Unlike a decade ago, the themes and achievements of the current agenda have no clear focus on exports or in attracting investment. Examples of initiatives developed in its field of work focus on the domestic market. Notable reforms are the deregulation of digital government, labor reform, outsourcing law and public defense, with a view to Brazil entering the Organization of Economic Cooperation and Development (OECD). |
| Brazilian Foreign Trade Association (AEB) | A private, non-profit entity founded in 1970 to bring together companies that export goods and services. | <ul style="list-style-type: none"> - The AEB holds an annual foreign trade in services meeting (ENASERV). In general, it works in alliances with the MDIC and other private services confederations. |
| Association for the Promotion of Excellence in Brazilian Software (Softex) | Founded in 1992 as a public program for the promotion of activities related to information technology, Softex is today a social-civil organization of public interest that carries out actions aimed at improving the competitiveness of the Brazilian IT services industry. | <ul style="list-style-type: none"> - Manages the system that provides financial resources to the IT services sector and is thus one of the institutions that support the export of modern services. |

Source: Elaboration by the authors on the basis of the Brazilian Association of Information Technology and Communications Companies (BRASSCOM), "Agenda Comum", São Paulo, s/f <http://dev-brasscom.primaestudio.com.br/atuacao/agenda-comum>; Association for the Promotion of Excellence in Brazilian Software (Softex), "Conselho de Administração" (Board of Directors), Brasília, <https://www.softex.br/a-softex/conselho-de-administracao>.

In the public sphere, the Secretariat of Commerce and Services (SCS) is a recent and relatively small body of 27 technicians and professionals and 11 support administrators with an important role (SCS, 2018). In general, it is responsible for identifying, formulating and implementing public policies and strategies to stimulate exports of services, both modern and traditional.

The SCS pursues goals similar to those set by the PNE in 2012, established in the 2016-2019 Multi-year Plan. By June 2017, it had included

1,500 service sector companies on the database prepared for the promotion of exports (Exporter Showcase). However, as of January 20, 2019, only 3% of the service firms incorporated into 4 of the modern services categories (information technology, engineering, architecture and other business) belonged to the category of interest. Specifically, the search tool found 23 companies in other business services, 11 in information technology, 11 in engineering and 3 in architecture. Of this total, only 2 companies register exports to the United States (Brazilian Exporters, 2019). Other goals have not yet been achieved, such as the development of a business intelligence methodology for the service sector and the improvement of the SISCOSEV tool for simplifying data inclusion (MDIC, n.d.).

The SCS is the Government's main communication channel with the private sector. To promote coordination among the numerous private agents involved in the production of services, in 2017 the SCS proposed the formation of a technical group on services (although not necessarily modern), within the orbit of the Executive Secretariat of the Chamber of Foreign Commerce (CAMEX).¹⁰ This group is responsible for the inter-ministerial and public-private coordination of the service sector to promote the discussion of 4 themes: (i) taxation in trade in services; (ii) financing and guarantees for services exports; (iii) regulation; and (iv) business facilitation. Within this framework, the SCS meets once or twice a year with representatives of the private sector in the so-called service sector competitiveness forums (FCSS), representatives of various ministries and almost 30 business associations to gather information about the vision of exporters. Its objective is to establish the priorities regarding the preparation of a services competitiveness agenda (SCS, 2018). The FCSS is made up of over 27 private trade and service institutions, but only 8 are strictly involved in the modern services trade: APEX-Brazil, Brazilian Association of Engineering Consultants, Independent Audiovisual Brazil, Brazilian Association of Information Technology and Communications

10 CAMEX is a member body of the Governing Council of the Presidency of the Republic, and is responsible for the formulation, implementation and coordination of policies and activities related to the foreign trade of goods and services. It is made up of the Head of State of the Presidential staff (president of the council); the Minister of Industry, Foreign Trade and Services; the Minister of Foreign Affairs; the Minister of Finance; the Minister of Transport, Ports and Civil Aviation; the Minister of Agriculture, Livestock and Supply; the Minister of Planning, Development and Management; and the head of the General Secretariat of the Presidency of the Republic (MDIC, n.d.).

Companies (BRASSCOM), National Confederation of Services, Brazil Council of Architecture and Urban Planning, Architecture and Engineering Union and Association for the Promotion of the Excellence of Brazilian Software (Softex). The FCSS is supplemented by public consultations and ad hoc digital communications with companies and ministries (SCS, 2019). As of February 2019, the SCS was awaiting the decision of a public consultation on the development of a government agenda that would include public-private partnerships.

Notwithstanding the efforts related to the formulation of the competitiveness agenda, the SCS took few actions to promote modern services exports. There are 3 underlying reasons for this situation. First of all, the SCS serves a wide cross-section of the Brazilian services economy including many other activities than modern services, especially in terms of value added and the intensity of highly qualified human capital (e.g. e-commerce segments, franchises, shopping centers and supermarkets). Secondly, the SCS mostly addresses demands from the private sector that focuses on the domestic market (e.g. on tax simplification and regulatory framework issues). Finally, the work of the SCS regarding modern services faces special challenges in a political scenario that lacks adequate awareness of the benefits of the sector, especially from the point of view of economic growth and social contributions.

Meanwhile, the Ministry of Science, Technology, Innovations and Communications (MCTIC) is the main government agency in the governance of the IT services sector. However, in recent decades it has focused its efforts on producing the infrastructure necessary to develop the digital and electronic trade agenda, within the domestic market.

Finally, although the APEX-Brazil agency works for some modern services through sector specialists, a team of professionals especially dedicated to the challenges of international competitiveness in the modern services sector has not yet been established.

The most important private organizations in the governance of the modern export services sector are the Brazilian Association of Information and Communication Technologies Companies (BRASSCOM), the Brazilian Foreign Trade Association (AEB) and Softex.

Within the framework of the governance of modern services, Softex is the main representative of the information technology sector. It is a

social-civil public interest organization that carries out actions to improve the competitiveness of the Brazilian information technology services industry, as well as the availability of qualified human resources. It has a Board of Directors, which is the collegiate body of higher consultancy, made up of representatives of different entities of the public administration and civil and regional associations (Softex, n.d.). The organization manages the Softex System, which benefits more than 6,000 companies throughout the national territory through a network of 23 regional agents across 13 Brazilian states and the Federal District.

Another reference in this regard is BRASSCOM, which was very active during the 2000s, but in recent years has focused more on domestic issues associated with the digital economy. In this sense, BRASSCOM has had different levels of participation in the governance of the modern services industry. In 2004, it was the only organization that promoted Brazil as a favorable platform for the relocation of modern services operations; filling a void that had existed until that moment. From 2007 to 2009, it carried out an intense international promotion campaign with the support of A.T. Kearney, with the aim of placing Brazil in the first three positions of the GSLI ranking (Hannah and Knight, 2011). Since then, its role in the governance of the sector has diminished.

BRASSCOM is currently responsible for promoting the digital economy in the domestic market, so its initiatives are not focused on exports or attracting investment. The strategies developed within the scope of its agenda have a bias towards the domestic market. Notable among them are the reforms aimed at the deregulation of the digital government, labor reforms, the outsourcing law and public defense with a view to the accession of Brazil to the OECD (BRASSCOM, n.d.).

2. Main initiatives to promote exports of modern services

This section analyzes some of the most important public and public-private initiatives related to the export of modern services implemented in the 2012-2018 period. Two categories of initiatives are highlighted: (i) cross-sector ones, designed with the objective of enabling improvements in business conditions and competitiveness of modern services companies, and (ii) sectoral ones, highly concentrated in the software and IT services

sector, albeit with some progress for the engineering and architecture sectors. The initiatives and their status at the end of 2018 are described below.

a) Cross-sector initiatives

Based on the size of the Brazilian market and the range of sector services policies, special emphasis will be placed on formulating and implementing interventions to improve the country's competitiveness in modern services or exports of this type of services.

The biggest initiative aimed at promoting Brazilian exports of modern services is the Integrated System for Foreign Trade in Services, Intangibles and Other Operations Producing Changes in Wealth (SISCOSERV). It is a compulsory computerized register for the international trade in services operations in Brazil,¹¹ created in 2005 and which is currently administered and monitored by the SCS of the MDIC and the Federal Revenues Secretariat (RFB).¹²

SISCOSERV pursues ambitious universal objectives, some notable ones being: (i) improving actions to stimulate, formulate, monitor and evaluate public policies related to services and intangibles; (ii) monitoring the various mechanisms for promoting foreign trade in services; (iii) strengthening the country's participation in international services trade flows; and (iv) guiding business strategies and international negotiations on foreign trade in services, through the provision of commercial intelligence instruments (MDIC, n.d.).

Without prejudice to the universal nature of its scope, SISCOSERV is a model initiative in the recording of statistics on modern services at the regional and international level. In 2017, the tool was highlighted as an international reference by the United Nations (MDIC, n.d.). The factors that give it this uniqueness include the degree of innovation, when creating a system without precedents, and the scope of the information collected,

11 Registers information on sales and acquisitions of services made between companies domiciled in Brazil and abroad. The registry is based on the 4 modes of supply provided under the GATS and was structured in accordance with the concepts provided in the WTO GATS and tax law.

12 The Brazil Central Bank (BACEN) and the Brazilian Institute of Geography and Statistics (IBGE) collaborated in the development process of the system, especially alongside the compilation of the NBS.

including, for example, the way of exporting the services (Arbache, Rouzet and Spinelli, 2016).

SISCOSERV was implemented alongside the compilation of the Brazilian Nomenclature of Services (NBS), a services classification exclusively formulated for monitoring exports and imports, which was approved by law in December 2011. Since then, the Government has been able to establish it as a national classification for the identification of services and intangibles. Its objective is to establish a comprehensive mechanism for the elaboration, inspection and endorsement of public policies to increase sectoral competitiveness and harmonize support for business development, inspection, public procurement and foreign trade. The NBS consists of 9 digits and was formulated based on the United Nations Central Product Classification (CPC 2.0), a nomenclature used in all the agreements signed and negotiated by Brazil.

Although the latest available audit (2013) does not seem to demonstrate the application of the platform, expert sources indicate that SISCOSERV continues to improve its ability to produce useful and more specific data than those collected by international organizations (SCS, 2018). The following data are currently available: (i) export and import statistics for 2014, 2015 and 2016; (ii) data classification by mode of supply; (iii) classification by type of service, and (iv) in different download formats for different purposes (Arbache, Rouzet and Spinelli, 2016). In just a decade, SISCOSERV has provided accurate and comparable information for public and private stakeholders (Arbache, Rouzet and Spinelli, 2016). The implementation of SISCOSERV allowed the federal government to identify the main stakeholders in the services and intangibles sector and thus contribute to public-private meetings, to guarantee that strategies, policies and responses were in accordance with the needs of the business network (SCS, 2018).

As expressed by the MDIC, the information provided by SISCOSERV facilitates the preparation of statistical reports and market studies. In addition, it supports the negotiations of services, public purchases and e-commerce agreements. Finally, it is an input for the services section of the Exporter Showcase web portal (SCS, 2018).

Private sector entities play a critical role in the design of public policies through SISCOSERV.

Their contribution is not limited to the registration of their international transactions but must also indicate the tax and financial mechanisms they use for their operations, which allows government agencies to evaluate and monitor their use, as well as review new alternatives (SCS, 2018).

By monitoring user reports and registered data, the SCS and RFB constantly seek to improve the system and current legislation, to simplify the registration of operations and ensure it is a clear and objective instrument for the private sector. Thus, they publish revised editions of the operating manual, meet specific demands of entities in the sector, and put the issue on the public agenda by presenting their results at conferences and specialized events at local, regional and international levels.

A specific cybersecurity policy was established in April 2018 by the Brazil Central Bank through Resolution no. 4,658. The rules applicable to data storage on the cloud were relaxed in a way that favored technology-intensive sectors, such as modern services. The new resolution allows banks to contract cloud service providers that host their servers both in Brazil and abroad, with prior authorization from the Central Bank. Before this resolution, financial organizations in Brazil did not have the right to use data centers located outside the national territory. The resolution still maintains the responsibility of banks to preserve the data of their customers, who have the right to decide what relevant information should be outsourced.

b) Sector initiatives

Among the specific policies and mechanisms for promoting modern services, the software and IT services industry has received the most attention. This assertion is confirmed by the data presented in the first section of the chapter, which shows an overall increase in software and IT services exports of 421% between 2007 and 2017, which is significantly above the increases for the rest of the modern and traditional service categories (WTO, n.d.). Initiatives for the promotion of IT services exports can be divided into 4 types:

Human capital: The most far-reaching initiative in this area is “Brazil More IT” (Brasil Mais TI), promoted within the framework of the Softex System. The project provides free

distance training for systems programmers and is funded by the MCTIC and coordinated by Softex since January 2014. The initiative aims to awaken a vocation in new professionals and encourage their entry into the technology sector (Brasil Mais TI, n.d.). By the end of 2018, it had over 300,000 students and 2,000 registered teachers, and more than 1,500 hours of classes had been taught (Brasil Mais TI, n.d.). Although the formulation of the Brasil Mais TI program had the participation of some modern service companies, it mainly pursues social development rather than exports.

More recently, a public-private alliance between the MDIC and BRASSCOM culminated with the signing of the Social Skills Training Project for students at the National Program for Access to Technical Education and Employment (PRONATEC), in the area of information technology. The training, concluded in April 2017 and provided students with content, information and tools to manage their emotions in various everyday situations. Based on the definition of competencies, a course of 50 contact hours and 12 remote hours was prepared, with an emphasis on commitment, collaboration and participation. Initial and final evaluations were carried out to measure the performance of the students at the beginning and end of the project. The training included visits to companies, conferences and professional orientation of corporate partners (BRASSCOM, 2017). Similar to Brasil Mais TI, it focused on the domestic technological development, without establishing an export vision in its formulation. However, the program design highlighted public-private partnership aspects. The skills were determined through research carried out in conjunction with companies in the IT software and services sector, including large international companies (e.g. Microsoft and Atos) and national companies with high levels of internationalization (e.g. Algar Tech, Dataprev, Serpro and TOTVS).

Innovation: The flagship program for this component is Startup Brasil, a TI Mayor Program initiative prepared by the MCTIC and managed by Softex in association with over 50

public organizations and private accelerators. Its objective is to support the best emerging technology-based companies so they can prosper and contribute to creating an environment increasingly favorable for research, development and innovation in the sector (Startup Brasil, n.d.). After 5 complete editions and over 3,000 registrations, the program attracted approximately \$27 million in private investment and directly produced over 1,200 jobs (MCTIC, 2018). Historically, Brazilian entrepreneurs are reluctant to expand globally, not only because the local market is very attractive, but also because the risk of internationalization capital is very high. However, the last 2 years have seen the global expansion of some mobile application development start-ups, especially in the United States (Lemos, 2018).

Tax treatment: In 2005, Law no. 11,196 instituted the Special Tax Regime for the Information Technology Services Export Platform (REPES), prepared especially and exclusively for software development and IT services companies. The regime determines that the acquisition of IT products and services is exempt from paying social security contributions (PIS and COFINS; RFB, 2015; APEX-Brasil, n.d.). It also makes it possible to import products exempt from the Tax on Industrialized Products (IPI), as long as there is no similar Brazilian-made product. Companies eligible for REPES are those whose exports exceed 80% of their annual income. In 2017, the Brazilian Commission for Science, Technology, Communication and Informatics (CCTCI) approved a project to modify this law to include data center operations in the regime. If approved, companies that export software and provide IT infrastructure services would be exempt from federal taxes on imports of goods and services (Deloitte, 2018).

International promotion: In this area, the most relevant sector initiative is Brasil IT+, the IT software and services companies group formed in 2004, which was reformulated in 2009 to meet the objectives of the Productive Development Policy.

The management of Brasil IT+ is led by Softex together with APEX-Brasil, which constitutes an example of a public-private partnership. In its origins, the group accompanied delegations of Brazilian companies to the Gartner Group conventions, one of the most important research and consulting agents in the world market for modern services (Brasil IT+, n.d.). Currently, Brazil IT+ is the main tool to position the country in the international market. It is used as to represent the sector in trade missions, congresses and fairs abroad, as well as with journalists and international consultants specializing in the global IT services outsourcing market. The initiative has contributed to increasing the visibility and credibility of Brazil as an exporter of software and IT services to the United States (Brasil IT+, n.d.).

Regarding engineering services, initiatives have been launched to reduce mobility restrictions and advance the mutual recognition of university degrees. Thus, the Ministry of Economy has asked CONFEA to advance reciprocity agreements; for example, in 2015 an agreement was signed with Portugal that allowed Portuguese engineers to provide services in Brazil without having to be registered with the local CREAs, as long as they paid a specific fee (CONFEA, 2018). CONFEA continues to hold discussions with its counterparts in Argentina, Australia, Canada, Spain and Uruguay.

Finally, although exports of engineering services have had public financing instruments from the National Bank for Economic and Social Development (BNDES), in 17 years, only about a dozen construction companies have received such support (BNDES, 2016). The instruments offer rebates for marketing abroad, called post-delivery. Between 1998 and 2015, over two-thirds of the financing was raised by large construction companies, such as Odebrecht and Andrade Gutierrez (BNDES, 2016). In that period, 76% of the operations financed by BNDES corresponded to Odebrecht construction company projects, which represented 70% of the value reimbursed for the export of engineering services (BNDES, 2019). The total reimbursed between 1998 and 2015, among

all companies, represented 25% of the total value invested by the firms (BNDES, 2019). In 2016, due to observations of illegal activities by some of the bank's clients (among them, Odebrecht), the BNDES suspended reimbursements for services exports (BNDES, 2016). In this context of institutional vulnerability, it would seem risky to confirm that BNDES instruments have played a strategic role in the export of modern services.

C. **Assessment of governance quality in the modern services export sector**

This section contains an analysis of governance in the modern export services sector, covering the period 2000-2017. The results of the institutional modifications proposed by the federal government in 2018 (e.g. the merger of the MDIC with the Ministry of Finance) are not considered. The research questions are divided into 3 categories, according to the principles of good governance by Devlin and Moguillansky (2011) and UNCTAD (2016):

Production and export promotion policy: What general promotion policy for production and exports contain instruments to promote modern services exports? Are there general goals? Is there a long-term strategic plan prepared by the main players in the sector?

Coordination and implementation. How are the institutions involved in the industry coordinated? Are there teams of professionals dedicated exclusively to promoting exports of services?

Evaluation and monitoring: Are promotion instruments monitored and evaluated?

The answers to these questions are summarized below:

Brazil has not developed a general policy to promote production and exports that focus exclusively on modern services; nor

has a national strategic plan been finalized to promote the competitiveness and exports of companies in the sector. The export of modern services has received very little political attention compared to other services and wholesale and retail trade. This is in addition to the enormous importance of the domestic market, which discourages international integration initiatives. Until 2017, the regulatory bodies responsible for trade enabling conditions in services (e.g. telecommunications, infrastructure and financial services) had also not developed an export vision.

The governance of some modern services began to take shape in mid-2010 with the formulation of the National Export Plan (PNE) of the MDIC and the TI Mayor Program from the MCTIC. However, some of the measures that have resulted in tangible supports were designed separately or prior to these efforts. After the Dilma Rousseff administration ended, the PNE lost its status as a foreign trade public policy that it would have had until 2018. This breakdown rendered the monitoring and evaluation systems established in 2012 ineffective, undermining the possibility of comprehensively analyzing their effectiveness. In any case, the SCS bases its daily actions on the goals of the PNE, highlighting the work on the statistical platform SISCOSERV. For their part, and despite the institutional and strategic changes that have taken place in the last 2 years, most of the instruments created by the TI Mayor Program continue to promote the Brazilian information technology sector successfully (e.g. Startup Brasil and Brasil IT+). However, the attraction of R&D centers did not produce the expected results from the point of view of innovation. Thus, the operations established within the framework of the program have reached minimum levels of sophistication and are focused on the national market.

Institutional changes and the termination of the PNE promoted the formation of discussion groups on the governance priorities of the sector. From this perspective, the SCS implements and coordinates public-public debate forums (within the framework of CAMEX), as well as public-private meetings

with service exporters. These are intended to establish the key aspects to improve the international competitiveness of the sector. The scope of these debates and the interests of the stakeholders involved cover very diverse sectors of trade and services. In addition, efforts continue to be focused on accelerating performance within the country. To summarize, although these initiatives mark a historic milestone in terms of public-private coordination, they lack the essential level of specialization for establishing adequate guidelines for the sector.

The actual responsibility of the modern services sector in terms of export rests with the MDIC, with the participation of the MCTIC for information technology services. Although the stakeholders are considered adequate to lead the dialogue of private entities with the public sector, as well as internationalization actions, both organizations lack teams of professionals dedicated specifically and exclusively to the export of modern services.

The maximum coordination of the agenda is assigned to the Executive Secretariat of the Foreign Chamber of Commerce (CAMEX), which is part of the Presidency of the Republic made up of a council of ministers. Similar to the SCS findings, CAMEX's intervention range is substantially broader than is adequate to achieve strong awareness among decision-makers.

Before 2016, monitoring and evaluation of the PNE was the permanent responsibility of the Council of Ministers of the Chamber of Foreign Commerce (CAMEX), supported by the National Council for Industrial Development (CNDI) and the Private Sector Consultative Council (CONEX). Until the beginning of 2019, it was not known if the PNE was going to be evaluated, as it has not been expressly and officially disbanded. The current evaluation tools were developed together with the MDIC's ministerial strategic planning work, formulated in 2016 and active until 2019. The evaluation of the sectoral instruments mentioned in section 2 (b) of section B depends on the agencies in charge of their management (e.g. Softex and BRASSCOM).

D. Conclusions

A review of the modern services sector export promotion institutions, policies and instruments suggests that governance lacks a desirable level of sectoral specialization, with the exception of information technology services. Government initiatives regarding the promotion of modern services exports are still scarce and inefficient.

The main institutional challenges lie in political instability, the marked domestic orientation of industrial policies and the lack of an efficient and sustained environment over time where the analysis and discussion of medium and long-term strategies to promote the insertion of Brazil in the international market. These aspects greatly hinder the good design of support instruments, as well as their coordination and evaluation.

Notwithstanding the deficiencies in governance, and on the understanding that it is the responsibility of the federal government to consider the most appropriate solutions and provide more efficient examples of coordination, Brazil faces numerous challenges to increase its participation in the global market for modern services. Other notable challenges are the heavy tax burden and lack of technology parks that allow tax incentives to attract investment. In addition, there are shortcomings in terms of qualified human capital in science, technology, mathematics and engineering, as well as in the English language.

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Chapter III

Chile: Tension between sector and horizontal policies¹

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Introduction

Despite its marked process of international insertion, Chile's exports are still anchored in natural resources, mainly copper. This dependence is considered one of the limitations hindering national development, along with the lack of added value in its exports. To diversify its production matrix, add value to exports and, consequently, reach higher stages of development, the export of services has been suggested for over two decades as one of the sectors the country could enhance.

In the framework of this discourse, special emphasis has been placed on the promotion of modern services, whose commercialization has been enhanced by advances in information technologies, the fragmentation of production and trade openness (Francois and Hoekman, 2010; Hoekman, 2017; Hoekman and Mattoo,

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2008; López and Muñoz, 2016). However, while it seeks to promote the sector, the model of economic openness promoted by the ex-students of the Chicago school (the so-called 'Chicago boys') is based mainly on the neutrality of the State. This has created a significant deficit in the governance of sector-specific export promotion policies.

Despite being a country with fairly simple and transparent institutions, efforts have been desultory in Chile and the production and export make-up has not been structurally modified. In addition to the existence of a neutrality policy, the lack of statistics to measure services and the significant presence of goods in promotional work have been issues present in the design of public policies.

Since the Services Department was founded in ProChile in 2004, greater efforts have been made to promote the export of modern services. The most notable initiative was the Global Services Cluster (CSG), which arose from a study commissioned during the first Government of Michelle Bachelet (2006-2010) by the Boston Consulting Group (BCG). However, the program was discontinued in the first administration of President Sebastián Piñera (2010-2014).

Among the public-private initiatives, the Sector Brands program, although it is not directed solely at services, has represented a continuous effort to position different subsectors of this field abroad. Currently, the Public-Private Technical Committee for the Export of Services has become the main reference in this regard.

The chapter has the following structure: Firstly, based on the statistical information available, the evolution of services exports in Chile is reviewed; secondly, the main public and private institutions linked to the development of

the sector are described, as well as the policies implemented throughout the period. Finally, there is an analysis of the governance of public-private policies towards the modern services export sector. The last section presents the conclusions and policy recommendations derived from the study.

A. Evolution of modern services exports in Chile, 2005-2017

Chile has oriented its economic development strategy towards international insertion. During the last 40 years, the country has implemented a trade opening strategy reflected in deep unilateral liberalization, the signing of preferential trade agreements, and active participation in multilateral trade negotiations (López and Muñoz, 2016).

Towards 2008, the expansionary cycle led by the boom in basic products and Chinese demand ended. In addition to the financial crisis of 2008-2009, this led to a notable drop in exports of these products. Since that time, and in line with world trade, exports have shown slow growth, with further falls mainly linked to the volatility of commodity prices, particularly copper (see Figure III.1).

Exports of services show a similar trend to those of goods, explained by the preponderance of transport in the basket of services exported by Chile and its direct link with the export of goods. However, it must be taken into account that “there are profound problems to measure trade in services reliably, and everything points to these available estimates undervaluing the true value of this trade” (López, 2015, p. 106).

FIGURE III.1
Chile: Exports of goods and services, 2005-2017
(2005=100)

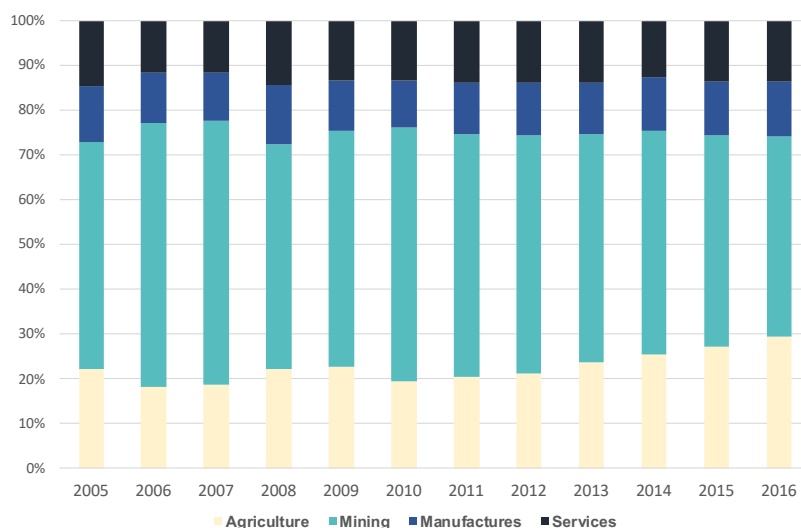


Source: Elaboration by the authors on the basis of World Trade Organization (WTO) data.

Despite Chile's international insertion process and its extensive network of preferential trade agreements, its export matrix continues to be strongly anchored in natural resources, in particular copper and its derivatives. Services, while recognized as an alternative, remain a secondary component. In the period analyzed, services exports averaged 13% of the total, while mining was 52% (see Figure III.2). The end of the commodity boom is reflected in the relative decline in mining exports, which have been replaced mainly by agro-industrial products.

FIGURE III.2
Chile: Export basket, 2005-2016

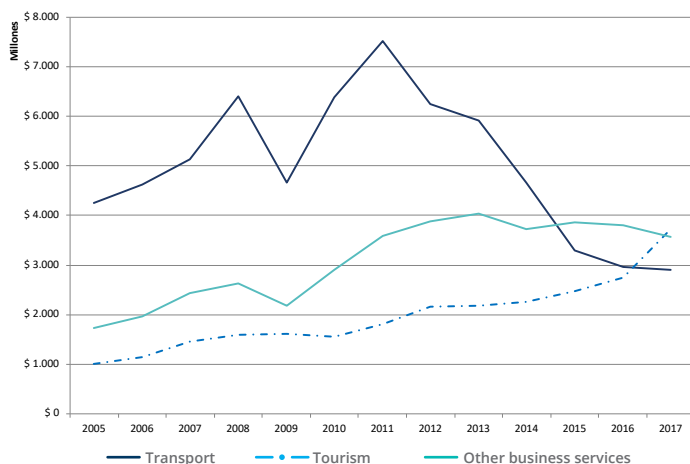
(Percentage of total exports)



Source: Elaboration by the authors on the basis of World Trade Organization (WTO) data.

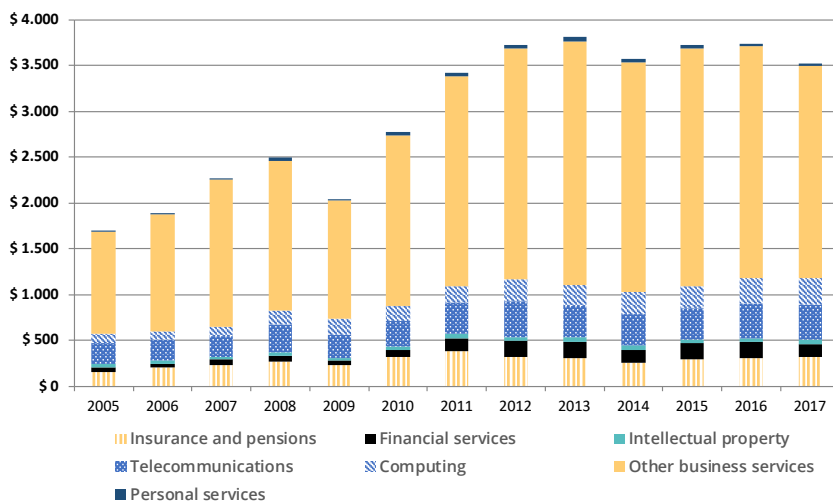
Although the share of services in exports has remained constant at around 13% in the last decade, its composition has changed significantly. Transport has ceased to be the main item in the export of services, as seen by its constant decline since 2011 (due to the contraction of maritime transport services) and because both tourism and other services have grown (the former has almost quadrupled and the exported quantity of the latter has doubled in value), see Figure III.3. Other services include so-called modern services. Although its breakdown is available (see Figure III.4), it is not significant for the purposes of a more in-depth analysis, as it is explained mostly by a new residual category.

FIGURE III.3
Chile: Evolution of services exports, 2005-2017
(Millions of dollars)



Source: Elaboration by the authors on the basis of World Trade Organization (WTO) data.

FIGURE III.4
Chile: Breakdown of the 'other services' category, 2005-2017
(Millions of dollars)



Source: Elaboration by the authors on the basis of World Trade Organization (WTO) data.

On the one hand, the limitation of the current statistics on trade in services is recognized, since the numbers do not represent their real value. However, it is evident that the Chilean export matrix continues to be anchored in natural resources and that services, especially modern ones, are not yet a significant constituent in this regard.

Although the export of modern services has practically doubled in recent years, its low percentage of total exports does not demonstrate a significant change in the country's exports. A bigger impetus would be needed for modern services to make a substantial contribution to business diversification and national development. Thus, different public and private institutions have launched initiatives to strengthen the sector, with the implementation of new policies that contribute to its development, as analyzed in the next section.

B. The promotion of modern services exports and their institutions

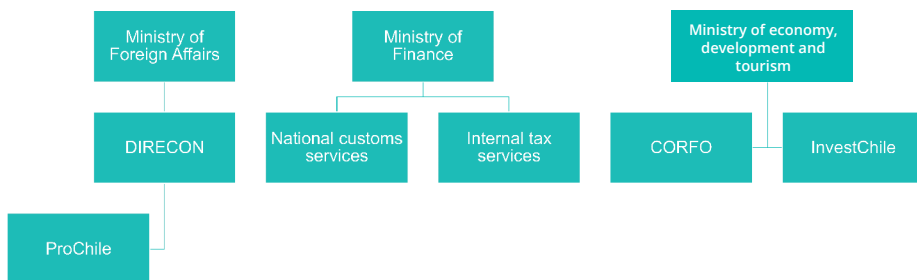
The debate in Chile about government intervention has been framed mainly by small deviations from neutrality. In other words, it is debated whether intervention in the economic sphere should be minimal or nil, which explains the lack of significant policies (López, 2015). Apart from exceptional cases in the matter of goods, the Chilean State has invested little in policies promoting production or exports since the time of the dictatorship.

Thus, only the sectors that have a natural comparative advantage have managed to position themselves in international markets, and an export basket focused mainly on natural resources exists.

There has not been a project at the national level of sufficient magnitude, beyond the discourse, in which a real change of the export matrix has been proposed, with a consequent formulation of policies for this. The diversity of the institutions that have been in charge of promoting the export of services (see Diagram III.1), with different ranks, priorities and budgets, highlights the need for greater coherence, leadership and a concentration of efforts; in other words, good governance.

DIAGRAM III.1

Chile: Public institutions related to the export of modern services



Source: Compiled by the authors.

The institutions related to the export of services which are responsible for the main public policies promoting this sector are discussed below. It is not an exhaustive list, as modern services are affected by a wide range of institutions.⁴ However, these are the main bodies involved in promotion.

1. Ministry of Foreign Affairs

Given the principle of neutrality of economic policy in Chile, the Ministry of Foreign Affairs has become one of the most important in the development of economic sectors in the country, through the General Directorate of International Economic Relations (DIRECON) and the Export Promotion Directorate (ProChile).

The General Directorate of International Economic Relations (DIRECON) was founded in 1979 with the aim of coordinating state actions in international economic relations. Due to the importance given to trade liberalization (particularly from democratic governments), DIRECON has gained importance in the design and implementation of national economic strategies. Since the negotiations of the General Agreement

⁴ For example, there are training institutions, such as the National Employment and Training Service (SENCE) or the Technical Cooperation Service of Chile (SERCOTEC), as well as entities related to tourism and culture, as well as the Central bank. However, their role in export promotion is indirect and they are more closely related to capacity building at the domestic level.

on Trade in Services (GATS) and the first free trade agreements, services have been present at the negotiating tables of the country. To this end, DIRECON has a specialized department: Services, Investments and Air Transport (SERINTA).

The ProChile entity, created in 1974 to promote foreign trade, especially non-traditional exports, originally depended on the Ministry of Economy, Development and Tourism; however, in 1979, it became part of DIRECON, in the Ministry of Foreign Relations. The objective of this merger was to bring together all the functions related to international trade in a single state agency, to improve coordination between the country's trade liberalization policy and the promotion of exports (Ayala, 2006). ProChile's concern for the promotion of services is quite late. Although it was founded in the 1970s, the first initiatives regarding services date back to the late 1990s, when the category of engineering, university and creative industry services (cinema) was included in its traditional work plans. In 2004, the exportable supply of services was incorporated as a priority sector, and the Services Department was formed in 2006 with its own budget line and the ability to generate new business and specific actions for this sector (Marinao, 2009).

2. Ministry of Finance

The Ministry of Finance has been increasingly involved in the development of a policy to promote the export of services. From its role in defining the budget, the Ministry can prioritize public policies and programs for this sector. This capacity is intensified with the formation of the Public-Private Technical Committee for the Export of Services (resolution no. 871, July 2016). At the institutional level, the Ministry of Finance depends on technical bodies whose functions can facilitate the export process, mainly from the tax sphere, such as the National Customs Service (SNA) and the Internal Revenue Service (SII).

The SNA has begun to incorporate services as a classifiable activity, allowing the sector to access tax benefits related to exports. Classifying a service as an export (one of the SNA's functions) is a fundamental step to improving its competitiveness, due to the possibility of reimbursing the value added tax (VAT) paid internally. Thus, the new procedures and the pre-classification of exportable services contained in the List of Services

Qualified as Export (Exempt Resolution, no. 2511/2007) represent an advance that has made it possible to improve the situation of Chilean export services. However, their involvement is operational in nature and there is a significant need for training regarding understanding of services.

The SII is not only important for its function as a tax authority, collecting internal taxes, it also defines an export company (one of the main obstacles to internationalization) and manages double taxation agreements, mentioned as one of the main promoters of the export of services (López, 2015).

3. Ministry of Economy, Development and Tourism

This ministry should be the main one in charge of implementing economic development policies in the country. However, due to the subsidiary definition of the national economic policy, it does not have the necessary weight to proceed with a modification of the Chilean production and export matrix. At an institutional level, some of the most important organizations in these matters depend on this ministry: the Production Development Corporation (CORFO) and the Agency for the Promotion of Foreign Investment (InvestChile). Both have a high degree of autonomy in making decisions and establishing policies.

CORFO was founded in 1939 as the public body in charge of promoting production activity, with great emphasis on the creation of industrial capacity. Currently, CORFO has a subsidiary and support role for business development, mainly through financial and management support instruments. Services have not been a cornerstone of its work, especially since the implementation of the neoliberal model during the dictatorship, when CORFO assumed new functions. This situation changed briefly during the first government of Michelle Bachelet (2006-2010), when the corporation took a more proactive role through the administration of the Global Services Cluster program. The current programs, although they do not discriminate among services, do not include their specific properties either. In other words, services in many cases are not excluded *de jure*, but are *de facto* as they do not meet the minimum requirements. CORFO plays an important role but, as it is part of the Ministry of Economy, Development and Tourism, its coordination with other organizations has been questioned.

Following the promulgation of the new Investment Law in 2015, InvestChile replaced the so-called Foreign Investment Committee, which depended on the Ministry of Finance. It had the functions of representing the State in its agreements with foreign investors, and of supporting Chile's positioning as an attractive place for foreign investment and business within the framework of DL 600 (CIE, n.d.). Although InvestChile is an organization designed to promote the country as a recipient of investment, the nature of the services, as well as some related public policies, make it a relevant actor for the establishment of service companies in Chile and their potential expansion to third markets. It currently establishes global services as one of the priority areas. However, its objective is to attract investment and not necessarily export.

Despite the efforts of the aforementioned institutions, the results obtained by them have been inadequate. In addition, there is still a lack of coordination of the policies implemented for the development of trade promotion, especially with respect to services. Here, it is worth asking if the entity called upon to modify the country's export matrix is the Ministry of Foreign Affairs or the Ministry of Economy, Development and Tourism.

4. The private sector and services

In terms of promoting modern services exports, the Chilean private sector has been closely linked to business associations.⁵ Private associations are recognized as one of the fundamental ingredients for success in the export of services, especially in the case of small countries (López and Muñoz, 2016). The Santiago Chamber of Commerce has tried to bring together related companies and associations, by establishing the Coalition of Service Exporters (CES) as an interlocutor with the public sector for the development of policies.

The CES represents the continuation of the Services Exporters Committee, formed in 1996 to participate in the Free Trade negotiations with Canada (the first time that services were included in a preferential agreement signed by Chile) and to create a common front for the internationalization process of the country's services.

⁵ Taking into account the main subject of the study and the definition of modern services, transport and retail services have been excluded from the analysis, where Chilean companies have had a high degree of internationalization.

The CES was born out of the need to have a national representative umbrella body to ensure the interests of the service sector globally, as is the case with other branches of industry. The existence of an organized private counterpart provides significant support to the development and promotion of the sector and contributes to the solution of internal problems that hinder the export of services. In addition, it provides greater capacity and power of negotiation and representation before the different national and international interlocutors (CES, 2015).

The inclusion of services in the commercial agenda forced private sector stakeholders to come together to be able to have a representative voice to confront changes that were taking place and bring their concerns to the negotiating table. At the same time, services were beginning to emerge as a real alternative for development, with great business opportunities for the private sector (Lever, 2005).

From the sectoral point of view, other associations have been involved in the promotion of service exports, especially through the implementation of specific programs, such as sectoral branding (in architecture, education, cinema, among others) and the Global Services Cluster program, which are discussed below.

5. Policies implemented for the export of services

Chilean economic policy has been characterized by its relative lack of governmental intervention. Initiatives for production are left in the hands of private stakeholders, while the State limits itself to guaranteeing the operation of the markets. However, either by design or as a result of their implementation there have been some public measures that have had an impact on the development of the services export sector.

a) Commercial opening

Given this context of non-intervention in economic policy in Chile, trade liberalization was the instrument used to exploit comparative advantages, stimulate new exports and subject all sectors to external competition. Trade openness served to control domestic monopolies, stimulate the absorption of new technologies, improve product quality, open new markets and modernize non-tradable sectors (Hachette, 2001, p. 295).

During the military government, there was a profound unilateral liberalization of the trade in goods, through the reduction of tariffs and easing of non-tariff barriers. However, services were not part of this first opening stage, as they were not of special interest in international trade. It was after the Uruguay Round that Chile began its opening process in the area of services as part of a multilateral action. Under the General Agreement on Trade in Services (GATS), Chile made commitments in 5 of the 12 general sectors: business, communications, finance, tourism and travel-related and transport. Also, Chile included horizontal limitations related to commercial presence and movement of natural persons in its list.

The opening of the country in this negotiation was cautious, since it was the first time that Chile had negotiated services, which is why it offered lower levels than in its actual opening to foreign suppliers. Subsequently, the Fourth and Fifth Protocols annexed to GATS were signed, which entered into force for Chile in 1998, and the list of specific commitments on telecommunications and financial services was modified (WTO, 2009).

The main feature of Chilean trade policy in recent decades has been its process of preferential trade opening through agreements. The first objective of this process was the signing of a treaty with the United States, as this was the main priority of the Ministry of Finance under the leadership of Alejandro Foxley (1990-1994). The inability to enter the North American Free Trade Agreement (NAFTA) delayed the signing with the United States. Thus, the first agreements negotiated and signed were with countries in the region, within the framework of the Latin American Integration Association (ALADI), and in the form of Supplementary Economic Agreements (ACE), whose main feature was that they were limited to granting preferences in the trade of goods.

During the Eduardo Frei administration (1994-2000), contacts were intensified to negotiate agreements with industrialized countries and conversations began with Europe and Canada, at the same time that the first approaches were made with Asian nations. Along with the change in trading partners, new issues began to be included on the negotiating agenda, in response to what was established in 1995 with the entry into force of the World Trade Organization (WTO) - especially its agreements on goods, services and intellectual property.

In addition, it was sought to incorporate new topics of interest, such as public purchases and investment. During the presidency of Ricardo Lagos (2000-2006), the preferential opening policy reached its peak, with the signing of agreements with the main economies of the world: European Union, United States, Republic of Korea, Japan and China and others (see Map III.1).

MAP III.1 Chile: Preferential trade agreements signed (up to 2018)

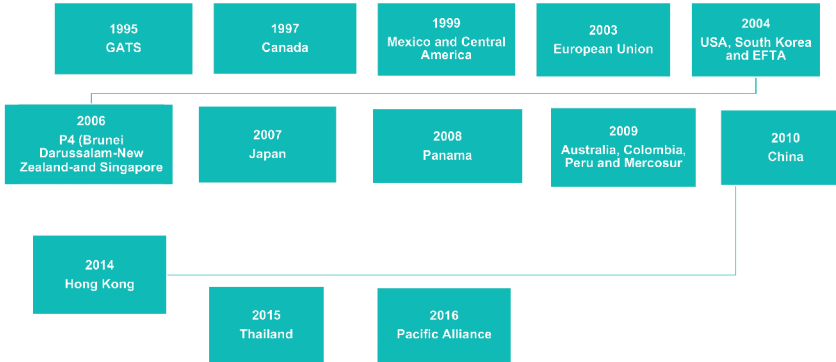


Source: General Directorate of International Economic Relations (DIRECON), “Commercial Agreements”, <https://www.direcon.gob.cl/modulo-de-acuerdos-comerciales>.

N.B. The boundaries and names on this map do not imply official endorsement or acceptance by the United Nations.

Of the 24 trade agreements in force, 16 contain provisions relating to trade in services. Chile has negotiated the services chapters contained in the agreements with the European Union, the European Free Trade Association (EFTA), Hong Kong (Special Administrative Region of China) and MERCOSUR in a positive list mode. The rest of the agreements that include services (e.g. with the United States, Canada and Mexico) were negotiated using the negative list model (see Diagram III.2).

DIAGRAM III.2
Chile: services commitment agreements
(with effective dates)



Source: General Directorate of International Economic Relations (DIRECON), “Commercial Agreements”, Santiago <https://www.direcon.gob.cl/modulo-de-acuerdos-comerciales>.

The trade liberalization policy was supplemented by investment promotion and protection agreements (APPI) negotiated separately. However, with the development of more complex trade agreements, investment regulations have begun to be incorporated into their provisions.

The negotiation of double taxation agreements has also been of particular importance for trade in services. To date, Chile has signed 31 double taxation agreements;⁶ with the most important for Chilean service export companies being those subscribed in the region, as they allow them to expand their operations and gain competitiveness against local firms. A special case is the Investment Platform Law (no. 19,840), whose amendment approved in 2002 allows foreign investors to settle in Chile to manage investments or perform services in third countries. By virtue of this law, foreign investors can avoid income taxes in Chile from such investments or services, exploiting the advantages the country offers to

6 Argentina, Australia, Austria, Belgium, Brazil, Canada, Colombia, China, Croatia, Denmark, Ecuador, Spain, Russia, France, Ireland, Italy, Japan, Malaysia, Mexico, Norway, New Zealand, Paraguay, Peru, Poland, Portugal, United Kingdom, Czech Republic, Republic of Korea, South Africa, Sweden and Thailand.

channel and manage financial resources to third countries (CES, 2015). However, the law aroused little interest in companies, who considered it restrictive and unclear in its application, particularly regarding the export of services and their treatment by the National Customs Service (Piña, 2005).

b) Sectoral branding

In 2008, CORFO created this program to support the production sectors through the international positioning of brands representative of these sectors to contribute to promoting Chile's image abroad. Until then, the criterion of sectoral non-intervention of development policies had prevailed; this is why the program is one of the first public policies that recognizes the need to prioritize and focus efforts on production development, investment and innovation.

As of 2011, given the close relationship between the management of the Sectorial Branding program, the positioning of Chile's image and the promotion of exports, it was considered appropriate that this program depended on the Directorate of Export Promotion, to open it to all production sectors (Prieto, Sáez and Goswami, 2011). ProChile created the Sectorial Branding Sub-directorate, responsible for designing, implementing, coordinating and monitoring the strategies, lines of action and support programs for the management of sectorial and business brands that contribute to the positioning of exports and the image of Chile abroad. To this end, ProChile established the opportunities and interests of a strategy at the national level (Republic of Chile Official Gazette, 2011).

One of the program requirements is to maintain the associative character, with a view to obtaining a series of benefits to correct for market failures, which SMEs in general tend to face. It helps to achieve economies of scale in branding, to share costs in market studies and establish attributes, advertising and diffusion. Added to this are common positioning tactics and strategies, improvements in recall and identification of the sector, as well as the ability to negotiate, among other multiple benefits. Furthermore, this public-private strategy promotes associativity, both within the production sector and with public bodies. All of which contributes to raising the standards of the participating companies and to forming bonds of trust between companies in the sector (ProChile, n.d.).

To help in the construction of a sectoral brand, the government requires it to contribute to the positioning of Chile's image and for it to

have a medium and long-term international strategy. At the project level, high sector representation, the ability to come up with strategies and the justification of high growth of the sector in the target market are required. In addition, the members of the sector must work with an experienced team and have a leader validated by them (ProChile, n.d.). There are currently eight sectoral brands dedicated to services (see Diagram III.3).

DIAGRAM III.3
Chile: sectoral brands in services



Source: Elaboration by the authors on the basis of ProChile data.

The branding exercise has a small budget and so far there is little evidence of any significant impact. Furthermore, problems can be found in the individual analysis; for example, the LearnChile brand does not include two of the most important universities in the country: Chile University and the Pontificia Universidad Católica de Chile.

c) Global Services Cluster

Following a study by the Boston Consulting Group (BCG) in 2007, 'clusters' emerged in the country as a response to the need to improve its insertion and anticipate changes in the global economy. Thus, the Government's strategy consisted of prioritizing the diversification of exports, selectively committing to the development of a non-traditional export industry based on highly qualified human resources, such as global services.

In the BCG study, Chile was considered a prominent location for the operation of global service centers; mainly because of the advantages its

geographic location provides in relation to the main consumer market, the United States. The proximity and similarity of time zones is a factor favoring its competitiveness with the main service providers, including India and Ireland. Shortly before the announcement of this strategy, an ambitious digital agenda was launched.⁷ The aim was to put Chile at the forefront of information technologies and promote the creation of clusters related to this.

As well as being seen as a highly dynamic sector for the Chilean economy, the Global Services Cluster was expected to have a spillover effect on the country's competitiveness in general. According to this reasoning, the strengthening of the sector is essential for attracting foreign investment, transferring new technologies and applications, introducing new business models and increasing competitiveness in global markets (Castillo, 2008).

The challenge that arose with the start of the Global Services Cluster was the consolidation of Chile as an attractive and competitive location in the offshoring services industry. The country was considered to be able to take advantage of new trends in economic globalization following application of information technologies, the internationalization of labor markets and the emergence of new business models. The progressive increase in exports of services from Chile to the world, as well as the improvement of professional capacities and infrastructure for the installation of service centers, were just some of the objectives set by the public sector, the private sector and academia to promote the development of the country.

To understand the Global Services Cluster and its subsequent analysis better, the milestones that marked its operation, from its creation to the end of the selective competitiveness policy, should be pointed out.

In 2006, the National Council for Innovation for Competitiveness (CNIC) established the National Strategy for Innovation for Competitiveness, with a view to doubling per capita gross domestic product (GDP) by 2020. Within the framework of this strategy, and taking into consideration the diagnosis made by the BCG in 2007 and the recommendations arising from its cluster competitiveness studies in the Chilean economy, 5 clusters in sectors with the greatest possibility of growth in the medium and long term were established: (i) food; (ii) mining; (iii) special interest tourism; (iv) aquaculture and (v) global services or offshoring (Boston Consulting Group, 2007).

7 For more information, see <http://www.agendadigital.gob.cl>.

The clusters began to be implemented at the end of 2007, through the formation of strategic councils, the election of executive secretaries and the preparation of specific agendas. To coordinate all the public agencies and establish an authority responsible for carrying out the new innovation strategy for competitiveness, the Government formed the Committee of Ministers for Innovation, which gave CORFO the mandate to implement the Clusters Program, by providing methodological, financial and operational support to the executive secretariats of the public-private strategic councils for the clusters.

The formation of the Strategic Public-Private Council for Global Services took place in November 2007. However, the joint collaboration for the development of this industry dates back to the launch of the CORFO High Technology Investment Attraction program in 2000 and the public-private missions to Silicon Valley, India and New York, promoted by the Innovation Forum during 2006 and 2007. The Council was chaired by the executive vice president of CORFO and made up of representatives of companies, trade associations, higher education institutions and the public sector.

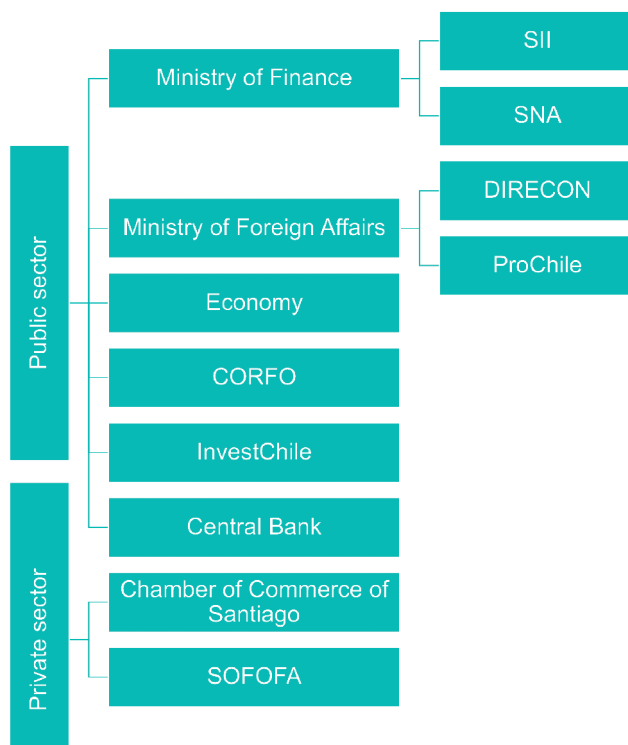
Between 2008 and 2009, the peak years for cluster activity, over \$14 million were invested for the development of the initiatives identified. Taking 2006 as a base, an average annual growth of over 40% is observed in global services exports by 2010 with the creation of over 20,000 new jobs. During 2008-2009, 25 new projects were supported in the country, producing around 9,000 new jobs. In 2010, when the cluster's activities ceased, over 60 world-class global service centers were documented; 37 of which received support in the form of incentives for attracting high technology from InvestChile (CORFO, 2010).

During 2011, under the administration of President Sebastián Piñera, CORFO established non-selectivity as a management criterion and reformulated the cluster program to support private sector initiatives without intervention. Markets are recognized as dynamic, so public policies must adapt to circumstances (CORFO, 2012). Although the prioritized sectors selected in the 2007 National Innovation Strategy continued to be supported, the difference was that they no longer operated centrally from CORFO, but were instead transferred to the respective sector ministries, or were integrated in other public-private work groups that function with a similar purpose.

Public-Private Technical Committee for Services Export

This public-private initiative was created by the Ministry of Finance during the second Government of Michelle Bachelet of 2014-2018 (formed in July 2015 and institutionalized a year later by supreme decree). The committee members are representatives from the public and private sectors (see Diagram III.4). This is essential for the continuity of work in this area, since Government changes in Chile have led to the rejection of efforts and the instigation of new strategies in the area of services. Thus, it is important to at least try to create an institution with legal backing. From the private sector, the entity that leads the committee is the Manufacturing Development Association (SOFOFA).

DIAGRAM III.4
Chile: Members of the Public-Private Technical Committee for the Export of Services



Source: Compiled by authors.

SOFOPA held its 18th session in July 2018, when the committee established various lines of work (see Table III.1) and set out the mission of developing strategies to export services and consider the benefits each of these could have. One of the most notable objectives dealt with tax, which on various occasions has been considered essential to increase trade in services. Also worth noting is the lack of information in the sector and its importance for the design of public policies.

TABLE III.1
Public-Private Technical Committee
for the Export of Services: lines of work, 2017

| Areas of work | Measures, initiatives or actions | Status |
|--------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| 1. Institutional and organizational improvements | 1.1 Incorporation of new public and private members to the committee: Association of Offices of Architects (AOA), Association of Engineering Consulting Companies of Chile (AIC), Chiletec, National Institute of Industrial Property (INAPI), SENCE, Ministry of Cultures, Arts and Heritage (MINCAP) and Chile Image Foundation. | Implemented |
| | 1.2 Forming the indicators working group. | Implemented |
| 2. Facilitating customs and tax practices | 2.1 Incorporation into the temporary admission of equipment and automobiles for use in advertising and audiovisual productions. | Implemented |
| | 2.2 Incorporation of new goods for use in audiovisual productions in the list of capital goods. | Implemented |
| | 2.3 Update of the services export manual. | Implemented |
| | 2.4 Preparation of the Services Export Manual and the Creative Services Export Manual. | Implemented |
| | 2.5 Simplification of the service export process; integration with the single window of the Integrated Foreign Trade System (SICEX). | In process |
| | 2.6 Lifting of reservations to the Istanbul agreement on the ATA carnet for the entry of vehicles intended for use in audiovisual productions. | In process |
| 3. Expansion of tax benefits | 3.1 Equalization of tax treatment (VAT) for the export of services and goods. | Implemented |
| | 3.2 Double taxation mechanisms for countries with and without agreement. | Implemented |
| | 3.3 Removal of the extraterritoriality of the additional tax on the export of services. | Implemented |
| | 3.4 Removal of the additional tax increase for software and engineering services. | Implemented |

| Areas of work | | Measures, initiatives or actions | Status |
|--------------------------------------------------------------------|-----|---------------------------------------------------------------------------------------------------------|-------------|
| 4. Improvement of the information available on the sector | 4.1 | Statistics on International Trade in Services. | Implemented |
| | 4.2 | Conducting sector studies: sector measurement, financing gaps and tax barriers. | Implemented |
| | 4.3 | Official approval for SII, Customs, Balance of Payments nomenclatures. | Implemented |
| 5. Increased human capital competencies and capacities | 5.1 | Training of 1,000 programmers (CORFO-SENCE). | Implemented |
| | 5.2 | SFIA certification for 3,000 people (CORFO). | Implemented |
| | 5.3 | Training of 6,000 teachers in computer language. | Implemented |
| | 5.4 | Visa Tech to facilitate the mobility of professionals and foreign technicians to work in Chile. | Implemented |
| | 5.5 | Master's scholarships abroad with emphasis on digital transformation (CONICYT). | Implemented |
| | 5.6 | Labor agreement with the private sector on human capital for industry 4.0. | Implemented |
| | 5.7 | Training in exporting services at the national level (ProChile, CCS, MINCAP). | Implemented |
| | 5.8 | English Scholarship Contest (CORFO). | In process |
| 6. Financing, creation of banking products and support instruments | 6.1 | Modifications of CORFO Foreign Trade Guarantees (COBEX). | Implemented |
| | 6.2 | Endorsable Payment Guarantee Slips, Chile Association of Banks and Financial Institutions (ABIF) -BBVA. | In process |
| | 6.3 | Compliance Insurance, supplemented with Credit Insurance (CORFO). | In process |
| | 6.4 | Dollar insurance (state bank). | Implemented |
| 7. Insertion and international promotion | 7.1 | International campaign "Ask for Chile: A World of Services". | Implemented |
| | 7.2 | Promotion of work agenda with Pacific Alliance countries | In process |
| | 7.3 | Support for the development and positioning of sectoral branding. | Implemented |
| | 7.4 | Coordination of agendas with other countries in the region. | In process |
| | 7.5 | Positioning and promotion agenda in the US. | In process |
| 8. Diffusion and visibility | 8.1 | Meetings with service exporting companies. | Implemented |
| | 8.2 | International seminar and services export week. | Implemented |
| | 8.3 | Change of platform for the portal www.chileservicios.com . | In process |
| | 8.4 | Event Culture and Creativity: from Chile to the World. | Implemented |

Source: Elaboration by the authors on the basis of Public-Private Technical Committee on Export of Services data.

C. Public-private policy governance of the modern services export sector

The previous section listed the main institutions and policies aimed at promoting the export of services in Chile, particularly modern services. The results of the interviews conducted with key players to assess the impact and governance of the policies implemented in the country are presented below (summarized in annex III.A1). In general, challenges or mistakes are more notable than successes. This is mainly due to the fact that a significant effect on the export matrix has not yet been achieved, although there are positive aspects. The work carried out in the country is collected by the current committee headed by the Ministry of Finance. It is important to emphasize the aspects that can be improved or that require attention, to avoid repeating mistakes and to enable the achievement of the objectives set.

According to the interviewees, the limited success of most of the programs is due to the fact that the export of services was not made a priority for the country, beyond the discourse. This explains the lack of a strategy and planning with long-term vision. Along the same lines, in addition to not having established a project for the country's development, there were governance problems, especially in the design of longer-term policies and coordinated leadership. Some perceive this situation as a limitation that could be overcome by the committee currently coordinated by the Ministry of Finance; however, it is too early to assess this result. Other interviewees point out that the promotion of modern services is today a State policy, within a framework of strategic planning, and that it is a commitment assumed by President Sebastián Piñera in his second term.

However, other interviewees believe that the Ministry of Finance should not lead the process of exporting services, as this is not part of its mandate and is a function that corresponds to other ministries. They state that coordination and authority or jurisdiction problems may arise, preventing the success of the project, despite the supremacy of the Ministry of Finance. It is also questioned whether SOFOFA takes the lead from the private sector, since the development of modern services is not its priority.

There is a high level of consensus in the interviews that statistical and evaluation problems in all programs complicate public policy design. This is a situation, however, that occurs worldwide, and Chile has improved in some areas. Below is an analysis of the main programs implemented, as well as the tax measures and institutions.

Another aspect analyzed was coordination and leadership; that is, the responsibility of the ministries for policies and for each activity to have an implementing entity clearly established, which is carried out in a structured and specific manner. The interviewees point out that institutionality has been dispersed and that there is no single leadership, because it is not a project of national scope; they add that the same happens at the private level. However, in the goods export sector, although there are several associations per product, it is easy to identify leadership.

The negotiation process for the commercial opening of the country has been clearly led and coordinated by the Ministry of Foreign Affairs. However, in the implementation of these agreements, when an impact on exports should be noted, leadership from the institution has not been evident.

Sectorial Branding initially emerged in CORFO. After including the objective of promotion, they were transferred to ProChile; and, due to this change, the Ministry of Economy, Development and Tourism withdrew from the project. It should also be noted the lack of participation of other ministries in each brand, which would be essential for their proper functioning. For example, it would be preferential to have greater presence from the Ministry of Education in the LearnChile brand.

CORFO was in charge of the Global Services Cluster and, despite being part of the Ministry of Economy, Development and Tourism, left it little room for coordination with other institutions for the objective of promoting abroad, despite the fact that this was not the most serious problem in its implementation.

Regarding tax measures, it is also appreciated that the supremacy of the Ministry of Finance has made it difficult for relevant organizations (such as the SII or the SNA), which are not directly linked to the technical field of services or their export, to understand the requirements and limitations of the industry.

The general perception of the interviewees is that one of the fundamental problems was the lack of strategic thinking in the medium and long term. In Chile, public policy goes hand in hand with electoral cycles, which makes it difficult for long-term projects essential for changes in the export sector to continue. The interviewees agreed there was no responsible institution that could ensure long-term results. Similarly, any

kind of continuity in policies directed at the production sector could not be found, as exists in other countries that have managed to modify their export matrices.

Although in many respects it has been a positive policy in terms of trade openness, the real effect is in the use made of the advantages obtained through the agreements negotiated; the utilization process has been limited. In addition, it must be considered that only a regulatory freeze has been achieved in the area of services and progress must be made with real liberalization.

According to one of the interviewees, the Sectorial Branding design was reactive rather than representing a response that analyzes the long-term situation and the real possibilities of making an impact.

The main problem with the Global Services Cluster program was that it was not structured to cope with a change in government. Although there has been some stability in economic policy, a change resulted in the cluster requiring more active participation from the State. This situation was reversed in the term of President Piñera, leaving the work that had been carried out until then as a sunken cost.

Due to their nature, tax measures require legal modifications that have not occurred. In cases where a specific policy has been implemented, legal changes were introduced which, by definition, are longer term, in such a way that this criterion is not indicated as a problem.

For human capital, which is related to professionalism and the level of politicization of the stakeholders, there was broad consensus that there is no professional career for public servants. Furthermore, despite the fact that some civil servants join senior management, the service still needs to become more professional. Institutionality depends on each Government, which decides where policies are to be concentrated, so it is not only about changes of people, but also of institutions.

When it comes to the trade opening process, the negotiating teams are very well prepared. However, mechanisms are lacking to facilitate the transition for those in charge of implementation and exploitation. The case of the Global Services Cluster is similar. Although knowledge about what the program meant was good, the entire group linked to this project changed at the beginning of the new presidential term. In Sectorial Branding the problem was worse: changes in the teams left few technicians

and, for links with the private sector, it is very important that this problem is not perceived. For tax measures, in contrast to other policies, there is no serious problem regarding team changes, but there is one in relation to the lack of training in services.

For the programs to be formulated properly and be effective, the promotion of exports and the formulation of policies must be left in the hands of an institution that at least has the strength to monitor and structure them professionally, so that they do not become victims of electoral cycles. For example, although trade openness has been well formulated, there should be a second stage that helps companies identify obstacles and work to overcome them. According to the perception of some interviewees, it would be better to have fewer, but stronger, sectoral brands, since their design does not seem to respond to supply, but to the temporary demand of certain groups. Clusters were developed from a more in-depth study and analysis than any other process, since the recommendations of the BCG consultancy provided a good input and were relied upon. However, the process of involving the private sector was incomplete. Again, in terms of measures, there is a lot of ignorance about how they are formulated and what the services respond to. Also, the private sector has little handling of the issue, which particularly affects SMEs.

The effectiveness of the strategies depends on an objective evaluation of their implementation and impact on the established goals. There was broad consensus that monitoring instruments and the evaluation stage were lacking in all the programs implemented by Chile. In some cases, this was due to the fact that values were so low that evaluation was not formally required and not pursued, as it was neither a requirement nor economically profitable to do so. The same occurred in cases where insufficient information had been collected.

Finally, the issue of public-private alliances and minimizing the risk of capture by the Government are addressed. To achieve these objectives, use was made of institutions structured in such a way that they represented a diversity of interests, with well-established rules regarding transparency and evaluation, and with the support of a professional bureaucracy.

Among those interviewed, there was the perception that the private sector is very used to the logic of receiving and not sharing risks. In services, there is little association between private entities, so it is difficult for them to develop alliances and they lack solid institutions to implement strategies.

D. Conclusions and recommendations

In Chile, there is broad consensus that the principle of non-intervention has resulted in little state support for the modern services sector. The State has generally maintained the strategy of not providing support to specific sectors; however, there have been attempts to modify the export matrix. While this has been less clear in some cases, goods sectors such as copper have benefited. Also, services have been present to a lesser extent, through public-private alliances in sectors such as salmon and wine.

This principle of non-intervention by the State has transcended it and affects sectors that do not belong to the public sphere. The State is limited to being the facilitator of good market performance, reflected in the private sector, which has not come together to develop strategies to request support in exporting.

With specific reference to services, there is huge ignorance of what the sector involves, as well as its tradability. Furthermore, comprehensive and reliable statistical data is scarce, which reduces the possibilities of designing public policies. Programs to promote the export of modern services have not been framed within a complex project but have responded to specific ideas and ideologies.

There are still coordination challenges; and dispersion and duplication of effort must be reduced via an institutional framework that can lead these types of policies, to coordinate their implementation and evaluation effectively. For example, ProChile and CORFO should have stronger links, if not actually merged, at least for international activities. Meanwhile, those interviewed questioned the role played by the Ministry of Finance, but at the same time recognized that this may currently be the only ministry that provides the necessary leadership and continuity. It is essential a technical body is in charge of aspects related to the facilitation of the export of services. In this sense, it is perceived that the Technical Committee could begin to have this function.

A second general conclusion is that policies must have designs that guarantee stability and continuity in the medium and long term, and not be affected by electoral cycles. In turn, this should be closely linked to developing a professional career in the public sector at a higher level than currently exists. Along the same lines, some interviewees emphasized

that these types of promotion policies should not depend on electoral hazards and their politicization should be avoided.

Regarding the regulatory and tax system, service exporters still operate with significant degrees of uncertainty and inequity. It is essential to find solutions to this and increase the use of trade agreements.

Thirdly, public-private partnerships are an option that Chile has tried to implement and a line that should continue to be tried. Thus, the considerations arising from the study by Devlin and Moguillansky (2011) should be taken into account. Due to the budget and size of the State, these represent an alternative for insertion of the country and modifying its export structure.

In this regard, priority has always been given to small and medium-sized companies, especially due to the number of jobs they create. However, public policy has maintained a stormy relationship with SMEs. On the one hand, there are not enough funds to convert a significant number of SMEs into exporting companies, through traditional initiatives. On the other, it is also not possible for SMEs to take advantage of horizontal policies. In general, horizontal supports are used more by large companies.

Collaboration should be increased and efforts to coordinate joint insertion strategies should be intensified, even if individual competition develops later in external markets. Among other recommendations less linked to governance, but which offer interesting lessons, is the importance of bringing services closer to the national financial sector. In this area, the intangible nature of services is not taken into account, which reduces support for the financing of service-exporting SMEs.

Chile has faced up to the challenge of exporting modern services for some years now, with lessons that allow us to glimpse a possible scenario. Studies of a more sectorial and specific nature should be conducted to be able to address these issues for the importance they actually have.

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Appendix III.A1

Principles of Good Governance Analysis Matrix

| Principles | Global Services Cluster | Sector Branding | Institutionality | Commercial opening and signing of agreements | Tax issues |
|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Coordination and leadership | <p>Within the Ministry of Economy, Development and Tourism, CORFO was in charge of this program.</p> <p>Strategic Public-Private Council of Global Services.</p> <p>Weak coordination between ministries.</p> <p>Highly influenced and established by the Ministry of Finance.</p> | <p>Started in CORFO before moving to ProChile.</p> <p>Little active participation from other ministries.</p> | <p>Leadership is scattered.</p> <p>Initiatives from CORFO or ProChile no coordinated.</p> <p>The Ministry of Finance has recently tried to take a leadership role.</p> | <p>The implementation did not have the necessary leadership, unlike the negotiation.</p> | <p>National legislation only allows the National Customs Service to qualify export of services for the purposes of being exempt from Value Added Tax, contained in article 12, letter E, no. 16, DL 825, 1974 (VAT law).</p> |
| Time considerations | <p>The changes in government ideology lead to a short-term outlook.</p> <p>The process did not reach to maturity.</p> | <p>The brands were designed after little analysis of decisions taken and on a low budget, so it was difficult for them to survive long-term.</p> | <p>There is a lack of an institutional framework to guarantee long-term strategies.</p> | <p>Full advantage not taken; a regulatory freeze was only achieved.</p> | <p>Outlook is long-term, as established by law; however, exploitation strategies need to be applied.</p> |
| Human capital | <p>The teams did not have the knowledge necessary to implement this program.</p> | <p>The teams changed along with the governments, resulting in a lack of continuity.</p> | <p>The DIRECON Advisory Council was formed in 2012.</p> | <p>Lack of preparation in implementation teams, not in negotiation teams.</p> | <p>The teams are not trained in services, so do not know the sector.</p> |
| Creation | <p>Developed following a BCG study.</p> <p>Difficult for the private sector to participate.</p> | <p>The brands were designed after little analysis of decisions taken and on a low budget, so it was difficult for them to survive long-term.</p> | <p>There is no single export promotion institution to decide strategy.</p> | <p>Agreements arise reactively rather than from a developmental plan.</p> | <p>Respond to demand from civil society; not designed comprehensively.</p> |
| Evaluation | <p>Program funds were simply redirected.</p> | <p>Little evaluation.</p> | <p>Little institutional evaluation and dominated by the personalities that coordinate it.</p> | <p>There are evaluations of goods but few of services.</p> | <p>Not very positive, due to lack of information.</p> |
| Public-private partnership | <p>Private sector is used to accepting, but not sharing risks.</p> | <p>There were no projects, so not evaluated positively.</p> | <p>An empowered institutional framework was not developed.</p> | <p>The work of civil society councils must be improved.</p> | <p>Not applicable. However, in design, the private sector needs to be more involved.</p> |

Source: Compiled by authors

Chapter IV

Colombia: the atomized execution of policies between different public entities

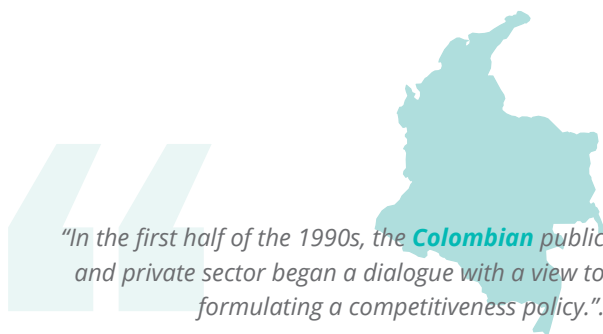
Carmen Astrid Romero¹

Introduction

In the first half of the 1990s, the Colombian public and private sector began a dialogue with a view to formulating a competitiveness policy. The result was the formation in 2006 of the public-private alliance called the National System of Competitiveness (SNC). In 2012 this became the National System of Competitiveness, Science, Technology and Innovation (SNCCTel) and was responsible for improving the competitiveness of the export of goods and services, through the design of a policy on export promotion. However, the SNCCTel is not in charge of executing the promotion policy, as this responsibility falls on other national and regional institutions.

Although there is some support for the sector, modern services continue to represent a small part of Colombian service exports. In fact, the country has failed to diversify its export base for more than a century. This is reflected in a low level of competitiveness, as indicated by Colombia's 60th position among the 140 countries evaluated in the Global Competitiveness Index (World Economic Forum, 2018). These results point to the need to review the governance of export promotion policy instruments.

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This chapter evaluates the actions of the SNCCTel, following the principles of good governance highlighted by Devlin and Mogueilansky (2011). The second section describes the behavior of the country's services exports. The third offers a brief contextual framework on the export promotion policy. The fourth describes the institutional framework within which modern services are promoted. The chapter ends with conclusions and policy recommendations.

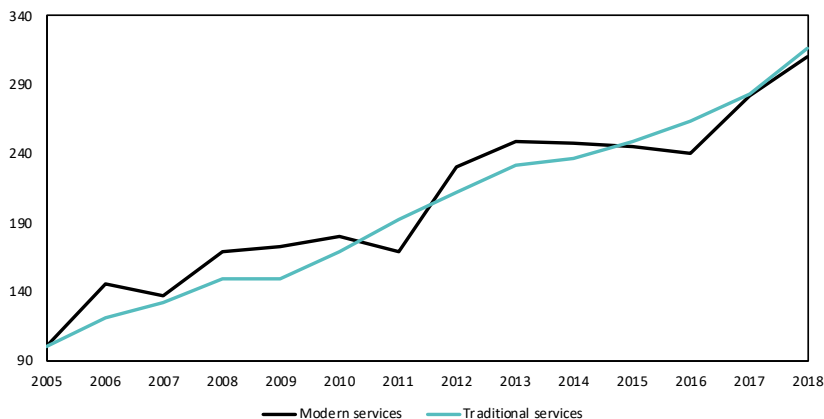
A. The services sector in Colombia

The services sector contributed 65.8% to gross domestic product (GDP) in 2018, accounted for 62.7% of employment, but provided only 17.6% of total exports.² Of this total, 14.4% correspond to traditional services and 3.2% to modern services. Furthermore, the contribution from the modern services sector is not only modest, but its growth was lower between 2005 and 2018 compared to the trend in traditional services (see Figure IV.1).

² However, this second contribution may be underestimated. The main source of statistics is the Quarterly Sample of Foreign Trade in Services, an estimate made by the National Administrative Department of Statistics (DANE), whose figures differ from the Balance of Payments statistics provided by the Central Bank (Banco de la Republica). This also considers other sources of information for the balance of payments, so its data are different from those of DANE. Hence, there is an inter-institutional group which is working to reduce information gaps between institutions and facilitate cooperation and coordination between them.

FIGURE IV.1
Colombia: exports of modern and traditional services, 2005-2018

(Indexed to 2005 as 100)

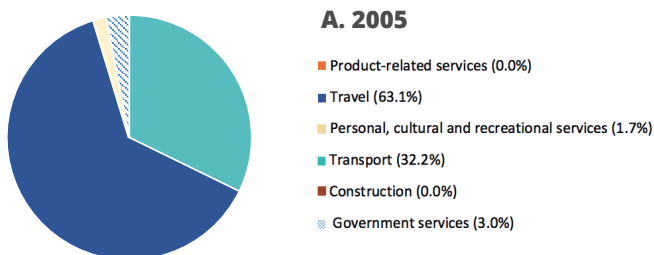


Source: Compiled by the author from World Trade Organization (WTO) data.

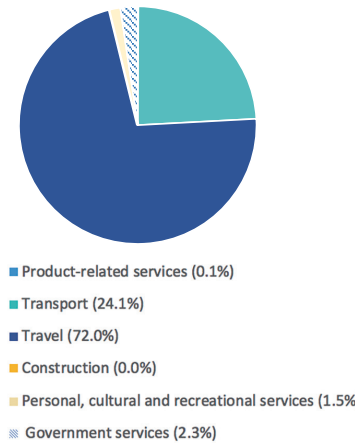
Modern services represented a smaller proportion of total services exports in Colombia compared to the region (18.4% compared to 30.4%) in 2017. However, tourism recorded a greater participation in Colombia, compared with the region (58.9% compared to 50.0%). This is because this sector was very dynamic within traditional services exports, increasing from 63.1% in 2005 to 72.0% in 2018 (see Figure IV.2).

FIGURE IV.2
Colombia: composition of traditional services exports, 2005 and 2018

(Percentage of sector total)



B. 2018



Source: Compiled by the author from World Trade Organization (WTO) data.

The dynamics of tourism is explained in part by the decision of the Ministry of Commerce, Industry and Tourism (MINCIT) to consider it a priority sector (MINCIT, 2014). Through the Colombia Export Services strategy (2014-2018) and with ProColombia, the MINCIT designed the promotional campaigns “Colombia is magic realism” (*Colombia es realismo magico*) in 2013 and “Colombia, land of good things” (*Colombia, tierra de la sabrosura*) in 2017. Also, this type of services benefited from the new safer conditions in the country, following the peace process, as well as from certain advances in infrastructure and an increase in the frequency of international flights. These factors have improved international confidence and reduced the country’s risk index (MINCIT, 2018; Ramirez, 2018).

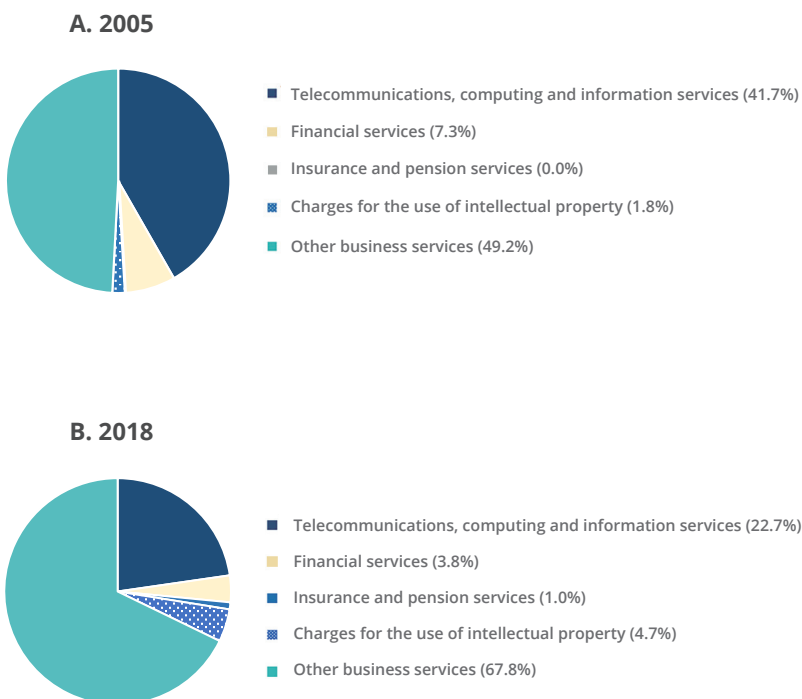
Through ProColombia, the Government is trying to diversify the subsector so that it does not rely only on the sun and beach tourism. It is also committed to avitourism, ecotourism, sports and adventure tourism, cruises, gastronomic tourism, business trips and health tourism. In this last segment, remote medicine can be used to create bridges between tourism and modern services.³

³ From interviews with officials from ProColombia and the Production Transformation Program (PTP), which later became Colombia Productiva.

On the other hand, modern services are concentrated in the category of other business services, as is the case in the rest of Latin America and the Caribbean (ECLAC, 2017). This category is also the one that has gained the most in the set of modern services between 2005 and 2017; while telecommunications, computing and information services have lost some share. Charges for the use of intellectual property have begun to become visible in Colombia, thanks to the increase in the country's income from licenses to reproduce or distribute audiovisual and related products, associated with the digital content industry (see Figure IV.3).

FIGURE IV.3
Colombia: composition of modern services exports, 2005 y 2018

(Percentage of sector total)

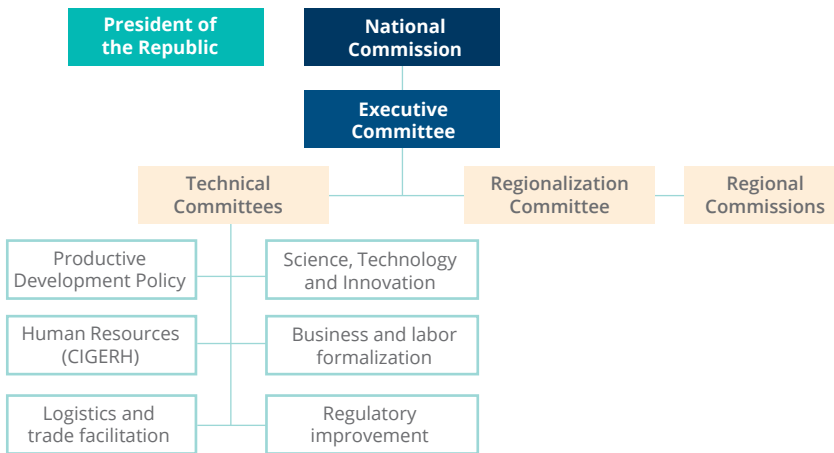


Source: Compiled by the author from World Trade Organization (WTO) data.

1. Context of the policy to promote competitiveness

The main function of the National System of Competitiveness, Science, Technology and Innovation (SNCCTel) is to coordinate the state entities responsible for competitiveness, productivity, science, technology and innovation policies with the organizations that integrate the main private associations and of regional and local chambers of trade (see Diagram IV.1).

DIAGRAM IV.1
Colombia: National System of Competitiveness, Science, Technology and Innovation



Source: Compiled by the author.

The SNCCTel is directed by a National Commission, led by the President of the Republic and composed of 36 members: cabinet ministers, the presidential advisor of the National Competitiveness and Innovation System (SNCI), directors of administrative departments and representatives of the private sector and academic circles. This body meets once a year and is in charge of the long-term productivity, competitiveness, science, technology and innovation policy (SNCI, 2019).

In 2014, the High Presidential Council for the Private Sector and Competitiveness joined the organization. The current Government called it the Presidential Council for Competitiveness and Public-Private Management (via Decree 179, 2019) and assigned it the responsibility of

coordinating and articulating the activities of the SNCCTel. This modified the structure of the competitiveness and innovation policy. In addition, in 2017 it was decided to integrate the National Science, Technology and Innovation System into the SNCCTel. In April 2017, the functions of the High Presidential Council for the Private Sector and Competitiveness were extended to other important issues for the Government, but its original functions were also maintained.

The SNCCTel Executive Committee meets once a month and is in charge of designing the instruments to implement and monitor the policy proposed and defined by the National Commission. This body is made up of the presidential advisor of the Competitiveness and Innovation System (as representative of the president), the Minister of Commerce, Industry and Tourism, the director of the National Planning Department (DNP), the director of the Administrative Department of Science, Technology and Innovation (Colciencias) and, as representatives of the private sector, the executive president of the Colombian Confederation of Chambers of Commerce (Confecamaras) and the president of the Private Competition Council (CPC). The Executive Committee establishes the functions to be performed, within the competitiveness policy, via the ministries in charge of implementing the industrial policy designed by the Government. The government of President Ivan Duque has decided to include the Minister of Labor and the Minister of National Education in the Committee. The position of Vice President of the Republic, the Presidential Advisor for Compliance Management and the Presidential Advisor for Digital Transformation are also incorporated as permanent guests.

The DNP is an active member of both the National Commission and the Executive Committee of SNCCTel. Likewise, it participates in all the technical committees and the Regionalization Committee. For its part, the DNP's Directorate for Innovation and Development is the technical secretariat of the technical committees for productive development, and for science, technology and innovation. This is due to the fact that the DNP is the one that prepares the policy technical proposal, with the support of the ministries involved, so that the project can be presented later to the National Council of Economic and Social Policy (CONPES) for a study and decision process.

Among the Commission's private stakeholders is the CPC, a non-profit entity created in 2006 and made up of 27 companies, which has a

think tank that conducts public policy research. This is not for academic purposes, but for dissemination (of studies or reports) among associates and the general public. One of its objectives is to help entrepreneurs improve their competitiveness and adopts public policies for this purpose. The CPC monitors policies on education, health, the labor market, energy and pensions, but it also proposes improvements in the efficiency of the state (e.g. logistics performance that affects foreign trade in goods; CPC, 2017).

Within the framework of SNCCTel, the High Council of the Presidency is the body in charge of keeping the President and Vice President informed about the content and compliance with the Executive Committee's agenda. The Directorate for Competitiveness and Innovation is responsible for advising this body on policies for competitiveness, science and technology and contributes to communication between the Executive Committee and the technical committees. This Directorate is made up of only 5 delegates, who must attend all the functions assigned by the High Council.

According to Moguillansky (2012), the SNCCTel is a public-private alliance that communicates well with the state and representation of the stakeholders. The authors point out that the joint work of the public sector, coordinated by the DNP, and the private sector, organized by the CPC, has enabled consensus to be reached on the competitiveness agenda.

In 2019, the Government of President Ivan Duque formed the Ministry of Science, Technology and Innovation (under Law No. 1951). This Ministry is due to start its work in 2020, bringing together regional, national and international public and private organizations, with the purpose of developing a knowledge society. The Law refers to the National System of Science, Technology and Innovation (SNCTI) and that of competitiveness, but does not clarify the design of the new institutional framework.

The changes established with the creation of the new ministry have not yet been implemented, so the Executive Committee continues to function in the same way and receives the support of the working groups in the Regionalization Committee, the regional commissions and the technical committees. Each of these committees is made up of public and private entities in charge of developing the issues discussed in each committee according to their function.

The Regionalization Committee receives support from the existing regional commissions in all the country's regions. The competitiveness and innovation policy is executed when the decisions made by the Executive Committee, following the guidelines of the National Commission, are approved in a CONPES document (Soto, 2016; Gomez and Mitchell, 2014). Moguillansky (2012) points out the need to strengthen regional commissions and their link with the state, given the influence of local interests that may disagree with the national proposal. This may affect the execution of the national competitiveness policy, which is something the DNP officials interviewed also insisted on.

2. Institutional and governance to promote the export of modern services

a) The lack of a strategy for modern services

Colombia does not have an overall national strategy to promote the production and export of services, although there are sectoral efforts. No policy prioritizes modern services. However, the National Productive Development Policy (PDP) indicates that the lack of diversification of the export base is the cause of the country's low competitiveness. Thus, it has been proposed that the services sector contributes to improve this situation in two ways: firstly, through their incorporation into the value chains of exported goods; and, secondly, through strategic and prioritized subsectors (CONPES, 2016a). In this sense, between 2017 and 2018, the Government of Juan Manuel Santos set out to identify the services that contribute to the export of agro-industrial products.

However, prioritizing services with export potential is more difficult in the regions. In an interview with DNP officials, it was concluded that the entity did not yet have a methodology to determine potentially exporting services by region. However, the DNP and the Productive Transformation Program (PTP, or since 2019, Colombia Productiva) are working to find the best solution for this. Consequently, it has not begun to implement what was proposed in the PDP for services as an export alternative with prioritized subsectors. There are also no indicators for measuring results.

Although the PDP has only been operational for 2 years, its scope in the case of the services sector has been limited. However, to correct these failures, an Action and Follow-up Plan (PAS) and an evaluation of

the policy were established, which was carried out by the Organization for Economic Cooperation and Development (OECD/UN/UNIDO, 2019). As explained by one of the interviewees, at the end of 2018 it sought to implement corrections in its operation, but it is not yet clear whether the new development plan will give continuity to the PDP or the changes that will be made, as this would directly affect the competitiveness policy.

Meanwhile, the Intersectoral Commission for Human Resources Management is working on forming a National Qualifications Framework to improve the quality of human capital and satisfy the needs of companies (Ministry of National Education, 2017). This strategy is based on the principles of Devlin and Moguillansky (2009) in relation to public and private participation to qualify human capital. Thus, the Ministry of National Education, the Ministry of Labor, the Ministry of Information Technologies and Communications (MINTIC), MINCIT, the National Learning Service (SENA) and the CPC joined forces to contribute to the formulation of the new strategy for university and technological education.

As a member of the SNCCTel Executive Committee, the CPC is responsible for supporting the work of the Intersectoral Commission for Human Resources Management. In the National Competitiveness Report 2017-2018 (CPC, 2017), it found that 42% of companies reported difficulties in filling vacancies in Colombia. This is due to the lack of skills and experience of applicants, among other things. As a pilot scheme to improve the situation for employees, work has been done in the health, culture and information and communications technology (ICT) sectors.

b) Institutions involved in the promotion of modern services exports

The institutions linked to the promotion of modern services exports and their compliance with the principles of good governance (Devlin and Moguillansky, 2009) are listed and evaluated below. The promotion of exports of information technology (IT) and digital content play an important role, which is a sign of the Government's effort to promote the internationalization of companies in the sector.

A questionnaire to evaluate the measures being implemented was designed based on the experience of assessing governance in Mexico (Devlin and Cabezas, 2009), along with other questions developed by ECLAC for this book. The questionnaire was applied through semi-structured interviews with 15 public and private stakeholders between June and August

2017. Follow-up conversations were held with some of these stakeholders in April and May 2018. Based on this work, existing policy instruments were established and how they are being implemented was evaluated. The entities and companies interviewed were:

High Presidential Council for the Private Sector and Competitiveness

- Directorate of Competitiveness and Innovation

Ministry of Commerce, Industry and Tourism and related entities

- Foreign Investment and Services Directorate
 - Management of the Colombia Exports Services Strategy
 - Trade negotiations in services to promote international trade in the sector
- ProColombia
- Bancoldex Group
- Production Transformation Program, Software Management and BPO Management

Ministry of Information and Communication Technology

- IT Industry Development Directorate
- Colombia Bring IT On Campaign

National Planning Department

- Innovation and Business Development Department
- Directorate of Monitoring and Evaluation of Public Policy

Private Competitiveness Council

Bogotá Chamber of Commerce, Vice Presidency of International Relations and Cooperation

(i) Ministry of Commerce, Industry and Tourism (MINCIT)

MINCIT is organized into 3 vice-ministries: foreign trade, business development and tourism. Within the first, is the Directorate of Foreign Investment and Services, which, among other functions, is in charge of designing (within the framework of the PDP) public policy focused on international negotiations and export of services, promoting the attraction of foreign investment and addressing intellectual property issues. According to the deputy minister, this department dedicates about 80% of its time to foreign investment issues and gives a low priority to the service sector.

The MINCIT policy execution entities are ProColombia (responsible for export promotion), Grupo Bancoldex (which offers financial resources for producers of goods or services to export, as well as for importers of Colombian goods) and the PTP (in charge of promoting the competitiveness and productivity of the industry inside and outside the country).

According to an official from the Directorate of Foreign Investment and Services, in the short term there will be three changes that benefit the promotion of services. Firstly, the Vallejo Services Plan (created a few years ago for export support, but in which only 11 companies currently take part) will be reformed to facilitate access to the sectors and expand them, using the Expanded Classification of the Balance of Payments for Services (CABS).⁴ As the current plan manages a fixed list of capital goods for possible import, it will seek to have a more flexible list, which can be modified by a resolution and not a decree, facilitating it a permanent update. The new version of the plan will also include sanctioning and regulatory issues with the National Tax and Customs Directorate (DIAN) and the private sector. However, implementation of this update has been delayed.

Secondly, one of the goals of the negotiations between the member countries of the Pacific Alliance is to eliminate obstacles to the export of services, since it is a sector where member countries already have bilateral treaties and where the Alliance would like to be stronger. Thus, exports

⁴ This plan allows service exporting companies to request the import of capital goods with total or partial suspension of customs duties, as well as deferral of the payment of value added tax (VAT), provided that the consideration is export of services for an amount equivalent to 1.5 of the FOB values of imported goods. For more information, see https://www.inviertaencolombia.com.co/Adjuntos/106_Manual%20Plan%20Vallejo%20de%20Servicios%202009.pdf.

have been liberalized by mode one and regulated by mode four. Progress is being made in facilitating the mobility of professional service providers, through mobility cards and the reduction of obstacles to officially authorize professional titles and conduct visa procedures. Also, negotiation within the Alliance have developed a four-pronged digital agenda: digital government, digital ecosystem, connectivity and the digital economy. It seeks to lift the regulation of electronic trade, facilitate and harmonize electronic payment systems and eliminate obstacles to connectivity and its infrastructure.

The third change comes from the ongoing negotiations of the Pacific Alliance with partner countries (Australia, Canada, New Zealand and Singapore). According to the information provided by the official responsible for policy related to the service sector in MINCIT and by the Colombian negotiator in the Pacific Alliance, the negotiation will have a significant effect, as the Colombian professional labor force has reduced mobility in said countries. Export could also be favored by mode one.

In addition, the Directorate of Foreign Investment and Services formulated a strategy to promote the internationalization of local companies. The Ministry launched the Colombia Export Services strategy to achieve sales of \$9 billion in 2018 (30% more than in 2014); of that figure, \$6 billion corresponded to tourism. The justification for developing this strategy was the evident public policy bias towards promoting exports of goods. In turn, instruments designed for goods were not entirely adequate for the needs of the service sector. This was the first specific program related to services and does not distinguish between modern and traditional services.

The Colombia Export Services strategy consists of 4 areas: (i) business strengthening; (ii) human capital investment; (iii) trade promotion and (iv) improvement in the business climate. Within the framework of the objective of improving trade promotion, the strategy called for the formation of a technical committee for services within the SNCCTel, whose main task would be to determine the factors that affect competitiveness in the sector and to propose alternative solutions. This committee should communicate with the regional competitiveness commissions where a service subsector has been prioritized. In addition, it should facilitate dialogue between academic circles, associations, coalitions and entrepreneurs, to find solutions to the sector's competitiveness problems.

For the purposes of this study, the results of the strategy were evaluated in 2 ways. Firstly, the goal of exporting \$9 billion in 2018 was reached, as indicated by the Directorate of Monitoring and Evaluation of Public Policies of the DNP (2018). Secondly, the strategy was analyzed for compliance with good governance principles. The proposal to create a technical committee for services was not accepted by the SNCCTel Executive Committee and only one project on the services sector could be included in the Intersectoral Commission for Human Resources Management agenda. This result highlights several things. Undoubtedly, the MINCIT capacity to support and open areas to the service sector within the technical committees is still very limited. It should be remembered from the design of the strategy in 2014 until the end of Santos' presidential term in 2018 MINCIT changed its minister five times. This contributed to changes in the priorities of some of the ongoing programs. Finally, according to the MINCIT officials interviewed, the initial idea was to bring the services policy to the level of a CONPES document, so that there could be a services law. However, the scant attention paid to this proposal shows the service sector is not yet a priority within the process of formulating industrial policy.

This failed proposal also highlights that, when working within MINCIT with a view to developing its own policy to promote services, proper engagement with the priorities of the Executive Committee was not achieved. Also, the business sector represented in the CPC did not support MINCIT in its attempt to establish a promotion and production policy for the modern services sector (see Table IV.1).

TABLE IV.1
Colombia: Ministry of Commerce,
Industry and Tourism and related entities

| Stakeholders | Strategies | Main policies | Main programs |
|------------------|--------------------------------------|--------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|
| MINCIT | Colombia exports services, 2014-2018 | Business strengthening for export services | Preparation of exporting services worth \$1.5 million through certification and compliance with international standards. |
| iNNpuls Colombia | | | Development of production chains (\$1,3 million). |
| MINCIT-MINTIC | | | Building electronic trade and improvement of the use of the Internet (\$6.8 million). |

| Stakeholders | Strategies | Main policies | Main programs |
|-----------------------------------------|--------------------------------------|-------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ProColombia | | | Promotion of foreign direct investment (FDI) in services to attract investors, private equity funds and venture capital. |
| Bancoldex | | | Lines of credit for companies with an export vocation such as “Competitive MSMEs for Productive Scaling”, “Bancoldex Sustainable Development”, “International Expansion” and “Bancoldex Energy Efficiency and Renewable Energy”. |
| Bancoldex | | | The “buyer line” allows Bancoldex to give credit to an importer through foreign banks to buy Colombian products and services. |
| iNNpuls Colombia | | | Acceleration of companies for export production capacity (\$900,000). |
| iNNpuls Colombia | | | Leverage a higher level of private investment in companies with high growth potential (\$1.03 million). |
| iNNpuls Colombia | | | Investment for corporate entrepreneurship through open investment and asset transfer (\$508,000). |
| Bancoldex | | | 3E Program (Export Excellence Companies) aimed at 50 exporting firms of non-mining-energy products with a view to evaluating and innovating the export business model. |
| PTP-MINCIT | | | Project to promote health service providers that serve international patients to obtain certifications endorsed by entities such as ISQua, Colombian Institute of Technical Standards and Certification (ICONTEC), Joint Commission International (JCI), eSourcing Capability Model (ESCM) and Capability Maturity Model Integration (CMMI). |
| MINCIT, PTP, Bancoldex and Confecámaras | | | Business training on the Law of Guarantees (Law 1676, 2013). |
| MINCIT, PTP and SENA | Colombia exports services, 2014-2018 | Human capital for participation in world trade and services | Bilingual program for outsourced services (2,000 people in 2018). |
| MINCIT and ProColombia | Colombia exports services, 2014-2018 | Trade promotion for export services | Launch of website “Colombia Export Services”. Updated by ProColombia-MINCIT. |
| MINCIT and ProColombia | | | Promotion of Colombia as an international tourist destination with the campaigns “Colombia is magic realism” (2013) and “Colombia, land of good things” (2017). |

| Stakeholders | Strategies | Main policies | Main programs |
|------------------------|-------------------------------------|---------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| MINTIC and ProColombia | | | Promotion of Colombia as a provider of information technology services through the Colombia Bring IT On campaign. |
| MINCIT-DANE | Colombia exports services 2014-2018 | Improvement of the business climate for services export | MINCIT supports DANE to include departmental foreign trade figures from the third quarter of 2015. |

Source: prepared by the author.

There is lack of coordination, sectoral leadership, information on the potential of modern services and, therefore, effectiveness, in the Colombia Export Services strategy. Furthermore, 70% of the resources are concentrated in a traditional service: tourism. Although the position of manager of the program to export services was created, it has limited itself (since it did not have the firm support of MINCIT) to organizing spaces for dialogue, between the stakeholders who execute the policy in the ministry, and working with a view to improving service statistics.

Finally, many of iNNpuls Colombia's programs aimed at entrepreneurs were not implemented. Also, the Bancoldex lines of credit are used more by the goods sector. Still, the PTP has been able to work with service companies in the software and BPO sectors to improve their competitiveness. However, other types of services have yet to be studied.

(ii) Ministry of Information and Communications Technology (MINTIC)

The MINTIC established a medium-term roadmap with multiple purposes, including the Vive Digital plan, phases I (2010 to 2014) and II (2014 to 2018). Their objectives were to create employment; bring information technology to the majority in the regions; promote online government; and strengthen the information technology and digital content industries (to create opportunities for opening international markets). To implement these plans, MINTIC formed the Vice-Ministry of Digital Economy, with the task of formulating policies and programs for the development of the information technology industry, including digital content, within the framework of the creative economy. The incorporation of the digital content area in the vice-ministry was achieved in the second half of 2017, with the idea of bringing together the entire information technology industry and, therefore, implementing its policy.

To achieve the objectives of the Vive Digital plan, connectivity in the country was improved by an expansion of underwater cabling, giving 57% of Colombians access to the Internet. Thus, at the Latin American level, Colombia was behind Mexico only in digital infrastructure and cloud services, with a significant information technology industry diversified by regions and at low cost (Everest Group, 2017). This positioned the country as a good destination and a favorable geographic location which contributed to the internationalization of information technology and digital content companies.

Also, because the increased use of digital platforms and new means of payment have led to cybersecurity problems, the Government established a policy to strengthen the capacities of multiple stakeholders, through the identification, management, treatment and reduction of digital security risks. The implementing entities of this policy are MINTIC, the Ministry of National Defense, the National Intelligence Directorate and the DNP. This policy has a budget of about \$26 million and results are expected in 2020 (CONPES, 2016b).

The governance of public policy aimed at modern services (in this case information technology and digital content industries) can be understood as a whole, in particular for this type of services. In the next section, the main aspects of the joint evaluation are presented and the experience of a program aimed specifically at promoting the internationalization of companies in the sector is discussed.

iii) Evaluation of the Vive Digital plan, phases I and II

The DNP Public Policy Monitoring and Evaluation Directorate monitors projects carried out with public resources through the Information and Communications Technologies Fund (FONTIC). Along these lines, it carried out an evaluation of the Vive Digital plan in its two phases (DNP, 2019). Between 2010 and 2017, programs to expand social telecommunications and computing for education received 58% of the investment (US\$1.13 million) from FONTIC. There are also 35 other programs that did not have continuity during 2010-2017 or which have been recently created. In 2015, for example, 7 programs were created and investment was stopped in another 10. Table IV.2 presents a brief summary of the main Vive Digital plan programs.

TABLE IV.2
Colombia: Ministry of Information and
Communication Technologies

| Stakeholders | Strategies | Main policies | Main programs |
|----------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| MINTIC | Strengthening the Information Technology Industry (FITI), 2012-2018 | Vive Digital Plan I (2010-2014): infrastructure, services, users and applications. | Vive Digital kiosks in rural areas: access to a place with devices and wifi. Vive Digital Points: access to Wi-Fi in points such as a park. The 2 Vive Digital plans used 58% of the ministry's public resources. |
| MINTIC | | | Digital Homes: subsidy for Internet rates for low-income sectors in urban areas (\$49 million). |
| MINTIC | | | Apps.co: support for software businesses and digital content companies. |
| MINTIC | | | Support for services implemented on telecommunications networks. |
| MINTIC | Strengthening of the Information Technology Industry (FITI), 2012-2018 | Vive Digital Plan II, (2014-2018). Talent and quality in information technology, innovative solutions, regulatory specialization, associativity, promotion of digital entrepreneurship, sector strengthening and internationalization. | In 2014, there was a deficit of 93,450 IT professionals. The goal is to train 35,500 professionals (38% of the total). |
| MINTIC | | | Training of 30,000 people in Vive Digital Laboratories. |
| Fullbright, International Labor Organization (ILO) and Colombian Institute of Educational Credit and Technical Studies Abroad (ICETEX) | | | Grants for master's degrees. |
| MINTIC | | | Training and support for ISO, CMMI certifications in services and development version. |
| MINTIC | | | Implementing a quality model in 120 companies until 2014 and in 360 companies in 2018. |

| Stakeholders | Strategies | Main policies | Main programs |
|-----------------------------------------------------|------------|---------------|--------------------------------------------------------------------------------------------------------------------|
| MINTIC and Colciencias | | | Selection of projects by economic sector. |
| MINTIC | | | Formulate and manage the implementation of standards to incentivize the information technology industry. |
| MINTIC, Colciencias and Creáme (business incubator) | | | Incuba TI: creates new companies in partnership with young and/or successful entrepreneurs. |
| MINTIC | | | Doubles the results of Apps.co up to 2014. |
| MINTIC | | | Includes 311 companies in the business mentality and culture model. |
| MINTIC and ProColombia | | | Promotion of Colombia as a provider of information technology services, through the Colombia Bring IT On campaign. |
| MINTIC | | | Increase the number of information technology companies from 2,500 to 4,600. |
| MINTIC | | | Double sales |

Source: prepared by the author.

For the DNP, this situation affects the development of the long-term policies of MINTIC. The incorporation of new goals diverts resources and effort that should be aimed at reducing the gaps in access and universal Internet service. For example, in 2016 the percentage of the population that did not use the Internet was 35% in urban areas; 60% in small population centers (understood as the rural areas of a municipality, made up of 20 or more contiguous dwellings); and 70% in scattered rural areas. Despite the efforts of MINTIC, there has been no improvement in the penetration of digital coverage.

There are also no indicators on the completion (process) of the initiatives. For example, if programs are completed within the stipulated time, they are not evaluated. There are also no risk identification indicators, which are important for evaluating results. This weakness in the planning of the Vive Digital plan programs affects the formulation of follow-up strategies and the possible adjustments necessary to optimize the use of public resources. The coordination between MINTIC and national and territorial entities should also be improved, both during planning and during the implementation of

the plans (see Table IV.2). Another aspect that affected the efficiency of the Vive Digital plan was the lack of medium-term evaluations, results and impact. This prevented adjustments being made to optimize investment.

IV) Internationalization of information technology companies as an opportunity to open markets

One of the strategies aimed at developing the information technology industry and promoting its internationalization consisted of strengthening export supply. This was done by launch of a strategic alliance between MINTIC and ProColombia through the Colombia Bring IT On agreement, implemented in 2012 and consolidated with the Vive Digital plan, phase 2. The Government of President Duque decided not to continue with this agreement.

The objective of the plan was to export to key export markets (for example, Chile, Ecuador, Spain, the United States, Mexico and Peru). However, according to the information provided by MINTIC, it has also traded with more than 90 countries through recurring exports. The agreement involved an investment of close to \$10 million dollars, with an export goal of \$611 million and a scope of 2,900 companies. As in the case of Colombia Export Services, it should be noted that it was an exclusive inter-institutional agreement to promote the internationalization of the information technology and digital content industry, which ended in 2018. The evaluation of its results is still pending.

The general objective of the agreement was to strengthen and consolidate the commercial capacity and international promotion of information technology and digital content companies. This would be achieved through technical, human capital, administrative and financial efforts, with the purpose of increasing sales in the sector, in accordance with the Vive Digital plan. Along these lines, its strategic objectives were:

- Increase the number of exporting companies. Thus, training programs were launched in the different regions of the country, consisting of experts in tax, financial, legal and marketing issues, which would allow companies to implement business models to compete in global markets. In addition, mature companies were offered adaptation processes in areas such as contracts, intellectual property, commercial strategy and marketing.

- Access to smart capital for companies. It was expected to present the firms that need financial leverage to potential investors.
- Positioning of the information technology and digital content industry in international markets, through websites, social networks, newsletters and trade promotion, among others.
- Increase in recurring international sales through participation in trade fairs and specialized events, as well as business conferences and workshops with international experts in adaptation processes.

Between 2014 and 2017, investment in the program was close to \$6.5 million, of which MINTIC contributed 74% and ProColombia 26% (MINTIC, 2018). Of the MINTIC resources, 43% was allocated to information technology industries and 31% to digital content. ProColombia's contributions focused on paying for the administration of the agreement and covering travel and accommodation costs for entrepreneurs who participated in business rounds.

According to the Vice-Ministry of Digital Economy, 800 companies participated in Colombia Bring IT On during 2017. Of these, 639 were from the information technology industry and 161 from digital content. The exported amount was \$237 million, which exceeded the goal of \$185 million. However, the businessmen interviewed argued ProColombia had no monitoring system for these sales, so it is possible that not all these exports will be maintained over time, which was one of the objectives.

The goals for the full period from 2014 to 2018 were also exceeded. The goal of participating companies was 2,900, while 3,048 were counted before the end of 2018 (MINTIC, 2018). However, as in 2018, there was a change of government, and the execution of the agreement during the second semester could have been lower than in other periods. The export goal was \$611 million, while \$617 million of sales abroad were recorded (MINTIC, 2018). Although these results are satisfactory, it will be necessary to evaluate if the participating companies managed to consolidate their internationalization afterwards.

V) *The information technology strategy in the medium term*

The strategy to strengthen and expand the supply of the information technology and digital content industry is based on

some good practices in governance. In the first place, during the first Government of President Santos (2010-2014), the development plan established the need to face the digital transformation with benefits in employment, the education sector and foreign trade. Thus, the sector plan was a priority for the Government and strengthened the power of MINTIC to execute programs. However, in its review of MINTIC spending between 2010 and 2017, the Ministry of Finance and Public Credit found that an average 20% of annual spending of FONTIC resources had been redirected to the General Budget of the Nation (DNP, 2019). This partly explains complaints from the interviewed businessmen about the agreement's budget reductions and the impossibility of fulfilling its proposals.

Secondly, this policy strategy was transformed into the Live Digital plan, structured and implemented by MINTIC, which was also the only agency involved in its execution. The continuity of the person responsible for the design and implementation of the sector plan had 2 benefits. Firstly, it promoted the government's commitment to and responsibility for the information technology sector. Secondly, it contributed to trust and coordination in the implementation of the policy with the other digital ecosystem stakeholders.

The third part was the relative stability of the middle managers and officials in the vice-ministry and regional directorates. Most of them stayed in their jobs during the 2010-2018 period. Resources were also available to finance compliance with the strategy.

Fourthly, a constant dialogue among associations, groups and companies of different sizes and regions occurred and was encouraged. The purpose was to discuss the different initiatives and not work in isolation. This initiative was materialized through support for information technology groups in the regions; some scholarships for students in professions related to information technology inside and outside the country; and support for internationalization through the Colombia Bring IT On campaign.

A fifth point was that ProColombia's experience was used to promote and position the information technology and digital content industry in international markets. A work plan was formed with this body to strengthen promotion and marketing capacities and participation

in specialized fairs and events, to prepare the export offer better. Entrepreneurs valued the synergy between both institutions, which led to the agreement being successful, staff turnover being low and the processes continuous, which helped to build trust.

Apart from ProColombia, MINTIC also established strategic alliances with other entities (see Table IV.2) according to the objectives of the Vive Digital plan. For example, it partnered with the PTP to connect sectoral supply and demand at regional level. Similarly, the link MINTIC maintained with the Ministry of National Education and Colciencias regarding professional training issues in information technology and innovation was a notable feature.

Despite certain good results, some interviewed businessmen suggested that MINTIC and ProColombia could have improved the monitoring of business deals during business networking events and further support participation in other international events. In other words, there was little evaluation of the effectiveness of business practices. In addition, the quality of the buyers invited to the rounds needs to be improved. Some businessmen felt that the Colombian brand in terms of information technology was not used or publicized enough and no clear differentiation was promoted. They also demanded greater practical applicability in training and improved business and commercial matters (especially regarding the tax and legal situations of destination countries). According to the interviewees, the agreement website is outdated and there is very little movement on social media.

Finally, the agreement had some budgetary restrictions and only part of what was programmed was executed. Therefore, the businessmen demanded greater flexibility to be able to incorporate new events (inside and outside the country) that emerge outside the programming. A budget line earmarked for such eventualities could help make better use of changing international trade scenarios.

3. Advantages and challenges to improving governance in promoting modern services exports

There is a growing consensus on the benefits of creating public-private partnerships for the formulation and implementation of industrial

policy (Devlin and Moguillansky, 2010; Devlin, 2016, and Moguillansky, 2012). In addition, Rodrik (2011) argues that political leadership at the highest level and a coordinating body that manages to design, implement and monitor these industrial policies is essential for their success.

In Colombia, the SNCCTel public-private alliance has been in existence for several years and is regarded as a mature experience in Latin America (Moguillansky, 2012). On the positive side, the system is legitimized and no one opposes its role as manager and promoter of public policies on competitiveness, science and technology. Although it is true that the current Duque government seeks to prioritize science, technology and the creative economy, it does not do so without being aware of this structure. For example, the CPC has indicated that the Government's commitment to these issues must necessarily be aligned with the PDP (CPC, 2019).

This leadership at the highest level that Rodrik (2011) speaks of is not so evident in the Colombian case. Although the SNCCTel National Commission is led by the President, it meets only once a year. To resolve this, the Duque government has decided that the vice president should have a more active presence in the body. However, this involves the challenge of clearly establishing the functions of the vice president within the Executive Committee. Another challenge is to reorganize the tasks of the High Presidential Council for the Private Sector and Competitiveness, in search of greater coordination within the SNCCTel.

During the second presidency of Santos (2014-2018), an attempt was made to prioritize the regions in terms of competitiveness, and so the National Development Plan focused on regional needs. The objectives of the Executive Committee reflected this guideline in the design and monitoring of policies, while seeking more active participation from the regional committees in determining their requirements.

Because the internationalization of most modern service companies is low, current sector support to potential beneficiaries has limited coverage. Despite the efforts made, there are still delays in the transmission of information from the central to the regional level, which Moguillansky (2012) pointed out. Certain regional political debates reduce the precision of their requests and can privilege the sectors from which political support is received. All of the above reduces local representation and reduces consensus in the regional committees. In short, political interests, especially during electoral

periods or in anticipation of the post-conflict scenario, affect the governance of the SNCCTel in the regions.

The public stakeholders interviewed confirmed a high commitment to the PDP, but it is not yet clear how it promotes the export of modern services. This is because the stakeholders are not well established and the officials interviewed were not familiar with the concept. In addition, because the PDP was a flagship policy of the Santos government, it remains to be seen how it will be treated in the new National Development Plan of the Duque government. According to a draft of the foundations of the National Development Plan, there is no explicit commitment from any government proposals to the PDP.

Changes in the historical and social context have also played a key role. Although the actions of the Executive Committee should have fixed long-term goals, outlined every 4 years in the National Development Plan, conjunctural ups and downs can cause deviations along the way. Thus, the development and implementation of public policy monitoring and control indicators is imperative for better evaluation of the implementation of the PDP. It would be advisable to put into practice some of the Organization for Economic Cooperation and Development (OECD) suggestions in the evaluation of the PDP (OCDE/ONU/ONUDI, 2019).

The experience of CPC participation in decision-making and implementation of the competitiveness policy has been beneficial. Firstly, the business sector has sought to familiarize itself with the advantages and limitations of public commitment to industrial policy, to establish its own actions. The CPC also expresses its commitment to the execution of the competitiveness policy, within the framework of business interests. An example is its great contribution to the configuration of the national competencies' framework, by suggesting technical support for technological training entities. These establishments are intended to structure a curricular network that takes into account the competencies that employers expect their new employees to have.

The Duque Government has reversed the decision of 2017 to merge the National Competitiveness System with that of Science, Technology and Innovation. Science and technology policy has had a low budget for a long time and Colciencias has had efficiency problems in designing, managing and executing this policy (Zambrano and Otero, 2006). The expectation focuses on the functions of the new Ministry of Science, Technology and Innovation.

B. Policy challenges

The PDP was designed in 2016 to be implemented over a 10-year period. However, the Duque Government has not yet shown a commitment to continuity in the foundations of the National Development Plan 2018-2022, and this directly affects the governance of competitiveness policy (DNP, 2018a). Although the Colombia Export Services and Colombia Bring IT On programs were the first aimed at promoting the service sector, they ended in 2018, and it is not known whether they will have a second phase in the strategy of the new development plan.

According to Ocampo (2015), without an active promotion policy, exports will tend to be concentrated in a few firms and in products whose demand is less dynamic and more vulnerable to fluctuations in world markets. Therefore, the formation and implementation of a public policy aimed at promoting services, with an emphasis on modern services, is essential if the country's export diversification is to be pursued.

Meanwhile, MINCIT continues to be the leading voice on the issues of training and determination of competencies for human capital associated with service companies, which is carried out by the Intersectoral Commission for the Management of Human Resources. However, the heterogeneity of the services requires joint work with the Ministry of Labor and the Ministry of National Education if the aim is to achieve real benefits for professionals working in this type of company.

During the two terms of Santos, the improvement in the competitiveness of modern services was promoted through a policy aimed at the information technology and digital content industries, through the Colombia Bring IT On strategy. Entrepreneurs find that this initiative (or a new one to replace it) should improve management, marketing and evaluation of results. In addition, more resources would be needed to achieve a greater impact on the industry.

Finally, it was found that there are asymmetries in the communication between MINTIC and the PTP, which affect the joint work for the promotion of exports of the information technology and digital content industry. There are sometimes overlaps between the tasks of the PTP and the MINTIC; while certain interviewees pointed out the existence of obstacles created by personal or selfish reasons within the institutions, which made it difficult to reach a consensus.

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Chapter V

Costa Rica: Success based on long-term coordination

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Sandro Zolezzi²
Francisco Monge³

Introduction

Costa Rica is a success story in the export of modern services. Over the last few years, foreign sales of information technology (IT) and computing services have grown rapidly to the point that, together, they have outpaced exports from the primary agriculture and tourism sectors; the latter had historically held first place in importance among total service exports.

The development of the modern services export sector in Costa Rica is part of an important process of structural transformation of the country's economy. This process was the result of sustained application of policies for commercial opening and attraction of foreign direct investment (FDI) for 30 years. These have been combined with a modest system of tax incentives and advantages in terms of geographic location, the availability of qualified human capital, the quality of the business climate, and effective and functional governance applied to

1 Ministry of Foreign Trade of Costa Rica (COMEX).

2 Costa Rican Coalition of Development Initiatives (CINDE).

3 Costa Rica Ministry of Foreign Trade of (COMEX).



formulating and implementing public policies. This has enabled significant growth, diversification and sophistication in the country's exports, the creation of well-paid job opportunities and a substantial increase in the resilience of the economy in the face of international economic cycles.

This chapter analyzes the governance of the formulation and application of public policies regarding foreign trade and the attraction of FDI in Costa Rica, with a view to understanding the way in which these contribute to developing export capacities for modern services in the country.

The methodology to be used combines descriptive statistics with a documentary review, as well as the expert judgment of the authors drawing on their own careers in areas directly related to activities aimed at attracting investment and promoting the export of modern services.

The chapter has been structured in five sections. The first contains this introduction. The second analyzes how the attraction of foreign direct investment and modern service exports has evolved. The third presents the main policies that have been applied in Costa Rica which have contributed to promoting the export of modern services. The fourth section analyzes the characteristics of the governance of these policies and, finally, the last section contains the main conclusions and findings of the analysis carried out, as well as policy lessons obtained from the case of Costa Rica.

A. Evolution of the attraction of FDI and exports of modern services in Costa Rica

1. Historical overview of the establishment of modern service companies

Costa Rica has come a long way as a destination for FDI since pioneering companies in the industrial sector (such as Bridgestone, Havells Sylvania and General Cable Corporation) established operations in the country in the 1960s. Once the import substitution model ended in the 1980s, a more outward-oriented development model was adopted in the country in which FDI has played an essential role (OECD, 2013).

Efforts were directed to attracting investment that promotes efficiency and not those oriented to the search for markets. The latter is mainly motivated by the possibility of producing close to the consumers of a target market, while those in the search for efficiency are aimed at satisfying the desire of companies to reduce costs by outsourcing business processes and production (Dunning, 1993). By definition, this type of investment is characterized by a high level of exports of finished or intermediate goods and, increasingly, of services.

Initially, most of the FDI that arrived in Costa Rica went into the textile and clothing and agro-industrial industries. However, the arrival of Intel in 1997 marked a new beginning, as its decision to establish a plant for the assembly and testing of microchips paved the way for other multinational high-tech companies.

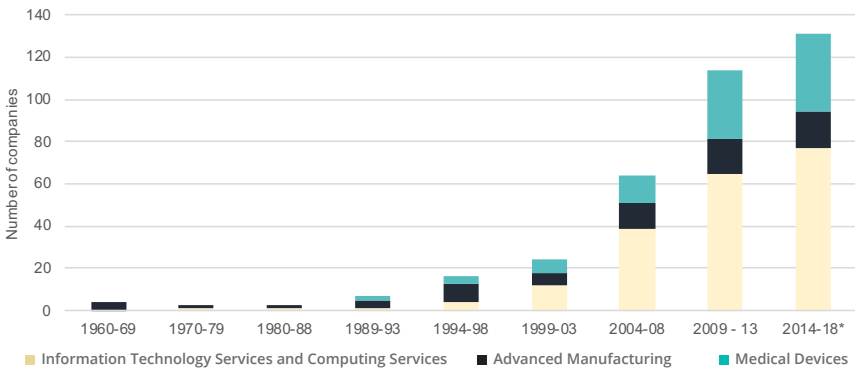
The establishment of this company can be considered as the starting point for the country's insertion in the world mechanisms of shared production, as well as the beginning of the development of a sector oriented to exports and producing high technology manufacturing and value-added services (Monge-González and Zolezzi, 2012). In Costa Rica, the arrival of Intel was used to attract flagship multinationals from other sectors, such as IT and computerized services. The objective was to improve the country's participation in global production-sharing mechanisms, also known as global value chains.

Starting in the mid-1990s, FDI flows into the country became more dynamic. After 1997, the number of companies operating in knowledge-intensive sectors increased (see Figure V.1), including the following:

- IT and computing services: contact centers; shared services; operations offices; software; design, architecture and engineering; entertainment and media, and regional venues.
- Advanced manufacturing: microprocessors for servers and desktop computers; electronic components; auto parts and telecommunications components.
- Medical devices: intravenous infusion sets; endoscopic devices; breast implants; tissue heart valves; sterilization services; heart rhythm devices; neuromodulation devices; surgical arthroscopy equipment; metal ties; biopsy forceps and devices for anesthesia and ambulatory infusion, among others.

FIGURE V.1
Costa Rica: companies established in the country engaged in knowledge-intensive activities, 1960-2018

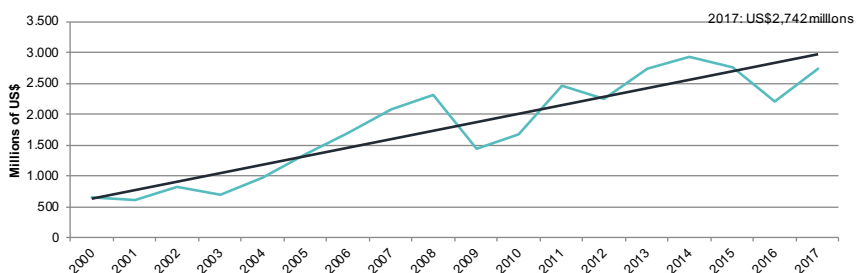
(Number of companies)



Source: Compiled by the authors, from the Costa Rican Coalition of Development Initiatives (CINDE) data. / * The data for 2018 are estimates.

In 2017, \$2.742 billion in FDI entered Costa Rica (see Figure V.2). Most of this investment came from reputable companies in life sciences and biomedical research, knowledge-intensive manufacturing, and knowledge-processing services.

FIGURE V.2
Costa Rica: total foreign direct investment, 2000-2017
(Millions of dollars)



Source: Elaboration by the authors on the basis of Costa Rica Central Bank (BCCR) data.

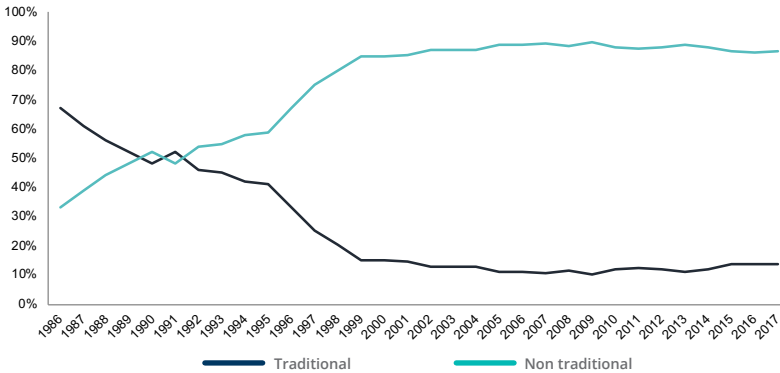
Since 2007, FDI inflows have grown by 3% per year on average; flows of this type of investment currently finance 100% of the current account deficit (due to the effect of the trade surplus in services). In 2017, FDI represented 4.8% of gross domestic product (GDP) and reached \$554 per capita; This placed Costa Rica among the top Latin American countries in both indices.

Whereas in the 1980s, Costa Rica’s exports were mainly based on 4 products destined for a few countries, today 4,390 different products are shipped to 151 destinations.⁴ The relative share of exports of traditional products (coffee, bananas, meat and sugar) has decreased considerably, from 67% in 1986 to 13.5% in 2017 (see Figure V.3).

⁴ The quantity of products refers to the number of tariff fractions at the national subsection level with an annual exported value greater than \$200 dollars. The classification on a national scale is based on the 6th amendment of the Central American Tariff System (SAC). The number of destinations, meanwhile, refers to the number of countries or customs territories to which an amount greater than \$1,000 dollars was exported.

FIGURE V.3
Costa Rica: exports of traditional and non-traditional products, 1986-2017

(Percentage of total exported)



Source: Elaboration by the authors on the basis of Costa Rican Foreign Trade Promoter (PROCOMER) data.

N.B. Traditional exports are coffee, bananas, meat and sugar

The history of the information technology-based services sector in Costa Rica began in 1995 when Equifax, one of the main credit reporting agencies in the United States, set up a contact center in the province of Heredia. This functioned as an ancillary services office providing data entry services in English to most of the largest retailers in Canada and the United States.

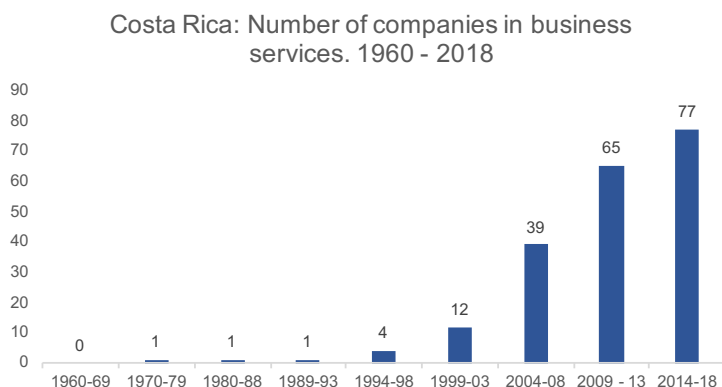
In 2004, Procter & Gamble signed global agreements to outsource human resource services, IT support services and facilities management, and transferred them to IBM, HP, and Jones Lang LaSalle, respectively. This contributed to HP and IBM also establishing operations in Costa Rica.

The liberalization of the telecommunications sector in 2009, as a result of the Free Trade Agreement between the Dominican Republic, Central America and the United States, contributed to a large increase in FDI inflows to the IT industry and computing services (see Figure V.4). Since then, Costa Rica has progressively liberalized the telecommunications sector, including private network services, Internet services and wireless mobiles, which are currently open to competition. After 2009 (see Figure V.4), there was a significant growth in the arrival of foreign companies in

the IT and computing services sector. Most of the investment and foreign reinvestment has been made by US companies dedicated to the shared services subsector, among them Procter & Gamble, HP, IBM, National Instruments, Thomson Reuters and Walmart (Koehler-Geib et al, 2014).

FIGURE V.4
Costa Rica: companies operating in the information technology and computing services sector, 1960-2018

(Number of companies)



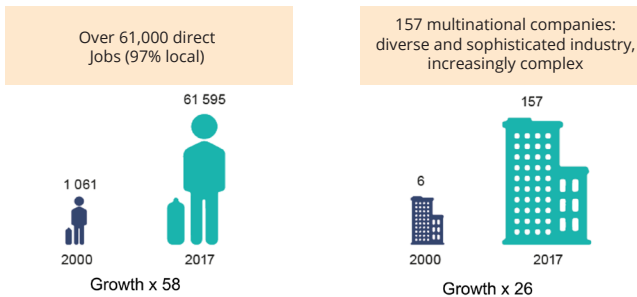
Source: Elaboration by the authors on the basis of Costa Rican Coalition of Development Initiatives (CINDE) data. / * Data for 2018 are estimates.

Between 2005 and 2008, Procter & Gamble expanded its operations in Costa Rica. First, it became the Center for Financial Services for the Americas. Subsequently, the company expanded its operation by opening a Business Transformation Center for the Americas and executing its main business transformation projects on a global scale in Costa Rica. Today, this organization is tasked with reinventing best business practices by aligning processes, people and technologies around the world to lower operating costs and deliver tangible value to business.

In 2011, Intel centralized its Engineering Development Center for the development and testing of the pre- and post-silicon phases, as well as software design. In 2014, the company announced the creation of its Research and Development Center, which became the largest captive research and development (R&D) operation in Costa Rica, responsible for the activities of the aforementioned phases and software design.

After 2015, companies like Moody's Analytics, McKinsey & Company, and Ernst & Young opened subsidiaries in Costa Rica to serve their global consulting operations. In fact, the office that McKinsey & Company has in the country is the largest outside the United States, with more than 1,000 employees. All of these companies, along with successful expansions and sophisticated activities by others, have created a group of approximately 157 companies that directly employ more than 61,000 Costa Ricans.

DIAGRAM V.1
**Costa Rica: foreign direct investment
in modern services, 2000 y 2017**



Source: Elaboration by the authors on the basis of data from the Costa Rican Coalition of Development Initiatives (CINDE), the Costa Rica Central Bank (BCCR) and the Costa Rica Foreign Trade Promoter (PROCOMER).

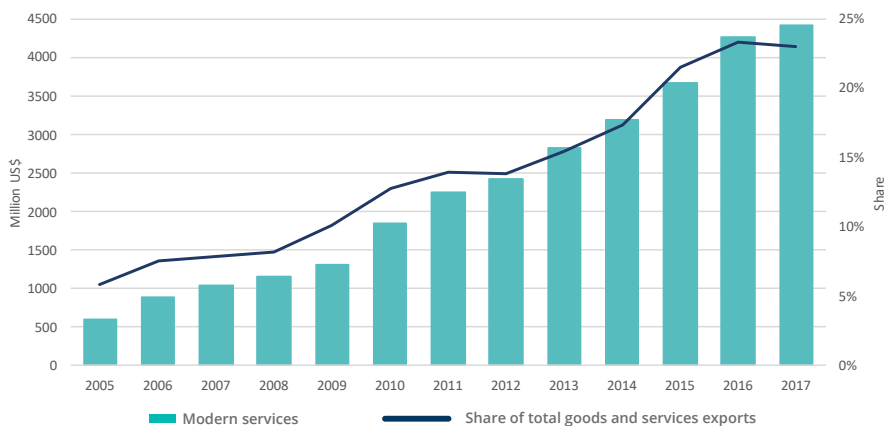
2. Evolution of modern services exports

In Costa Rica, modern services exports have grown notably in the last decade, even in the international crisis period of 2008-2009. According to figures from the World Trade Organization (WTO), average annual growth in sales for this sector abroad was 18% during from 2005 to 2017. This figure is outstanding; especially if one takes into account that the total service sector exports grew 9% on average annually and, more still, that goods exports grew 3% annually in the same period.

The importance of this sector for total exports from the country has also grown considerably. While in 2005, modern services accounted for only 6% of exports, in 2017 they accounted for 23% (see Figure V.5). Using data from national sources, the comparison period can be extended to 2000; and according to the Costa Rica Central Bank (BCCR), the modern services sector in total exports accounted for only 3%.

FIGURE V.5
Costa Rica: modern services exports
and their share of total exports,
2005-2017

(In millions of dollars and percentages)



Source: Elaboration by the authors on the basis of World Trade Organization (WTO) data.

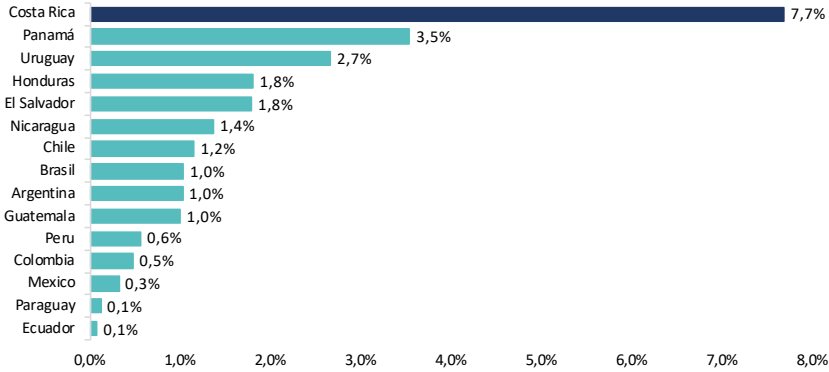
The share of modern services exports in GDP went from 3.0% in 2005 to representing 7.7% in 2017, which is the highest in Latin America (see Figure V.6). Behind Costa Rica by some way are Panama and Uruguay, where their share of these exports in GDP is 3.5% and 2.7%, respectively.

Exports of modern services have evolved significantly compared to other services subsectors. In the case of Costa Rica, the travel category (which includes for business, tourism, educational and health purposes) traditionally had the largest share of service exports.

However, in recent years that category has lost ground to modern services. In 2005 it represented 59% of exports of services, while in 2017 that percentage had decreased to 43%. In contrast, the share of modern services grew from 19% to 49% during the same period.

FIGURE V.6
Latin America (15 countries):
modern services exports relative to GDP, 2017

(Percentages)

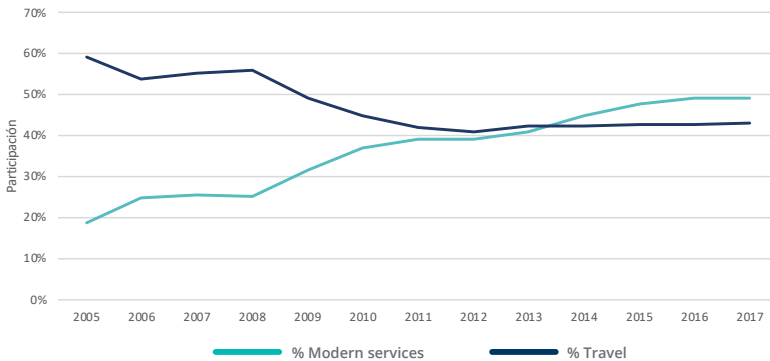


Source: Elaboration by the authors on the basis of World Trade Organization (WTO) and International Monetary Fund (IMF) data.

If figures from national sources are used, it can be observed that, travel represented 63% of total exports of services in 2000, while modern services accounted for only 9%. Since 2014, the share of modern services exceeds that of travel in total service exports (see Figure V.7).

FIGURE V.7
Costa Rica: share of travel and modern services in total
exported services, 2005-2017

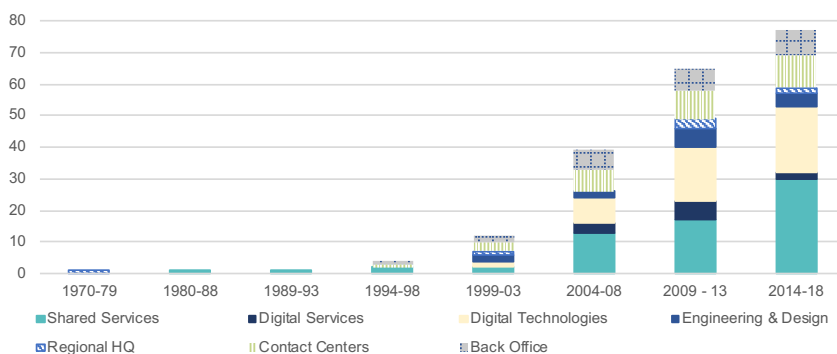
(Percentages)



Source: Elaboration by the authors on the basis of World Trade Organization (WTO) data.

The IT services and computerized services sector in Costa Rica is diverse and its sophistication has advanced rapidly, with companies in the industry performing more complex tasks now than when they were originally established. Although the financial gains obtained from the cost savings derived from “labor arbitrage” continue to be an important factor in the establishment of these companies in the country, “knowledge arbitrage” has also become a significant reason. Access to high-quality labor allows companies to establish operations to improve their business models and core processes (see Figure V.8).

FIGURE V.8
Costa Rica: companies according to the type of information technology and computing service provided, 1970-2018
(Number of companies)



Source: Elaboration by the authors on the basis of Costa Rican Coalition of Development Initiatives (CINDE) data. * Data for 2018 are estimates.

3. Exports of modern services from free trade areas

In 2017, a survey was carried out to determine the activities involved in the export of information and communication technology (ICT) services and those that depend on the networks of this technology, and to estimate the amount of these exports (see Table V.1). This survey was part of a pilot plan promoted by the United Nations Conference on Trade and Development (UNCTAD) and the Costa Rica Central Bank (BCCR), and supported by the Ministry of Foreign Trade (COMEX), the Costa Rica Foreign Trade Promoter (PROCOMER) and the Costa Rican Coalition of Development Initiatives

(CINDE). The results of the survey show that exports of these services are basically mode 1: from the territory of one country to the territory of any other country through ICT networks. There are about 950 modern service exporting companies that use ICT platforms in Costa Rica, although not all have the same export behavior. The most relevant results are those that indicate that 24% of these companies operate in the Free Trade Zone Regime and contribute 72% of the corresponding dollar amount to these exports. The majority (more than 95%) are foreign companies that have a subsidiary in Costa Rica; that is, they are FDI companies.

TABLE V.1
Costa Rica: exports through information and communication technology (ICT) networks, by type of service, 2017

| Service type | Services exported (in millions of dollars) | Services sent via ICT networks (in millions of dollars) | Participation of services sent through ICT networks of total services exported (in percentage) |
|---------------------------------------------------------|-----------------------------------------------|------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|
| Telecommunications | 30 | 30 | 100 |
| Computing (including software) | 817 | 802 | 98 |
| Sales and marketing (excluding trade and leasing) | 102 | 102 | 100 |
| Information | 56 | 56 | 100 |
| Insurance and finance | 49 | 44 | 91 |
| Administration and auxiliary services | 2 038 | 1 983 | 97 |
| Licensing | 0 | - | - |
| Engineering and technology R&D | 310 | 284 | 92 |
| Education and training | 9 | 9 | 99 |
| Total | 3 410 | 3 310 | 97 |

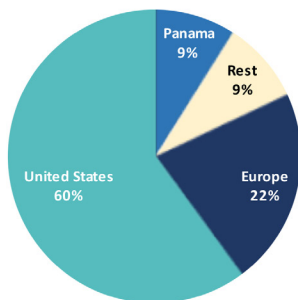
Source: R R. Torres Mora (coord), Costa Rica: exports of services through technology, information and communication networks (ICT), San José, Costa Rica Central Bank (BCCR), 2018 (on line) https://activos.bccr.fi.cr/sitios/bccr/proyectocambioannybase/DocProyectoCambioAnnyoBase/documentoscnadocpresentaciones/BCCR_CR_Exportaciones_Servicios_Redes_TIC.pdf.

It should be noted that Table V.1 shows the first exports related to research and development. Another notable result is the origin of the investment and the destination of the services exported through the country's ICT platform. The United States remains the most important origin and destination for these modern service exporters (see Figure V.9).

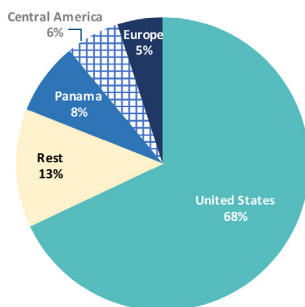
FIGURE V.9
Costa Rica: exports of services through information and communication technology (ICT) networks, 2017

(As percentage)

A. ORIGIN OF CAPITAL OF COMPANIES THAT EXPORT SERVICES THROUGH ICT NETWORKS



B. DESTINATION OF EXPORTS AS A SHARE OF TOTAL EXPORTED VIA ICT NETWORKS



Source: R.R. Torres Mora (coord), Costa Rica: exports of services through technology, information and communication networks (ICT), San José, Costa Rica Central Bank (BCCR), 2018 (on line) https://activos.bccr.fi.cr/sitios/bccr/proyectocambioannyobase/DocProyectoCambioAnnoBase/documentoscnaodocpresentaciones/BCCR_CR_Exportaciones_Servicios_Redes_TIC.pdf.

B. Main policies to promote exports of modern services

1. Human capital

The human capital training policy has been a determining factor in the evolution and upgrading of modern services exports from Costa Rica. This policy is certainly not new, as it dates back to the time when education was declared free and compulsory during the second half of the 19th century. Art. 78 of the Costa Rica Political Constitution goes one step further by establishing that public spending on state education, including higher education, may not be less than 8% (eight percent) of annual GDP. The same article also establishes that the State “will facilitate technological access to all levels of education, as well as the pursuit of higher studies for those who lack financial resources”. Between the 1950s and 1970s, the country invested in building basic institutional capacities, especially in education and training; for example, the National Learning Institute (INA) was founded in 1965 with the purpose of training industrial labor.

While these long-standing policies laid the foundations for a quality workforce, keeping labor supply and demand aligned in the current context, especially in a sector such as modern services, is an increasingly challenging task. This is due to the fact that production transformation is increasingly oriented to knowledge and the world economy is immersed in the fourth industrial revolution. Therefore, efforts have recently been made to achieve a greater match between supply and demand, both in terms of technical and university careers, as well as in the development of interpersonal skills.

Among these efforts are those by CINDE to update the content of the technical and university courses offered by the country. These are essential for the implantation and sophistication of the processes carried out by modern service companies. CINDE's Investment Climate Directorate is directly related to a work team made up of representatives of the human resources area of multinational service companies operating in the country, as well as local education representatives. The first visible results are the new curricula and new careers, and the update of existing ones. This relationship is possible because the academic sector is open, receptive and collaborative.

Another recent task is the implementation of the “training assistance” incentive, coordinated by the National Institute of Learning (INA). This incentive is intended for employees and aspiring employees of companies established in free trade zones and was established by art. 21 of the Free Zones Regime (Law 7.210). To put it into practice, the Regulation was issued in 2015 to promote the development of human resources in the beneficiary companies of the Free Trade Zone Regime (Executive Decree 39,081 MP-MTSS-COMEX), through which an inter-institutional coordination committee was established of representatives from the government, the private sector and academia. This body is responsible for formulating policies and guidelines on the design of training programs and personnel training, as well as establishing the guidelines applicable to the implementation of each specific program.

Among the specific actions implemented in the context of assistance for personnel training and education was the approval of a pilot plan in the first quarter of 2016 and the formation of a trust to use the resources. The plan has been working for over a year and has resulted in training over 500 workers in various areas such as cybersecurity, software and micro-processing. Its continuity and diversification is currently being assessed in light of these results.

2. Tax incentives

The main tax incentives for attracting FDI, including that destined for the services sector, are found in the Free Trade Zone Regime (Law 7,210) and subsequent reforms. Article 17, subsection (c) establishes that the benefits of the law will be applied to the following: “Industries and service companies that export them to natural and legal persons, domiciled abroad or that provide them to beneficiary companies in the Free Trade Zones Regime; as long as the services are directly linked in the latter case to the production process of the beneficiary companies in the Free Trade Zone Regime”. The main benefits enjoyed by the service companies operating under the Regime are shown below:

- Admission of raw materials, finished and semi-finished products, and machinery and equipment, including work vehicles, without being subject to taxes;
- exemption for a period of 10 years from the payment of tax on capital and the tax on the transfer of property;

- exemption from sales and consumption tax on purchases of goods and services;
- exemption from taxes on fuels and oils;
- exemption from taxes on profits, with different percentages depending on whether the company is located inside or outside the Greater Metropolitan Area (GAM);
- exemption from all taxes and municipal licenses for a period of ten years; and
- exemption from all taxes on remittances abroad.

PROCOMER, with the collaboration of COMEX and CINDE, prepares an annual study of the balance between the costs and benefits of the Free Trade Zone Regime.⁵ This study shows the economic impact the Regime has had in a period of 5 years and is compared with an estimate of the tax exemptions granted under its protection. Every year the results of these studies indicate the balance between costs and benefits is very positive.

3. Foreign direct investment (FDI)

For more than 30 years, attracting FDI has been a priority in Costa Rican policies. Thus, a strategy has been designed, with CINDE being the main ally in its implementation.

Both government stakeholders and those within CINDE are clearly aware that it is not possible to compete in all sectors that attract FDI, due to the nature of the country. There is no competition in the natural resource exploitation sector (due to resource endowments and environmental policies), in the development of large infrastructure works or in labor-intensive sectors. Due to the size of the country, there is no direct competition aimed at attracting investment for large domestic markets; although it is true that there is a foreign trade platform that provides potential access to partners representing close to a third of the world population and more than two-thirds of world GDP. The type of investment that Costa Rica has attracted most successfully is that which seeks efficiency and access to world markets. In this case, the most important economic determinant is the availability and quality of local human resources. For this reason,

5 See https://procomer.com/downloads/zonas-francas/balance_zf_2011_2015.pdf.

government policies and CINDE's efforts have focused on attracting FDI to areas where the country can compete, such as IT and computing services, life sciences, advanced manufacturing and light manufacturing.

The main policy to attract FDI was the establishment of the Free Trade Zone Regime, which has become a fundamental part of the strategy to export and attract investment to Costa Rica. The investment attracted under this regime represented 48% of the total received in the country in 2017. Other policies that were put into practice were the negotiation of bilateral investment treaties (BITs), the inclusion of chapters on investment in free trade agreements and the establishment of specific goals on investment in the national development plan of the different governments focused on certain sectors.

Costa Rica is a party to more than twenty BITs, of which 15 are in force. These treaties contain provisions that are intended to promote and protect investment, non-discriminatory treatment and dispute resolution, among others. The first BIT was negotiated with Germany in 1994 and has been in force since 1997. Subsequent agreements were with France, Spain and Canada in 1999; Chile in 2000; the Czech Republic, Argentina, the Bolivarian Republic of Venezuela, Paraguay and the Netherlands in 2001; the Republic of Korea and Switzerland in 2002; the Chinese Province of Taiwan in 2004; Qatar in 2013; and China in 2016. In addition, BITs have been negotiated with the United Kingdom, El Salvador, Finland, Ecuador, Belgium and Luxembourg, the Plurinational State of Bolivia and the United Arab Emirates; and the Treaty on Investment and Trade in Services was negotiated between the Republics of Costa Rica, El Salvador, Guatemala, Honduras and Nicaragua; however, these have not entered into force.

Some free trade agreements contain chapters related to investment, such as the Free Trade Agreement between the Dominican Republic, Central America and the United States and the agreements entered into with Mexico (both the original and its update), Chile, the Dominican Republic, Canada, the Caribbean Community (CARICOM), Panama, China, Peru, Singapore, the European Union, Colombia, the European Free Trade Association (EFTA) and the Republic of Korea.

Also, since 2002 the government began to include policies aimed at attracting foreign direct investment in its national development plans. Table V.2 summarizes the goals established since then, as well as their results.

TABLE V.2
**Costa Rica: foreign direct investment (FDI) goals established
in the national development plans and results
obtained, 2002-2018**

| Government term | Goal | Result |
|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| 2002-2006 | Attracting FDI amounting to 2.4% of GDP. | FDI was 6% of GDP. |
| 2006-2010 | Attract an annual average of \$1.8 billion in FDI. Obtain approval of the Free Trade Agreement between the Dominican Republic, Central America and the United States. | The average was \$1.848 billion. The Free Trade Agreement between the Dominican Republic, Central America and the United States was approved. |
| 2010-2014 | Attract \$9 billion in FDI. Attract 60 new investment projects. | \$10.387 billion in FDI was attracted. 93 new projects attracted investment. |
| 2015-2018 | Attract \$8.2 billion in FDI over the 4 years. Attract 100 new investment projects. | In September 2018, \$9.293 billion of FDI had accumulated. 132 new projects had been attracted by July, 2018. |

Source: Compiled by the authors, based on national development plans published by the Ministry of National Planning and Economic Policy (MIDEPLAN).

In a recent study by the Organization for Economic Cooperation and Development (OECD, 2018a), an attempt was made to quantify the extent to which the FDI that has entered the country is distributed through business relationships and increases the productivity level of local companies. It was concluded that the average productivity of national service companies that sell to multinationals operating in Costa Rica is 6.4% higher than that of similar national service companies that do not have business relationships with multinationals. In the most recent OECD economic study on Costa Rica (OECD, 2018b), it was noted that trade openness and attracting FDI are responsible for the country's successful growth model. The report indicates that, although there are challenges, the attraction of FDI has been helped by regulatory barriers being lower than the average for OECD countries.

4. Free trade agreements and export promotion

In Costa Rica, a sustained strategy of trade opening has been applied through integration into the multilateral trading system and the negotiation of bilateral and regional trade agreements. The country's foreign trade platform is made up of WTO multilateral agreements, the Central American integration instruments and 14 additional trade agreements in force, which

provide conditions of preferential access, predictability and security to trade with markets that represent one third of the world's population and two thirds of the world's GDP.

For modern services exports, certain relevant milestones can be highlighted in Costa Rica's trade liberalization process and its insertion in world markets. The first was the entry into force of the Uruguay Round multilateral agreements, as a consequence of the country's integration into the WTO in 1995. Among these treaties, the General Agreement on Trade in Services (GATS) is notable for establishing the first legally binding legislation body, laying the foundations for the process of reducing the barriers that hindered trade in services at the multilateral level. Furthermore, the GATS ensure that trade in services takes place on the basis of non-discriminatory conditions (national treatment and most-favored-nation).

A second notable factor was the signing and entry into force of the Free Trade Agreement between the Governments of the Republic of Costa Rica and Canada in 2002. This was the first treaty negotiated with a developed country that had significant potential as a destination for Costa Rican exports of modern services.

However, the regional agreement that marked a turning point in the history of Costa Rica's trade negotiations was the Free Trade Agreement between the Dominican Republic, Central America and the United States, which has been in force in the country since 2009. For trade in modern services, the agreement marked several unprecedented milestones, both due to the commitments made to substantially raise the standards of protection of intellectual property and the provisions by which 2 service activities - previously exercised exclusively by state monopolies - were opened to competition: telecommunications and insurance. The Treaty also included a chapter on electronic trade for the first time, in which the nature of the digital product was recognized as a point of connection with the world of technological goods and services; this point required clear provisions to prevent arbitrary goods or services criteria being applied which later become barriers to the trade of digital products.

The Free Trade Agreement between the Dominican Republic, Central America and the United States is the first and so far, the only

trade agreement involving Costa Rica which is multilateral; that is, most provisions apply between any two countries party to the agreement, with a few exceptions. The latter is important for modern services, as it allows the Treaty to serve as a legal framework governing the commercial exchange of services between Central American countries; thus, strengthening and adding to the instruments in force in the Central American regional integration system. This is all without detriment to the importance of the United States as a buyer of Costa Rican exports of modern services and as a source of production investment in that sector which have led to the establishment of operations in the country.

The Association Agreement between Central America and the European Union (AACUE), in force since 2013, was the first agreement between two regions to be signed in Costa Rica. This agreement marked another trade negotiations milestone in the country's modern services exports, due to the importance of the European Union as both a buyer of this type of services and for having the headquarters of companies in the field that have established operations in the country to export to third countries, exploiting the advantages offered by its foreign trade platform. The latter also confirms the collective value of the other trade agreements that have been signed; in particular those in force with partners such as China, Mexico, Chile, the European Free Trade Association, Colombia, Peru and Singapore.

5. Intellectual property protection

The basis for the protection of intellectual property rights resides in the Political Constitution of Costa Rica, whose article 47 provides that every author, inventor, producer or merchant will enjoy temporary exclusive property of his work, invention, commercial brand or name, in accordance with the law. Similarly, article 89 provides that the support of private initiatives for scientific and artistic progress is among the country's cultural aims.

At the international level, Costa Rica is a member of the World Intellectual Property Organization (WIPO) and has ratified instruments such as the Patent Cooperation Treaty, the Berne Convention and the WIPO Copyright Treaty (WCT), among others. Furthermore, since the country is a member of the WTO, the Agreement on Trade-Related

Aspects of Intellectual Property Rights (TRIPS) was signed. At the bilateral and regional level, the trade agreements that have been signed in the country contain provisions that reinforce and enrich those at the multilateral level and have strengthened the national intellectual property framework.

The rules on the protection of copyrights, patents, industrial designs and undisclosed information, to name a few cases, are consistent with the aforementioned international instruments, and the institutional framework has been strengthened so that the registration processes are streamlined and quick, and that the enforcement procedures guarantee the full enjoyment of rights. National legislation recognizes and protects intellectual property rights for industrial designs, software, computer-implemented inventions other than software, and creations susceptible to being patented, while protecting commercial and industrial secrets. This makes legislation a key part of the development of modern services.

C. Governance of public-private policies aimed at the modern services export sector

1. Strategy and clear goals on the exports of modern services

The strategy applied in the country is based on establishing specific goals on the export of services in the national development plan of each government administration. This is combined with other factors, including the attraction of foreign direct investment focused on high added value services; the negotiation of trade agreements and bilateral investment agreements; the use of human capital; and the benefits of the Free Trade Zone Regime, particularly for service companies.

As a result of this strategy and the growth potential of modern services exports, targets for goods and service exports began to be included in national development plans (see Table V.3) from the 2006-2010 presidential term. The country complies with the first requirement of the principles of good governance, which is to have a proactive, medium-term, strategic, national vision for international insertion, Devlin and Moguillansky (2011).

TABLE V.3
**Costa Rica: service export goals established in the national
development plans and results obtained**

(Millions of dollars)

| Government term | Services export goals | Services export values |
|------------------------|-----------------------|------------------------|
| 2006-2010 ^a | 6 500 | 4 320 |
| 2010-2014 | 5 000 | 6 381 |
| 2015-2018 ^b | | |
| 2015 | 7 000 | 6 915 |
| 2016 | 7 650 | 8 537 |
| 2017 | 9 650 | 8 704 |
| 2018 | 10 100 | 9 092 |

Source: Compiled by the authors, based on national development plans and figures from the Costa Rica Central Bank (BCCR).

a This goal was established in early 2006 and was affected by the global crisis of 2008-2009.

b Due to the fact that the Costa Rica Central Bank adopted the 6th edition of the International Monetary Fund (IMF) Balance of Payments and International Investment Position Manual in 2016; the composition of the goal was adjusted for 2017 and 2018 to increase the service goal.

2. Main public and private stakeholders in charge of establishing and executing specific policies in the modern services sector

The institutions and organizations related to the policies of the modern services sector are many and diverse in nature. Among them are central government institutions, autonomous entities, non-state public entities, private chambers and associations, as well as academia. However, the 3 entities directly related to the establishment and implementation of policies aimed at the modern services sector are the Ministry of Foreign Trade (COMEX), the Costa Rican Foreign Trade Promoter (PROCOMER) and the Costa Rican Coalition of Initiatives of Development (CINDE). These comply with the first principle of good governance defined by Devlin and Moguillansky (2011), which involves leaving the technical leadership of policies in the hands of the ministries and key executing agencies.

COMEX is the body with Executive Power responsible for formulating trade policy and the policy aimed at attracting foreign direct investment. The COMEX agencies that are most closely linked to modern service exports are the General Directorate of Foreign Trade and the Investment Directorate. The first is in charge of negotiating trade and investment agreements, monitoring their implementation, and ensuring that the parties comply with their obligations. The Investment Directorate is in charge of executing and monitoring investment policies and guidelines; it promotes improvements in the investment climate and addresses issues related to free trade zones, among other aspects.

PROCOMER is Costa Rica's export promotion agency and implements the policies established by COMEX. Its main functions include designing and coordinating programs related to exports and investments, providing technical and financial support to COMEX, and centralizing and expediting import and export procedures. The law also grants it powers to administer the Free Trade Zone Regime.

CINDE is a private, non-political and non-profit organization responsible for attracting FDI. In practice, it is the other executive arm of COMEX, with which it collaborates, in its role as an investment promotion agency, to implement the investment policies it establishes. Other public institutions directly or indirectly involved with the modern services sector are the Ministry of Science, Technology and Telecommunications (MICITT), the Ministry of Public Education (MEP), the Ministry of Labor and Social Security (MTSS), the National Institute of Learning (INA) and the Costa Rica Central Bank (BCCR).

The institutional distribution of responsibilities in Costa Rica seems to be close to the principle of having specialized units to administer and supervise the international insertion strategy. There is an agency responsible for handling each of the main functions directed at modern services required in the policy. Furthermore, the institutions have a clear mandate and each agency involved has a hierarchy of functions.

The main private entities related to this sector are the Chamber of Information and Communication Technologies (CAMTIC), the Chamber of High Technology Corporate Services (CamSCAT), the Costa Rican Union of Chambers and Associations of the Private Business Sector (UCCAEP), the Costa Rican Free Trade Zone Companies Association (AZOFRAS) and the Council for the Promotion of Competitiveness (CPC).

TABLE V.4
Costa Rica: main strategies, policies and programs applied to modern services by entities related to the sector

| Stakeholder | Strategy | Main policies | Main programs |
|--------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ministry of Foreign Trade (COMEX) | Establishes goals for exports of services and attraction of foreign direct investment (FDI) | <ul style="list-style-type: none"> - Negotiation and administration of free trade agreements and bilateral investment treaties - Choice of sectors to attract FDI. - Improvement in the investment climate. | |
| Costa Rican Foreign Trade Promoter (PROCOMER) | Helps establish service export goals. | | <ul style="list-style-type: none"> - Export promotion in 9 service subsectors: education, audiovisual, global health, biotechnology, digital technologies, franchises, green technologies, engineering and design. - Administration of special regimes. |
| Costa Rican Coalition of Development Initiatives (CINDE) | Helps establish FDI attraction goals | | <ul style="list-style-type: none"> - Programs to achieve a better balance between the country's labor supply and demand, which means offering technical and local training, as well as formulating programs with universities. - Working groups to solve specific problems related to the investment climate. |
| Costa Rica Central Bank (BCCR) | | | Carries out a survey to find out how exports of services are supplied. |
| Chamber of Information and Communication Technologies (CAMTIC), with the collaboration of PROCOMER and CINDE | | | Carries out the Sectorial Mapping of Digital Technologies. |

| | | | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>National Learning Institute (INA), in conjunction with COMEX, the Ministry of Labor and Social Security (MTSS), PROCOMER, CINDE and the Costa Rican Union of Chambers and Associations of the Private Business Sector (UCCAEP)</p> | | | <p>Pilot plan to train free trade zone workers. Over 500 workers have been trained in the areas of cybersecurity, software and microprocessing.</p> |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|-----------------------------------------------------------------------------------------------------------------------------------------------------|

Source: Compiled by the authors based on information from the Ministry of Foreign Trade (COMEX), Costa Rican Foreign Trade Promoter (PROCOMER), Costa Rican Coalition of Development Initiatives (CINDE), Costa Rica Central Bank (BCCR), National Learning Institute (INA), Chamber of Information and Communication Technologies (CAMTIC), Ministry of Labor and Social Security (MTSS) and the Costa Rican Union of Chambers and Associations of the Private Business Sector (UCCAEP).

3. Coordination mechanisms

Coordination between the different relevant stakeholders is one of the strengths associated with the governance of the formulation of public policies related to exports of modern services in Costa Rica. Firstly, there are examples of this among public entities that hold legal competences in matters directly related to the performance of the modern services export sector. Although this sector lacks formal leadership, COMEX is the public policy director from the point of view of export activity, and PROCOMER is the executive agency for policies regarding export promotion. Depending on the type of modern service in question, there are other stakeholders with relevant legal powers, such as the MICITT, the INA or the MEP.

As a central government entity, COMEX reports directly to the President of the Republic; while PROCOMER is a non-state public entity that has operational and financial autonomy and is governed by a board of directors made up of a mixture of representatives from the government and the private sector (the latter are the majority), whose board is chaired by the Minister of Foreign Trade. Although this is the only legal link between the two entities, their coordination and collaboration provide synergy between them. Since they were founded, both COMEX and PROCOMER have shown great clarity about the roles each is called upon to play, as well as a vocation to coordinate their actions (at all levels) that mark the development model based on the commercial opening and attraction of FDI.

There are also examples of coordination between both entities and other public agencies with legal powers in matters that concern modern services. One occurs in the case of the other ministries, where dialogue takes place within the government council, and COMEX is the primary communicating channel. As public institutions that do not belong to the central government, both entities coordinate through various channels, including participation in joint initiatives, projects and programs.

A second level of coordination occurs between the private associations of modern service industries through a series of institutional arrangements. A major player in computing and information services is CAMTIC, which brings together most of the companies that produce digital technologies, including software, animation and applications. In the services segment of the IT and the computerized services sector, the organization that usually brings the majority of companies together is AZOFRAS. Two of the number of areas for coordination and dialogue between these associations are the UCCAEP and CPC. The latter is a private body that brings together companies and associations from this sector interested in promoting a reform agenda to strengthen the country's competitiveness and business climate.

A third level of coordination are the areas for interaction and discussion between public and private entities related to modern services and their export. First, there is the coordination that takes place within the foreign trade sector, made up of COMEX, PROCOMER and CINDE. Although there is no law or norm binding the coordination and progress made between the 3 institutions of the sector, this has not prevented them from maintaining a strongly professional line of coordination that has allowed them to earn their reputation as the most cohesive and coordinated sector of the public administration. The 3 institutions have become a benchmark for the operation of the other areas of government, as many analysts have pointed out.⁶

Thus, COMEX, PROCOMER and CINDE function as members of a corporate group in which the powers and lines of authority are very clear. As a result, COMEX has consistently ranked among the highest rated government entities in the Institutional Management Index (IGI) of the Comptroller General of the Republic; obtaining a perfect evaluation in the last 2 years. While PROCOMER has received the distinction of the best

⁶ See <https://www.crhoy.com/opinion/la-divina-trilogia>.

export promotion agency in the world for 4 consecutive years from the International Trade Center; and CINDE obtained recognition as the best agency attracting investment worldwide from that same entity last year.

Among the most prominent examples of coordination are the meetings of the authorities of the 3 entities, which take place once a week; and the meetings between the directors of the authorized or related operational areas, which meet as frequently as necessary, and sometimes more than once a week. In addition, specific objectives and goals of the foreign trade sector are incorporated in the construction of the national development plan of each administration that the 3 entities formulate jointly and from which a work program emerges with a view to being fulfilled. The entity responsible for meeting the goals established in the national development plan is COMEX.

One example of public-private coordination is offered by the PROCOMER board of directors, a collegiate body that ordinarily meets once a month and extraordinarily when necessary to deal with issues related to the export of modern services. Another example of public-private coordination is the Foreign Trade Advisory Council (CCCE), which is a body created by law that meets 6 times a year and is chaired by the Minister of Foreign Trade. It includes representatives from other ministries (Agriculture and Livestock, Foreign Relations and Economy, Industry and Commerce); different business chambers and associations (including SMEs and small farmers); consumers; and CINDE and PROCOMER. The modern services sector is represented by UCCAEP and CAMTIC which participate regularly. Although the CCCE is consultative in nature and does not have the power to issue decisions that are binding on the administration, it has become a powerful tool for dialogue and coordination for an inclusive and comprehensive approach to the most important issues for the sector.

Finally, the Presidential Council for Competitiveness and Innovation (CPCI) is an initiative led directly by the President of the Republic; which usually once a month, brings together government ministers from directly related areas and representatives from the highest level of private business organizations. The CPCI is also consultative in nature so its decisions are not binding on the administration; however, this does not prevent it from acting as an important channel for dialogue and coordination in strategic and structural matters that directly affect competitiveness and innovation capacity.

All these coordination mechanisms respond to principle 6 of good governance, which points to the need for agencies to coordinate incentives and programs to ensure coherence between policies and maximize their systemic impact in the long term.

4. Mechanisms to create working groups between exporting companies and government institutions

The CINDE Investment Climate Directorate's primary function is to address the factors or challenges that affect the investment situation in Costa Rica, but only for multinational companies that CINDE attracts to the country. Specialization is given by area of knowledge, by a strategy of increasing the specialized knowledge used when dealing with cases from different sectors and maximizing strategic and working relationships with public and private institutions or organizations.

At the national level, the initiatives the Investment Climate Directorate promotes are technical and a university education to adapt to the new labor demand of multinational companies, multilingualism, simplification of procedures and innovation. In addition to these initiatives, the Directorate has implemented working groups made up of exporting companies and government institutions with the purpose of jointly solving problems inherent to the investment climate. These groups include human resource managers, general managers, research and development technical groups, talent acquisition, information technology, robotic process automation and quality for medical device companies.

Each working group manages its own agenda and the multinational companies that participate propose the topics to be addressed and follow up on the periodic meetings. For example, the human resource managers group meets every 2 months to share good practices to resolve issues related to policies for working from home, diversity, employment law, benefits and compensation and talent attraction strategies. The MTSS is invited to many of these meetings to bring positions closer together and achieve measurable commitments from the authority.

The information technology (IT) group seeks to develop IT capabilities in Costa Rica, especially in new topics and trends. In addition, this group coordinates the sector to be able to work as a united industry, positioning

Costa Rica as the ideal location for new technology projects. There are 2 notable projects among the ongoing ones which this group has coordinated:

- A new curriculum has been designed and prioritized so that Costa Ricans today and, in the future can acquire a new set of skills; and
- A pilot project in which the Skills Framework for the Information Age (SFIA) framework is used to determine the skill set of company employees, understand what kind of skills they require and the areas of opportunities for them and the country.

The Talent Acquisition Group is another example of coordination between multinational companies and the local economy. The group started working in 2017 due to the common interest of several companies on issues related to recruitment and the development of new tools and staff skills. Its priority topics are the job market, talent acquisition, recruiting skills, company branding and employee diversity.

This model of working groups, in which CINDE's Investment Climate Directorate acts as a facilitator between the different stakeholders, brings agreements to a close more quickly and draws up an effective action plan, so that companies collaborate instead of competing for the increasingly scarce skilled talent.

These working groups are examples of principle 7 of good governance, which recommends involving the private sector in the formulation and implementation of public policies to improve their credibility and effectiveness.

5. Institutional and operation of the main institutions

Both COMEX and PROCOMER were formed in 1996 by Law 7,638 as the Ministry of Foreign Trade and the Costa Rica Foreign Trade Promoter, respectively. Meanwhile, CINDE is a private initiative that arose with the objective of attracting investment and was declared a public utility for the purposes of the State (Executive Decree 15.282J). The following sections examine the institutional configuration of each of these entities, as well as their operation.

a) Ministry of Foreign Trade

The aforementioned Law 7.638 grants COMEX legitimacy for policies related to exports of services. Article 2 of the law establishes that the ministry's powers include the following: determining and directing foreign trade and investment policy; directing trade and investment negotiations, both bilateral and multilateral; dictating policies regarding exports and investments; and directing and coordinating official plans, strategies and programs related to exports and investments, among others. Like any institution belonging to the central government, COMEX has a budget assigned in the budget law for each year. In addition, it has resources from the Cooperation Agreement between COMEX, PROCOMER and CINDE for the Design, Execution and Monitoring of Programs to Attract Foreign Investment, on the condition that these resources are used for the purposes according to certain functions

The ministry does not have a rigid structure, as is the case with most of the Costa Rican Executive Power institutions. In the Law for Trade Negotiations and the Administration of Free Trade Treaties, Agreements and Foreign Trade Instruments (Law 8,056), an article was added that provides for COMEX to have the required internal organization, as determined by the Executive Power regulation. As a result, it is not organized with the typical pyramid shape, but is essentially made up of 2 directorates: the General Directorate of Foreign Trade and the Investment Directorate, both under the direct mandate of the minister and vice-minister. This structure's short chain of command allows for more efficient, integrated management, with a work dynamic that could be considered more typical of the private sector.

The ministry has a special contracting regime for personnel, as art. 3 of Law 8,056 establishes that "international trade negotiators will be trusted officials or professionals hired for this purpose, based on cooperation agreements signed by the Ministry of Foreign Trade with other public entities, and appointed by agreement of the Executive Power". COMEX currently has less than 150 employees (including those working in missions and offices abroad), of which around 100 are in charge of substantive tasks. It is a young (25-50 years old), multidisciplinary and highly trained work team that receives competitive salaries, made up of professionals in law, economics, international trade, engineering and international relations with master's degrees or higher, frequently obtained abroad. In addition, many civil servants make careers in the ministry, whose composition is

significantly unaffected by changes of government, thanks to the technical level and specialization of the personnel.

The operation of COMEX and PROCOMER, which is detailed below, complies with principle 5 of good governance, which recommends forming a competent bureaucracy through competitive hiring, above average salaries and working conditions, with promotion by merit and a certain isolation from the political process.

Finally, the ministry is subject to a series of controls regarding its management, compliance with goals and budget execution. Periodic progress reports of the goals included in the national development plan are submitted to the Ministry of National Planning and Economic Policy (MIDEPLAN), as well as an annual report. The Ministry of Finance also requires semiannual and annual reports on the implementation of the budget, while the Comptroller General of the Republic carries out an annual balance of institutional management measured by the Institutional Management Index (IGI). The IGI evaluates aspects such as budget management, contracting, planning, financial accounting management, internal control, human resources, user service and information technology. These mechanisms comply with principle 8 of good governance, which calls for objective evaluation of the implementation and impact on the objectives established in the policies.

b) Foreign Trade Promoter

In accordance with art. 8 of Law 7,638, this non-state public entity is mandated to deal with issues related to investment and exports of services. This article establishes among other functions to “design and coordinate programs related to exports and investments”. To fulfill its obligations, PROCOMER has several sources of funding, of which the following are the most important: an initial contribution from the State; contributions from the exporting and importing sectors (an amount in dollars for each export and import customs declaration and the payment by companies of a fee for the use of the Free Trade Zones Regime), as well as the various credits, donations and legacies.

Although subject to controls, these resources can be used more flexibly than if they were part of the national budget. Such flexibility is granted by the aforementioned law, which excludes PROCOMER from the application of various regulations, such as the National Planning Law, the

General Law of Public Administration and the Law for the Creation of the Budgetary Authority, among others. Although PROCOMER is subject to the control of the Office of the Comptroller General of the Republic, it is excluded from compliance with art. 18 of the Organic Law of the Office of the Comptroller General of the Republic (Law 7,428), which refers to the approval of budgets.

PROCOMER is also not subject to the Civil Service Statute (Law 1,581), which gives it a lot of flexibility and control regarding the hiring of personnel, although it does use public examinations to fill vacancies. PROCOMER has 204 employees with similar characteristics to COMEX, as it is a young (average age 38 years), multidisciplinary team (business administration, international trade, customs administration, international relations, law and engineering. systems, among others), which receives competitive salaries. Under these conditions, PROCOMER also complies with Principle 5 of good governance.

As part of the foreign trade sector, PROCOMER establishes goals that are included in the national development plan, some of which are defined jointly with COMEX and CINDE. Compliance with these goals is also evaluated in the periodic reports that COMEX sends to MIDEPLAN, as authority for the sector. In addition, PROCOMER is subject to the controls of the Office of the Comptroller General of the Republic and is included in the IGI evaluation.

c) Costa Rican Coalition of Development Initiatives

Due to its private nature, CINDE does not have a legal mandate to carry out its functions as an investment promotion agency. However, as it has a budget that is mainly composed of a current transfer from the central government charged to the national budget (corresponding to COMEX) for the respective year, as well as funds from PROCOMER, in the Cooperation Agreement between COMEX, PROCOMER and CINDE, it is assigned certain obligations. Because it spends public funds, its income and expenditure budget must be approved by the Comptroller General of the Republic. Likewise, COMEX and PROCOMER approve the work plans and the budget for the funds transferred, and the latter contracts an audit to prepare the final opinion on the financial reports of the funds contributed.

CINDE is a small organization, employing 47 people, of whom a significant percentage have a master's degree or higher and an

excellent command of English. They are also relatively young and receive competitive salaries. The work team is multidisciplinary and is made up of professionals from public relations and international relations, economists, communicators, business administrators, lawyers and engineers. The hiring of CINDE employees is not governed by any public regulation, so it works like the private sector and hiring is more direct.

To summarize, the 3 main bodies comply with most of the principles of good governance proposed by Devlin and Mogueillansky (2011). COMEX is established as the key lead ministry for modern services exports and has established a foreign trade policy strategy for more than 20 years. This ministry has two agencies specializing in the execution of its policies: PROCOMER, in terms of exports; and CINDE, in terms of attracting FDI. All 3 main bodies maintain close coordination, with a well-established hierarchy of functions. Both COMEX and PROCOMER qualify as a competent bureaucracy, as defined by these authors, which also applies to CINDE, although in formal terms it is not a public entity. The private sector participates in the establishment and implementation of policies through different coordination mechanisms. In addition to the above, the implementation and impact on the objectives established in the policies are objectively evaluated.

D. Conclusions and policy lessons

The economy of Costa Rica has undergone a very significant structural transformation over the last 30 years, during which it has expanded, diversified and made the country's exports more sophisticated. An important part of this transformation is the growth of modern services exports, one of the most dynamic sectors in the country's economy, which exports local knowledge and talent to the world.

For a longer period, Costa Rica has consistently applied policies aimed at promoting trade openness and attracting FDI. These have become essential parts of the process of structural transformation of the economy, as they have been favorably combined with factors resulting from other policies, such as the business climate and the availability of qualified human resources.

Constant application of policies has been a strength for Costa Rica, as has the leadership of COMEX and the due coordination it has with its 2 executive arms: CINDE, in its role as an investment promotion agency, and PROCOMER, which is dedicated to promoting exports. The governance of this triad is a fundamental part of the coordination and positive impact it has had on the country's performance as an exporter of modern services. Collaboration and sound governance are based on a clearly defined legal framework, a labor regime that encourages excellence and the type of professional profile for officials working in the sector. One of the most important results of this public-private partnership has been the creation of more than 61,000 direct formal jobs in the modern services sector.

In addition, the governance of the formulation of public policies for modern services has notably favored the performance of Costa Rican exports. In fact, exports of modern services recorded an average annual growth of 18% between 2005 and 2017, which is outstanding if one takes into account that total exports of services and goods grew on average by 9% and 3% per year, respectively.

Although foreign trade has a profile designed to promote exports of modern services, they lack a government entity focused on establishing and implementing productive public policy related to the sector, unlike agriculture, industry and tourism. It is certainly an activity intrinsically and substantially linked to exports, but, like any other productive activity, has specificities and peculiarities that an entity specializing in the field could understand and serve even better. There needs to be a broader and deeper discussion on this topic, to determine if it constitutes a possible area to improve governance of the modern services sector in the future.

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Chapter VI

Mexico: Scope and limitations of a policy focused on ICT services

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Introduction

In the 1980s, the adjustment process designed by the International Monetary Fund (IMF) as a result of the debt crisis led to substantial policy changes in Mexico based on radically different strategic options with regard to the country's competitiveness model and its insertion in the world economy. During the previous 30 years, the import-substitution industrialization model imposed restrictions on foreign direct investment (FDI) and imports through tariffs that were applied on a large number of products. As happened in other Latin American countries, the Mexican State decided to promote certain economic sectors through tax exemptions and incentives. In addition, some economic sectors (such as the railways and the steel industry) and certain companies were nationalized. However, after a few years, most of the assumptions and policy instruments changed (Stezano and Padilla, 2013), as did the role of the different stakeholders. According to the new economic policy, private companies had to be the basis for productivity, while the State limited itself to creating the conditions for competitiveness.

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Under the new policies, credit and production subsidies, tax exemptions, tariff protection and performance requirements (in percentages of export and local content) were removed. A central part of the new model was the promotion of the 'maquiladora' industry and other tax regimes to promote exports, such as the Temporary Import Program to Produce Export Items (PITEX) and the Highly Exporting Companies (ALTEX) program (Stezano and Padilla, 2013, p. 7).

In less than a decade, industrial policy was reduced to its bare minimum. The new orthodoxy postulated that the action of the State interfered with the functioning of competition and free markets. However, this position was softened during the 1990s, when different countries began to design industrial policy instruments based on collaboration between public and private stakeholders (Devlin and Moguillansky, 2012).

This industrial policy focused on the development of strategic sectors. In the case of Mexico, since the beginning of the 21st century, different policy instruments have been designed to promote the development of sectors associated with information and communication technologies (ICT) and others such as the aerospace sector. Added to this is a process of liberalization of the services sector, with the aim of accessing more competitive markets (Rubalcaba, 2015a, 2015b).

Despite the fact that there is currently a policy defined at the federal level, the various instruments aimed at promoting exports of services are due to initiatives linked to different government agencies whose coordination

does not seem clear. Even so, during 2005-2017, Mexican services exports showed an average annual growth of 4.6%, while modern service sales abroad expanded at a similar rate (4.5%). Within this group's exports, insurance and pension services, financial services and those linked to ICTs stand out (WTO, 2018).

The aim of this chapter is to describe and analyze the governance of modern services export promotion strategies in Mexico, with special emphasis on the Program for the Development of the Software Industry (PROSOFT), which has been implemented in various stages since the beginning of this century. The work is based on the review of official documents and academic papers; on the analysis of official databases to describe the dynamism of the sector; and on evaluation reports from academic institutions and consulting firms. Stakeholders who have played a key role in different regions of Mexico and in the management of the programs were also interviewed.

The challenges that arise are especially relevant with regard to the policies that may be designed by the government that took office in December 2018. Theoretically, it is of a more interventionist nature in the economy; one probably more inclined to design active industrial policies in which certain principles of a conventional industrial policy are resumed, in line with what has been described about the periods before neoliberal orthodoxy. As a specific topic, special attention should be paid to the role of the regions, since there are signs of a centralist or centralizing government policy. On the other hand, it is important to mention that the cancellation of ProMexico and the National Entrepreneur Institute (INADEM) was recently announced. The 2020 operating rules for PROSOFT were published in the Federation Official Gazette on December 31, 2019, which indicates that its program is intended to be continued (Federation Official Gazette, 2019).

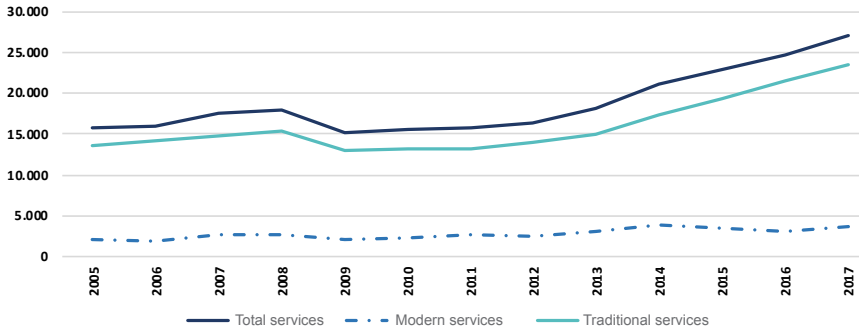
The structure of the rest of the chapter is as follows: the 2nd section presents an overview of the dynamics of services exports in Mexico; the 3rd section briefly sets out the main policies aimed at promoting exports of services in the period 2013-2018, including the perspective of the stakeholders involved in the design and coordination of these policies; the 4th section is dedicated to PROSOFT, an initiative that began in 2002 and still continues; and finally, the 5th section presents conclusions and policy recommendations.³

³ Some of the text may be written in the present tense, although it is now part of the recent past as the 6-year period 2012-2018 has ended. However, the initial wording may be kept.

A. Exports of services in Mexico

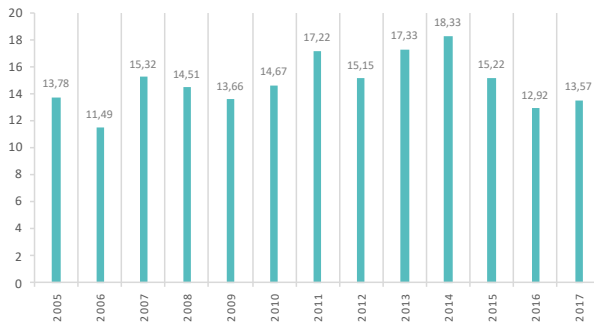
Between 2005 and 2017, Mexican exports of services grew 4.6% annually on average, which means that in the last year of the period sales were of \$27,071 million (see Figure VI.1). Modern services exports grew at an annual average rate of 4.5%, with the export values in 2014 and 2017 being remarkable. Although both growth rates are similar, the share of modern services in the total has fluctuated between 11.5% and 18.3% (see Figure VI.2).

FIGURE VI.1
Mexico: services exports, 2005-2017
(In millions of dollars)



Source: Elaboration by the authors on the basis of World Trade Organization (WTO) data.

FIGURE VI.2
Mexico: modern services exports as a percentage of total services exported, 2005-2017

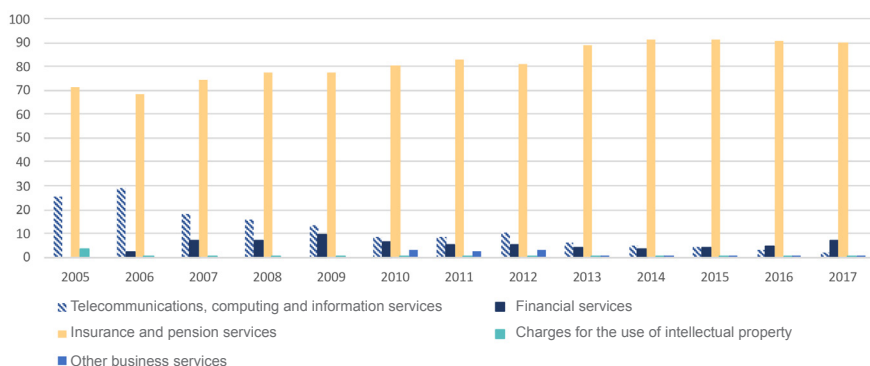


Source: Elaboration by the authors on the basis of World Trade Organization (WTO) data.

Insurance and pensions are the main part of modern services exports. Their contribution is noteworthy and their significant advantage over the others is growing. Behind this sector are telecommunications, information technology and information, with the share of the latter falling in the latter part of the period considered. Meanwhile, the financial services sector increased (see Figure VI.3) and ICT-related services appear to be highly concentrated in a few companies.

FIGURE VI.3
Mexico: breakdown of
modern services exports, 2005-2017

(As a percentage of the total)



Source: Elaboration by the authors on the basis of World Trade Organization (WTO) data.

In this context, it is appropriate to analyze the policies aimed at promoting exports of services in the country. Since the 1990s there has been a process of liberalization of the services sector to gain access to more competitive markets (Rubalcaba, 2015a, 2015b).

Some studies identify various obstacles to the ICT sector in Mexico and try to explain why its development has been slow compared to that of other countries. Brown and Domínguez (2015) highlight the limited role of banks and financial agents, which causes a shortage of credit and an absence of risk capital. While Schatan and Enriquez (2015) point out the responsibility of the institutional context, in particular monopolistic practices in the telecommunications sector.

Indeed, in the Mexican context, there are key sectors and industries, such as telecommunications, transport, construction, energy and commercial banking, where the level of concentration is high resulting in markets with oligopoly characteristics. This manifests itself in high costs and collusion strategies to reduce competition (OECD, 2015; Ordóñez and Navarrete, 2016).

Another important factor is the coordination of programs and institutions, specifically in the role of regional governments (Brown and Domínguez, 2015).⁴ These have promoted services on a regional scale to develop their territories (Rubalcaba, 2015a, 2015b). A study carried out by the OECD (2015) recommended improving coordination between the State secretariats and the agencies responsible for preparing and implementing policies, as well as increasing the decentralization of these policies. This would grant more autonomy to regional governments to design and apply their own different strategies.

A more proactive promotion by the State is required from public policy for the development of the export of services (Devlin and Mognuillansky, 2012), where inter-institutional coordination occurs through active participation of the academic, public, private and social sectors (Schatan, 2017). Thus, public-private partnerships are important as a mechanism to design and implement strategic policies, and can be analyzed from two approaches: governance and impact (Devlin, 2016; Devlin and Mognuillansky, 2009).

B. Policies to promote the export of services

1. Policies, objectives and stakeholders

The National Development Plan 2013-2018 is the reference document for all public policies implemented by the Government of the Republic. It is the product of cross-coordination and collaboration between the agencies and institutions that make up the Mexican State. In particular, the promotion of modern services exports is visualized

⁴ In the context of Mexico, the term 'regional' refers to the governments of the federative entities or states.

based on the National Digital Strategy, “Mexico Digital”, whose main objective is to ensure that the adoption and use of ICTs maximize their economic, social and political impact in benefiting the quality of people’s lives. It is an action plan to promote the adoption and development of ICTs and insert the country into what has been called the information and knowledge society (Government of the Republic, 2013).

There are 5 central objectives in the strategy, with the most important being related to the digital economy, which has 4 secondary objectives:(i) to develop the market for digital goods and services; (ii) promote the development of electronic trade; (iii) create new contracting mechanisms that foster innovation and entrepreneurship through the democratization of public spending; and (iv) promote financial inclusion through fluid banking systems. As an action plan to achieve these objectives,

it is proposed to establish public policies to encourage the supply and demand of digital goods and services, and the adoption of ICT in economic processes. Among the outstanding projects associated with the first secondary strategic objective are PROSOFT, Public Challenges (Retos Publicos) and Challenge Mexico (Reto Mexico).

Among the specific actions aimed at complying with this agenda, the Decree for the Constitutional Reform of Telecommunications, Radio Broadcasting and Economic Competition was promulgated in 2013 and the 2013-2018 Transport and Communications Infrastructure Investment Program was presented. However, there are some limitations in the aforementioned decree, mainly in relation to the independence of the public bodies linked to the regulation of the sector (Schatan and Enriquez, 2015).

A central point is the coordination and linkage mechanism between the stakeholders related to the policies to promote the exports of modern services, whose central figure is the Ministry of Economy (see Table VI.1). It is responsible for conducting the country’s industrial, trade and services policy, and its guiding principles are contained in the Innovative Development Program (PRODEINN). The Ministry also promotes strategic projects jointly with stakeholders from the public, private and academic sectors.

TABLE VI.1
Mexico: summary of modern services export policy, 2013-2018

| Stakeholder | Strategies | Policies | Programs |
|-------------------------------------------------------------------------------|----------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Ministry of Economy | National Digital Strategy "Digital Mexico" | Policy for industrial, trade and service development: Innovative Development Program (PRODEINN) | Software Industry Development Program (PROSOFT) |
| | | | United States-Mexico Foundation for Science (FUMEC) programs |
| ProMexico | Strategy to promote knowledge-intensive services | Policy to promote trade and attract foreign direct investment (FDI) | RedExporta Program |
| National Entrepreneurship Institute (INADEM) | | Productivity promotion policy in strategic sectors | Entrepreneurship and Financing Program (for High Impact Entrepreneurship Support) |
| National Council for Science and Technology (CONACYT) and the academic sector | Promotion of innovation and scientific and technological development | Public science, technology and innovation policy | Special Science, Technology and Innovation Program (PECITI) |

Source: Compiled by the authors.

Another important stakeholder is ProMexico, whose role consists of coordinating the alignment and discussion of the objectives, priorities, strategies and lines of action established by the Undersecretariat of Industry and Commerce (part of the Ministry of Economy) in terms of an industrial policy, and an emphasis on the country's participation in the international economy. ProMexico compiles a self-evaluation report every 6 months.

Another of the stakeholders is the National Entrepreneur Institute (INADEM), which is a decentralized body of the Ministry of Economy in charge of promoting strategic projects linked to MSMEs and production chains. Also important is the alliance of the Ministry of Economy with the United States-Mexico Foundation for Science (FUMEC).

For its part, the National Council of Science and Technology (CONACYT) is another of the stakeholders related to modern services. It focuses on developing innovation capacities aimed at projects in strategic sectors of PRODEINN, with an emphasis on strengthening human capital. In this line, the academic sector participates through the development of projects. Also, the chambers and associations are linked as promoters of projects in strategic sectors.

2. Innovative Development Program (PRODEINN) 2013-2018

This initiative is run by the Ministry of Economy and includes the lines of action of the cross-sector programs derived from the National Development Plan 2013-2018. It seeks to enhance the benefits of trade liberalization, through a new policy of industrial development and innovation that promotes knowledge and innovation-based services.

In the context of this program, ICT is situated as an emerging sector. It is intended to rethink public policies aimed at the regulation, promotion and use of ICTs through an industrial policy that has the development of suppliers, regional clusters, innovation and human capital as central axes. Similarly, it seeks to design and execute an action plan to increase and consolidate the country's ICT exports, in addition to implementing formal mechanisms to ensure the articulation and alignment of policies and actions.

After the call made from within the framework of the National Democratic Planning System, various proposals were obtained from business groups, workers, the academic sector and administrations' public servants at the regional levels. In this sense, as a basis for implementing this program, it is intended to achieve a public-private cooperation based on consensus from institutional spaces such as the National Productivity Committee and the Business Consultative Council for the Growth of Mexico.

PRODEINN is made up of 5 sectoral objectives. Each one contains specific strategies and lines of action. In particular, objectives 1 and 2 are linked to the ICT sector through specific lines of action. Objective 5, although not focused on the ICT sector, focuses on promoting the export sector (see Table VI.2).

ProMexico, a Mexican government trust formed in 2007 under the Ministry of the Economy, has played a prominent role in promoting trade and attracting foreign investment, and strengthens the ICT-sector as part of its support for strategic industries. In the period 2017-2018, it had 7 lines of action which included the implementation of a strategy to promote the export of knowledge-intensive services. An important program is RedExporta, based on a formal association of companies in the same sector that constitutes an export network.

In this line of strategic sectors and export promotion, another important body is the National Entrepreneur Institute (INADEM), founded in

2014 and linked to the National Entrepreneur Fund (FNE) through the Call for High Impact Support for Enterprises in the Entrepreneurship and Financing Program.⁵ The purpose of the FNE is to promote productivity and innovation in MSMEs located in strategic sectors distributed by state. The regional governments and the Mexican Association of Economic Development Secretariats jointly established the strategic sectors, among which is ICT. One of the objectives of the FNE is for MSMEs to contribute more to economic growth, through their integration into value chains based on an increase in the national added value of exports and a greater participation in national production chains. INADEM is also designing pilot programs in coordination with regional governments, one of which is specifically for the ICT sector. The offer of seed capital funding is also worth highlighting.

TABLE VI.2
Mexico: general description of the Innovative Development Program (PRODEINN), 2013-2018

| Sector objectives | Strategies |
|-----------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Sector objective 1: Develop an industrial and innovation promotion policy for balanced economic growth by sectors, regions and companies. | <ul style="list-style-type: none"> - Promote innovation in the sectors through the participation of academia, the private sector and government (triple helix). - Line of action: Develop a digital economy ecosystem through the assimilation of information and communications technologies (ICT) in production processes. - Align the programs and instruments of the Ministry and other agencies with the requirements of the sectors. |
| Sector objective 2: Implement a policy to encourage innovation in the trade and services sector, with an emphasis on knowledge-intensive companies. | <ul style="list-style-type: none"> - Take advantage of knowledge-intensive services as a source of productivity and export diversification. - Contribute to the development of the commercial sector. - Encourage the modernization of services. - Facilitate the development of the digital economy ecosystem. - Line of action: Promote the integration of inter- and intra-company systems and functions through the intelligent use of ICT. - Increase skills and abilities in the commercial and services sector. - Promote innovation in the sectors through the participation of academia, the private sector and government (triple helix). - Align the programs and instruments of the Ministry and other agencies with the requirements of the service sector. |

⁵ The National Entrepreneur Fund (FNE) arose from the merger of the Support Fund for Micro, Small and Medium Enterprises (SME Fund) and the National Entrepreneur Fund, which aimed to incorporate ICT in MSMEs.

| Sector objectives | Strategies |
|---------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Sector objective 5: Increase international trade and investment flows and the national content of exports. | <ul style="list-style-type: none"> - Access new export markets and those in which there are commercial preferences. - Safeguard the commercial and investment interests of Mexico in world markets. - Strengthen commercial and investment links with regions that show dynamic growth and encourage the internationalization of Mexican companies. - Intensify export activity through promotion strategies. |

Source: Elaboration by the authors on the basis of Ministry of the Interior, “Innovative Development Program 2013-2018”, Mexico City, 2013 http://www.dof.gob.mx/nota_detalle.php?codigo=5326479&fecha=16/12/2013.

3. The Special Program for Science, Technology and Innovation (PECiTI) 2013-2018

Under the responsibility of CONACYT, PECiTI arose from the Law of Science and Technology (2002), the Special Program for Science, Technology and Innovation 2008-2012 and the Program of Incentives for Innovation. It is aligned with the 2013-2018 National Development Plan, specifically with the following objective: “Conduct scientific, technological development and innovation bases for appropriate economic and social progress.” There is coordination between the priorities of science, technology and innovation (STI) and those of the PECiTI, which is closely linked to the training of human capital.

The public-private alliance achieved through the public, private and academic sectors is crucial for establishing projects, with ICT being one of the priority areas. The program focuses on national opportunities called strategic initiatives, which in turn are derived in tractor programs harmonized with the National Development Plan and sector programs.

4. United States-Mexico Foundation for Science (FUMEC) programs

There are 2 notable programs aimed at positioning companies in the international level: TechBA and Techpyme. The first is a joint initiative from FUMEC and the Ministry of the Economy, which began in 2004, whose objective is to boost the performance of companies through export mechanisms. The information technology is one of the most prominent of

the strategic sectors covered. It also establishes collaboration mechanisms with governments and regional science and technology centers to carry out specific sectoral and regional development programs (FUMEC, 2017).

Techpyme, meanwhile, aims to position companies in a global value chain. Formed in 2011, it is intended to strengthen technology companies and promote their acceleration nationally. In 2014 it was part of a project aimed at creating 32 State Innovation Agendas seeking to develop innovative potential through regional and local mechanisms. This project was carried out in coordination with CONACYT. In particular, the establishment of governance models by state based on world technological trends is a reference for the purposes of this book (FUMEC, 2017).

5. Stakeholders' perspectives

Some successful cases of modern services at the regional level, such as Jalisco, have been promoted by public-private partnerships (Schatan and Enríquez, 2015). Hence, it is worth investigating the perspective of these stakeholders and some were interviewed.⁶

The interviewees mentioned that policy was established at the federal level, but that the challenge lay in coordinating these with regional governments. In particular, it is necessary to coordinate the treatment that trade in intangible services should receive compared to what products have received. Different policies are required and this depends on the vision that exists in each of the states according to criteria such as strategic sectors. There also needs to be smart regionalization.

The interviewees agreed on the need to develop capacities within companies, as well as on the importance of human capital in the field of the service sector, particularly ICT. Here, collaboration with the academic sector was needed, but a disconnection with it was perceived.

Also, a critical mass of private sector companies which are aware that there are cross-cutting developments inherent to all industries is

⁶ The interviewees were Alfredo Juárez Robles, PROSOFT Guanajuato Operator, in 2016; Sergio Ríos Martínez, ProMexico Central West Regional Coordinator; and Jorge Solalinde Mora, President CANIETI Guanajuato. The interview conducted by Heli Díaz (2018) with Sergio Riva Palacio in January 2018 was also consulted.

required. Agreements between business chambers are also required and clusters need to be created and inserted in Industry 4.0 and the creative economy trends.

C. Scope and limitations of the Program for the Development of the Software Industry (PROSOFT) in Mexico

This program was implemented by the National Action Party (PAN) in 2002 within an international context where small economies – such as Israel or Ireland, as well as developing countries, such as India – had gained prominence on the world software stage. It was a novel instrument whose aim was to increase Mexican software and information technology exports. The program had the following notable features to achieve this: diversified objectives; short and long term approaches; collaboration between public and private stakeholders, mainly between companies and business chambers and federal and regional public bodies and academic bodies, such as universities and research centers; a decentralized mechanism of action; and an annual evaluation device that in practice was entrusted to different academic institutions; namely, the Autonomous Metropolitan University (UAM) -Xochimilco, the National Autonomous University of Mexico (UNAM) and the Autonomous Technological Institute of Mexico (ITAM), among others.

The main characteristics of PROSOFT and its evolution in the last 15 years are highlighted below. This analysis is based on the review of official Ministry of Economy documents, evaluation reports by academic institutions and consultants, and interviews with certain program participants from different regions of Mexico. Also, previous works by the authors are taken up and additional bibliography is used. Three stages of the program are described, which highlight issues related to the promotion of information technology exports and analysis of forms of governance.

1. PROSOFT 1st stage (2002-2009)⁷

The Mexican federal government formed PROSOFT based on 7 strategies. It was implemented through the Ministry of Economy, and the

⁷ This was taken from Hualde, Jaen and Mochi (2010).

initiative grew exponentially at the start. At both the federal and regional levels, support was given to private companies, public organizations and educational institutions to promote the creation of new companies, strengthen those already established, train workers, obtain quality certifications and promote foreign trade.

The Program responded to the call for a broad dialogue between a large number of stakeholders. This is a notable feature, especially with respect to the goal of reaching broad agreement between the public and private sectors, and of coordinating the efforts of the central government and regional stakeholders. The main stakeholders were the following:

- Government: The Ministry of Economy, the National Bank for Foreign Trade (Bancomext) and regional governments, especially the Jalisco State Council of Science and Technology (COECYTJAL).
- Companies: Of different sizes and forms of ownership participated; many represented by business associations. Some large national companies and multinational company subsidiaries were prominent.
- Associations and institutes: the Mexican Information Technology Industry Association (AMITI); the National Chamber of the Electronics, Telecommunications and Information Technology Industry (CANIETI); the Mexican Internet Association (AMIPCI); the National Association of Information Technology and Communications Distributors (ANADIC); the Mexican Free Software Business Association (AMESOL); and the Mexican Institute of Teleservices (IMT).
- Academia: The National Association of Computing Education Institutions (ANIEI) and public and private universities, such as UNAM and the Monterrey Institute of Technology and Higher Education (ITESM), and some research centers, such as the National Polytechnic Institute Center for Research and Advanced Studies (CINVESTAV), see Dutrenit et al, 2018.

The objective of the program was to promote national economic development by granting temporary support to programs and projects that promote the creation, development, consolidation, viability, productivity,

competitiveness and sustainability of information technology companies in the sector (SE, n.d.). Short-term goals were established through 15 performance indicators, the main ones being: job creation, regional economic development, technological innovation, production chain integration, physical infrastructure development and high-technology park construction.

PROSOFT was a sectoral program within a more general strategy to promote high-technology sectors, such as electronics, with which it was strongly linked initially. After the crisis of the mid-1990s, the Mexican federal government began to modify its industrial policy to promote high-technology sectors and prioritize business competitiveness and clusters. The program sought to involve the various stakeholders that participate in the production chain, focusing on the business sector. The public sector played a key role as an agent promoting the organization of entrepreneurs to form networks of producers and consumers related to the production of *software* products and services.

The program sought to go beyond traditional sector policies, which included attracting companies and fiscal and infrastructure support to promote the strengthening of the sector through the formation of clusters, the creation of more inter-institutional links and the strengthening of ties with other production activities, such as the electronics industry in the regions where it operated. The idea behind the PROSOFT drive was that software was a technology that could be applied in most economic sectors whose expansion would therefore have a multiplier effect on the economy as a whole.

It should also be noted that the PROSOFT operating rules required regional governments and business organizations to provide the support that companies requested. To be beneficiaries of PROSOFT support, companies had to be part of a business chamber, an association of information technology (IT) companies or integrating company. The support requested had to be part of a general strategy of the group of companies and, of course, be compatible with PROSOFT objectives. This strengthens links between companies and between them and the government.⁸

⁸ Article 35 of the operating rules stipulates that regional governments decide the projects the Board of Directors must support. The states must have their accreditation as promoter bodies, in accordance with article 26. In addition, regional governments must have a development strategy for the IT industries in accordance with PROSOFT guidelines.

During the first 3 years, PROSOFT was positively evaluated by organizations external to the Ministry of Economy. The first evaluation in 2004 assessed 6 states with a high potential for software development (Nuevo León, Jalisco, Puebla, Guanajuato, Morelos and Sinaloa) and 4 with low potential (Yucatán, Aguascalientes, Hidalgo and Campeche). By that year, only 62 projects had been supported, but most of the country's entities had already expressed interest in joining PROSOFT. The positive perception of the program by businessmen in the sector led them to demand its continuity and expansion. In 2004, most of the resources requested were allocated to training, which improved the quality of the jobs created. The resources channeled through PROSOFT strengthened the communication of companies of different sizes. However, as early as 2004 it was noted that it took too long to deliver authorized resources, which affected the implementation of business plans.

There were significant advances in the program in 2005 when 181 companies were supported (166% more than the previous year) and the budget (at \$18 million) was 40% higher than in 2004. The number of supported states increased to 20 and, as a result, the total investment - made by PROSOFT, regional governments, private initiatives and the academic sector - increased by 202%, from \$22 million in 2004 to \$69 million in 2005 (see Table VI.3).

TABLE VI.3
Mexico: national software industry development
investment by stakeholders, 2004-2006

(In thousands of dollars and percentages)

| Year | PROSOFT | | Regional governments | | Private | | Academia | | Total | |
|-------|----------|---------------------|----------------------|---------------------|-----------|---------------------|----------|---------------------|-----------|---------------------|
| | Value | Percentage of total | Value | Percentage of total | Value | Percentage of total | Value | Percentage of total | Value | Percentage of total |
| 2004 | 12 373.8 | 56.0 | 3 869.8 | 17.5 | 5 351.4 | 24.2 | 506.3 | 2.3 | 22 101.2 | 100 |
| 2005 | 17 659.9 | 25.5 | 10 092.7 | 14.6 | 39 713.6 | 57.4 | 1 685.5 | 2.4 | 69 151.7 | 100 |
| 2006 | 38 238.3 | 29.6 | 21 310.1 | 16.5 | 66 761.2 | 51.7 | 3 001.9 | 2.3 | 129 219.7 | 100 |
| Total | 68 272.0 | 31.0 | 35 272.5 | 16.0 | 111 826.1 | 50.6 | 5 193.7 | 2.4 | 220 472.6 | 100 |

Source: Elaboration by the authors on the basis of the Ministry of Economy (SE), PROSOFT Yearbook 2007, Mexico City, 2007

The Metropolitan Autonomous University evaluation report highlights the increase in the number of projects approved in 2005 and details their type. Prominent among them are those for innovation and technological development (170 projects, 29.1% of the total); training and development of human capital (133 projects, 22.7% of the total); and those for promotion and marketing (95 projects, 16.2% of the total). However, a higher number of projects in a category does not mean the total amount awarded by PROSOFT is higher. According to the total amount, the sectors that received the most financing were production projects, innovation and technological development and training and development of human capital. These 3 categories together represented over 70% of the total financing provided in the program.

In 2005, Jalisco and Nuevo León were the states receiving the most support, but with significant differences between them. Although the total contribution from PROSOFT was about \$3.5 million dollars in Jalisco and slightly more than \$2.5 million dollars in Nuevo León, the total amount financed by all stakeholders in Jalisco was double than Nuevo León: \$18.7 million compared to \$ 9.2 million. These states were followed in order by Sonora, Veracruz and Baja California, where financing exceeded \$3 million dollars.

In general, businessmen and chambers expressed a good opinion of the program, but criticized delivery times and the lack of coordination between central and regional organizations, in addition to mentioning that some companies were unaware of the procedures or did not know how to use them.

In 2006, the number of regional entities participating as promoter agencies grew to 26, which covered 81% of the country. As of August of that year, PROSOFT had spent \$38.2 million dollars, of which 29.2% had been used to support production projects and 19.7% to support innovation and technological development.

For every dollar the Ministry of Economy disbursed through PROSOFT in 2006, the private sector contributed \$1.74 dollars and regional governments \$0.56 dollars. The growth in the total amount of investment resulted in the number of improved jobs growing by 98% from 2004 to 2006, while the number of potential jobs increased by 368%. In the same period, the number of states participating as promoter organizations

increased. The same happened with the clusters, which went from 11 in 2004 to 19 in 2006; with the number of integrating companies increasing in the same proportion as the clusters.

In 2006, the PROSOFT yearbook reported that 19 regional governments had developed clusters of IT companies and created 17,131 jobs in 556 companies (Hualde, Jaen and Mochi, 2010). The industry had started to grow in 2003, when growth stood at 3%; in 2005 and 2006 growth was 10.7% and 11.4%, respectively.

One of the features of PROSOFT was that various agents participated in its promotion and development, not only federal and regional governments, but also software industry entrepreneurs. The total amount of investment by the Ministry of the Economy (PROSOFT), regional governments, private initiatives and educational institutions practically quintupled the total investment made in the sector between 2004 and 2006. The Ministry of the Economy contributed the bulk of the investment through PROSOFT. However, this proportion decreased in later years due to the increase in the share of private sector initiatives: going from 24.2% in 2004 to 51.7% in 2006, or almost the amount invested in just 3 years.

2. 2nd stage: PROSOFT 2.0 (2008-2013)⁹

PROSOFT 2.0 arose from the 2008 review of the program and the 10 guidelines formulated to increase competitiveness in the 2008-2012 period. The objective of PROSOFT 2.0 was “to create the necessary conditions for Mexico to have a more competitive Information Technology service internationally and ensure its growth in the long term, as well as promote its use in production processes” (SE, 2008). In addition, 7 new strategies were established: human capital, exports and investments, productivity and innovation, quality and maturity, funding, dissemination and use of IT and legal certainty.

Between 2007 and 2012, 50% of the approved projects were part of the IT dissemination strategy; 21.6%, the quality and maturity strategy (certifications, standards and models); and 17.1%, the human capital

9 This section stems from the review of CANIETI, ITAM and CEC (n.d.).

strategy; projects corresponding to the export strategy represented only 3.6% of the total. During this period, the approval of a World Bank loan of \$80 million dollars aimed at developing the sector in the 2008-2013 period was important (Dutrenit et al, 2018).

The report for the period contains a large amount of information from which only a few results will be highlighted. Despite the fact that the methodology was made up of different instruments, the truth is that the sample of companies only included 73 of the companies supported in 2007 and 2008, and 34 of those not supported (CANIETI/ITAM/CEC, 2013).¹⁰ In general terms, the former had a larger average size than the latter in terms of employment (319 employees compared to 24), similar seniority, higher sales volume and a higher percentage of certifications.

a) Certifications

In the *software* sector, certifications are an indicator of processes that make companies more reliable to establish trade or supply relationships, while sometimes representing a guarantee of access to international markets as exporters. At the international level, the most common certification is the Capability Maturity Model Integration (CMMI), which consists of different stages and involves a significant expense, especially for micro and small businesses. In Mexico, UNAM designed a certification called the Software Development Process Model (MoProsoft), which reduced the aforementioned costs. According to the evaluation of the companies PROSOFT supported and did not support, 34% of those that had received support had the CMMI certification, while this was 8.8% for those who had not received it, and had been interviewed in the sample. Of the former, 36.7% had obtained the certification between 2007 and 2009 (that is, in the same years they had requested support from the program); and half obtained it immediately after requesting (CANIETI/ITAM/CEC, n.d.). In contrast, there was almost no difference between the percentage of supported and unsupported companies that had obtained MoProsoft certification.

It should be noted that this increase in the number of certifications had a great impact after 2008, when the Mexico First organization was

¹⁰ The report indicated that the greater the number of companies PROSOFT supports, the more difficult it is to have a relevant control group.

created and began to promote training and certification programs for national professionals. According to the figures provided by Mexico First, 50% of these certifications were distributed in the Federal District, Jalisco, Nuevo León and Sinaloa.

b) Exports

Although the above indicator may have had an influence on the future export capacity of companies, the PROSOFT evaluation of the second period indicates that both supported and unsupported companies maintained a similar level of exports: these declared having exported 28.8% and 26.5%, respectively (CANIETI/ITAM/CEC n.d.).

In a study by the independent consultancy, Select (2012), the status of Mexican software industry exports was also assessed. In a sample of 277 companies, only 68 had exports, and for almost \$500 million in 2011, 25% of the total sample. The study added that 91% of the total exports in the sample corresponded to just 7 corporations, while the remaining 9% distribution was large companies (3%) and SMEs (6%).

These data indicate that, although there is an inclusion of small companies in the international market, their participation is still quite low. This inclusion of SMEs is due to the fact that some companies are founded as exporters due to their needs and business line or to satisfy a demand abroad that does not necessarily exist in the country (Select, 2012, p. 57).

The segments with the highest percentage of average exports per company was software development and services (30.3%), followed by creative media (13.6%) and remote business services (3.4%).

Software development and IT service companies had the highest export activity and a large proportion of employees with English skills (21%). Contact centers, in general, lacked employees with advanced proficiency and, in contrast, organizations dedicated to creative media, despite having small exports, had a group of collaborators with a high command of English (Select, 2012).

The evaluation estimated that PROSOFT support increased sales and the probability of obtaining international certification by about 40%, but had no effect on the number of customers or the probability of exporting.

c) Process evaluation

The forms of coordination and collaboration between the different stakeholders that participated in the PROSOFT are summarized in an evaluation of the processes. It reflects the extent to which a novel approach of incorporating stakeholders and territorial decentralization is effective or not (CANIETI/ITAM/CEC, n.d.); therefore, the type of governance built into the program is documented. For reasons of space, only identified problems are highlighted below:

- Little involvement from the Ministry of Economy regional delegations in the dissemination of the program and the search for promoting organizations.
- Capacity problems for business promoter bodies in meeting the administrative burden.
- Bias in the selection of projects presented to the promoting agencies, whose criteria for authorizing applications was according to their own interests.
- Little diffusion of the program.
- Delayed delivery of funds, causing implementation problems.
- Low participation of regional delegations in monitoring the supported projects.

Other problems were solved by better establishment and description of operational processes. However, the relative abundance of funds created certain vices, as a kind of captive market was formed that learned to live off public resources. Some companies learned ways to obtain projects in several calls, without these necessarily materializing in goals consistent with PROSOFT objectives.

3. Recent stage: el PROSOFT 3.0

In June 2015, the Ministry of Finance and Public Credit presented to the Chamber of Deputies the program structure to be used in the 2016 Federation Expenditure Budget project, where certain modifications were established. It was stated that PROSOFT would be merged with the Fund to Promote Innovation, forming the Program for the Development of the Software Industry and Innovation (S151), which would operate according to a new structure of operating rules (SE, 2015).

In the recent phase of PROSOFT, much more emphasis has been placed on talent and innovation, and the need for early detection of students in the basic school system with an information technology vocation. It also seeks to intensify the programs of mathematics, logical and scientific thinking and other areas of knowledge associated with information technology in the educational system. However, some of the challenges mentioned by the Ministry of Economy give an idea of the limitations of the software and information technology sector in Mexico. Some of these are:

- more than half of companies have difficulties finding qualified personnel;
- only 25% of IT companies innovate (12% of all companies in Mexico);
- only 25% of companies export, and these exports represent 7% - 27% of total sales;
- Mexico's spending on IT services and software is 41% lower than in developed economies, and
- only 1% of government IT services are supplied through local providers.

An important change in the program is the explicit proposal for interaction with some priority economic sectors listed in the National Program for Innovative Development (PRODEINN). The need is mentioned for information technologies to expand and be used in mature industries (metalworking, textile-clothing, leather and footwear, wood and furniture, iron and steel and food and beverages); in dynamic industries (automotive sector and auto parts, aerospace, electrical, electronics and chemical); and emerging industries (biotechnology, pharmaceuticals, information technology, creative industries and medical equipment). Thus, software would no longer be the only sector being supported based on an idea of unclear transversality; but ICT would be promoted more generally, as part of a priority given to SMEs and their relationship with promoting innovation. Finally, the changes in this last phase are also influenced by a modification in the management of PROSOFT, responsibility for which passed from the Undersecretariat of Industry and Commerce to the Undersecretariat of Small and Medium Sized Industry.

D. Conclusions

One of the important assumptions regarding the development of modern services is that the penetration of information technologies in other sectors leads to an increase in the general productivity of the country. This relationship is observed in developed countries, but is less clear in developing countries, where competitiveness precedes the use of ICTs; however, the opposite is not usually the case. The use of ICT by the latter should be accompanied by organizational changes in companies and in other areas of the economy (Select, 2012).

PROSOFT and the rest of the various programs mentioned may have led to some of these changes. These initiatives reflect the idea of collaboration between public and private stakeholders, in a similar way to that proposed in other Latin American countries. In several of these, the promotion of the export of services and, especially modern services, is mentioned as a priority. The results present highlights and challenges of varying degrees, both in terms of impact and in the governance that was actually built.

PROSOFT has been in existence in Mexico for 15 years and is a rare example of continuity of public policy in a specific sector; with the investments made by different agents during this period being the strongest proof of this. Among the positive aspects of this program are the following:

- The incorporation of chambers of trade, companies and, to a lesser extent, universities, to the development of the sector. In other words, the participation of a large number of stakeholders who reached agreements on the design and management of the program, especially in the early stages.
- The participation of these stakeholders in most of the regional units; that is, the decentralization of the initiative.
- The stability of the program, resulting from 10 years' continuity of the group responsible for PROSOFT.
- The adaptation of the program to new objectives and different situations, which allowed different stakeholders to learn, both individually and in coordinated work.

Thanks to these positive aspects, it was possible to increase the number of certified companies among those supported by PROSOFT, to launch educational programs aimed at promoting information technology programs, and to materialize support for the improvement of organizational and technological processes in software companies.

However, as mentioned in the evaluations themselves, the program had limitations that generally detracted from the positive aspects. Among these were the following:

- Although many regional units were incorporated into the program, this did not prevent projects and companies from continuing to be largely concentrated in the Federal District, Jalisco and Nuevo León.
- In 2006, 10 promoter agencies only had 71% of the projects and 80% of the program's resources. As its historical record shows, the disparity in IT industry infrastructure of the entities is reflected in the ability to raise funds. Also, the program's resource distribution strategy made further increases in this disparity at the regional level possible (UNAM, 2007, cited in Stezano and Padilla, 2013).
- In ITAM's evaluation of the participation of regional organizations and their coordination with federal ones, several problems arise: ignorance of the program, incorrect use of the operating rules and lack of punctuality in the calls and in the delivery of financing, among others. In short, the governance problems of the system are more visible when the decentralized mechanism of the program is examined.
- One of the interviewees underlines the insufficient role of the government as a user of technology from Mexican companies.

There is a big difference in the tone and argumentation of the program evaluations between those carried out by academic institutions and the last CONEVAL report, in which the impact evaluations and the very objective of PROSOFT were questioned.

Some aspects outlined refer to results, but are largely derived from limitations of governance. This led to a loss of coordination, effectiveness and even sense over time. On the one hand, the Ministry of Economy was conditioned over time by the Ministry of Finance, which imposed restrictions and led to the 2018 budget being the same as 2004. On the other hand, the lack of coordination already mentioned and the appearance of systematic appropriation and misuse of 'rentier' funds is added to the excessive extension of aid to regional governments that lacked the minimum critical mass to develop the sector. In contrast, PROSOFT contributed to the expansion of the sector in regions where there was already a strong institutional framework. It gives the impression that the sector did not grow enough in intermediate states that had potential for development, but also need for support. In the last stage, the software sector was diluted between the priorities assigned to the ICTs themselves and to the other sectors mentioned

From a broader perspective, it must be underlined that the most recent export policies for modern services were formulated within the framework of the National Development Plan 2013-2018, in particular the National Digital Strategy. A significant shift has been the priority given to promoting exports to the detriment of the domestic market, on the basis that more priority has traditionally been given to promoting the adoption of technologies by companies than to increase the possibility of exporting intangibles, in particular modern services. Thus, organizations such as ProMexico are fundamental. It is also worth highlighting the role assigned to the knowledge-based economy based on the contribution of CONACYT. However, there seems to be an overlap of objectives and functions to some extent between the programs.

The experience of PROSOFT, with its good and bad points, allows for a series of recommendations on how to form strategic industrial policy projects that encompass public-private collaboration and promote sound governance. However, these recommendations will be on a purely normative level if the legitimacy of the different stakeholders is not collectively recognized. The recommendations are as follows:

- Industrial policy requires continuity in two aspects for it to function properly: (i) economically, based on a budgetary flow in accordance with the program objectives, and (ii) managing the allocation of the program to bureaucratic entities, with decision-making and consensus-building capacity.
- The strengthening of intermediate institutions must be an objective for both public and private stakeholders to participate. In a country as unequal as Mexico, balancing decision-making capacity at the central level and the possibility for regional stakeholders to act autonomously is a complex challenge. To deal with this, the role of intermediate bodies, such as CANIETI and others that participated in the PROSOFT, is of great importance.
- The experience of PROSOFT makes it possible to clearly understand that evaluation systems can contribute to making industrial policy more flexible so that, without losing the fundamental guidelines that encourage them, they contribute to collective learning. For this, the evaluation should become a mechanism for rectifying inefficient procedures and reinforcing those whose reliability and efficiency has been demonstrated.

Finally, it should be mentioned that the priority that PROSOFT had in the early phases has been lost in recent years, both in economic and organizational terms. The mechanism of actions based on complex coordination and collaboration between different stakeholders made it possible to achieve significant advances in terms of export growth, the strengthening of different regional clusters and the formation of human capital. The program was reformed based on successive evaluations and adaptations to new objectives. However, both the data and the interviews indicate that some of its objectives were distorted, coordination with local and regional stakeholders was not always carried out adequately, and in other objectives it was not possible to advance as planned.

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Chapter VII

Peru: the exclusive focus on promoting local exporters¹

Manuel Angel Quindimil²

Introduction

Modern industrial policies have not been tested in Peru, as there has been little promotion of modern services exports from companies and a weak institutional framework for this.

Although the country has opportunities for the growth of the modern services sector, a series of public policies need to be implemented so that the companies in the sector can provide their services to different international markets. This reform will not be possible if the State's association with the private sector is not modified.

The second section of this chapter deals with the performance of Peru's modern services exports between 2005 and 2016. The third part analyzes the policies to promote services exports from the beginning of the 2000s to the present.

¹ In preparing this chapter, interviews were carried out with David Ederly Munoz, of PROMPERU; Pedro Alfredo Astudillo Paredes, of the Peru Ministry of Transport and Communications (MTC); Carla Segura, of the Peruvian Association of BPO & ITO; Enrique Quinones, of the Peruvian Association of Software Producers; Carlos Gonzales, of the Peru Exporters Association; and Beatriz Boza, of the Lima Chamber of Commerce.

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The governance of public-private policies towards the export sector of modern services is the object of study in the fourth section. Finally, the conclusions offer some alternatives to improve public-private governance to promote the export of modern services in Peru.

A. The performance of modern services exports

As is the case with most statistics on trade in services, the official figures in Peru show similar deficiencies. In addition to the shortcomings usually observed (Duran Lima and Alvarez, 2011), in the Peruvian case, companies show a marked mistrust when it comes to providing information to the State, which is why businessmen fail to respond to organized surveys by the National Institute of Statistics and Computing (INEI). Likewise, the private sector does not prepare its own reports, such as metrics from service provider companies business associations. Thus, it is very difficult to quantify trade in services, whether in the domestic or foreign markets; As a consequence, it is problematic to determine the potential of different international markets for the provision of this type of services.

However, it is possible to access official statistics on the sector, but they must be approached taking due account of the aforementioned biases. For example, in the National Exporting Strategic Plan (PENX) 2025, it is indicated that there are 610,858 service companies in Peru (MINCETUR, 2015), according to the information provided by the INEI. While, the Services Export Department of the Peruvian Promotion

Commission for Exports and Tourism (PROMPERU) has indicated that there are 220,000 companies that provide business services, of which 2,000 export. This same body highlights the importance of the service sector, estimating that it represents 45% of the gross domestic product (GDP), while employing 31% of the economically active population (EAP) (Edery, 2018b).

Also, it should be noted that there is no clear definition of modern services in Peru. PROMPERU understands that so-called “business solutions” include digital technology (software, applications and animation); customer relations (contact centers, collections and digital marketing); engineering services (integrated engineering services, related exploration services and exploitation of human resources, distribution services and franchises); and design (architecture and graphics), Edery, 2018a). Thus, PROMPERU considers contact centers, franchises, engineering and software, among others, as business services (Edery, 2018b).

The lax classification of modern services in Peru makes it difficult to draft a modern promotion strategy in a digital economy environment. Digital transformation requires that not only public-private governance in matters of trade policy, but also that policy instruments be designed to promote the skills necessary for the digital economy (UNCTAD, 2017).

Although Peru has registered a permanent increase in services exports since the beginning of this century, attempts are still being made to consolidate the sector in the country's economy. Even so, Peru's total exports of services went from \$1.716 billion in 2003 to \$7.394 billion in 2017 (Edery, 2018b).

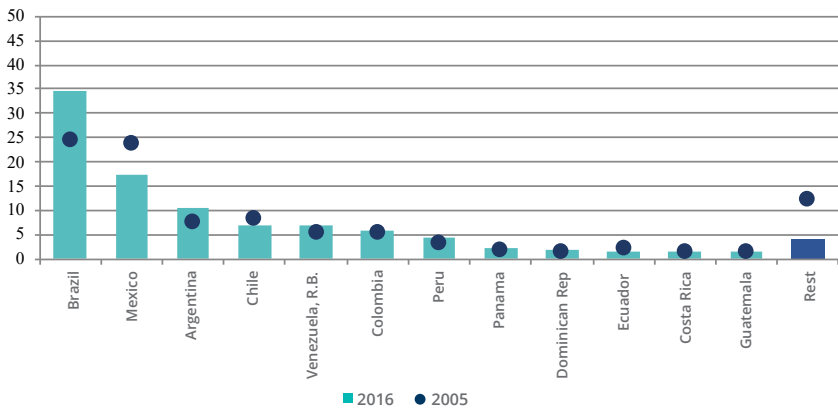
According to the Ministry of Foreign Trade and Tourism (MINCETUR), the application of PENX 2025 is intended to triple the exports of services, which would be \$13 billion dollars in 2021 and \$18 billion in 2025, of which the plan estimates 20% having to correspond to business services. The Government's confidence that this export growth will be achieved is based mainly on the following factors: (i) the increase in business exports to customer-oriented services; (ii) flexibility in provision; and (iii) the human team that provides services to companies. PROMPERU intends to position the service offer in Latin America based on the vision of “being recognized in the international

market as providers of specialized, competitive and innovative business solutions with differentiated costs, high added value oriented to customer needs” (Edery, 2018a, p. 21).

According to the statistics provided by PROMPERU, Peru registered exports of business services for \$482 million in 2013, \$541 million in 2014, \$540 million in 2015, \$545 million in 2016 and \$897 million in 2017. In the business services sector and without specifying the years in which they were produced, PROMPERU highlights exports of services such as contact centers (\$263 million), engineering (\$86 million), franchises (\$84 million) and software (\$50 million) (Edery, 2018b).

Despite efforts made to promote services exports, at the regional level the country does not occupy a prominent place as an exporter of services, ranking 9th while not even exceeding 5% of total regional exports (see Figure VII.1).

FIGURE VII.1
Latin America and the Caribbean:
main exporters of services, 2005 and 2016
(Percentages of total in the region)

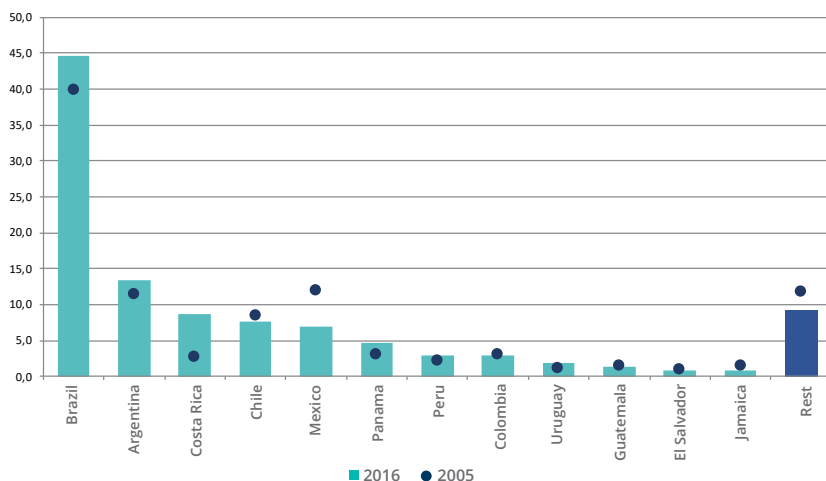


Source: Economic Commission for Latin America and the Caribbean (ECLAC), International Trade Outlook for Latin America and the Caribbean 2017: recovery in a context of uncertainty (LC/PUB.2017/22-P), Santiago, 2017.

This modest performance in Peru is also reflected in exports of modern services, which represent only about 3% of the total exports of these services in the region. Statistics show that Peru’s modern services exports are below those of Brazil, Argentina, Costa Rica, Mexico, Chile, Panama and Colombia (see Figure VII.2).

FIGURE VII.2
Latin America and the Caribbean:
main exporters of modern services, 2005-2016

(Percentages of total in the region)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), International Trade Outlook for Latin America and the Caribbean 2017: recovery in a context of uncertainty (LC/PUB.2017/22-P), Santiago, 2017.

Peru is ranked 20th in the A.T. Kearney Global Services Location Index corresponding for 2017. Although this publication considers Peru as one of the countries that has climbed the most positions (in 2016 it was ranked 27), there are countries in the region that are considerably ahead of it: Brazil (5th), Chile (9th), Colombia (10th) and Mexico (13th). In turn, in the 2017 Tholons Services Globalization Index ranking, Peru occupied position 36, behind Brazil (4), Mexico (5), Chile (7), Argentina (13), Costa Rica (14) and Colombia (17), see Table VII.1.

TABLE VII.1
Latin America and the Caribbean (selected countries):
position in the A.T. Kearney Global Services Location Index
and Tholons Services Globalization Index, 2009 and 2017

| | A.T. Kearney | | Tholons |
|---------------------|--------------|----------|-----------|
| | 2017 | 2009 | 2017 |
| Brazil | 5 | 12 | 4 |
| Chile | 9 | 8 | 7 |
| Colombia | 10 | - | 17 |
| Mexico | 13 | 11 | 5 |
| Peru | 20 | - | 36 |
| Costa Rica | 31 | 23 | 14 |
| Argentina | 36 | 27 | 13 |
| Trinidad and Tobago | 40 | - | |
| Panama | 41 | 43 | 44 |
| Jamaica | 43 | 24 | 45 |
| Uruguay | 46 | 36 | 23 |
| Guatemala | - | - | 40 |
| Bahamas | - | - | 45 |

Source: Economic Commission for Latin America and the Caribbean (ECLAC), International Trade Outlook for Latin America and the Caribbean 2017: recovery in a context of uncertainty (LC/PUB.2017/22-P), Santiago, 2017.

1. Promoting the export of modern services

a) The general policy of promoting exports of services

MINCETUR establishes, directs, executes, coordinates and supervises the foreign trade and tourism policy. The ministry is responsible for the promotion of exports and international trade negotiations, in coordination with the Ministry of Foreign Affairs and the Ministry of Economy and Finance, as well as with other government agencies within the scope of their respective powers. It is also in charge of the regulation of foreign trade. In its capacity as governing body of PROMPERU and through PENX 2025, MINCETUR has the function of promoting the export of services.

The State agency in charge of coordinating the policy to promote the export of modern services is PROMPERU, which is attached to the Ministry of Foreign Trade and Tourism (MINCETUR). This task is specifically handled by the Services Export Department. In Peru, there has never been a public-private entity in charge of promoting the export of services in general, or specifically of modern services.

b) The main policies for promoting the export of modern services

The 2005 Service Sector Export Operational Plan was drawn up in compliance with the National Export Strategic Plan (PENX) 2003-2013. Through this instrument, the aim was to strengthen and promote the institutional framework of the sector. As part of its specific objectives, it was sought to promote the formation of business and professional associations and strengthen collaboration between the public and private sectors for the promotion and development of the services sector. During the period 2008-2010, the global business services for software, contact centers and franchises were prioritized. For the period 2012-2014, the State highlighted technology services and creative industries (software mobile solutions, outsourcing services, 3D animation and video games), professional services (engineering, business consulting and architecture) and cultural services (editorial and audiovisual).

Law 29,646, the Promotion of Foreign Trade in Services, promulgated in 2011, is a precedent that cannot be ignored in this analysis. Although it is fundamentally aimed at tax reimbursement for service exporters, it also caters for the need to strengthen the institutional framework for the promotion of trade and investment in export services. It also created the Multisector Committee for the Development of Foreign Trade in Services, whose task consists of drawing up strategic plans for the expansion of foreign trade in services; promoting exports of services; and attracting investment in the services sector. This committee is made up of representatives of the public sector (MINCETUR, PROMPERU, Ministry of Economy and Finance (MEF), Ministry of Education, Ministry of Production, Ministry of Foreign Relations, Agency for the Promotion of Private Investment (ProInversion) and INEI) and business associations.

However, these incentives were short-lived, since the MEF, through legislative decrees 1119 and 1125 of 2012,³ reversed the promotional scheme

³ For more information, see Chavez (2012).

for the export of services. This radical turnaround is a sign of the difficulty in obtaining some kind of industrial sector benefit compared to the traditional economic policy carried out by the MEF. Then in 2017, there was another turnaround, and Law 30641, Promoting the Export of Services and Tourism, restored the benefits to the exporters of services.

In 2015, the PENX 2025 was formed, and established the line of action for the development of services export business under a diversified, competitive and sustainable nature. In turn, this line was divided into two areas: (I) promotion and regulatory framework for the development of exports; and (II) support tools for the export of services, which include the following: (i) research and innovation for the formulation of a competitive and decentralized service offer, with emphasis on the use of new technologies; (ii) development and consolidation of the business fabric of services, clusters and integration with global value chains; (iii) quality certification and good management practices for service export companies, particularly intensive in the use of human capital, knowledge and technology; and (iv) preparation of national service statistics according to international standards and implementation of an information system for monitoring service export businesses (MINCETUR, 2015). PROMPERU's Services Export Department periodically presents an operating plan for the current year.

Among the main instruments of Trade promotion of services, PROMPERU currently uses the following (Edery, 2018a):

- International Service Export Forum (Peru Service Summit): consists of a meeting between Peruvian service providers and potential foreign buyers. PROMPERU indicates it provides the best content and business solutions in the service sector, and is the main business platform for trade in the Latin American region. For the 2018 meeting, PROMPERU declared at the event that Peruvian entrepreneurs had the opportunity to contact over 100 entrepreneurs from more than 15 countries. In that year, the exports of the following services were prioritized: digital animation, architecture, outsourcing-collection services, engineering consulting, publishing, graphics industry, digital marketing, mining services and software. This event was the 8th edition of the meeting. In the 7 previous meetings, deals had been concluded for an amount of \$400 million, with the presence of 1,200 national and international entrepreneurs.

- **Foreign Markets Program (PROMEX):** this is a tool for market expansion that combines market intelligence and Trade promotion instruments to help accelerate the internationalization process of companies. The program consists of 3 stages, each of which seeks to bring the entrepreneur closer to the market, thus helping to establish an entry strategy to determine whether or not it is appropriate to be set up in the specific market. PROMEX has a component through which it has managed to establish 2 business centers with software companies, one in Brazil and another in Panama, thus achieving a physical presence with commercial platforms for Peruvian SMEs.
- **Corporate offices abroad:** constituted through public-private initiatives with the main objective of achieving the internationalization of a group of service companies in a consortium regime.
- **Internationalization Support Program (PAI):** this is an operational instrument for co-financing activities aimed at strengthening, promoting and encouraging the internationalization process of Peruvian micro, small and medium-sized enterprises (MSMEs). Its purpose is to strengthen, promote and encourage the internationalization of Peruvian MSMEs, helping them to improve their competitiveness, minimizing their risks and optimizing their management capacities in foreign trade projects.
- **Trade fairs and missions:** PROMPERU organizes the participation of executives from the sector in international trade fairs and trade missions for the export of services.
- **Regional Program for the Identification of Exportable Supply (PRIPE):** this seeks to identify 100 service companies in Huancayo and Cuzco with high potential to access the international market.

One notable aspect of the Services Export Department is that it is extending its promotional activities to the various regions of the country

to support potential service-exporting companies outside the Republic capital. Also, despite efforts made by PROMPERU, the annual budget for the promotion of exports of services is only \$1 million; 60% of which is accounted for by organizing the International Forum for the Export of Services.

According to the different categories established by the Peruvian State, contact centers (2006), software, business consulting and engineering (2007), as well as digital marketing and architecture (2013) were progressively incorporated into PROMPERU's modern services promotion agenda. Despite the fact that the authorities consider the internationalization of the modern services sector to have great potential, to date there has been no precise definition to specifically delimit the different public policies to be adopted.

An initial quantitative analysis of the policies to promote the export of services between 2003 and 2016 shows that, despite increasing from \$2 billion to \$7 billion, progress is relatively little compared to the main exporters of services. As time went by, modern services were incorporated through exporting companies that used the different promotion mechanisms established by PROMPERU. Due to budgetary restrictions, the Services Export Department had to focus its efforts on companies that had a competitive edge and not promote companies or ventures without consolidated operations in the Peruvian market.

PROMPERU highlights customer-oriented business services, with flexibility and a good human team as success factors. It also indicated that the promotion of the export of services has made it possible to publicize an offer with high added value and intensive in human capital (Edery, 2018a).

While acknowledging the important promotional work carried out by PROMPERU, it is worth noting the challenges that must be addressed without delay if the export of knowledge-rich services is to be promoted. This situation is aggravated by the new scenario that configures the digital transformation in the business model of modern service companies. Today, some of the key technologies for the evolving digital economy are advanced robotics, artificial intelligence, the Internet of Things, cloud computing, big data analytics, and 3- D printing. In the case of Peru, these technological advances are in their early stages; as a result, the competitiveness gap for modern service exporters continues to widen (UNCTAD, 2017).

In Peru, there is a notable delay in the implementation of a national digital agenda. This situation directly affects and gives rise to a lack of development and maturity in companies linked to the outsourcing of services, information technologies and knowledge processes. Davila (2018) specifies that 78% of Peruvian companies (compared to 72% in the Latin American region) are in the early stages of digital transformation.⁴

In 2011, the Information Society Development Plan in Peru was approved: the Digital Agenda 2.0. Four years later, the Multisectoral Commission for the Follow-up and Evaluation of the Development Plan of the Information Society in Peru (CODESI) was created and in 2017 the assignment of CODESI was changed from the Presidency of the Council of Ministers (PCM) to the Ministry of Transport and Communications (MTC). The composition of CODESI includes representatives of the Peruvian public sector but, at the meetings of the entity in 2017, it was proposed to modify it to include representatives of the academic sector, civil society, business associations and regional and local governments.

From a business point of view, a recent initiative by the Ministry of Production could become a very good lever for companies to acquire the necessary capacities to export modern services. The Startup Peru program aims to promote the emergence and consolidation of new Peruvian companies that offer innovative products and services, with high technological content, projection to international markets leading to the creation of quality jobs.

4 At the VIII International Forum for the Export of Services, Carlo Davila presented the digital transformation maturity model of International Data Corporation (IDC). This model assesses the digital competence of companies and places them in one of the following 5 phases:

Digital resister: Leadership that focuses on current responsibility, with little or no innovation, except when made necessary by external events. Caution is the priority.

Digital explorer: the protection of the current business operation is the basis of leadership, but they are champions in selecting highly visible innovative initiatives that show the challenges of integration.

Digital player: leadership that enables innovation as necessary in the company. While the integration of commercial services is stable, new capacities, techniques and culture are incorporated into the structure of the information technology organization.

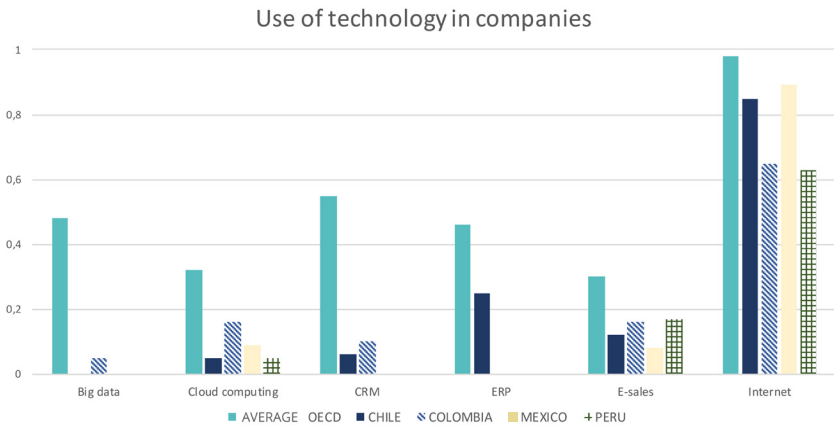
Digital transformer: leadership in Information technology, with the help of a cross-functional team, drives initiatives to shape future business models and create improvements in digital products and services.

Digital disrupter: at this point, leaders possess the necessary management capacities and skills to direct digital initiatives and carry out disruptive innovation in their industry, providing increased streamlining and competitive value for the business (Davila, 2018, p. 9).

Suaznabar and Benavente (2018) state that Latin American companies present significant adoption gaps in many new technologies with respect to countries of the Organization for Economic Cooperation and Development (OECD), which negatively affects innovation and productivity, as they are technologies with cross-sector effects throughout the economy. Neither Peruvian companies nor the State itself have been able to implement or facilitate the comprehensive adoption of these new technologies.

FIGURE VII.3
Selected countries: use of technologies
according to companies, 2018

(In percentage use of technology)



Source: C. Suaznabar and J. Benavente, Policies 4.0 for the fourth industrial revolution', Points on I, Washington, DC, Inter-American Development Bank (IDB), December 3, 2018.

The delay in the adoption of these new technologies by Peruvian companies is evident in the Network Readiness Index: out of 139 countries studied, Peru ranks low in all areas. For example, it has a deficit in terms of digital infrastructure, reflected in its ranking of 72nd in the index. Another issue that must be addressed immediately is the lack of preparation to carry out the new tasks the digitization of the country entails, since there is still no adequate training in this area. In the Network Readiness Index, Peru ranks 129 out of the 139 evaluated (see Table VII.2).

TABLE VII.2
Peru: evaluation of the adoption
of new technologies, 2016

(Ranking position)

| Aspect | Position |
|---------------------------------------------------------------|----------|
| Availability of the latest technologies | 84 |
| Technological absorption by companies | 77 |
| Ability to innovate | 105 |
| Impact of ICT on new products or services | 67 |
| Impact of ICT on new business models | 83 |
| Employment in activities requiring a high degree of knowledge | 86 |

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of World Economic Forum, Network Readiness Index <https://reports.weforum.org/global-information-technology-report-2016/networked-readiness-index/>.

Peruvian companies have clear shortcomings in modern services exports, which must be addressed in the near future through adjustment to public policies (not only trade policies), so these companies can be competitive in international markets (Suaznabar and Benavente, 2018).

TABLE VII.3
Peru: public policies to promote
digital transformation

| Area | Actions |
|---------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Digital infrastructure | <ul style="list-style-type: none"> - Prioritize the reduction of connectivity gaps in rural areas - Improve infrastructure and data regulation - Adequate access to broadband, cloud storage, big data processing and cybersecurity, among other things |
| Digital talent | <ul style="list-style-type: none"> - Human capital with digital skills for research and development (R&D), innovation and technical work |
| Digital transformation of strategic sectors | <ul style="list-style-type: none"> - Digital transformation of value chains or traditional sectors such as energy, health and construction |

| | |
|-------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Digital adoption in SMEs | <ul style="list-style-type: none"> - Specific policies focused on facilitating the dissemination and testing of new technologies - Strengthening of managerial and technological capacities to deploy digital transformation strategies and promote new business models |
| Testing mechanisms | <ul style="list-style-type: none"> - Specific policies focused on facilitating the dissemination and testing of new technologies |
| Public purchases as drivers of digitization processes | <ul style="list-style-type: none"> - The State must promote digitization processes through regulation or public purchases |

Source: C. Suaznabar and J. Benavente, Policies 4.0 for the 4th industrial revolution, Points on I, Washington, DC, Inter-American Development Bank (IDB), December 3, 2018; Association for the Promotion of National Infrastructure (AFIN).

2. Governance of public-private policies in the modern services export sector

For the export of services in Peru, it is necessary to resort to the PENX 2025, in which the foundations, objectives and lines of action are set. In the short term, PROMPERU's Services Export Department presents the Institutional Operational Plan each year for services. PENX 2025 indicates that budget programs will be according to the results-based budgeting methodology applied by the Ministry of Economy and Finance on an annual basis; however, this methodology requires the establishment of indicators and results and the participation of various entities, in the case of multisector programs.

Although at the end of December 2018, MINCETUR carried out an assessment of the performance of PENX 2025, which was general and did not address in detail the services sector. This prevents an in-depth study of promotion policies for the increase in exports of services.

MINCETUR aims to reach the goal of \$13 billion in exports of services by 2021 and \$18 billion by 2025. However, the plans to meet that goal have not been analyzed and no quantitative correlation between PENX 2025 and PROMPERU's Institutional Operational Plan has been indicated; in short, it is not described how a jump of almost 100% in the value of exports will be achieved.

a) Main institutions and public and private stakeholders establishing and implementing specific policies for the modern services sector

In the framework of PENX 2003-2013, the need to strengthen and promote the sector's institutional framework is highlighted, while the Services Export Promotion Program stresses the importance of producing a degree of institutionalism with the private sector. Thus, some chambers of trade and associations were incorporated into PROMPERU's agenda: namely, the Peruvian Association of Software Producers (APESOFT) in 2000; the Lima Chamber of Commerce in 2004; the Association of Exporters (ADEX) in 2004; the Peruvian Association of Contact Centers (APECCO) in 2007; the Peruvian Book Chamber in 2010; the National Society of Industries in 2011; the Association of Exporters (ADEX) in 2011; the Peru National Association of Collection Companies (ANECOP) in 2014; the Association of Architecture Studies (AEA) in 2014; and the Peruvian Association of Design in 2016. According to PROMPERU, the Peruvian Association of BPO & ITO (APEBIT) and the Peruvian Chamber of Franchises (CPF) are not being included, but the following public entities are: MINCETUR, Ministry of Foreign Relations, Ministry of Production, commercial offices abroad and diplomatic offices abroad (Edery, 2018a).

The need to consolidate the institutional framework for the promotion of exports led to the fact that, within the framework of the Permanent Mixed Multisector Commission of the National Exporting Strategic Plan (PENX) - created by supreme decree 002-2003 of MINCETUR—, Law 29,646 for the Promotion of Foreign Trade in Services will establish the Multisector Committee for the Development of Foreign Trade in Services. The purpose of this committee is to prepare and monitor the following plans: (i) Strategic Plan for the Development of Foreign Trade in Services; (ii) Service Export Promotion Plan; and (iii) Service Sector Investment Attraction Plan. Ministerial resolution 209-2013 of MINCETUR established its composition; dividing its participants between the public and private sectors. For the public sector they include: MINCETUR, PROMPERU, MEF, Ministry of Education, Ministry of Production, Ministry of Foreign Relations, ProInversion and INEI.

The nominated business associations were the Association of Exporters (ADEX), the Peruvian Foreign Trade Society (ComexPeru),

the National Society of Industries (SIN) and the Lima Chamber of Commerce. Members from the private sector were nominated by ministerial resolution and no representatives from the academic sector were appointed. The Multisectoral Committee is attached to MINCETUR, which chairs it, and a representative from PROMPERU acts as the technical secretary. However, in practice the committee does not meet and there are no working groups.

b) Leadership and coordination mechanisms between PROMPERU and service exporters

The Services Export Department has been mainly responsible for exports growing from \$1.716 billion in 2003 to \$7.394 billion in 2017 (Edery, 2018b). However, the relationship between the public and private sectors and within the public sector has not been ideal.

In the first place, Peruvian society has an enormous mistrust of the authorities and institutions. In fact, mistrust in the latter places Peru in 1st place among 35 countries (International Social Survey Program (ISSP) *ranking*, 2014). Also, in government spheres, the demand that the private sector carries out monitoring, evaluation, dissemination and coordination of actions is common, to supplement the work of the State. Furthermore, many of the associations do not actively participate in the negotiations of the State or their associates have a low level of representation.

The large number of associations related to the export of services has not favored collaboration when it comes to compiling technical information or statistics for the State to be acquainted with the business models in the private sector. This deficiency was generally corrected by PROMPERU's Services Export Department, which accompanied the work of service exporters who contacted the institution. However, the reluctance of the private sector to request incentives from the State, added to PROMPERU's limited budget meant that the area in charge of promoting exports of services (this also applies to modern services) is concentrated on companies that exhibited a degree of maturity close to that of internationalization.

The interaction between different state entities and the integration of public plans and policies have also not been satisfactory in Peru. From the point of view of public policies, PENX 2025 itself, in

charge of promoting exports, indicates that it needs to coordinate with a large number of programs, such as the Agrarian Policy Guidelines (Ministry of Agriculture and Irrigation); the OECD Country Program with Peru (Ministry of Economy and Finance); the Competitiveness Agenda (Council for Competitiveness and Formalization); Create to Grow (National Council for Science, Technology and Technological Innovation (CONCYTEC); the National Program of Productive Diversity (Ministry of Production); the Development Plan for Transport Logistics Services (Ministry of Transport and Communications); and the Bicentennial Plan: Peru by 2021 (Presidency of the Council of Ministers and National Planning Center Strategic (CEPLAN). This list includes some inactive plans and omits others that are formulated over time; for example, the National Innovation for Competitiveness and Productivity (Innovate Peru), under the Ministry of Production, through which innovation and entrepreneurship projects are co-financed to increase business productivity.

The Services Export Department depends on the Sub-Directorate for International Promotion of Exportable Supply, which in turn is within the orbit of the Export Promotion Directorate. In other words, it is not situated in the administrative ladder corresponding to the ambitious objectives of promoting exports of services. This direction is at an obvious political disadvantage, since it must not only escalate its decisions to its different internal dependencies, but also has to present its strategies to the Presidency of the Council of Ministers (PCM), different ministries (MINCETUR, MEF, Ministry Production, MTC and Ministry of Foreign Relations) and state entities (e.g. ProInversion and INEI).

Also, the Services Export Department is made up only of a coordinator, a specialist, an analyst and a secretary. This shows the scarcity of human resources available to promote trade in services. Given its limited budget to promote exports of services, PROMPERU has focused on selective objectives; such as incorporating 100 regional companies, setting up 6 business centers abroad, internationalizing 50 new companies and collaborating with 160 benefited companies for their participation in specialized fairs and missions (Edery, 2018a).

In view of the department's structural problems and following the principles of Devlin and Moguillansky (2012), it is clear that there

is an inadequate administrative ladder within the Peruvian State and a shortage of qualified personnel to promote the business of modern services.

The low degree of institutionality of the Peruvian State, which directly affects the private sector's distrust of public entities, has hindered fluid communication between both spheres of action. This has to be taken into account when considering public-private collaboration in Peru.

Finally, it should be mentioned that there is also a lot of overlap in competences in the promotion of the provision of services; such as the MTC in matters of Digital Agenda and the Ministry of Production in matters related to the promotion of innovation and emerging companies.

c) Functioning of the main public institutions and their instruments

During the 1990s, the Peruvian state shrank in several ways and grew in others. As a whole, government institutions were reformed, directly and indirectly, by structural adjustment policies, one of whose goals was to reduce the size and scope of public intervention. This model emphasized the functioning of markets, through the primary sector, with some emphasis on the fight against poverty and distributional problems (Gestion, 2013). The approach of the model towards an industrial policy can be summarized in a phrase that circulates in the business environment: "there is no better industrial policy than the absence of industrial policy". According to this vision, the role of the State should be limited to improving infrastructure and unblocking bureaucratic procedures that stifle private initiative.

Due to the hostility to the intervention of the State in the Peruvian economy, it fulfilled only the role of custodian of the autonomous functioning of the market. This approach advocated by those responsible for economic policies has prevented the development of modern industrial policies in the country.

Given the preeminence of the application of orthodox economic policies, Peru only sought to strengthen the international competitiveness of existing industries horizontally. As Devlin and

Moguillansky (2012, p. 10) point out, since Peru is not a country prone to granting benefits at the sector level, it focused exclusively on improving the competitiveness of the economy across all sectors. For this reason, the State did not offer service exporters a sufficient set of incentives.

In addition, the very low level of institutionalism observed in Peru, added to the distrust between the public and private sectors have hindered the formation of public-private alliances. However, there have been cases of slow movement in that direction, such as that carried out by the National Council for Competitiveness and Formalization (CNC), an entity under the Ministry of Economy and Finance (MEF).

The task entrusted to the CNC was to improve Peru's ability to compete on the international market. To this end, it fulfills a collaborative function of efforts from the public, private and academic sector, to prioritize actions and promote reforms to improve competitiveness. In 2005, this entity drafted the National Competitiveness Plan, which contains 7 strategic lines. Subsequently, the Competitiveness Agendas 2012-2013 and 2014-2018 were established, with 8 strategic lines.

Although there was no highly developed institutional architecture, the formation of teams with representatives from the public and private sectors and the establishment of quantifiable objectives and accountability by the technical secretariat, led to a practice of how a public-private partnership can work successfully in Peru. The design of this association was wide-ranging (Devlin and Moguillansky, 2012), and included most of the ministries of the central government and business associations. The political axis on which this experience revolved was the MEF, specifically the technical secretariat of the CNC.

It met with the private sector and tried to coordinate with all public bodies, by means of a consensual agenda. Although progress was moderate, the operation of the CNC was leading to trust between the State and business community.

The lack of legal mechanisms to impose obligations to fulfill objectives in the public sector was one of the main difficulties of this experience. Although the agendas were focused on a regulatory change approach, the objectives were difficult to quantify, except for legislative ones; this, in turn, impeded the evaluation of impacts and their rigorous monitoring. Moreover, due to the lack of a specific budget for CNC, the experience did not have all the success expected.

Among other problems faced by this experience of public-private partnership was the scarce human resources and breadth of the agenda, prevented faster progress in compliance of the objectives of the different competitiveness announced agendas, despite the professionalism that characterized the technical secretary's staff. In addition, the lack of participation and representation of regional and local governments in the country created additional obstacles.

As stated by Devlin and Moguillansky (2012) regarding the propensity for revisionism, the entity was renamed by the Government of Pedro Pablo Kuczynski as the National Council for Competitiveness and Formalization (CNCF), leaving the works and efforts of the Competitiveness Agenda 2014-2018 without effect.

Under the presidency of Martin Vizcarra and due to the fall of the country in different competitiveness *rankings*,⁵ this issue was once again at the center of the political agenda. In July 2018, the CNCF published a document for discussion by civil society, "Main Axes to Promote Competitiveness and Productivity". It proposed reinforcing the following pillars: infrastructure; the formulation and accumulation of human capital; the labor market; foreign trade and logistics chains; science, technology and innovation; the institutions; the business environment and financing.

At the end of 2018 in line with this, the private sector (through the Private Competitiveness Council, promoted by the Peruvian Institute of Business Administration and financed by the Latin American Development Bank) presented society with the first Competitiveness Report 2019. The objective was to diagnose the situation of Peru's competitiveness and the challenges the country faced, as well as provide a set of proposals for a higher level of competitiveness. The subjects covered by the report were the following: infrastructure; working market; justice system; business environment; logistics; human capital and skills; and science, technology and innovation.

5 Peru ranked 72nd in the World Economic Forum 2017-2018 competitiveness ranking, 11 positions below the one it had in 2012. At the Latin American level, the country was in 6th position, behind Chile (33), Costa Rica (47), Panama (50), Mexico (51) and Colombia (66). Analysis of the indicators published by the World Economic Forum revealed that this step backwards and lag in the competitiveness of the Peruvian economy was due to inadequate normative and regulatory infrastructure that, in some cases, affected the normal functioning of factor and commodity markets, goods and services and the lack of institutions.

At the same time as the first Competitiveness Report 2019, President Vizcarra announced the next publication of the National Competitiveness and Productivity Policy, prepared by the Ministry of Economy and Finance. The guidelines of this policy have some points in common with the proposal of the Private Competitiveness Council, but they also include other issues, such as financing mechanisms, foreign trade and environmental sustainability. Despite the existence of these 2 instruments, the same President indicated that the proposals should be agreed between the public and private sectors, in order to have a single public policy on competitiveness.

It is currently unknown how the entities in charge of promoting competitiveness in the country will be institutionally integrated. However, the good experience of CNC, focused on building trust and enabling public-private dialogue, should be imitated and promoted by the new public policy on competitiveness. Likewise, public policies for exports of modern services must be promoted and coordinated within an institutional framework designed as soon as possible.

B. Conclusions and proposals

Peru has been increasing its exports of services since the 2000s; this trend is also seen in modern services. However, the country's share of regional exports in this sector continues to be very low. According to the analysis of the 2017 Global Services Location Index by the consulting firm A.T. Kearney, this situation could be reversed.

With the exception of a limited set of services promotion instruments provided by the Services Export Department, there is no structured public policy to promote modern services exports; there is only a general sales tax refund for exporters of services. The difficulty of coordinating state entities to promote this development is reflected in the large number of plans and programs that are not coordinated or put into practice.

Establishing public-private partnerships has not been easy in Peru, due in part to the private sector's lack of trust in the public sector. This situation has also been repeated in terms of the export of services, since the business community has not insisted on requesting support

policies from PROMPERU. However, the actions carried out by this body have been positive; for example, the International Forum for the Export of Services (Peru Service Summit) has been exemplary in the region, despite its reduced budget.

Moreover, the Services Export Department has had to encourage companies to form an association and has tried to promote their development through different programs and activities in the sector. The great fragmentation of trade associations and their low representation did not contribute to their being able to provide significant technical tools for the public sector. The participation of the business sector in public-private partnerships in services is of vital importance, since it will be the companies that provide the inputs for innovation and the mutation of the different business models.

The lack of institutional representation in matters of trade in services has been recognized by the Peruvian State itself in Law 29,646, the Promotion of Foreign Trade in Services, which creates the Multisectoral Committee for the Development of Foreign Trade in Services. However, this committee has not been put into operation.

A good governance practice has been the experience developed through the CNC. One of the alternatives in the future would be to adopt this institutional scheme, but avoiding a repetition of the difficulties that arose in its operation. In Peru, the entity that leads the public policy of competitiveness should be at the highest level, either the President of the Republic or the President of the Council of Ministers. In turn, unlike what has been happening to date, a budget should be established so that competent entities and the private sector can develop a competitiveness agenda, as well as implement and monitor compliance with it. Another aspect to improve would be to incorporate regional and local authorities within the stakeholders of this agenda, as well as companies located outside the capital of the country.

For the formulation of public policies that promote the export of modern services, it is also important to incorporate the digital transformation of companies. So far, Peru has only promoted the export of services in a traditional way, without even public policies for the development of the information and communications technology (ICT) sector. This is because the development of technology was considered

as a common issue for the economic development of the country. However, without the adequate promotion of innovation, technology and capacity building for the type of companies that provide services with a high knowledge value, little advance will be possible by applying only commercial policy incentives.

Proposals for the governance of public policies and public-private partnerships vary according to the breadth of the issues to be addressed by the chosen institutional scheme. Any path chosen to encourage the export of services must take the form of State policy, which transcends the policies of each administration.

On the specific issue of promoting the export of services, the Multisector Committee for the Development of Foreign Trade in Services could be reactivated, but incorporating regional and local authorities, as well as companies from the interior of the country and the academic sector. This option has the advantage of the legal existence of an entity to begin the design of a public policy to promote the export of services without delay, including the promotion of modern services. The next step would be the authorization of a specific item in the budget to develop the lines of action of the PENX 2025 in greater detail (that is, with quantifiable objectives), and to implement and monitor them. Finally, it would be necessary to specify a periodic rendering of accounts at the regulatory level and the degree of obligation of the State itself in the agreements addressed in this forum.

The difficulty posed by this alternative is that, although all the competent entities in the required reform participate in the Multisectoral Committee, there would be a bias in favor of trade policy instruments, which are necessary but not sufficient. True reform requires numerous changes in public policies in the areas of innovation, production and education, which the focus on promoting the export of services may not fully encompass. If the Committee is chosen, an attempt could be made to constitute it immediately, and then incorporate it as a whole with a group or subgroup constituted in a broader competitiveness agenda.

If the institutional scaffolding of competitiveness is chosen in relation to the exports of modern services, this issue should be assigned to a working group or subgroup constituted in accordance with the axes established by virtue of the national competitiveness policy. The most

important advantage of opting for the competitiveness route is that, if an adequate institutional scheme is designed, it would be easier to coordinate the different public policies necessary for the exports of modern services to be a success in the future.

The disadvantage lies in the implementation time the public competitiveness policy takes. It was only at the end of 2018 that it was necessary to promote it and, since there are 2 plans (public and private), it will take time to agree on this policy and establish institutional adjustments by law.

Peru has the potential to export modern services, but although there has been a relative increase in these exports, the country must carry out a reform, both institutional and in the design of public policies, which should not be delayed in time so as not to be left out of the new international trade scenario.

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Chapter VIII

Uruguay: dynamism fueled by lasting incentives ¹

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Introduction


In Uruguay, there is a clear awareness of the relevance of the service sector as a tool to increase investment, exports and quality employment. As a

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⁴ Secretary General, Latin American Association of Service Exporters (ALES).



"Uruguay has not only grown, but has been a participant in the most recent digital transformations, within the framework of the trends in trade in services that occurred in the region."

reflection of this, the country has achieved a substantial structural change in the composition of its exports in the last 30 years. The growth of tourism exports and the emergence of modern services exports (almost non-existent 30 years ago) are notable examples. These subsectors, favored by global transformations and the advantages that Uruguay offers as a good place to do business, are today among the most dynamic in the economy.

This chapter examines the export performance of modern services in Uruguay and analyzes whether this performance has been accompanied by public-private policies specifically designed for its promotion. Moreover, it looks into how the governance of these policies is shaped and what the challenges are to improve it.

Different sources of information are used and the importance of the sector is quantified on the basis of statistics from the Uruguay Central Bank (BCU). To supplement this information and have more approximate estimates of exports by type of services, data from the Free Trade Zone Census carried out by the Ministry of Economy and Finance (MEF) is used, as well as information from the General Tax Directorate (DGI). Uruguay's value proposition is also developed, and the policies, incentives and institutional framework in the country for the provision of modern services are described. Finally, the results of qualitative interviews with key members of different public and private institutions to address the issue of governance are presented.

These interviews provided recommendations to continue developing and promoting the sector from different perspectives.

In 1990, modern services represented only 2% of Uruguay's total exports, while in 2017 they accounted for 12% of total exports of goods and services. In a period in which Uruguayan exports of goods multiplied by 6, those of modern services multiplied by over 50. Based on BCU statistics, it can be determined that Uruguay has exported services at an average of almost \$5 billion in the last 5 years, of which approximately 40% are modern services. Furthermore, it is estimated that the latter represent close to 5% of Uruguay's GDP. The country's free trade zone regime is widely used and there are particular free trade zones that specialize only in the export of services. In fact, data obtained from sources outside the BCU show that 78% of the modern services exported came from a free trade zone.

The chapter is structured as follows: the first section presents the evolution of the service sector in the country's exports, placing special emphasis on modern services. The second section describes the institutions and tools involved in promoting modern services. The third section analyzes governance in the promotion of modern services in Uruguay. The chapter concludes with recommendations for actions that could be taken to improve governance.

A. The trade in modern services in Uruguay in the last decade

The Uruguayan economy is going through the longest period of economic growth in its history. It has grown uninterruptedly over the last 15 years, even weathering the international financial crisis of 2009 and enduring the regional recessive pressures of 2015-2016. In the last decade, the average growth in gross domestic product (GDP) has been around 4.3% per year (above the average for Latin America, which was 3.4%, (IMF, 2018).⁵

⁵ The average for Latin America includes Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Ecuador, El Salvador, Guatemala, Haiti, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Dominican Republic, Uruguay and Venezuela.

In 2017, Uruguay grew by 2.7%, driven by domestic consumption and exports of goods and services. For the next few years, it is expected to continue growing, with rates above 3%, driven mainly by consumption and a recovery in investment.

Uruguay has not only grown, but has been a participant in the most recent digital transformations, within the framework of the trends in trade in services that occurred in the region. The country has undergone an opening process in the last 30 years that has allowed it to dynamically insert itself into global trade flows, while at the same time undergoing a profound productive transformation. This is reflected in significant changes in the composition of its exports (Uruguay XXI, 2017).

Figure VIII.1 shows the structural change in Uruguayan exports in the last three decades. The growth of tourism and the emergence of modern services (almost non-existent 30 years ago) are notable. These subsectors, favored by global transformations and the advantages that Uruguay has as a place to do business, are today among the most dynamic in the economy. Also, the development of new agro-industrial export branches is observed, which are much more intensive in technology than traditional ones (e.g. the cellulose industry and agriculture).

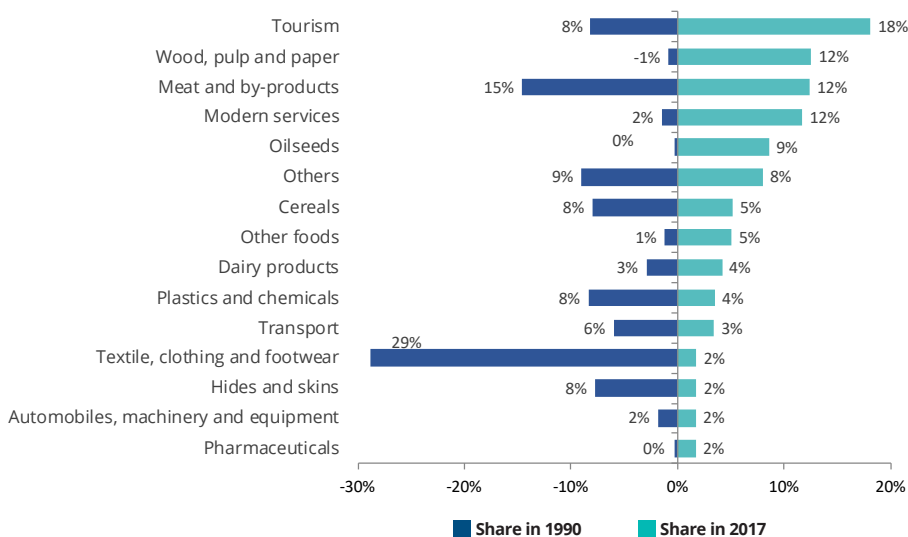
Modern services (which in 1990 represented only 2% of Uruguay's total exports) currently account for 12% of total exports of goods and services. In a period in which Uruguayan exports of goods increased 6-fold, modern services exports multiplied by more than 50.

These records are explained by the fact that they were almost non-existent in the 1990s. Furthermore, it is estimated that exports of modern services represent a value close to 5% of Uruguay's GDP.

Because of this growth, these services are currently as important in the Uruguayan export basket as tourism and exports of the main agricultural products.

FIGURE VIII.1
Uruguay: breakdown of exports,
1990 and 2017

(As a percentage of the total exports of goods and services)



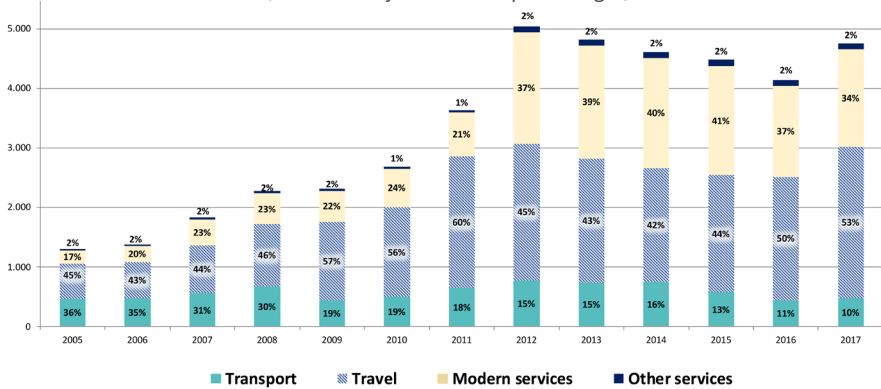
Source: Uruguay XXI based on the Uruguay Central Bank (BCU), National Customs Directorate (DNA), General Tax Directorate (DGI) and Free Trade Zone (MEF).

Figure VIII.2 shows the breakdown of Uruguay’s services exports by category and their evolution in the last 13 years. Currently, of the total exported services, more than 50% corresponds to tourism, 34% are modern services and transport represents only 10%. However, what is most interesting is to examine the importance of modern services exports, which doubled in the period considered.

It should also be noted that Uruguay’s services exports grew at an annual rate of 11.4% in the last 13 years. This is mainly explained by the marked growth in modern services exports (whose annual rate was 18.1%). Tourism exports also had an impact (with an average growth of 12.9%), while transport services remained practically unchanged. At more than \$1.6 billion, exports of modern services represented just over 3% of Uruguay’s GDP in 2017.

FIGURE VIII.2
Uruguay: service exports, 2005-2017

(In millions of dollars and percentages)

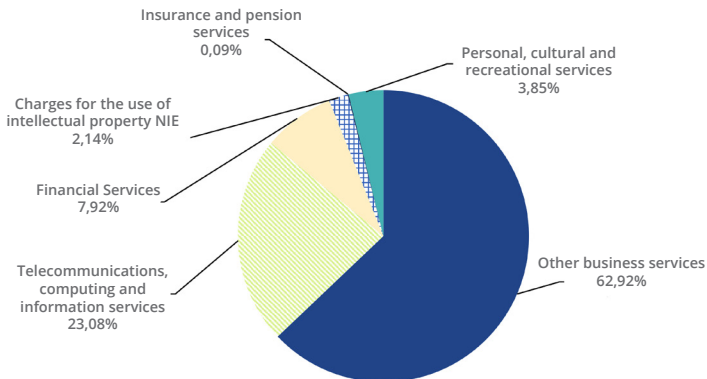


Source: Uruguay XXI based on the Uruguay Central Bank (BCU) and the United Nations Conference on Trade and Development (UNCTAD).

Figure VIII.3 shows a breakdown of Uruguay's modern services exports. The most important are other business services, which account for 60% of modern services exports, followed by telecommunications, computing and information services, which have been the most dynamic in recent years.

FIGURE VIII.3
Uruguay: modern services exports, 2017

(As a percentage of all modern services)



Source: Uruguay XXI based on the Uruguay Central Bank (BCU).
N.B. NIE - not included elsewhere.

1. Exports of modern services from free trade zones

Free trade zones have played a key role in the development of exportable services in Uruguay. Based on the provisions of the law on this regime, any type of activity (commercial, industrial or services) can be conducted with significant tax exemptions. For services, all kinds of activities can be provided from free zones, either within the same zone, to users or developers from other free zones or to third countries and, in some cases, to customers within Uruguay.⁶

A significant part of the modern services that Uruguay exports are carried out from free trade zones. There is no information on the amount exported with the same classification as the balance of payments. However, from the Free Trade Zone Census (the latest available data is from 2016), an approximation of the sales of services abroad can be obtained, according to companies that operate in similar areas (Uruguay XXI, 2017). Table VIII.1 details the exports made by companies in free trade zones, grouped by activity according to the International Standard Industrial Classification of All Economic Activities (ISIC), Rev. 4, with respect to those that fall within the definition of modern services.

TABLE VIII.1
Uruguay Free trade zones: exports of services
according to ISIC, Rev.4, 2016

(In millions of dollars)

| Sector | 2016 |
|-------------------------------------------------|--------------|
| Information and communication services | 217 |
| Financial and insurance services | 278 |
| Professional, Scientific and Technical Services | 239 |
| Administrative and support services | 476 |
| Total modern services | 1 210 |

Source: Elaboration by the authors on the basis of the 2016 Free Trade Zone Census data.

According to the latest available data, exports of modern services from the free zones totaled \$1.21 billion dollars. Although the figures are not strictly comparable (since different sources are used with different methodologies), they represent 78% of modern services exports according to the balance of payments. This reflects the importance of free trade zones for this type of activity.

⁶ For more information, see Uruguay XXI <https://www.uruguayxxi.gub.uy/es/centro-informacion/>.

2. Impact of modern services on employment

Information from the Free Trade Zone Census and General Tax Office makes it possible to count the jobs created by the export of modern services. Within the free trade zones, all jobs are export-oriented; however, outside these areas, companies can provide services either for abroad or the domestic market. Therefore, for these firms, an estimate is made based on the share of exports in the total turnover (see Table VIII.2). It is estimated that almost 1,700 companies make up the nucleus of modern services, which are export-oriented and directly employ more than 18,000 people (including free trade zones).⁷

TABLE VIII.2
Uruguay: employment in the export of modern services,
according to ISIC, Rev. 4, 2016a

(Number of companies and employees)

| Section | Outside free trade area | | Inside free trade area | | Total | |
|-----------------------------------------------------|-------------------------|---------------|------------------------|--------------|--------------|---------------|
| | Companies | Employed | Companies | Employed | Companies | Employed |
| J Information and communication | 572 | 2 887 | 76 | 1 753 | 648 | 4 640 |
| K Financial activities and insurance | 68 | 2 349 | 145 | 1 133 | 213 | 3 482 |
| M Professional, scientific and technical activities | 440 | 3 582 | 226 | 1 968 | 666 | 5 550 |
| N Administrative activities and support services | 37 | 1 371 | 39 | 3 467 | 76 | 4 838 |
| | 1 117 | 10 188 | 486 | 8 321 | 1 603 | 18 509 |

Source: Elaboration by the authors on the basis of data from the General Tax Directorate (DGI) and the 2016 Free Trade Zone Census.

* For employment outside free zones, the estimate shows all positions in exporting companies, even if they also provide services for the domestic market.

7 For more information, see <https://www.gub.uy/ministerio-economia-finanzas/zonas-francas>.

3. Innovation in modern services in Uruguay

The share of Uruguayan companies in the modern services segment of innovation activities is analyzed according to the latest innovation survey carried out by the National Research and Innovation Agency (ANII). In general terms, companies that perform modern services tend to be more innovative.⁸ Of the total sectors surveyed, 27% of the companies performed at least 1 innovation activity. For modern services, this figure rises to 38% (see Table VIII.3). Among the most innovative activities are those related to research and development (R&D), architecture and engineering, information and communication technologies (ICT) and the financial sector. Regarding the characteristics of innovation activities in modern services, the acquisition of hardware and software stands out, as well as internal investment and development activities (see Table VIII.4).

TABLE VIII.3

Uruguay: innovation activities in modern services, 2013-2015

(Percentage of companies with at least one innovation activity)

| | | Innovative companies |
|-----------------------------|------------------------------|----------------------|
| Industry and other services | Industry | 31 |
| | Transport and storage | 20 |
| | Restaurants and hotels | 13 |
| | Other services | 19 |
| | Health | 44 |
| Modern services | Telecommunications | 42 |
| | ICT | 60 |
| | Finance and insurance | 53 |
| | Architecture and engineering | 77 |
| | Creative | 27 |
| | R&D | 86 |
| | Support services | 24 |
| | Professional Services | 29 |
| Total | | 27 |
| Total services | | 25 |
| Modern services | | 38 |

Source: Elaboration by the authors on the basis of the National Agency for Research and Innovation (ANII), Survey of Innovation Activities 2013-2015.

⁸ See <http://www.anii.org.uy/institucional/documentos-de-interes/22/documentos-de-ciencia-tecnologia-e-innovacion/>.

TABLE VIII.4
Uruguay: type of innovation activities, 2013-2015

(Percentage of innovative companies in modern services by innovation type)

| | Modern services | All sectors |
|--------------------------------------------------------------------|-----------------|-------------|
| Acquisition of ICT (hardware and software) for innovation | 23 | 13 |
| Internal R&D | 16 | 8 |
| Training for innovation | 12 | 7 |
| Acquisition of capital goods for innovation | 12 | 14 |
| Organizational design and management for innovation | 12 | 8 |
| External R&D | 7 | 2 |
| Market research for innovation | 4 | 2 |
| Technology transfers and consulting for innovation | 3 | 2 |
| Engineering and industrial design for innovation | 1 | 2 |
| Innovative companies (with at least 1 innovation activity)) | 38 | 27 |

Source: Elaboration by the authors on the basis of the National Agency for Research and Innovation (ANII), Survey of Innovation Activities 2013-2015.

If the export profile of the different segments of modern services is analyzed, it can be seen that those most oriented to exports are related to ICT, support services and professional services. In most segments, there is an export propensity in companies that innovate (the exceptions are support services, financial services and telecommunications).

The most qualified workers are in the R&D, ICT and architecture and engineering sectors. Furthermore, exporting companies generally have more qualified personnel. Among the companies in the modern services segment, those that export have 49% of professionals on their staff, compared to 33% of those that only provide services to the domestic market.⁹

B. Promoting the export of services in Uruguay

Exports of traditional services have their own institutional framework in Uruguay. The main governing body for tourism is the Ministry of Tourism (MINTUR), which is responsible for establishing, designing, promoting, executing, controlling and evaluating State policies related to tourism. It

⁹ Innovation Activities Surveys (ANII 2013-2015).

coordinates the work and considers the interests of the public and private sectors.¹⁰ For transport, the National Institute of Logistics (INALOG) was formed by a law in 2010;¹¹ it acts as a meeting place for public-private participation and coordination in the development of the logistics sector.¹²

The growing trend in modern services exports is linked, in part, to the comparative advantages of the country, which are reflected in the value proposition for the sector. Policies and incentives specifically created to promote modern services export activity in Uruguay have played an important role. All of this is reflected in an institutional framework made up of an ecosystem aimed at promoting the export of modern services in Uruguay. These three aspects are presented in detail below and an analysis of the interaction among the different stakeholders is reflected in practices explained in the next section.

1. Value proposition for the provision of modern services

Uruguay has some features that differentiate it from its competitors and position it as a place of high quality and competitive costs to provide services to the world. The small market and the size of its population are not a restriction when it comes to services. Furthermore, Uruguay has particular attributes that make it very attractive for certain service segments. These features are the basis for the promotion and development policies of the sector. Actions by the public and private sectors are intended to maintain and improve these conditions. This section describes the main points that make Uruguay a value proposition as a service exporting country.

Reliability: Uruguay is presented as the safest country in the region, due to its political and social stability, backed by a consolidated democracy and a high level of legal security. This is reflected in the country's location in the main international classifications on business climate and institutions.¹³ Its

10 For more information, see <http://www.mintur.gub.uy/> y https://www.uruguayxxi.gub.uy/uploads/informacion/Informe%20Turismo%20Marzo%20-%202017%20-%20Uruguay%20XXI_ES-4.pdf.

11 See <http://www.inalog.org.uy/es/home/>.

12 For more information, see <https://www.uruguayxxi.gub.uy/es/centro-informacion/>.

13 Uruguay is ranked 1st in Latin America for a low perception of corruption (Transparency International, 2018); democracy (The Economist, 2018); Rule of law (World Justice Project, 2018); prosperity (Legatum Institute, 2018), quality of life (Mercer, 2018). Also, it ranks second for inclusive growth and development (WEF, 2018) and press freedom (Reporters Without Borders, 2018).

sustained economic growth in the last decade has been accompanied by a set of policies that have improved income distribution and reduced poverty to historically low levels. Thus, Uruguay is consolidated in Latin America as the most egalitarian country with the best income distribution (ECLAC, 2018a).

Access to markets: geographic location, command of languages (Spanish, English and Portuguese) and cultural affinity with the main developed countries position Uruguay as an access platform to the region; it also has a favorable geographical location for attractive markets such as the United States and Europe.

Uruguay is positioned at a regional level as a logistics and business pole given its proximity to the most important markets in South America. Free trade zones and ports, the airport and customs warehouses form a useful platform for the establishment of distribution centers.¹⁴

Technological infrastructure: Uruguay has a prominent position in the region in this area. According to the information and communications technology development index of the International Telecommunications Union (ITU), Uruguay is the leader in Latin America in terms of mobile fixed broadband penetration and connection speed.¹⁵ Uruguay's state telecommunications company (ANTEL) promotes digitization through the continuous improvement of technological infrastructure.

Talent: Uruguay has a highly competitive workforce due to a combination of several factors, among which are the high quality of basic, technical and university training, and the flexibility and ease with which Uruguayan workers adapt to new production processes and technologies. It has also increased its command of other languages, particularly English and Portuguese.¹⁶ The population of Uruguay has a high level of education, and is the Latin American country with the highest literacy rate, at 98% (ECLAC, 2018b). Access to public education is free from primary education to university; and 100% of high school students have completed at least 3 years of English and 2 of computer science by the age of 15.

14 For more information, see <https://www.uruguayxxi.gub.uy/uploads/informacion/63233860ebdf0cc6b8f0f2bfb097f6667c44a018.pdf>.

15 See <https://www.itu.int/es/ITU-D/Statistics/Pages/default.aspx>.

16 See <https://www.uruguayxxi.gub.uy/uploads/informacion/63233860ebdf0cc6b8f0f2bfb097f6667c44a018.pdf>.

Uruguay was a world pioneer in the implementation of *Plan Ceibal*, a public initiative that began in 2007 and that provides free access to laptops to all children and teachers in public schools and colleges.¹⁷ Through this program, Uruguay has managed to reduce the digital divide (in 10 years, the difference in access between the poorest and richest households went from 35% to 8%), increasing total connectivity in educational institutions (high speed through fiber optics) and implementing various platforms for the study of English, mathematics, programming and robotics.¹⁸

2. Policies and incentives for the development of modern services

Uruguay has a favorable regulatory framework to promote investments with multiple incentive regimes adapted to the needs of different sectors and an active investment promotion policy, which has been in place for many years.

Firstly, investors are not required to meet prerequisites, obtain special permits from the State or have a local counterpart to operate in the country. There are also no restrictions on the inflow and outflow of capital or the transfer of profits, dividends and interest. The exchange market is free, so companies can operate freely in local or foreign currency. Also, in Uruguay there is a single tax system, based on the source principle, so that income from a foreign source or assets located abroad is not taxed.

Under the Investment Law, Uruguay ensures equal treatment for national and foreign investors. Both have incentives to promote investment, without any type of discrimination. The main advantages for modern service operations are those stipulated by the Investment Law, the decrees on tax exemptions, and the specific incentives for exports of IT services, shared service centers, call centers and biotechnology activities. The free zones and ports and airports also constitute incentives for the development of these activities in the country.¹⁹

17 Based on the One Laptop per Child (OLPC) program from the Massachusetts Institute of Technology (MIT).

18 For more information, see <https://www.ceibal.edu.uy>.

19 To find out about the regulatory framework that promotes the export of modern services in Uruguay in detail, see <http://www.investinuruguay.uy/es/guias-inversor/regimenes-promocionales-para-la-inversion/>.

3. Institutions and modern services

There are several institutions linked to modern services in Uruguay. This section describes the public, private and mixed entities that contribute directly or indirectly to the development of the sector.

Uruguay XXI is the agency for the promotion of exports, foreign investment and image for the country. Its strategic bases include: contributing to the internationalization and competitiveness of Uruguayan companies, attracting productive foreign investment, producing strategic information for decision-makers and positioning Uruguay in the international context. It is the body in charge of executing the Global Export Services Program.

In order to increase and diversify the country's exports of goods and services, Uruguay XXI offers a set of tools for exporting MSMEs or those with exporting potential to help them enter the foreign market or consolidate their export activity.²⁰ Strategic information is also produced to advise exporting MSMEs and current or potential investors.²¹

Transforma Uruguay is a new institution, created by Law 19,472 of 2016, which aims to promote the economic, productive and innovative development of the country. It is in charge of coordinating the work of various stakeholders in the public sector. The main objective is to expand innovative activities with the highest added value and national technological content, improve competitiveness and guide the promotion of public sector technological demand and investment promotion.

Among the public sector stakeholders within the orbit of the system are included the National Development Agency (ANDE), the National Agency for Research and Innovation (ANII), the National Development Corporation (CND), the Technological Laboratory of Uruguay (LATU) and Uruguay XXI, among others. The Ministerial Cabinet for Productive Transformation and Competitiveness, made up of 12 ministers, is the governing body of the system, while the Secretariat for Productive Transformation and Competitiveness (STPC) is in charge of coordination.

To achieve its objectives, it works on the basis of a National Plan for Productive Transformation and Competitiveness, which is one of the

20 For more information, see <https://www.uruguayxxi.gub.uy/es/quiero-exportar/servicios/promocion/>.

21 For more information, see <https://www.uruguayxxi.gub.uy/es/centro-informacion/>.

main instruments of Transforma Uruguay. Through this, an agenda for the period 2017-2021 is promoted on interrelated issues that have a direct impact on the country's capacity for productive transformation and its competitiveness. This is done in consultation with workers, employers, social economy enterprises, researchers, and educational institutions. However, not every project relevant to productive transformation and competitiveness must necessarily be part of the Plan. This focuses on projects that require the coordination of several institutions which have a substantial potential impact in the respective area. In other words, emphasis is placed on those cases in which the system approach makes activities feasible, substantively facilitates their implementation or provides them with a comprehensive vision that enhances their results.

In its first version, the plan was structured by projects in 4 areas of interest: innovation, capacity development (human and business), business climate and internationalization. In most cases, the institutions of the system tend to be identified, based on their respective competencies, but each project will incorporate stakeholders from other areas (workers, businessmen, academic entities and social economy groups, among others).

The National Development Agency (ANDE) promotes the development of the country through programs and instruments that seek to improve business and territorial competitiveness, with an emphasis on promoting micro, small and medium-sized enterprises.

The National Research and Innovation Agency (ANII) promotes research and the application of new knowledge to the production and social reality of the country, and funds research projects, national and international postgraduate scholarships and incentive programs for innovative culture and entrepreneurship, both in the private and public sectors. ANII developed the National System of Researchers (SNI), a program of economic incentives for national researchers. It also created the Timbo Portal, which offers all Uruguayans free access to any type of scientific publication in the world. The ANII works as a mechanism for coordination between the stakeholders involved in the development of knowledge, research and innovation.

The Agency for Electronic Government and the Information and Knowledge Society (AGESIC) is the institution in Uruguay that leads the

development of the information and knowledge society and digital policy of the State from the Presidency. In addition, it develops guides and procedures to promote the advancement of digital government throughout the public administration. Since ICTs decisively influence the relationship between the State and public, actions are required to build solutions and enable the conditions that make them possible. Thus, AGESIC leads the 2020 Digital Government Plan, which consists of a dynamic roadmap for digital transformation and innovation, to strengthen the relationship between the public and the Government. The intention is for the Plan to be an accelerating instrument for these changes, promoting the intensive use of technologies such as the Internet, mobile devices and shared platforms, as well as the use of data as an integral part of its transformation policies.²²

At the same time, AGESIC is the entity responsible for coordinating the Uruguay Digital 2020 Agenda, which integrates the different priority initiatives to advance the country's digital transformation in an inclusive and sustainable way, with the intelligent use of technologies.

The Ministry of Economy and Finance is the public body in charge of the administration of public free zones, as well as the supervision and control of private free zones. Its responsibilities include national statistics on free zones.

The Ministry of Industry, Energy and Mining (MIEM) is responsible for the design and implementation of public policies related to industrial sectors which revolve around the transformation and strengthening of the national production apparatus, with a view to sustainable development and social justice, within the framework of regional integration and insertion in a globalized world. Its main lines of work include actions aimed at supporting MSMEs, with an emphasis on territorial issues and entrepreneurship, as well as the coordination of working groups through sector councils. The MIEM brings together representatives of the public sector, companies, workers and academic circles in these workspaces to formulate consensual sector policies, which include the establishment of goals, tools and indicators, based on quantifiable objectives and purposes.

The National Telecommunications Administration (ANTEL) was created in 1974 under the legal form of a decentralized public service

²² For more information, see https://www.agesic.gub.uy/innovaportal/file/6539/1/plan_de_gobierno_digital.pdf.

and is the Uruguay state telecommunications company. It provides Uruguayans with the full range of telecommunications services: landline telephones, public telephones, voice and mobile data, data services, value-added services, multimedia and consulting. It is a leader in the Uruguayan market and operates in competition with private companies in the data and mobile services markets, although multimodal competition occurs in all segments.

In terms of infrastructure, it has developed the Monet underwater cable with Google, which allows the country to be a supplier for the region and the world. A vast fiber optic network has been installed, providing broadband connections to more than 75% of homes. Also noteworthy is the inauguration of the first level III data center in the country, which takes advantage of connectivity to support and provide security to the digital assets of companies in the region.²³

The Uruguay Free Zones Chamber (CZFUY) was established in 2008 to strengthen the free zone regime and promote the development of business platforms from these enclaves. The business community that is part of the CZFUY is made up of developers (operators) and users (direct and indirect) of Uruguayan free zones.

The Uruguayan Chamber of Information Technologies (CUTI) represents the information and communications technology (ICT) industry. It was founded in 1989, to “promote the sustainable development of the information and communications technology sector, energize markets and facilitate the growth and globalization of its members, emphasizing the development of people and social responsibility”.²⁴

The Uruguayan Telecommunications Chamber (CTU) brings together 37 companies covering mobile phones, data transmission, international long-distance calls, call centers, content integrators, mobile and multimedia applications and infrastructure, equipment and service providers.

The Uruguay Digital Economy Chamber (CEDU) brings together the main stakeholders of the national digital economy, from both public and private sectors. It groups together the associated companies

23 See <http://www.antel.com.uy/web/datacenter/inicio>.

24 See www.cuti.org.uy.

and coordinates, organizes and disseminates their activities. It also represents them with public administration and official and private organizations, nationally and internationally.

The National Chamber of Commerce and Services (CNCS) has the mission of ensuring the general interest of trade and services and the private sector. It defends the principles of freedom in the broadest sense, within the framework of the rule of law.

The Uruguayan Chamber of Investment Advisers (CAIU) is a non-profit association established in 2015, which seeks to promote the activity of its associates and represent their interests with the governmental and regulatory authorities in Uruguay and established financial institutions either in the country or abroad.

The Uruguayan Chamber of Architecture and Engineering Services (CUSAI) is a non-profit civil association founded in 2017. Its purpose is to promote and develop companies that provide architecture and engineering services, with special emphasis on internationalization, and contribute to the strategic positioning of Uruguay in the international market as a global services provider.

The Latin American Association of Service Exporters (ALES) is an international organization made up of 37 public and private institutions from 17 countries. Its objective is to promote Latin America as an exporter of knowledge and an investment destination, to turn the region into a pole for global services.

4. Specific programs for modern services

The Global Export Services Program (PSG) is a government initiative financed by the Inter-American Development Bank (IDB) and executed by Uruguay XXI. It aims to increase foreign direct investment, exports and employment in global services. Through this program, Uruguay XXI has incorporated an innovative methodology in 2 main aspects: (i) orientation and sectoral specialization with a comprehensive approach, and (ii) a combination of international promotion with attention to already established companies, so that both actions mutually enhance each other.

Within the framework of the PSG, strategic plans were developed led by program specialists, focused on the following business segments or subsectors:

- **Corporate services:** installation of regional corporate headquarters, shared service centers, business centers, regional distribution centers and financial advisory services.
- **Pharmaceutical and health services:** development of a cluster focused on FDI and opportunities to establish corporate services, R&D centers and clinical research projects.
- **Information technologies:** export development of local industry and FDI (new plant projects and acquisitions) for the generation of high-value products and services.
- **Architecture and engineering services:** internationalization of the sector through the installation of global study centers and exports of local firms.

The following tools have been developed with the specific objective of improving available capacities and access to talent for the export of global services, within the framework of the PSG:

- **Finishing schools:** a program that provides companies with access to training tailored to their needs, with subsidies of up to 70% of direct costs.
- **Smart talent:** a labor portal specializing in global services with free access, for positioning and facilitating access to talent, as well as providing useful information for the decision-making of stakeholders linked to the ecosystem of supply and demand of capacities for the sector.
- **Fast-track:** a procedure that facilitates access to visas and temporary residence in Uruguay. Temporary residence (for a period of more than 6 months and less than 2 years) granted to investors, operators, technicians, managers and middle managers linked to global service companies

is processed within 8 business days from the submission of the required documentation.

Since its implementation in 2012, the PSG has contributed to creating a specialized institutional framework. It offers strategic internationalization plans and a team of specialists for the prioritized segments, in promotion and service roles for already established companies. Progress has been made in the availability of qualitative information on the sector. In addition, it contributed to the alignment and creation of synergies between the Uruguay XXI promotion strategy and the private sector, senior public authorities and diplomatic representations in the target markets. A value proposition and positioning of the country for potential investors and customers was consolidated, the sectorial country brand is promoted and accessible dissemination platforms and materials are produced for the different stakeholders (sectorial website, videos about the country and testimonials, success stories and graphic material).

Finally, the PSG contributed to collaboration with policy makers and regulators on issues relevant to the growth of the industry and business facilitation.²⁵ An example of this is the new regulations applicable to shared services centers²⁶ and modifications to the free zone regime.²⁷ It is also worth mentioning the improvement in the regulations regarding international call centers and clinical research, enabling of the regional distribution of pharmaceutical products and the facilitation of the entry of biological samples.²⁸ Residence and visa management for executives and qualified personnel has also been facilitated (see Table VIII.5).²⁹

25 See <https://www.iadb.org/es/project/UR-I1060>.

26 Decree 361/17, which modifies the promotion regime for shared service centers located in the country to provide global services (251/014 in the wording given by Decree 336/016), see <https://www.impo.com.uy/bases/decretos-originales/361-2017>).

27 Law 19,566, approving modifications to the Free Trade Zones Law, including tax benefits and innovation promotion objectives (see <https://www.impo.com.uy/bases/leyes-originales/19566-2017>).

28 Fundamentally through the incorporation of multiple procedures into the Foreign Trade Single Window (VUCE) system (see <https://vuce.gub.uy/guia-de-tramites/>).

29 See <https://www.uruguayxxi.gub.uy/es/quiero-invertir/servicios-herramientas/fast-track/>.

Table VIII.5
Summary of stakeholders linked to modern services in Uruguay

| Stakeholders | Strategy for modern services | Main policies | Main programs |
|------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Uruguay XXI | Export promotion agency, foreign investment and image of the country. Includes global services as one of the prioritized sectors. | Focused on promoting exports and attracting investment in corporate services, pharmaceutical and health services, information technology, architecture and engineering services. | Several tools have been developed within the framework of the PSG: Finishing schools, Smart talent and Fast-track. |
| Transforma Uruguay | Promotes economic, production and innovative development for the country. | Coordinates the work of various stakeholders in the public sector, focused on expanding innovative activities with the highest added value and national technological content, improving competitiveness, guiding the promotion of public sector technological demand and promoting investments. | The National Plan for Productive Transformation and Competitiveness focuses on innovation, capacity development (human and business), business climate and internationalization. |
| Government agencies (AGESIC, ANII, ANDE) | Each agency influences development of modern services in its own way. | The orientation of each agency is determined under the coordination of Transforma Uruguay. Services are included as part of the promoted sectors. | Digital Agenda (AGESIC). Innovation support programs (ANII). Entrepreneur support programs (ANDE). |
| MEF | In charge of outlining the economic policy and proposing its regulatory framework. | Development of a favorable regulatory framework for the modern services sector. | Free Trade Zone Regime, Free Port and Airport Regime, Investment Law (specific incentives for exports of IT services, shared service centers, call centers and biotechnology activities). |
| MIEM | Responsible for the design and implementation of public policies related to different industrial sectors, with the transformation and strengthening of the national production apparatus as central issues. | Its main lines of work include actions aimed at supporting MSMEs, with an emphasis on territorial issues and entrepreneurship, as well as the coordination of working groups with a sector focus through sector councils. | Sector Councils for ICT, the pharmaceutical and biotechnology industry and the Videogames Table., The MIEM brings together representatives of the public sector, companies, workers and academic circles to establish consensual sector policies in these work spaces. |

| Stakeholders | Strategy for modern services | Main policies | Main programs |
|-------------------|---------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| ANTEL | Responsible for providing the technological infrastructure, essential for the development of modern services. | Infrastructure development that ensures access to the network with a reliable connection and high speed. | Monet Underwater Cable, fiber optic network, the country's first level III data center. |
| Business Chambers | Stakeholders that bring together the private sector and connect it with the public sector. | They promote interaction between companies and facilitate relations with the public sector to promote policies favorable to the sector. | Each chamber provides its members with different services, which change over time. |

Source: Compiled by the authors.

C. Policy governance in Uruguay for modern services exports

The issues listed below were taken into account when addressing the issue of governance in promoting modern services in Uruguay. This is the result of the responses to the interviews carried out with the key members mentioned in the introduction to the chapter.

1. Strategy to develop the sector in the short, medium and long term

There is an awareness in Uruguay of the importance of the sector and its impact on increasing investment, exports and employment. However, this is not yet part of a national and integrated strategy that includes all institutional stakeholders which includes quantifiable objectives in the short, medium and long term. In fact, the institutional stakeholders consulted do perceive that there is a sector strategy, which is materialized in the Global Services Program in Uruguay XXI, as well as in the design of different policies and incentives to attract FDI and promote modern service exports. Thus, the sector is being strengthened on the bases described here.

First of all, mention should be made of the early promotion of the information and communications technology subsector since the 1990s. This can currently be considered as a State policy, since it has been maintained over time, with different political parties in the Government.

Second, a series of policies and incentives have been designed to promote and develop modern services from different dimensions. The previous section lists the different existing incentives, such as tax exemptions, financial support, training policies and attraction of human resources, among others.

Third, it is worth highlighting the creation of a specialized unit in Uruguay XXI in 2012, dedicated to promoting the sector. The Global Export Services Program is an initiative financed by the IDB and the Government of Uruguay to promote global export services. Particular attention is paid to the subsectors of ICT, business processes (BPO, KPO), life sciences and architecture and engineering.

Finally, it should be noted that, within the framework of the new institutional framework of Transforma Uruguay and due to this awareness of the importance of the sector, an area of interaction with the public sector, the private sector, academic circles and the different social stakeholders has been put into practice. Its objective is to define a roadmap and inter-ministerial coordination, which is expected to materialize in a national strategy for the sector.

2. Public and private institutions and stakeholders

The Ministry of Economy and Finance (MEF) is the governing body that makes the most important decisions for the sector; this was the consensus of those interviewed. Other stakeholders are also involved in establishing public policies, such as the Ministry of Industry, Energy and Mining (MIEM), the Ministry of Labor and Social Security (MTSS), the Ministry of Foreign Relations (MRREE), the Uruguay Central Bank (BCU), ANTEL and AGESIC.

In addition, there are different chambers or interest groups in the private sphere that collaborate with the public sector and come together on the basis of different topics of interest, with a clear sector approach. Among the main chambers are: CZFUY, CUTI, CUSAI, CAIU, Shared Services Center Group and Pharma Logistics Group.

Public-private agencies also play an important role in promoting the sector. ANII is linked to instruments designed to promote innovation and ANDE encourages the development of MSMEs. Uruguay XXI is the agency in charge of giving visibility to the sector, as well as collaborating with private entities. The Uruguay XXI Global Services Program is currently the most recognized institution in promoting the sector.

Transforma Uruguay is expected to achieve greater and better coordination between public institutions and public-private agencies. This will begin to be seen after 2019 and will materialize in a roadmap and specific projects for the sector, to emerge from the coordination between all public and private stakeholders, academic entities and social stakeholders. Likewise, an inter-ministerial coordination body will be created to facilitate communication between institutional references and avoid possible bottlenecks and overlaps.

3. Areas to consider with a medium or long-term vision

In general, there are no areas in which strategies related to the promotion of the sector are discussed systematically and in a programmed way among all stakeholders (public, private, public-private and academic). As will be seen in the recommendations, such an area needs to be created and would be done via Transforma Uruguay.

In Uruguay XXI, annual or biannual meetings are held when the work plan for the following year is presented and shared. Ad hoc meetings are also held to analyze specific issues and with selected stakeholders. They examine the impact of labor or tax legislation on certain subsectors within modern services, for example.

In particular in the field of ICT, there are different examples in which the importance of the sector is analyzed in the medium and long term; for example, in relation to employment and within the framework of the digital agenda.

4. Specialist agency

Uruguay XXI is the specialist agency that promotes the modern services sector through the Global Export Services Program. In addition, the agency's export and investment promotion areas have specific tools to promote specific subsectors and attract FDI.

5. Teams of professionals

Uruguay XXI is a public-private agency financed with public funds, but governed by private law.³⁰ This implies, among other aspects, that staff

30 See <https://www.uruguayxxi.gub.uy/es/quienes-somos/transparencia/>.

selection is made through competitive mechanisms, based on the agency's job description. Salary scales are tailored to job descriptions and adjusted on similar scales in the private sector.³¹ There is consensus among the interviewees about the level of professionalism, attention and proactivity of the staff.

6. Coordination of incentives between tools and agencies

There is consensus that coordination between public, public-private and private stakeholders is a challenge that must be addressed. All the interviewees consider there is no coordination between the different agencies and existing tools. This is because an institution with decision-making capacity that has a global vision of the subject has not been established. Undoubtedly, this constitutes one of the main challenges to strengthening the governance of modern services in Uruguay. The implementation of the roadmap in the Transforma Uruguay area is one of the ways to overcome this difficulty.

7. Policy effectiveness

At a general level, it is understood that the implementation of the instruments and programs has been essential to advance the development of the sector. This can be verified through the evolution of exports and the number of international companies established in the country. However, the effectiveness of the policies has not been measured, due to several factors. Among them, it is worth mentioning the short implementation time of some policies, the lack of information and objective indicators, or simply the lack of general evidence of success stories.

8. Evaluation of promotion instruments

The Global Export Services Program, financed by the IDB, has a midterm, a final and, later, an impact evaluation. In addition, satisfaction surveys are carried out on talent issues. A survey will be conducted shortly among multinational companies to check their mastery of the program's tools. For the rest of the tools, it would appear that the lack of continuous evaluation is a challenge. Some stakeholders mention this situation as something that may affect the efficient use of public money and the results

³¹ See <https://www.uruguayxxi.gub.uy/es/quienes-somos/llamados-licitaciones/>.

of the instruments, since resources would be allocated without effective optimization.

9. Which are the most important issues and challenges of governance?

One common factor highlighted among all the interviewees was the importance of the sector and the instruments that exist in the country to promote its development. In general terms, among the positive elements that stand out is awareness of the importance of the sector. This is verified by the existence of a specialist agency and support programs to start exporting services; a specific regulatory framework and tax advantages; the appropriate technological and physical infrastructure for its development; and, in particular, the fact that these tools have been maintained despite changes in government. Finally, the inclusion of the sector within the priorities of Transforma Uruguay will lead to the establishment of a roadmap agreed upon by all stakeholders, as well as greater inter-ministerial coordination on this issue.

Among the specific issues established as challenges in the field, is the lack of coordination and coherence between instruments and institutions; the lack of a national and integrated strategy; absence of a scope to jointly propose and determine issues such as incorporation of other activities among the priority actions; the adaptation of fiscal and labor issues; the creation of instruments to promote R&D and entrepreneurship in leading sectors; the development of financing instruments; the negotiation of free trade agreements and double taxation; the evaluation of companies that use support instruments to measure the effectiveness of policies; the need to create greater export awareness at the local level from the university; and the creation of a single investment window.

10. Recommended actions to improve the governance of modern services

All the stakeholders consulted agreed on the need to create a public-private sphere in which they can analyze, discuss and propose strategy issues, as well as coordinate, evaluate and analyze the efficiency of the instruments for the sector. However, there are nuances to be defined on who should lead this issue: some interviewees suggest it could be the MEF; others, however, consider it should be in the orbit of Uruguay XXI. Finally,

several consider that Transforma Uruguay should be the coordinator of these types of actions.³² There is also no consensus on how that idea should be implemented and whether or not a formal scope should be established.

To summarize, governance is a complex challenge to address, as it is a very heterogeneous sector in which several institutions take part, with companies from different business segments, often with different interests. Uruguay XXI promotes governance issues of different subsegments. It also collaborates with the private sector (companies, consultants, private advisers, among others); their needs are surveyed; suggestions for adjustments to the regulations are made; and inputs are provided for the Government. It is expected it will be possible to form an area of collaboration between all intervening ministries and agencies, to improve the business climate for the modern services sector in the medium term and via Transforma Uruguay.

D. Conclusions

Uruguay's modern services represented 2% of exports in 1990, while in 2017 they constituted 12.5% of total goods and services. The fact that in that period, exports of modern services multiplied by 50, while those of goods only increased by 6, shows the relevance of modern services for Uruguay. This is reflected not only in the exported value, but also in the quality employment that these services provide.

The advances that have been made in the sector are not accidental; a set of conditions has been created that has contributed to their achievement. Firstly, the country has a specific value proposition for its promotion. This proposal is based on general aspects (political and social stability and legal security); on inherent conditions (strategic geographic location); and on acquired conditions (state-of-the-art technological infrastructure and qualified human resources). All this guarantees an optimal environment for exporting modern services from Uruguay. Secondly, a set of policies and incentives has been established and designed to promote activity. The main ones include the Investment Promotion Law and the specific sector decrees framed in this regulation; the Free Zones Law; the tools related to the training of specialized human capital; and the laws for the protection of

³² It should be borne in mind that the stakeholder consultation was carried out at the beginning of 2018, before it was known that the effective coordination would be carried out by Transforma Uruguay.

intellectual property and privacy of data. Third, there is a vast set of public, private and mixed institutions that make up an ecosystem to promote the provision of modern services.

When the issue of governance is examined, interesting conclusions are drawn. Awareness about the importance of the sector is not yet seen as an explicit and comprehensive strategy that involves all the stakeholders in the system or that has quantifiable objectives in the short, medium and long term. The stakeholders consulted do consider that there is a sector strategy, which is reflected in the Uruguay XXI Global Export Services Program, which is the recognized institutional framework for promoting the sector. Currently, there are no areas in which strategies for its promotion are discussed in a systematic and programmed way among the different stakeholders (public, private, mixed and academic). Creating this type of area is one of the necessary, but not sufficient, conditions to develop the sector. Moreover, there is a clear consensus on the lack of coordination between public, public-private and private stakeholders. This is explained by the absence of an institution with decision-making capacity that has a global vision of the topic.

Among the most prominent aspects of governance is having respected stakeholders and institutions and the consensus is that it is one of the most important and dynamic areas of the economy. The main challenges lie in creating that longer-term area for discussion with a view to defining a roadmap with specific projects to determine where the sector is going.

In summary, there are several challenges to improve the governance of modern services in Uruguay. Firstly, a comprehensive and explicit strategy needs to be established to integrate all stakeholders, with short, medium and long-term quantitative objectives, and provide for periodic evaluations of the different instruments. This would make it possible to measure the impact and effectiveness of each policy and the strategy as a whole. Secondly, a formal and systematic discussion area needs to be established, involving decision-makers, the promoting agency, the private sector and academic circles; to propose, analyze, discuss and evaluate the strategy defined for the sector. Last but not least, coordination and collaboration between the different institutions and their necessary tools needs to be improved; although the creation of Transforma Uruguay could be the solution. This will ensure more efficient results can be achieved and efforts focused on consolidating Uruguay as an exporter of modern services.

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Chapter IX

India: from private to public coordination to boost exports

Prachi Agarwal¹

Introduction

In 2005, two of the countries that made the list of the world's top 10 exporters of services were China and India. Currently, the latter is the leader among developing countries, particularly in the modern services sector, which is the fastest growing in the world in the last decade. Although most of these services require sophisticated technologies, some of them are low- or medium-skilled labor intensive. Therefore, India and other developing countries, where labor of this type is cheap, have absorbed most of the jobs created in the sector. Added to this are the linguistic and knowledge advantages that India's workforce has, leading the country to become a preferred destination for knowledge and business process outsourcing (AT Kearney, 2017; Sheth and Singh, 2015).

India has been very successful in exporting information and communication technology (ICT) related services. It has achieved great prestige in the

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global markets of this industry, in particular in the production of software and services facilitated by ICT (among which are outsourced business processes). Also, in recent years the country has emerged as one of the fastest-growing telecom markets and has the second largest wireless network in the world, after China. The Government has implemented various policies and initiatives (such as Digital India and Startup India) to promote modern services.

Section A of this chapter discusses the growth of India's trade in services, with special emphasis on modern services. Section B explains the process of formulating policies to promote this sector, paying special attention to the main public and private stakeholders in charge of establishing and implementing them, as well as the different implementation mechanisms. Section C examines the extent to which India's policies comply with the principles of good governance, as defined by Devlin and Mogueillansky (2011). The chapter concludes with section D, which provides some general recommendations on how to improve governance in the modern services sector in this country.

The analysis in the chapter is based on a review of secondary literature, available data and interviews with policy makers, economists and industry leaders. The statistics were taken from the World Bank, the United Nations Conference on Trade and Development (UNCTAD) and the Ministry of Commerce and Industry of India. The interviews with policy makers and academics were essential to learn more about the aspects that concern the management of service-oriented policies in the country.

A. The modern services sector in India

The share of services in gross domestic product (GDP) has increased over time, while the importance of agriculture and manufacturing has decreased. Since 2000, the GDP of the services sector has grown by around 15% per year. Consequently, the participation of this sector in total GDP has exceeded that of agriculture and manufacturing combined and represented 54% of this in 2017, according to World Bank data. This rapid growth can be attributed, in part, to a series of structural reforms that were carried out as part of the conditions established by the International Monetary Fund (IMF) in the early 1990s. Through this series of reforms, the economy was liberalized and a large number of service sectors were deregulated that allowed private players in the sector for the first time.

Between 1995 and 2017, the share of services in employment grew from 23% to 33%, although it continues to be one of the lowest among developing economies, particularly compared to the share of this sector in Latin America. This could be attributed in part to the fact that the expansion of services was concentrated in high-productivity activities, which create little employment (Gordon and Gupta, 2004).

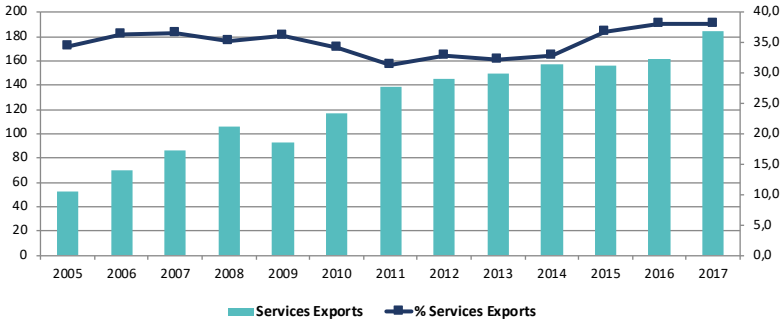
In contrast, the share of manufacturing in employment has stayed at 25% and half of the population continues to work in agriculture, partly because only a third of Indians live in cities, as opposed to Latin America and the Caribbean, where 80% of the population live in them.

Services represent a high proportion of the country's total exports of goods and services and the share grew from 34% in 2005 to 38% in 2017 (see Figure IX.1). However, India's services sector exports only about 20% of the sector's total added value, which is the lowest among its Asian neighbors.

In addition, this share declined systematically during the 2008-2017 period, which can be attributed to a more dynamic domestic demand for services, the growing share of non-tradable services and the fact that international demand became weaker after the 2008 financial crisis.

FIGURE IX.1
India: services exports and their share of the country's total exports of goods and services, 2005-2017

(In billions of dollars and by percentage)



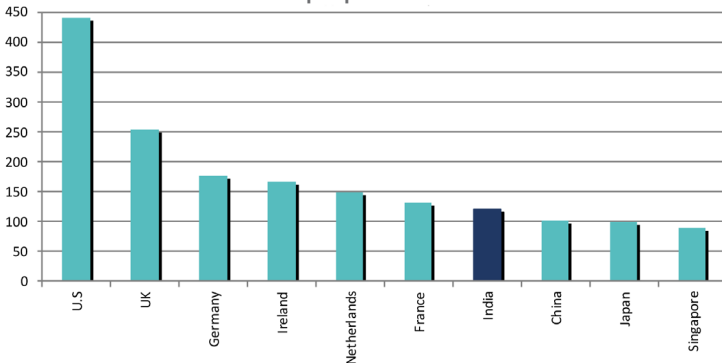
Source: Elaboration by the author on the basis of the United Nations Conference on Trade and Development (UNCTAD) data.

In 2017, India exported \$121.4 billion in modern services (3.4% of the world total), which positioned the country as the 7th largest exporter in the world, behind the United States, the United Kingdom, Germany, Ireland, the Netherlands and France. This is in contrast to the data for 2005, when India was not among the top 10 exporters. Meanwhile, India ranked 11th in imports in 2005 and fell to 13th in 2017, when these were worth \$53 billion and accounted for 2.8% of world imports (see Figure IX.2).

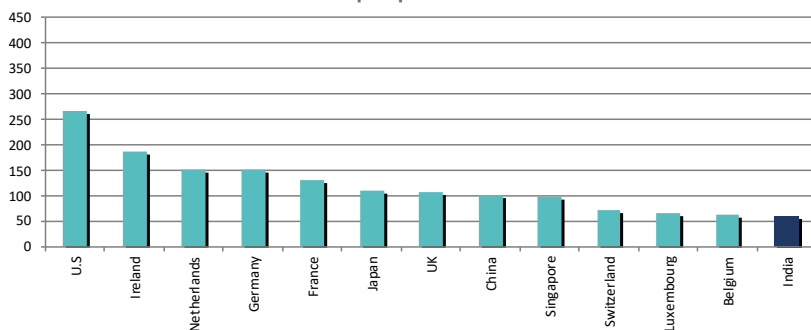
FIGURE IX.2
Top Modern Services Exporting and Importing Countries in the World, 2017

(In billions of dollars)

A. Top Exporters 2017



B. Top Importers 2017



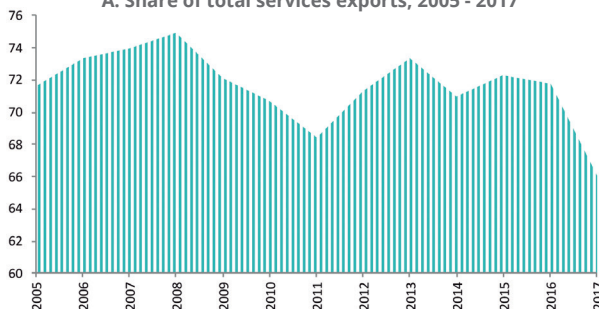
Source: Elaboration by the author on the basis of the United Nations Conference on Trade and Development (UNCTAD) data.

Since 2005, the share of modern services in the country's services exports has been around 70% (see Figure IX.3). The rest of these exports correspond to traditional services, the main categories of which are travel (13%) and transport (11%). The spread of ICT has made it possible for modern services to be transformed and now to be oriented more towards other business services and telecommunications, computer and information services. In 2016, the share of the ICT and business process management sector in total services exports was 49%, and its contribution to GDP was 7.7% (NASSCOM, 2016). India is considered a pioneer in software development and a favorite when it comes to ICT-enabled services; it dominates the exports of this sector in South Asia, with a share of 96% between 2008 and 2016.

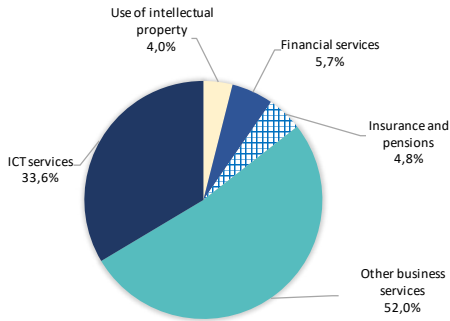
FIGURE IX.3
India: share of modern services in total services exports
and their composition, 2005-2017

(By percentage)

A. Share of total services exports, 2005 - 2017



B. Modern services per category, 2017



Source: Elaboration by the author on the basis of the United Nations Conference on Trade and Development (UNCTAD) data.

The rapid growth of exports of these services has been facilitated by the high quality of professionals, whose salaries are very competitive internationally, and by the fact that individual business solutions are offered instead of standardized services (NASSCOM, 2013).

Furthermore, quality education, soft skills, exposure to cutting-edge technologies and fluency in English have also acted as facilitators of this process (Joshi and Mudigonda, 2008). India has the second largest English-speaking population in the world (125 million people) and the second largest number of engineering graduates, after China. It also has favorable demographic data, since 30% of the workforce is between 18 and 25 years old, and 44% corresponds to the age group of 25 to 30 years (NASSCOM, 2010).

Also, dynamic domestic demand, intense international competition faced by domestic companies, and the focus on technology innovation, which puts the industry ahead of the global learning curve, also contributed to the expansion of the sector. Apart from these factors, the growth of services has been stimulated by external demand; certain events, such as the dot-com bubble and the financial crisis, were taken advantage of by Indian companies to export quality services at profitable prices.

In recent years, the country has become one of the fastest growing telecommunications and information technology (IT) services markets in the world. India has the second largest wireless telecommunications

network in the world, after China. Today, the ICT industry comprises more than 16,000 firms offering a wide range of services. India is the 3rd ecosystem for companies of this type in the world, with a presence of more than 7,700 startup companies, (NASSCOM, 2017).

As technology has continued to evolve and permeate more layers of business operations, digital solutions have become an integral component of the growth plans of most companies. India has become a partner providing digital solutions, while the business services management and IT sector is adapting and reconfiguring with the digital transformation of the global business services and technology environment.

Until now, India has mainly focused on the export of software and other ICT services. However, the country has the potential to develop other professional services, including legal and architectural, accounting and auditing, consulting, engineering and research and development (Prasad and Sathish, 2010). The country has great potential in these areas, especially with the support of adequate government policies. These services represented 20.2% of the total exports of services and 33.7% of their imports between 2016 and 2017.² India has maintained its role as a provider of ancillary business services for international consulting firms based in the United States and the European Union. In terms of management consulting, the sector has grown a lot and there has been a significant increase in high-level strategic consulting (Srinivasan, 2014). Overall, the share of the Other business services category in India's exports has increased since 2004.

The service sector attracts the majority of foreign direct investment (FDI) inflows in India and also accounts for the majority of foreign direct investment outflows. FDI has become the key source of financing for projects in the services sector and has positively affected the country's growth, employment, and technology transfers (Joshi, 2006). The Department of Industrial Policy and Promotion (DIPP) collected data on FDI inflows and, according to its quarterly report for June 2017, the service sector's share of total inflows was 55.8% in the period of April 2000 to June 2017, and 54.3% in the 2016-2017

² For more information, see http://mofapp.nic.in:8080/economicsurvey/pdf/152-166_Chapter_09_Economic_Survey_2017-18.pdf, pág. 157.

period.³ The Government intends to continue attracting FDI through the formulation of the national policy on intellectual property rights and the implementation of a new tax regime that applies to goods and services (GST).

Over the past 10 years, India has ranked 1st in the A.T. Kearney Global Service Location Index. It is the preferred destination for offshoring of service activities, which is why several multinational companies have established their service operations in the country and have created positive externalities for the entire economy (for example, availability of the latest technology, absorption of enterprise level technology and technology transfer). As stated above, India is the industry leader and offers a large number of low-cost, English-speaking skilled labor. However, Porter (1990) argues that the existence of relatively cheap labor does not explain the existence of a competitive advantage over such a long period of time. This would also be due to the country's ability to increase productivity over time through continuous updating of skills and technology. India has also recognized the growing needs of the 4th industrial revolution and invested in robotics, artificial intelligence, cloud computing, big data and research and development; all for the purpose of maintaining a competitive advantage.

The Tholons Services Globalization Index ranks countries and cities that have established leadership and a significant revenue base in the global services industry. Ranking is carried out by measuring talents, skills, infrastructure, digital innovation, labor availability, related costs and quality of life. In 2018, India topped the list and for more than two decades has been an undisputed leader in technology and customer business process management. The country has also emerged as a front-runner in the field of digital skills and solutions for multinational companies.

The two indices show that India is becoming the digital transformation partner of multinational companies. The country is home to more than 4,750 companies that offer an ecosystem ready for collaboration and alliances in the areas of niche technology (NASSCOM, 2017).

³ The DIPP report can be viewed at: http://dipp.nic.in/sites/default/files/FDI_FactSheet_June2017_2_0.pdf. The Reserve Bank of India describes the service sector as consisting of financial and non-financial companies, banking, insurance, outsourcing, research and development (R&D), courier, technology test analysis, telecommunications, trade, hardware and software, construction development, hospitality and tourism, hospital services and diagnostic centers, consulting services, shipping, information and broadcasting and air transport (including freight).

The World Economic Forum's 2018 Competitiveness Report (Schwab, 2018) shows that India still has a lot of work to do on technology adoption. Despite attracting large values of FDI in the ICT sector, the country ranks low in the ICT usage rate, particularly with regard to fixed broadband subscriptions and mobile phones. Only 1.3 people out of 100 have access to a broadband connection, which means that only 18.7 million people access it in a country with a population of 1.3 billion. Indeed, 13 out of 100 people still do not have a mobile subscription. However, with more than 375 million Internet subscribers, India has the second largest user base in the world, after China. The country is gaining shares of world markets everywhere, be it in terms of the number of Internet users, the number of smartphones, the share of app downloads or online payments. The Government is giving a significant boost to digitization, to which the global technology multinationals are also joining in support of this process.

The Government launched the Digital India Initiative in 2015, with the aim of ensuring full ICT penetration through the establishment of an adequate digital infrastructure. In addition, it is preparing a digital workforce to meet the challenges of the future, made up of more than 150,000 employees who have skills in the social, mobile, analytics and cloud (SMAC) fields. The SMAC market is expected to acquire a value of \$225 billion by 2020.⁴ In total, the Digital India initiative will create around half a million direct or indirect jobs (Make in India, 2017).

In 2015, the Government also launched the 100 Smart Cities Mission.⁵ Of those cities, 60 are already under development and a proposed funding allocation of \$28.6 million annually per city. As a result, India is on the way to becoming a digital economy and the future prospects look promising. In addition, the National Fiber Optic Network aims to bring high-speed broadband to the 250,000 small cities and towns ('gram panchayats') in the country. These initiatives, along with the Make in India program, have helped the country embark on the path to digitization.

B. Policy formulation: stakeholders and processes

The ICT sector and ICT-enabled services have expanded rapidly over the past 25 years, while financial and professional services have only

⁴ See <http://www.makeinindia.com/sector/it-and-bpm>.

⁵ For more information, see http://hlrn.org.in/documents/Smart_Cities_Report_2018.pdf y http://www.ncpedp.org/list_of_100_smartcities.

recently begun to expand. In India, the policymaking process to support these sectors can be summarized in the following excerpt from an interview with a government official in July 2018:

The information technology sector began to grow in the late 1980s after an external impetus and there was no established policy to promote it. Only after experiencing substantial demand from developed countries did the Government of India feel the need to establish a policy framework to regulate and support the information technology sector. One of the main reasons was the need to facilitate the growing external demand for skilled labor through the acquisition of human capital, and another was to fill the gap created by the brain drain. The government believed that it was a good opportunity to increase employment. It was with the growing global presence of the great information technology giants that the technology establishment moved to integrate the policy-making agendas. There is an underlying democratic cliché in India “let the professionals run their own home”. Even when the state could have intervened, it chose to keep its distance. Over time, the entities that individually managed one aspect of the sector multiplied. For example, the Institute of Chartered Accountants, the Association of Architects and the Bar Council of India began to regulate their respective sectors. Recently, the State has begun to look at services in an integrated way, as a result of the increase in their marketability. Services represented 60% of GDP for many years, and the state never paid attention to them until they became an internal agenda. There was some lack of communication within the government structure, but the increase in exports of services (Export Connect) acted as a point of union for the creation of an active Department of Commerce. In the last 5 or 6 years there has been an increase in government intervention in the management of these services. The wave of technology has led to a rapid evolution of the services sector, with a range of emerging companies, research and development activities, financial services and high growth professionals. This helped the government to recognize them as important sectors and help them connect with the external market.

1. The stakeholders

In recent years, government policy has acted as a driver of the modern services industry. Over time, the Government has gone from being a regulator to becoming an innovator and facilitator. India is a quasi-federal democracy, so the policy formulation and implementation structure has three levels: federal, sub-national and sectoral. The distribution of power between central and individual state governments establishes the legislation in India. In this system, the competences related to services and other matters are divided into 3 independent lists: the List of Competencies of the Union (corresponding to the central government), the List of Competencies of the States (corresponding to the regional government) and the List of Shared Competencies of the Union and States (corresponding to both levels (see Diagram IX.1).

DIAGRAM IX.1
India: decision-making power levels
in the service sector, 2019

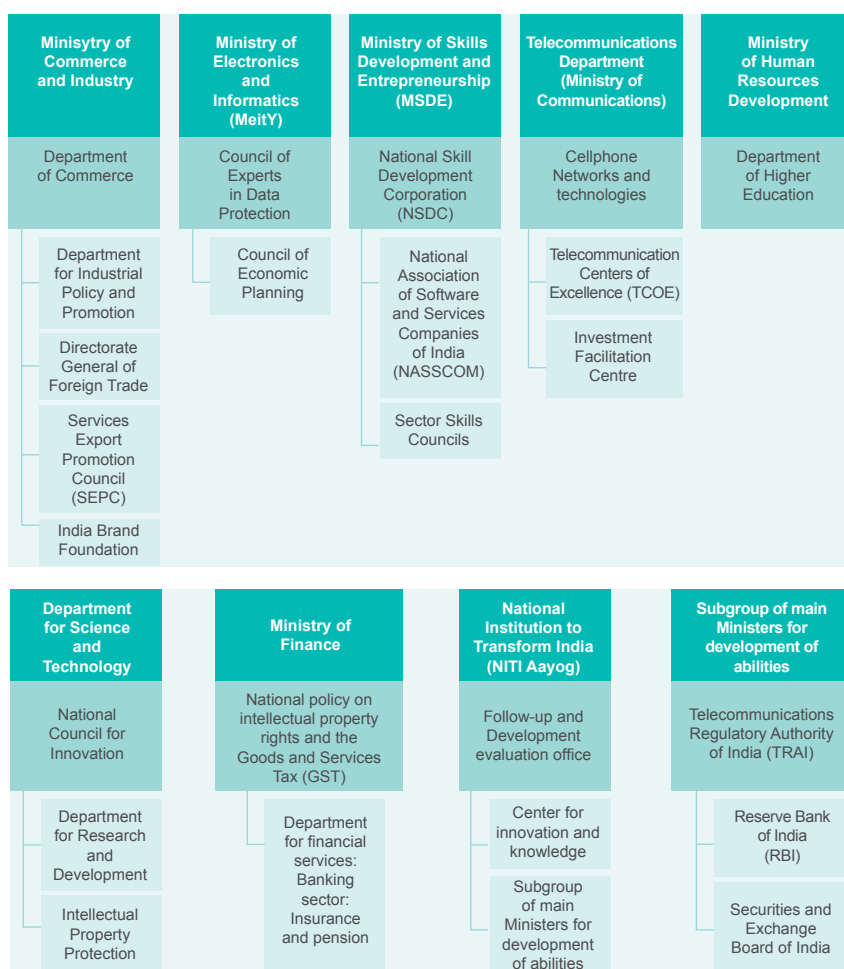
| | |
|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Central | <ul style="list-style-type: none"> • Banking services • Insurance and pension • Protection of intellectual property • Patents, inventions and designs, copyright, commercial trademarks and product trademarks • Communication services • Negotiation of treaties and agreements |
| Subnational | <ul style="list-style-type: none"> • Health services • Local governments, district and municipal corporation • Issues concerning the earth • Policies concerning the Information and Communication Technology (ICT) |
| Shared | <ul style="list-style-type: none"> • Educational services • Economic and social planning • Wellbeing at work |

Source: Compiled by the author.

The central government designs general programs that span various ministries and departments. Diagram IX.2 shows the network of ministries involved in formulating policies for modern services. There are inter-ministerial links, since the ministries coordinate their activities through the organizations and common committees established by the Government. For example, the Ministry of Skills Development and Entrepreneurship (under

the National Skills Development Council) and the Higher and Technical Education Department of the Ministry of Human Resources Development carry out skills development initiatives. Another example is the protection of intellectual property, which is managed by the Department of Industrial Policy and Promotion and the Ministry of Commerce and Industry.

DIAGRAM IX.2
India: central ministries, departments and other public and private institutions involved in policy making, 2018



Source: Compiled by the authors.

Regarding the regulatory structure of services, some agencies establish industry standards and publish guidelines for their respective sectors. Examples are the Telecom Regulatory Authority of India (TRAI), the Reserve Bank of India (RBI) and the Securities and Exchange Board of India (SEBI). Likewise, the Government has recognized the great contribution of private companies and has provided them with support aimed at meeting their needs to promote the development of the services sector. The rise of the ICT sector began in the early 1990s with the growth of a few large companies specializing in outsourcing low-end services. In this sector it was possible to attract many foreign companies that recognized good job skills and the low wages prevalent in the country.

Consequently, private sector participation in bodies responsible for formulating and implementing development policies has increased over time. Along these lines, public-private partnerships have taken a formal path in terms of consultations and the implementation of strategies through various agencies. For example, industry-led agencies liaison between government, businesses and service users. These bodies not only assess the needs of companies, but also provide strategic information to central planning bodies so they can formulate effective policies.

Over time, business associations have also created private sector-led programs that contribute to central planning initiatives. For example, the National Association of Software and Service Companies (NASSCOM) works in conjunction with the Government to address the growing skills gap through continuous skills improvement; at the same time, the Ministry of Electronics and Informatics (MeitY) consults with NASSCOM and incorporates its advice in the formulation of policies for the ICT sector. The design of policies is fed by inputs the Government receives through its consultations with the formal institutional apparatus (regional associations and central federations). Interactions also include resolving disputes between industries.

The role of these representative entities in the private sector is very varied. In the ICT sector, NASSCOM managed to organize companies and its prestige increased thanks to the international network of contacts and the commercial success of several of its members. In the health services sector, the Services Export Promotion Council (SEPC) focuses mainly on trade fairs. In addition to these entities, the Government works with 2 non-governmental business associations, the Federation of Indian Chambers of Commerce

& Industry (FICCI) and the Confederation of Indian Industry (CII), on issues related to the promotion of the industrial sector and policy coordination.⁶

In short, ministries coordinate with sector agencies, regulatory authorities and regional governments to formulate and implement policies. This process is carried out in a network of interrelationships and overlapping jurisdictions in which central government ministries generally design programs and policy agendas, and each regional government is expected to implement it according to its needs and restrictions. Table IX.1 presents the map of the central ministries and their key policies aimed at promoting modern services. The latter are discussed in the next section.

Table IX.1
India: key ministries and policies to promote modern services, 2018

| Stakeholders | Strategy related to modern services | Main policies | Main programs |
|---------------------------------------|-----------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ministry of Electronics and Computing | Promotion of software exports, especially those of SMEs and start-ups | Create software technology parks | <ul style="list-style-type: none"> - Permission for 100% of the ventures capital to be constituted by foreign direct investment (FDI) - Total tax exemption |
| | India Digital Initiative | <ul style="list-style-type: none"> - Digitize service delivery - Carry out work in information and communications technology (ICT) - Promote information for everyone - Promote electronic governance | <ul style="list-style-type: none"> - Center of Excellence and Internet of Things appropriation - National Mission of Digital Literacy - e-Kranti mission - Wi-Fi access points |
| | Promotion regime for business process outsourcing | Encourage digital inclusion and promote exports from the business process outsourcing sector | |

⁶ For more information about these two associations, see <http://ficci.in/about-us.asp> y http://www.cii.in/about_us_History.aspx.

| Stakeholders | Strategy related to modern services | Main policies | Main programs |
|----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Telecommunications Department | National Telecommunications Policy, together with the Ministry of Human Resources Development | <ul style="list-style-type: none"> - Connectivity for All - Public Internet Access Program - Universal Access to Mobile Connectivity - Promote data safety - Create infrastructure for telecommunications exporters | <ul style="list-style-type: none"> - One Nation, One License - Special technological zones (research and development) |
| | Council for the Promotion of Exports of Telecommunications Equipment and Services, together with the Ministry of Commerce and Industry | <ul style="list-style-type: none"> - Develop the export of telecommunications - Facilitate exports | International seminars and exhibitions abroad |
| Ministry of Skills Development and Entrepreneurship | The Skill India initiative includes institutional training, infrastructure construction and programs aimed at increasing employability and productivity | Establish training centers to improve social skills: financial and digital literacy | <ul style="list-style-type: none"> - Training 500 million Indians by 2022 - Program for the Acquisition of Skills and Understanding of Knowledge for the Promotion of Livelihoods (SANKALP) - Rural Skills Initiative - Loan plan for training |
| | Sectorial Skills Council for the ICT and Telecommunications Industry | | - Training and certification of practitioners |
| | National Skill Qualification Framework | Skill based harmonization | - Workshop organization |
| Department of Industrial Policy and Promotion: Ministry of Commerce and Industry | Consolidated FDI Policy | Direct FDI to supplement national capital, technology and skills to accelerate economic growth | <ul style="list-style-type: none"> - National Policy of intellectual property rights - The Make in India program recognized that the information technology and business services management sector was strategic for development |
| | Startup India | <ul style="list-style-type: none"> - Promote young startups through access to venture capital and angel investors - Establish research parks and incubation centers | <ul style="list-style-type: none"> - Mechanism for the Protection of Intellectual Property of Emerging Companies (SIPP) - Fund of funds for startups |

| Stakeholders | Strategy related to modern services | Main policies | Main programs |
|---------------------------------------------------------------------------|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| Department of Commerce: Ministry of Commerce and Industry | Launch of a list of 12 champion service sectors | <ul style="list-style-type: none"> - Promote development and help realize the full potential of sectors - Create more jobs - Expand production and exports | Focused and monitored action plans |
| | Special Economic Zones Policy | Promote service exports | Tax-free enclaves, tax exemptions (tax moratorium) |
| | Services Exports Promotion Council (SEPC) | Act as a link between the Government and professional service providers, especially health professionals | <ul style="list-style-type: none"> - Hold exhibitions and trade shows abroad - Ensure compliance with international standards |
| Directorate General of Foreign Trade: Ministry of Trade and Industry | Expand exports, refund customs duty | Foreign Trade Policy 2015-2020 | India's Service Export Mechanism (SEIS) |
| Ministry of Housing and Urban Development | Create innovation and digital hubs along with Meity | Develop tier 2 and tier 3 cities | Smart Cities Mission |
| National Association of Software and Service Companies of India (NASSCOM) | Contribute to the collaboration of set of online course providers in one location | Certify new technological skills and assist in the establishment of a labor market | Aggregators of Aggregators Program |
| National Institution to Transform India (NITI Aayog) | Creation of a subgroup of key ministers dedicated to skills development | Create a Center for Innovation and Knowledge | |
| Telecommunications Regulatory Authority of India (TRAI) | Creation of Telecommunication Centers of Excellence (TCOE) | Develop new technologies, create intellectual property rights and promote innovation | |

Source: Compiled by author.

2. Policies to promote exports of modern services

India has an ambitious set of initiatives and programs covering various strategic aspects of sustained growth; these constitute, *de facto*, a national plan. The long-term vision in the country is to become a knowledge and innovation economy, by developing the necessary capabilities for the 4th industrial revolution, with advanced knowledge and access to technology through innovation and research and development (R&D). In India there is a multi-sector initiative aimed at driving global development, based on education, entrepreneurship, innovation and digital connectivity. These activities involve adding value and accumulating knowledge; this is possible thanks to the active role of the State, which is focused on developing a few service clusters.

The core initiatives can be divided by theme: skills development; digitization, ICT and technology; entrepreneurship and innovation; export promotion and FDI attraction, international standardization and trade agreements. The emphasis in this chapter is placed on export promotion, although most of the issues overlap due to the nature of the decision-making process, and a description of the other four is given.

The Indian Government has taken two types of initiatives to promote the production of modern services and boost its exports. Some are generic and also concern more sectors (horizontal approach), while others are specific to modern services (vertical approach). Among these, Skill India, Digital India, Startup India and Invest India are the key policies presented below.

a) Skill Development

The rapid expansion of ICT services attracted many workers from the manufacturing sector, who were pursuing new opportunities in their search for jobs. The large supply of staff in the ICT sector outstripped demand and created unemployment. Likewise, there was a gap between educational attainment and employment opportunities. This difference could only be resolved through a national skills development program that not only offered quality education, but also professional training, so that graduates could be employed in this industry characterized by rapid technological progress (Das and Sagara, 2016). The Skill India initiative, launched in 2015, is an effort to engage various stakeholders and contribute to filling this gap.⁷

⁷ For more information about Skill India, see <http://msde.gov.in/nationalskillmission.html>.

The National Corporation for Skills Development was created by the Ministry of Skill Development & Entrepreneurship in partnership with the private sector, other ministries, state governments, universities and non-profit organizations, with the aim of adapting skills to international standards and coordinate private sector initiatives through collaboration with 21 universities. In addition, Sector Skills Councils were established as autonomous industry bodies, intended to facilitate the expansion of skilled labor in India. Sector councils create labor standards and qualification institutions, carry out technical knowledge gap studies and assess students.

The National Skill Development Corporation created a website called the Skills Exchange, where employees, employers, training providers, legislators, certification agencies and funding bodies can exchange information on industry needs regarding skills. It is a labor market information system created in light of the suggestions of the Planning Commission Report in 2011. To supplement this system, the sector council on ICT and NASSCOM have recently launched a public-private initiative to create an environment for the development of professional skills and to meet the demand for trained human resources in the ICT industry and business process management. In this environment, new labor standards are established that allow the sectors to absorb qualified human resources. The goal is to create career awareness and provide the right tools in the form of training and workshops to help explore various opportunities in the sector. NASSCOM has also launched a product called Aggregators of Aggregators.

India is looking to maintain world leadership in digital skills with this ecosystem aimed at training workers. In 2017, \$1.6 billion were invested in training the sector's workforce (NASSCOM, 2017). Thanks to the many educational institutes involved, including the highly rated Indian Institutes of Technology and regional engineering universities such as the National Institutes of Technology, the Indian Institutes of Management and the National Institutes of Information Technology, the technically qualified workforce is increasing. These institutes have prepared high-quality professionals with different technical skills and a good command of English.

The National Institution to Transform India (NITI Aayog), a government think tank has also established an Innovation and Knowledge Hub to document different innovative approaches to skill development to ensure that projects carried out by multiple state governments are repeatable and sustainable.

NITI Aayog has also developed the Subgroup of Chief Ministers for Skills Development with the intention of training, empowering and upgrading the qualifications of 500 million workers by 2022.

b) Digitization, ICT and technology

Compared to other emerging markets, India lags behind in digital connectivity. More than 200 million people do not have access to mobile networks and only 300 million have access to a broadband connection,⁸ so the country needs to work on connectivity to take advantage of the potential of the services sector. The Department of Telecommunications is responsible for designing the National Telecom Policy, that addressed several issues in 2018, based on a strategy aimed to develop skills, infrastructure and innovation capacity. In 2007 and 2008, Telecommunications Centers of Excellence (TCOE) were established; these are public-private alliances that bring together academics, business people, industry and the Government to promote the development of new technologies, create intellectual property rights and foster innovation, with the purpose of making India a world leader in telecommunications innovation.

The 2018 National Telecom Policy was created within the framework of a larger national program called Digital India, which was launched in 2015 with the purpose of digitizing the provision of services.⁹ This was a flagship initiative of the Government to transform the country into a digitally empowered society and a knowledge economy. The bases of this plan were Electronic Governance, the Public Internet Access Program, Universal Access to Mobile Connectivity, IT for Jobs and Information for All. The program was implemented through the creation and expansion of the basic ICT infrastructure. Many successful projects have been started, including the National Digital Literacy Mission, the e-Kranti Mission and the Wi-Fi Access Points. Experts believe that current policy can improve connectivity across the country, so that everyone can connect to the Internet of Things and each city can be transformed into a smart city.

c) Entrepreneurship and innovation

India is one of the leading countries in scientific research and one of the top 5 in space exploration. It is also becoming an important R&D center

8 World Development Indicators, World Bank.

9 For more information, see: <http://digitalindia.gov.in/content/programme-pillars>

for information technology and electronics; it also represents 40% of the world's R&D in engineering services.¹⁰

In this area, the Atal Innovation Mission (AIM) is an initiative recently launched by the Government to promote innovation in the country; while Startup India is a program designed to promote young entrepreneurship, create large-scale employment and maintain competitiveness in the country in the field of technology.¹¹ In the ecosystem that was created via Startup India, young entrepreneurs are connected with angel investors, venture funds, incubation centers and knowledge centers. In addition, the Center of Excellence for the Internet of Things works in conjunction with Startup India and helps monitor the intellectual property created during the process through a platform aimed at streamlining research.

d) Export promotion

The policy to promote the export of modern services was designed in two stages: first the key sectors were identified and then the necessary infrastructure was created to increase their exports. In May 2018, the Department of Commerce launched the Champion Services Sectors program, which aims to foster the competitiveness of 12 sectors through the implementation of specific action plans, to promote growth, job creation and exports. Each ministry and department must implement the action plans corresponding to these sectors. This plan could create bridges giving easy access to new sectors and help exploit their export potential, thereby minimizing the risk associated with focusing on a few sectors. Currently, the twelve sectors considered are the following:

- Information technology and IT enabled services
- Construction and related engineering services
- Tourism and hospitality
- Communication
- Medical tourism
- Environment
- Transport and logistics
- Audiovisual services
- Accounting
- Finance
- Education
- Legal services

10 For more information, see: <https://www.ibef.org/archives/detail/b3ZlcnZpZXcm-Mzc4NzcmMTEz>.

11 For more information, see <https://www.startupindia.gov.in/status.php>

The Services Division, which was recently created in the Directorate General of Foreign Trade of the Ministry of Commerce and Industry, has two objectives: to design a commercial policy focused on services and to improve the availability of data on the sector. In April 2000, a policy of special economic zones was announced, to establish enclaves for commercial operations free of taxes, duties and tariffs. In addition, the zones offer world-class infrastructure and other public services to multinational companies. Through the same mechanism, several state governments (especially Tamil Nadu, Telangana, Maharashtra and Karnataka) have promoted IT services and IT-enabled services in smaller cities. In the 2015-2020 foreign trade policy, the India Services Export Mechanism (SEIS) was proposed, under which exports of certain services are promoted via the reward of Duty credit scrips.¹²

A predecessor of this policy was the Software Technology Parks of India (STPI) program, founded in 1991 to promote the development and export of software and its related services. In its early days, STPI offered basic services, data communications servers, incubation facilities, training and value-added services. This program has played a key role in the development of software export promotion, with a special focus on SMEs and startups. It is a completely export-oriented mechanism, through which a total exemption from customs duties is granted and a 100 percent FDI is permitted across sectors. More than 2,500 units are registered under the STPI scheme, which has strong global experience in managing ICT projects, from initiation stage to implementation. This organization has given a great impetus to the development of the industry in many states, such as Karnataka, Tamil Nadu, Telangana, and Maharashtra, which are the leaders in the export of software (Ministry of Electronics and Information Technology, 2016b). Total exports of units registered under the STPI increased 8.8% between 2014 and 2016.

The Ministry of Electronics and Information Technology (MeitY) established centers to promote business process outsourcing and other services, to facilitate digital inclusion and equitable growth in this sector. It also aims to provide employment for 15,000 people in small cities. These centers

12 The services included in this mechanism are those that correspond to the categories of other business services, communications, construction and related services, education, environment, health, social services, travel and transport. Duty deduction consists of transferable vouchers that can be used to pay customs duties, excise duties, and service tax. It applies only to service export modes 1 and 2. The mechanism pays rewards that represent up to 5% of net foreign exchange earnings. For more information, see <http://www.servicesepec.org/wp-content/uploads/2017/12/Foreign-Trade-Policy-Mid-Term-Review.pdf> y <http://dgft.gov.in/exim/2000/pn/pn15/pn0315.pdf>.

also work together with the Smart Cities Program to convert second and third tier cities into digital and innovation hubs.

e) Attraction of FDI, international standardization and trade agreements

India's modern services industry has been a front runner in the world in adopting international quality certification standards. Those most widely adopted by Indian companies are the Capability Maturity Model Integration (CMMI) and ISO 9000 from the International Organization for Standardization (Coward, 2002).

In addition to *software* exports, there are other niches in India in the telecommunications, professional services and R&D sectors, whose share has increased in the country's export basket. The Telecom Equipment and Services Export Promotion Council (TEPC) promotes the exports of telecom services through international seminars and the participation of exporters in exhibitions abroad. It also makes recommendations to the Government on changes in the sector's export promotion policy. Similarly, the Services Export Promotion Council (SEPC), dependent on the Ministry of Commerce and Industry, acts as a liaison between the Government and the professional services industry, promoting the sector abroad through trade fairs and encourages the adoption of international standards. Members of the SEPC can make use of the benefits granted by the SEIS. A flagship annual event is the Global Exhibition on Services (GES), aimed at promoting trade in services, enhancing strategic cooperation and strengthening multilateral relationships among all stakeholders.

Every year, the Department of Industrial Policy and Promotion (DIPP) announces the Consolidated Foreign Direct Investment Policy to attract and promote FDI to supplement the country's capital, technology and skills capability.¹³ In India, most services are liberalized and fully foreign company ownership is allowed, with the exception of broadcasting (49%), pension and insurance (49%), and banking (20%).¹⁴ India also implemented a national policy on intellectual property rights and the goods and services tax (GST) regime to increase the

13 See the full document on the 2017 FDI policy at http://dipp.nic.in/sites/default/files/CFPC_2017_FINAL_RELEASED_28.8.17.pdf.

14 As reported by the Department of Industrial Policy and Promotion (DIPP).

attractiveness of the country as a destination for FDI. The Make in India initiative has also recognized the IT sector and business process management as strategic in attracting foreign direct investment

While it is essential for the central government to work with state governments on policy implementation, it also collaborates with its global partners and international organizations. To improve access to foreign markets, several bilateral free trade, economic partnership and cooperation agreements have been signed in India. Given the importance of services in the country's global competitiveness, in most of the recently signed agreements there is a separate chapter on services and foreign investment.

Regarding multilateral commitments, India submitted in September 2016 a document called "Concept Note for an Initiative on Trade Facilitation in Services (TFS)", proposing an agreement to reduce transaction costs associated with unnecessary regulation of the trade in services and the administrative burden that this entails. The purpose of the agreement is to consolidate existing access to markets (as a complement to the General Agreement on Trade in Services, GATS), so it does not focus on obtaining new access (WTO, 2016). In India, facilitating trade in services is seen as a way to implement domestic reforms, as it reduces the costs associated with trade. This result would be achieved through greater transparency, expedited authorizations, regulatory cooperation, and knowledge sharing.

India however, does not support the Trade in Services Agreement (TISA), the potential benefits of which it considers to be less than those offered by the proposed TFS agreement. This is because certain clauses of the TISA would oblige countries to maintain their current level of internal liberalization, as well as to automatically commit to any subsequent policy changes made in the Agreement and to ensure that any concessions granted to one business partner in the future are automatically extended to all others. In India, it is considered that this would imply a loss of autonomy in terms of policy formulation (Ministry of Finance, 2017), so it has been decided to favor the facilitation of trade in services. This would allow restrictions to be maintained on FDI in financial and business services, while promoting mode 4 liberalization which, as shown by bilateral agreements, is the most important component of the facilitation of services for the country. Another area that has been widely debated is e-commerce: in India there is

not much interest in fully liberalizing it due to the nascent domestic industry despite its support for digitization and digital payment systems (Mukherjee and Kapoor, 2017).

f) Subnational initiatives

Subnational units (state governments) have also formulated policies aimed at promoting the development and export of services. The relationship between the two levels is such that central government policies are linked with state governments to facilitate implementation at the micro level, allowing energy, land and industry clusters to be formed. These initiatives include the creation of infrastructure, the passage of land and labor laws, and the provision of fiscal and non-fiscal incentives. State governments compete with each other to attract investment and incentivize companies to establish operations in their territories. Andhra Pradesh, Delhi NCR, Karnataka (Karnataka Government, 2013), Maharashtra (Maharashtra Government, 2015), Tamil Nadu and Telangana¹⁵ have been very active in attracting multinational companies, startups and other companies. There is then a competitive federalism among the 5 leaders of the IT industry, promoting better performance and allowing political gains as a reward.

All state governments work to improve the business climate through incentives such as the following: subsidized land purchase subject to employment creation; low cost energy; strike exemptions; revised labor rules to support female employment; availability of infrastructure;¹⁶ and skills development programs.¹⁷ Since tier II cities offer lower costs of living, operating prices and travel times, the state governments have offered incentives in the form of tax cuts, cheaper rents, subsidized electricity rates and a guarantee for the purchase of IT products or services to promote local MSMEs. Some other non-tax incentives are exemption from pollution control law, statutory power outages, inspections regarding labor standards and wages.

15 See <http://wehub.telangana.gov.in/aboutus.html>. More information on Telangana's innovation policy can also be obtained in Telangana Government (2016).

16 For example, to attract investment in modern services, the Telangana government has created Information Technology Investment regions (ITIR) by creating modern infrastructure. Other regional governments have invested in special economic zones that are administered in conjunction with private sector agencies.

17 The Karnataka government has created a skills development program under the public-private partnership model for unemployed youth to acquire skills. See <http://www.ictsd.karnataka.gov.in/?q=node/131>.

C. Governance of policies to promote modern services in India

The analytical framework presented by Devlin and Moguillansky (2011) needs to be adjusted to suit the reality of Indian policy making. The country is a quasi- federal democracy, so policies are formulated in a network full of interrelations, where jurisdictions overlap. The central government designs the general policy and each state unit is expected to implement it, according to its specific needs and bottlenecks. The following observations on governance in the formulation of policies to promote modern services are based on interviews with key personnel in leading companies in industry, government and academia.

The body coordinating the efforts of the ministries involved used to be the Planning Commission, which coordinated the ministries and acted as a link between the central and state departments.¹⁸ It was also the only body responsible for the efficient allocation of resources. A national plan consisting of different stages was formulated and the factors hindering sustained growth were determined. This ensured policy coherence and maximum long-term impact.

The following information is available on its official website:

From a highly centralized planning system, the Indian economy is gradually transitioning to indicative planning in which the Planning Commission is engaged in forging a strategic vision for the long-term future and deciding the priorities of the nation. It develops sector objectives and provides a promotional stimulus to the economy so that it grows in the desired direction. The Planning Commission plays an integrating role in developing an overall approach to policy making in critical areas of human and economic development. It has resulted in a multiplicity of agencies. An integrated approach can lead to better results at much lower costs (Planning Commission, 2014).

However, the Commission was dissolved in 2014 and a new agency called NITI Aayog was created, which has a different role.¹⁹ This supervises and evaluates the application of policies by central and state bodies, and ensures coherence between them. In addition, it promotes

18 For more information, see <http://planningcommission.gov.in/aboutus/history/function.php?about=funcbody.htm>.

19 For more information, see <http://niti.gov.in/content/functions>.

policy coordination with state governments and issues directives on policy formulation and good governance practices. It also promotes the public-private model to improve the inclusion of companies and the coordination of policies with them. This collective work helps to enhance long-term impact of policies through the participation of all stakeholders. For example, NITI Aayog created State Skill Development Missions (SSDM) to implement state-specific guidelines to national skills development programs. Additionally, it introduced a 3-tier structure (state, district, and sub-district) for coordination and oversight purposes.

Given the size of the economy, coordinating all the efforts of the respective specialized agencies is a difficult task. The Judiciary and the legislature itself evaluate the effectiveness of the application of policies. Some experts believe that India does not need an independent agency, as it would not be accountable to the people. Others, however, are in favor of establishing a strong institutional framework through the creation of a public-private council led by private stakeholders, but with the constant guidance of the Government.

The policies and programs established by the central government are implemented, in turn, by specialist agencies that correspond to various levels (ministries, departments, regulatory authorities and regional governments), and there is a clear distribution of responsibilities, according to competence and authority. These bodies are coordinated through structured committees and informal networks of professional civil servants, who work together across departments. Another key coordination mechanism is the inter-ministerial meetings led by the prime minister: the most important is the Cabinet Committee on Economic Affairs (CCEA), where the country's main decisions are made. Finally, the central government also coordinates with its state counterparts, which enhances the credibility of policies and helps ministries to understand regional challenges and the initiatives taken at the local level to address them.

Most government agencies in India are headed by officers of the Indian Administrative Service (IAS), who receive very rigorous training that instills a sense of national pride and prestige of public services; this attracts highly qualified people to the IAS.²⁰

²⁰ The Indian Administration Service (IAS) is the mechanism by which the Government selects its staff on the basis of merit. The selected officials then occupy key positions in government ministries and agencies, remain neutral to political changes, and enjoy stability until their retirement.

These officials are assigned across government agencies and maintain strong informal ties. From time to time they are transferred within the Government, which promotes greater transparency between agencies. They also create links with the private sector and this increases confidence in them and gives credibility to their actions. Finally, the fact that their hiring is long-term increases the continuity of the policies despite changes in the Government. For example, in 2014 there was a change in the political party in power and that did not cause a discontinuity in the policies that had been in force since the 2000s. In fact, it was the new government that implemented the recommendations of the XII Five-Year Plan (2012-2017) that the Planning Commission had defined in 2011.

Since 2001, governments have promoted exports by reducing taxes and creating special economic zones and technology parks. In addition, the internationalization of SMEs is encouraged alongside that of large companies and a favorable environment has been provided for start-ups to flourish through access to venture capital and subsidized loans. Another key element of the long-term commitment to international integration is the negotiation of free trade agreements with partners in South and Southeast Asia. Various incentive programs are integrated and work together on the basis of complementarity.

The efficacy of the stimulus package can be seen in the rapid growth of modern services exports that has made India one of the leading exporters in the sector.

In the sector, there are several public-private alliances that play different roles. The Government consults with the private sector and academia quite frequently. In addition, private sector agencies, such as NASSCOM and SEPC, are very active in developing policy recommendations. Public and private stakeholders work together on core initiatives to increase the reach of programs, while academics and private research centers assist in policy deliberations and form expert groups and committees to provide background research.

Compliance with the principles of good governance by Devlin and Mogueilansky (2011) is summarized in table IX.2.

TABLE IX.2
India: compliance with the principles of good governance in the policy to promote exports of modern services, 2018

| | Adopted | Partially adopted | Not adopted |
|-------------|---------|-------------------|-------------|
| Principle 1 | x | | |
| Principle 2 | | x | |
| Principle 3 | x | | |
| Principle 4 | x | | |
| Principle 5 | x | | |
| Principle 6 | | x | |
| Principle 7 | | x | |
| Principle 8 | | x | |
| Principle 9 | x | | |

Source: Compiled by the author.

D. Final comments

The growth in the service sector has been an organic process that began in the 1960s and accelerated in the late 1980s, despite the absence of any deliberate policy. The expansion of the modern services sector was driven primarily by the organized private sector itself, made up of several large IT companies. They had gained a global presence by providing ancillary business service solutions to developed countries. Given that in the 2000s this sector represented more than 60% of GDP, the central government decided to design several specific policies to develop the sector further. Furthermore, the economic liberalization of 1991 gave the necessary boost to the export sector of business process outsourcing. Over the next two decades, India became the world leader in outsourcing modern services.

The spread of ICT also contributed to the rapid evolution of the services sector with a range of new businesses, exports, R&D and innovation. The Government recognized this change in the content of services and underlined the importance of modern sectors as well as the role they play in the economy. Policies aimed at this sector require the collaboration of various ministries to provide a conducive growth environment. Critical areas are skills development through training of the

existing workforce and adaptation to international standards, financial incentives, access to R&D, support for start-ups and innovative companies and export promotion.

In India, service exports are promoted through a network of interrelationships in which policies are implemented at three levels: the central government, state governments and the private sector. This system ensures that power is not concentrated in the hands of a single council or a few individuals, which improves transparency and the hierarchy of policies. This is complemented by clearly defined responsibilities and a relatively efficient bureaucracy, which creates a favorable environment for policy implementation. In the medium term, exports of modern services that involve innovation and accumulation of knowledge are promoted through a policy called Champion Services Sectors, the FDI policy, the increasing participation of the private sector in policy formulation and various fiscal and non-fiscal incentives.

Despite this relatively positive outlook, there are still several challenges in the area of governance. For example, the accountability mechanism is weak, bureaucratic procedures are complex and the frequent transfer of officials leads to delays in the efficient delivery of services. Furthermore, despite efforts to curb it, corruption continues to exist and leads to the creation of political groups with special interests. Another obstacle is the misalignment of political parties at the central and state levels, which leads to an occasional lack of coordination in implementation of policies. To tap into India's export potential, authorities should address these challenges and make the system more transparent and accountable.

Policymakers know that the recent rapid growth of modern service exports, which are increasingly value-added, is a guarantee of sustainable growth. The authorities recognize the challenges posed by the 4th industrial revolution, which is why they are trying to improve the preparation of the sector through programs such as Startup India, Skill India and Digital India. Policies aimed at incorporating more technology, knowledge and added value in the export sector are the way for modern services to have a dynamic future, as well as for India to close the gap with the success of the developed countries.

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