ACCELERATING PARAGUAY'S INTERNATIONAL INTEGRATION THROUGH ENHANCED TRADE, INVESTMENT AND COMPETITION POLICIES

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TABLE OF CONTENTS

ABBREVIATIONS AND ACRONYMS

AFCFTA	African Continental Free Trade Agreement
ASEAN	Association of Southeast Asian Nations
BIPM	International Bureau of Weights and Measures
BIT	Bilateral Investment Treaty
BPO	Business Process Outsourcing
CAGR	Compound Annual Growth Rate
CGE	Computable General Equilibrium
CNIME	National Council of Maquiladoras Export Industries
CONACYT	National Council of Science and Technology
DNA	National Customs Directorate
EFTA	European Free Trade Agreement
FET	Fair and Equitable Treatment
FDI	Foreign Direct Investment
FMD	Foot and Mouth Disease
FTA	Free Trade Agreement
FUNDASSA	Animal Health Service Foundation
GSP	Generalized System of Preferences
HACCP	Hazard Analysis Critical Control Points
HH	Herfindahl-Hirschman
IIA	International Investment Agreement
IMF	International Monetary Fund
I-O	Input-Output
IPA	Investment Promotion Agency
ISDS	Investor State Dispute Settlement
IMF	International Monetary Fund
ISO	International Organization for Standardization
JAS	Japanese Agricultural Standard
KPI	Key Performance Indicator
MFN	Most Favored Nation
MIDA	Malaysian Investment Development Agency
MSPBS	Ministry of Public Health and Social Wellbeing
NAFTA	North American Free Trade Agreement
NAL	Non-automatic Licenses
NTM	Non-Tariff Measure
OIML	International Organization of Legal Metrology
ONA	National Accreditation Organization
RCA	Revealed Comparative Advantage
ROI	Return on Investment
SENACSA	National Service of Quality and Human Health
SENAVE	National Service for Quality and Plant Health
SMETA	Sedex Members Ethical Trade Audit
SNC	National Quality System

SPS	Sanitary and Phytosanitary Measures
STC	Specific Trade Concerns
TBT	Technical Barriers to Trade
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
USDA	United States Department of Agriculture
WDI	World Development Indicators
WTO	World Trade Organization

EXECUTIVE SUMMARY

Global integration as an engine of growth

Paraguay has much to gain from integrating further into the world economy. The country's economic recovery from the Covid-19 pandemic is underway with growth expected to reach 4.3 percent in 2021 and close to 4.0 percent in 2022 and 2023. However, the challenges of sustaining and accelerating medium-and long-term growth prospects to reduce poverty and improve living standards remain. Global integration is a powerful tool for productivity and per capita income convergence to developed country levels. In the case of Paraguay, trade is particularly important given the size of its economy, which limits the potential of inward-oriented growth strategies. Greater trade integration can boost productivity by shifting production toward sectors and firms with greater comparative advantage. It can lower the cost of intermediate inputs costs increasing firm competitiveness and can enhance technological spillovers and other dynamic effects that accumulate over time. Together with trade openness, FDI can bring significant benefits to Paraguay by relaxing financial and technological constraints and helping the country upgrade in regional and global value chains. A strong competition policy framework can also improve productivity and international competitiveness, *inter alia* by allowing access to better-quality and competitively priced inputs, reinforcing the benefits of trade and foreign investment policies.[1] Indeed, effective trade, investment, and competition policies reinforce each other. Foreign investment policy encourages or discourages entry of new international firms; trade policy affects the size of the output market and the inputs available to exporting firms; and competition influences "behind the border" market entry and contestability of both input and output markets while encouraging firms to innovate and increase productivity.

This report seeks to identify key elements to promote and accelerate Paraguay's international economic integration and in turn its medium- and long-term growth prospects. In particular, it benchmarks Paraguay's global integration; analyzes trade, investment and competition policies and the quality of related institutions, including the impact of EU-MERCOSUR Free Trade Agreement (FTA); and provides recommendations to accelerate the country's global connection and export diversification.[2] While multiple factors and policies can influence Paraguay's global economic integration, including continued macroeconomic stability, improved transport connectivity, and enhanced workers' skills to set the foundations to move to the export of products with higher knowledge content, **t**he quality of trade, investment and competition policies and institutions—which has been less analyzed to date--will also be critical in shaping the incentives and opportunities for further integration into the global economy and export diversification.[3]

Paraguay could be more integrated into the global economy

[1] See Conway et al. (2006), Andrews and Cingano (2014), and Gal and Hijzen (2016) for evidence on the mutually reinforcing benefits of reforms of trade, FDI and competition policy reforms.

[2] The report does not estimate the size nor the pattern of informal or illicit trade in Paraguay—an issue that will be studied in depth in a new World Bank study.

[3] See, for example, the World Bank presentation on infrasap (2021) for a summary of key challenges and opportunities for improvements in the area of infrastructure.

However, Paraguay's trade openness is lower than would be expected from its income level, and export diversification has advanced but at a slow pace. The ratio of trade to Gross Domestic Product (GDP) has hovered around 70 percent of GDP over the last decade, with a slight downward trend. While some diversification has taken place during the past decade, Paraguayan exports remain highly concentrated in a few products and markets, with MERCOSUR and the Pacific Alliance (excluding Mexico) accounting for more than 65 percent of total exports. At the product level, soybeans and related products, meat and electricity accounted for more than two thirds of exports in 2019, although the last item with a declining trend due to the rapidly expanding domestic demand and periods of severe droughts. Rapid growth in soybeans and meat exports have been largely driven by the conversion of natural lands to agricultural and livestock production. Since the early 2000s, the land area under soy cultivation has more than tripled in the Eastern Region and the cattle herd size has multiplied by more than six nationwide. Overexploitation of Paraguay's natural resources, increasing degradation of ecological systems, and exposure to climate change could generate important vulnerabilities in much of Paraguay's export basket. At current rates, the Chaco forest cover could disappear in just two decades. Export growth will necessitate reconciling the productive use of natural capital with its preservation.

The maquila program and FDI attraction have contributed to some export diversification, especially in manufacturing, but export of services remains quite low. During the last seven years, the maquila program has expanded substantially, increasing the number of maquila firms from 46 to 226, especially in the apparel and auto part sectors. Maquila exports are mostly destined to Brazil (about 80 percent of total sales), but some go beyond MERCOSUR partners, such as pet food, chemical, pharmaceutical products, and aluminum cans bound for Chile. A few manufacturing products such as electric wires appeared linked to global productions networks. Exports of services for Paraguay are small (around 8 percent of total exports) and mostly focused on traditional services (80 percent of the total services exports). The country has not seen much growth in modern services such as computing and business services in contrast to the rapidly expanding global and neighboring trends, including in Argentina and Uruguay. A few multinational companies have set up Business Process Outsourcing centers, but exports of such services are still low.

In terms of quality, stronger efforts are needed to increase value addition and climb up the quality ladder. Unit values suggest that that the relative quality of some important agricultural exports such as rice mill and beef have declined during the past decade. A similar pattern is observed for certain manufacturing products (e.g., electric wires), where Paraguay appears to have expanded production by competing on prices rather than enhancing quality. This contrasts with the case of Uruguay where exporters managed to enhance the export quality of bovine products during the last decade, rising from the bottom to the top of the ranking and gaining access to high income markets. In general, the number of firms in Paraguay engaging in formal trade is low, and the survival of exporting firms in non-traditional sectors is quite low, which raises concerns given the country's aspirations to diversify its export basket.

FDI has made a positive contribution to Paraguay's economy and trade, but its role could be substantially larger. From 2010-2019, the average annual FDI inflow to Paraguay reached 1.5 percent of GDP, doubled the rate recorded in the previous decade. Still, FDI inflows to Paraguay are low compared to the LAC average (3.77 percent of GDP from 2010-2009) and emerging markets. With

relatively limited inflows, the accumulated stock of FDI reached 19 percent of GDP in 2019, compared to more than 50 percent of GDP for LAC and emerging markets. Still, FDI has contributed to the development of new exports in the light manufacturing sector during the past decade. More recently, new large-scale projects on renewables and sustainable forestry and paper could result in important exports in these sectors in coming years**.** Besides efficiency-seeking FDI in light manufacturing, Paraguay has the potential to attract substantial FDI to the agricultural and forestry sectors, while also contributing to the country's sustainability and economic development goals.

Competitive domestic markets foster productivity and international competitiveness, but several data sources point to limited competition in certain markets in Paraguay. Perception-based indicators from the Bertelsmann Transformation Index (BTI) suggest that Paraguayan markets are lagging behind peers in terms of local competition and the extent of market dominance. High price-cost margins, a standard proxy for competition, also point to similar concerns. Among others, lack of competition in key network industries could be affecting the competitiveness of downstream industries.

Numerous policy and institutional barriers to trade remain

Despite the government's aspirations on export diversification, Paraguay continues to face a number of trade frictions that can result in an anti-export bias. As a landlocked country, Paraguay faces additional trade costs. Hence, the importance of putting in place a robust trade policy and institutional framework that compensates for these additional hurdles and supports the country's global and regional integration and its prospects for export diversification away from a limited number of primary agricultural products. However, the current tariff regime and non-tariff measures, and other weaknesses in trade facilitation processes impose costs on traders that diminish their competitiveness and opportunities for new exporters to survive.

As a MERCOSUR member, Paraguay maintains a common external tariff (CET) for imports from outside MERCOSUR that is relatively high compared to the average LAC tariff and regional peers. Considering national exceptions to the CET, Paraguay's simple average tariff was 9.6 percent in 2019, lower than the rates of Argentina, Brazil and Uruguay at 13.4, 13.3 and 10.3 percent, respectively, but substantially higher than the LAC average and peer countries outside MERCOSUR. For example, the simple average tariff for the Pacific Alliance is 5.3 percent--nearly half of Paraguay's rate. In addition, tariff rates in Paraguay are in the double digits for many sectors of the economy, especially in the footwear, textile, apparel and food sectors. Negotiations to revise the CET are underway among MERCOSUR members. An average reduction in the CET of about 50 percent would bring the average tariff much closer to that of regional peers.

In addition to tariffs, a number of non-tariff measures (NTMs) and trade surcharges increase substantially trade costs hindering Paraguay's competitiveness. During the last decade, Paraguay has increased the use of prior to import licenses, with shortcomings in their administration generating additional barriers to trade. Trade licenses, for example, tend to be specific to each trade transaction, requiring a new license each time the firm imports. Many prior to import licenses are not issued automatically, even for frequent operators with good track records, and many of the institutions requiring licenses have not fully automated procedures contributing to delays and diminishing the

transparency of processes. Besides licenses, para-tariff measures include fees related to consulate certificates. In addition, several public institutions charge *ad-valorem* fees (ranging between 0.5 and 2.5 percent) instead of fixed fees proportional to the cost of the service rendered imposing charges similar to an additional import tariff. Estimates suggest that NTMs in Paraguay can increase trade costs by the equivalent of an average extra tariff of at least 4 percent in *ad valorem* terms. Costs are substantially higher for certain goods. Traders also expressed concerns about the substantial delays on the value added tax reimbursement on export activities, which increases significantly the operational costs of exporters.

Notwithstanding recent improvements in the performance of the National Customs Directorate (DNA), significant gaps in border management remain relative to regional peers affecting trade performance. Coordination of border management across public agencies in Paraguay is at an early stage, mainly due to limited automation, incipient use of risk management and need for greater operational collaboration. Although the Import and Export Single Windows have automated processes between the traders and the public administration, several agencies have not automated their internal procedures generating delays to traders and holding back the implementation of more effective risk management strategies. The current Customs Code also fails to disincentivize future attempts of non-compliance. The National Committee on Trade Facilitation has made some progress in advancing the implementation of the World Trade Organization (WTO) Trade Facilitation Agreement (TFA). However, the Committee could play a greater role in driving key trade facilitation reforms, including the streamlining of licensing procedures and of costly fees imposed on traders.

The EU-MERCOSUR Free Trade Agreement could be a 'game changer'

Contrary to global trends, Paraguay has not increased much its participation in preferential trade agreements in recent decades, partly reflecting its membership within MERCOSUR. Paraguay faces limitations negotiating bilateral trade agreements on its own and must seek consensus and coordination with all MERCOSUR members.[4] In general, MERCOSUR members have tended to abstain from negotiating "deep trade agreements" with developed economies in contrast to other regional peers such as the members of the Pacific Alliance. In addition, intra-MERCOSUR trade is very low, with only 16 percent of regional exports destined to other MERCOSUR countries, and affected by restrictive non-tariffs barriers, especially in Brazil and Argentina. Many of these measures affect Paraguay's trade with its neighbor countries.

The recent Free Trade Agreement (FTA) between MERCOSUR and the EU, however, could be a 'game changer' by opening market access, and very importantly, improving the policy and institutional environment. [5] The private sector welcomes the Agreement and perceives it as an opportunity to permanently reestablish preferences lost by Paraguay in the EU market at the end of 2018. The Agreement is the first "deep" FTA reached by MERCOSUR, including technical barriers to trade, regulations on services, government procurement, and intellectual property in addition to tariffs. Estimates using a Computable General Equilibrium (CGE) model indicate that the implementation of

[4] The most recent FTA by Chile and Paraguay concluded in 2021 builds on an existing Economic Complementation Agreement between Chile and the MERCOSUR countries from 1996, under the ALADI Framework.

[5] After a prolonged period of negotiations, the EU and Mercosur countries signed an FTA agreement in June 2019. The FTA needs to be ratified by Congress in each of the Mercosur member countries before entering into force.

the EU-MERCOSUR agreement would have a positive effect on overall trade, GDP, and welfare. Model results show an increase of 1 percent of GDP by 2040 relative to a baseline projection without the agreement. Total exports and imports would increase 0.5 and 1 percent in real terms, respectively, compared to the baseline projection. Real income and wages (particularly of unskilled workers) are likely to increase under the Agreement. While the economy would expand as a whole, the effects would vary by sectors, with non-food manufacturing experiencing the largest growth in value terms. The expansion of non-food manufacturing results from higher integration with regional supply chains as the FTA would help dismantle many of the existing trade barriers within MERCOSUR. Overall, the agricultural sector output would not rise by much, but it would become more diversified due to likely increases in rice, sugar, meat and other animal products. The intended EU Carbon Border Adjustment Mechanism (CBAM) is expected to have a very small effect on Paraguayan exports since it would be aimed at energy-intensive exports and electricity from non-renewable sources and would cover only direct emissions (Scope 1).[6] Both emission scopes and sectoral coverage, however, could vary in the future. Beyond CBAM considerations, EU consumers are becoming more discerning due to health and climate change awareness. The consistently fast-growing performance of sustainable and organic market sectors suggest that green commodities can provide new and more attractive opportunities for Paraguayan exports.

Policy changes in pursuit of FDI attraction to spur exports have led to mixed outcomes

Over the past two decades, Paraguay has implemented numerous policy and institutional changes to foster FDI in pursuit of export diversification, with mixed outcomes. First, a relatively strong legal framework to foster FDI was enacted in 1991, offering an open investment regime and important guarantees to investors with regard to national treatment, transfer of funds and access to international arbitration. However, as international practices have evolved, the law could be updated to offer greater transparency and clarity to investors as well as to protect the state against frivolous claims from investors that can be costly to settle. Second, in 2015, the mandate of REDIEX, the export promotion agency, was expanded to cover investment promotion, too. Notwithstanding the positive institutional changes that have taken place in recent years, REDIEX has faced some challenges implementing its broader mandate *inter alia* due to limited resources and still evolving capacities.

In addition, a myriad of tax incentives programs has been enacted in spite of the country's comparatively low tax rate, but their impact has not been measured. Most of these programs seek to attract FDI (or sometimes national investments) in pursuit of higher exports, export diversification, or import substitution. Multiple laws govern these programs increasing the complexity of their administration and generating some overlaps. Research, however, has shown that good investment climates, political stability, regulatory quality, and market opportunities are more critical to investors' initial location considerations than are tax rates and incentives and that only at relatively high tax rates--above 23 percent on average--the effect of tax holidays seems to become positive (Von Uexkull, Perea and Andersen, 2017). Tax incentives need to be conceived as part of a broader investment policy

[6] The emissions accounting framework distinguishes three scopes. Scope 1 covers direct emissions from the sources that company owns or controls. Scope 2 covers indirect emissions form the purchased electricity, heating and cooling services. Scope 3 covers all other indirect emissions within a company's value chain.

framework, and their impact in terms of FDI attraction and its benefits needs to be measured against the costs of foregone tax revenues.

A more effective competition policy framework is needed to unlock investment and market access

In the past few years, Paraguay has taken important steps to lay the foundations of a competition policy framework that supports international competitiveness. In 2015, Paraguay approved a modern competition regulatory and institutional framework to sanction anticompetitive practices. Positive regulatory and implementation steps in public procurement markets further support such efforts. Ongoing regulatory initiatives such as the new bill on renewable energy generation could also be a steppingstone to promote competition in key network industries.

Numerous constraints, however, continue to affect the incentives or the ability of firms to compete. Regulatory restrictions tend to limit entry in key enabling sectors and insulate incumbents, often public, from competition. In the context of significant state participation in several markets, especially in network industries, lack of regulatory tools to foster competition (such as third-party access to transmission segments in energy) and limited implementation of the 'competitive neutrality' framework to level the playing field between public and private operators hinders market access. Similarly, differential treatment of foreign providers further insulates domestic incumbents from competition, e.g., through discriminatory treatment in public procurement. Barriers to entry in regulated professional services can also limit market contestability and increase costs to firms. In part, the absence of tools to evaluate the regulatory impact of laws and regulations, especially regarding competition, contributes to these distortions.

Gaps in key enforcement tools and weak advocacy powers also diminish the effectiveness of the competition regulatory framework. Despite the creation of the *Comisión Nacional de la Competencia* (CONACOM) in 2015, effective enforcement against anticompetitive practices is still at a very young stage. This is partly due to CONACOM's limited powers to collect direct evidence on infringements together with inadequate technical and financial resources. Other gaps in the competition regulatory framework include lack of clarity on the merger control framework and relatively weak advocacy powers of CONACOM.

Trade, investment and competition policy measures to accelerate international integration

Paraguay's faster, sustained international integration hinges on the capacity of firms to enter export markets with strength. This highlights a private sector agenda that focuses on helping domestic firms become more productive and grow, as well as in attracting large exporting firms via FDI. Besides helping the country integrate into regional and global value chains, FDI can reap additional dynamic gains in terms of know-how and technology upgrading. Trade, investment and competition policy measures can jointly influence the country's conditions with positive effects on export diversification and regional and global integration—important goals of the third pillar of 'Paraguay's National

Development Plan 2030.' Reconciling the productive use of natural capital with its preservation will also be crucial as many of Paraguay's export opportunities are linked to its natural endowments.

A number of trade policy reforms at the country and MERCOSUR level can help reduce trade costs and enhance the capabilities of exporters. Implementing the FTA between the EU and MERCOSUR and other recently concluded agreement (e.g., with Chile and the European Free Trade Association (EFTA)), and continuing trade negotiation with potential FTA partners (e.g., Korea and Canada) would secure new market access for Paraguay. Deep agreements, such as the one with the EU would not only provide stronger access to a large market but could also lead to important policy and institutional upgrades within MERCOSUR. A lowering of the MERCOSUR CET closer to regional levels would also support greater trade integration.

Streamlining NTMs and improving their administration will be critical to reduce trade costs. New and existing NTMs, starting with prior to import licenses, could be subject to ex-ante regulatory impact assessments to provide a technical understanding of their benefits and costs. As international experiences illustrate (e.g., Colombia), regulatory impact assessments would help reduce the issuance of unnecessary NTMs, including prior to import licenses, and would strengthen the design of those with a strong public policy rationale such as environmental or consumer protection. The review would benefit from a strong public-private policy dialogue, where the private sector contributes to solutions (Cadot and Malouche, 2012). In addition, automating processes for issuing licenses would help expedite approvals and make them more transparent. A high-level inter-ministerial committee needs to examine the multiplicity of fees charged on trade, including consular fees, and develop a medium-term plan to streamline them. The review needs to consider the replacement of *ad-valorem* fees with fixed charges that are more closely aligned to the actual cost of the service provided.

Other trade facilitation measures would also decrease substantially the burden imposed on traders. A more integrated border management system supported with greater automation would reduce delays imposed on traders, and opportunities for corruption. This will include improvements to the performance of the single windows for imports and exports (VUI and VUE), including the full interoperability of the two windows; the expansion of processes connected to the single window for importers; and the development of cargo consolidation in the VUE, which would help small and medium enterprises (SMEs). In line with global and regional practices, border control agencies need to transition to a risk-based management approach that relies on greater cooperation and information exchange among domestic agencies as well as with other countries. Customs could strengthen its post-clearance audit processes to decrease the excessive allocation of goods through red channels, and physical inspections could be coordinated among border agencies. Collaborative border management will require political support and extensive capacity building. The reforms proposed to the Customs Code by the Government of Paraguay would constitute a very positive step, establishing a more robust compliance system and providing legal support to key trade facilitation reforms. Improved cross border management could be reinforced with enhancements on information available to traders.

The National Trade Facilitation Committee (NTFC), established in 2017, needs high-level support and a results-oriented approach to provide greater momentum to trade facilitation reforms. The active participation of high-level policymakers (at least at the Deputy Minister level) will facilitate coordination among agencies and secure the necessary financial resources. Paraguay's NTFC could

also benefit from a results-based management approach, where accountability is increased and outcomes are publicly available. For example, India and Costa Rica have developed interesting webtools to monitor and communicate progress on the World Trade Organization (WTO) Trade Facilitation Agreement (TFA). Besides the current WTO TFA commitments, Paraguay's NTFC could expand its agenda to other key trade obstacles, very importantly, the administration and streamlining of the extensive and burdensome NTMs.

Trade policy and trade facilitation reforms will have a stronger impact when complemented with initiatives to strengthen export capabilities, especially of new exporters. Firms that adopt changes in their production and marketing (i.e., an 'Export Business Model') are more successful in entering and surviving in international markets (Artopoulos et al. 2011 and 2013). REDIEX can learn from the different programs that multiple export agencies have launched around the world, including a recent pilot in Argentina that was successful in substantially changing export managerial practices.

T**he development of a holistic investment attraction strategy to advance Paraguay's goals of integrational integration would be highly desirable, complementing policy reforms in the trade area.** The strategy could identify sectors where the country could attract efficiency-seeking FDI in the post-COVID world and FDI leveraging its rich natural resources. The strategy would need to consider mechanisms to foster coordination among government agencies involved in investment attraction. Introducing a range of clear and measurable key performance indicators (KPIs) would help in tracking progress and evaluating the strategy's effectiveness.

Increasing the transparency, targeting and effectiveness of investment incentives will be central to the investment attraction strategy. This will require putting in place a comprehensive inventory of investment programs and conducting an in-depth evaluation of their cost-effectiveness. Paraguay could learn from the experiences of other countries that have sought to streamline and improve the targeting and effectiveness of investment incentives such as the Philippines.

The current institutional capacity and available resources to undertake proactive investment promotion efforts in Paraguay present room for improvement. While REDIEX's investment promotion capacity has grown in recent years, a clear strategy with KPIs (possibly focused on fewer sectors) coupled with further resources will be necessary for the agency to perform proactive FDI promotion and provide investor assistance along the entire investment cycle, including crucial aftercare services for existing investors. In the medium term, as REDIEX develops greater capacities, the institution could sponsor a program to link local firms to FDI and foster their participation in regional value chains, enhancing the positive spillover effects of FDI. Countries such as the Czech Republic and Costa Rica, and more recently, Vietnam have successfully implemented suppliers' linkages programs. Paraguay's Investment Law provides a relatively robust framework for investment attraction, but amendments could be considered in the medium term to provide greater clarity and transparency and adapt the Law to new international practices and investors' expectations.

Enhancing competition policy in Paraguay to promote international competitiveness will require a multi-pronged approach: (i) reinforcing the competition regulatory framework and institutional capacities to implement it; and (ii) promoting pro-competitive conditions in key product markets.

Reinforcing the competition regulatory framework will necessitate (a) legal reforms to enable CONACOM to access direct evidence of antirust infringements and to reinforce competition enforcement and advocacy, and (b) a strengthening of CONACOM's capacities to forcefully implement the law.

Promoting pro-competitive conditions in key product markets will be a medium- to long-term effort that will entail (a) considering the gradual expansion of private sector participation in network industries, by progressively lifting monopolies and supporting access to private operators in markets where competition is viable (e.g., energy, transportation, telecommunications) and introducing key regulatory tools including Third-party Access rights in energy sectors or unbundling of the local loop and infrastructure sharing policies in telecommunications (Infrasap powerpoint 2021); and (b) lowering entry barriers in regulated professional services; together with (c) a more effective implementation of the competitive neutrality framework to level the playing field between market operators regardless of ownership (whether public/private or domestic/foreign). In addition, the progressive implementation of Regulatory Impact Assessments (RIAs) will help identify early on interventions that could affect market entry and contestability. RIAs could start with regulations and expand to primary laws in the medium term. Paraguay could learn from the progressive implementation of RIAs in other countries in the region, including Mexico, Colombia, and Chile. RIAs will not only be important to enhance competition and the review of NTM measures but will also help improve the overall quality of business regulations with positive effects on productivity and private sector development.

Priority Policy Recommendations to Accelerate Trade, Investment and Competition

Reform Area	Action		
	Short term (> than 1 year)	**Medium term (2-5 years)**	**Long term (> than 5 years)**
Trade Policy and Facilitation			
Reduce Tariff Barriers		Reduce the Mercosur CET to levels more in line with regional averages.	
		Implement completed FTAs with the EU as well as Chile and EFTA.	Maintain an active negotiation agenda with other trading partners.
NTMs, fees and formalities	List all NTMs by product code and identify processes for registering import/export licenses.	Review and streamline existing NTMs, starting with import licenses. Integrate all registry processes for import licenses at the VUI and further simplify administration.	
	Devise a plan to reduce fees and charges on trade, and where relevant, identify general budget resources to cover funding gaps.	Implement the plan to progressively reduce fees and charges imposed on trade.	Continue implementation of reforms.
Integrated border management	Update the identification of trade processes conducted manually.	Improve VUI and VUE performance by allowing full interoperability of VUI and VUE and cargo consolidation in the VUE, and connecting additional agencies to the VUI.	Integrate the two single windows.
	Modernize the Customs Code to strengthen compliance and celerity to traders.	Implement complementary regulations to the Customs Code.	
	Develop modern risk-based approaches to border management. Enhance the number of accredited AEOs.	Strengthen institutional capacity and ICT adoption of key border control agencies. Review the regulatory framework for food safety and plant and animal health.	Connect risk management systems among key border control agencies.

Governance of trade facilitation	Mobilize high-level political support for the NTFC and advance on the NTFC work plan.	Monitor performance of the NTFC plan and publish related information.	Continue upgrading Trade Facilitation Systems.
	Review the quality of access to information through the SWs and other trade portals.	Promote public and private collaboration to help harmonize and link trade databases.	Develop a Single Trade Portal.
Enhance firm Capabilities	Design managerial skills' programs.	Implement managerial skills' programs. Expand the number of technical accredited laboratories for conformity assessment.	
	Expedite reimbursement of VAT retention on exports.		
Attracting FDI			
Strategic framework for FDI attraction	Clarify the contribution of FDI to policy goals, define targets and institutional roles.		
	Update REDIEX's investment promotion strategy with further sectoral prioritization and design institutional strengthening program.	Implement institutional strengthening program and full-service program offering.	
Enhance FDI and SME linkages		Implement FDI and SME linkages programs.	
Increasing effectiveness of tax incentives	Evaluate the effectiveness of existing incentives via cost-benefit analyses.	Redesign and streamline fiscal incentives and create online centralized registry.	
Enhancing Competition			
Promoting pro-competitive conditions in		Evaluate costs/benefits of lifting monopolies in markets where competition is viable Progressively lift monopolies and support access of private operators to markets where competition is viable (e.g., energy, transportation, telecommunications) Introduce key regulatory tools to enable private sector participation in network industries including TPA in energy sectors or unbundling of the local loop and infrastructure sharing policies in telecommunications.	

key product markets		Limit exclusive rights for selected operators (e.g., cement, postal services, fuel import).	
	Enhance interinstitutional cooperation between CONACOM and the National Directorate of Public Procurement.	Introduce transparent and competitive procedures to designate Board members and involve them in the appointment of CEOs. Separate commercial and non-commercial activities of SOEs, at least accounting.	Limit regulatory privileges for SOEs (public procurement. Labor law, bankruptcy law).
		Eliminate restrictions for foreign operators to provide road freight services and allow for cabotage in water transport.	Limit regulatory privileges for national firms in tenders.
		Establish (i) a one-stop shop for authorizations and permits and (ii) programs to reduce the number of licenses and permits and compliance costs.	Establish the 'silence is consent' rule for authorizations. This action requires amending primary laws.
Enhance the competition regulatory framework	Reevaluate the use of structural remedies as preferred to behavioral remedies.	Amend the legal framework to clarify and strengthen CONACOM's mandate.	
Strengthen market institutions	Progressively reinforce budgetary and staff capacities of CONACOM.	Consider creating independent sector regulators in network industries to avoid conflict of interest between regulators and market operators. This action requires legal amendments.	
	Implement ex-ante RIA for secondary regulation, including competition impact.	Implement ex-ante RIA for secondary regulation, including competition impact.	Implement ex-ante RIA for primary legislation, including competition impact.

1. INTRODUCTION

Paraguay has much to gain from integrating further into the world economy. The country's economic recovery from the Covid-19 pandemic is underway with growth expected to reach 4.3 percent in 2021 and close to 4.0 percent in 2022 and 2023. The challenges of sustaining and accelerating medium-and long-term growth prospects to reduce poverty and improve living standards remain. Global integration is a powerful tool for productivity and per capita income convergence to developed country levels. In the case of Paraguay, trade is particularly important given the size of its economy, which limits the potential of inward-oriented growth strategies. Greater trade integration can boost productivity by shifting production toward sectors and firms with greater comparative advantage and higher efficiency. It can lower the cost of intermediate inputs costs increasing firm competitiveness and can enhance technological spillovers and other dynamic effects that accumulate over time. Together with trade openness, FDI can bring significant benefits to Paraguay by relaxing financial and technological constraints and helping the country upgrade in regional and global value chains. A strong competition policy framework can improve productivity and international competitiveness, *inter alia* by allowing access to better-quality and competitively priced inputs, reinforcing the benefits of trade and foreign investment policies.[7] The degree of competition in an industry affects the payoff of trade policies.[8]

However, Paraguay's trade openness and FDI attraction are lower than what would be expected from its income level, and inadequate competition also seems to be affecting international competitiveness. The ratio of trade to Gross Domestic Product (GDP) has hovered around 70 percent over the last decade, with a slight downward trend. While some degree of diversification has taken place during the past decade, Paraguayan exports remain highly concentrated in a few product offerings to world markets. The maquila program and FDI attraction have contributed to some export diversification, especially in manufacturing, but FDI's role in trade and economic development could be substantially larger. From 2010-2019, the average annual FDI inflow to Paraguay reached 1.5 percent of GDP, doubled the rate recorded in the previous decade. Still, FDI inflows to Paraguay are low compared to the LAC average (3.77 percent of GDP from 2010-2009) and emerging markets. In addition, several data sources point to limited competition in certain markets in Paraguay, which could be hindering productivity and international competitiveness.

Multiple factors and policies can help accelerate Paraguay's global economic integration. A continuation of the macroeconomic stability recorded during the past two decades will positively influence investment decisions. As a landlocked country, improvements in transport connectivity will be needed to reduce costs to traders.[9] Enhancing workers' skills will create stronger conditions for the country to move to the production and export of goods and services with higher knowledge content in the medium to long term (World Bank forthcoming, 2022). The quality of trade, investment and competition policies and institutions—which has been less analyzed--will also be critical in shaping the

[7] See Conway et al. (2006), Andrews and Cingano (2014), and Gal and Hijzen (2016) for evidence on the mutually reinforcing benefits of reforms of trade, FDI and competition policy reforms.
[8] Topalova, P., and A. Khandelwal. 2011. "Trade Liberalization and Firm Productivity: The Case of India." Review of Economics and Statistics 93 (3): 995–1009.
[9] See World Bank presentation on infrasap (2021) for a summary of key challenges and opportunities for improvements.

incentives and opportunities for further integration into the global economy. As noted earlier, trade, investment and competition policies are mutually reinforcing, and policy distortions in these areas can generate an "anti-export" bias. The quality of institutions implementing these policies will be important, too.

This report seeks to inform the policy dialogue on how to accelerate Paraguay's international economic integration and in turn its medium- and long-term growth prospects. In particular, it benchmarks Paraguay's global integration; analyzes trade, investment and competition policies and the quality of related institutions; and provides recommendations for strengthening them and accelerating the country's global connection. Chapter 2 benchmarks Paraguay's trade outcomes along several dimensions, including export diversification, quality upgrading and export survival, and Chapter 3 follows with an analysis of how trade policies and the quality of the institutional framework are affecting trade performance and identifies opportunities for improvements. It also estimates the impact of the MERCOSUR-European Union (EU) Free Trade Agreement on Paraguay.[10] Chapter 4 focuses on FDI patterns and the strengths and shortcomings of the supporting FDI policy framework to help integrate in regional and global value chains. Chapter 5 examines competition challenges in Paraguay's markets that could be affecting trade and FDI attraction and provides recommendations for strengthening competition policies and institutions. The preparation of this report has benefitted from the analysis of multiple data sources as well as extensive consultations with stakeholders from the private and public sectors.

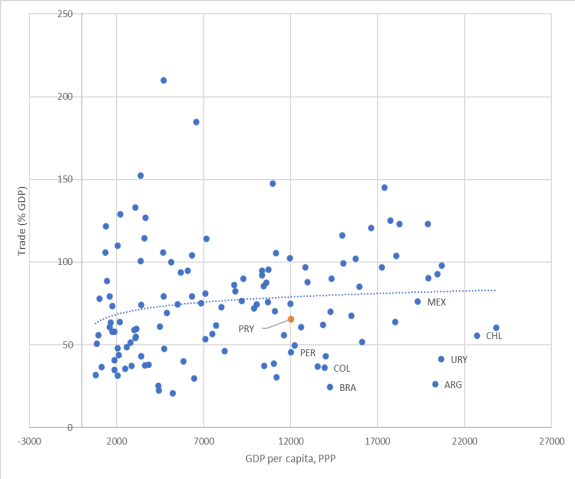
[10] The report does not estimate the size of illicit trade—an issue that will be studied in depth in a new World Bank study.

2. TRADE OUTCOMES

2.1 Recent Trade Developments

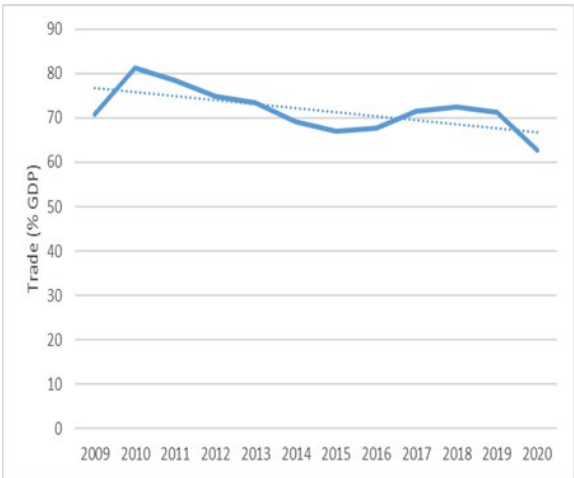
With a trade-to-GDP ratio of around 65 percent in 2016, Paraguay is less opened than would be expected from its income level (Figure 2.1), as predicted from a large cross-section of countries. Trade openness has hovered around 70 percent of GDP over the last decade, with a slight downward trend (Figure 2.2).

Figure 2.1. Trade to GDP and income per capita, 2016



Source: Staff estimates based on World Bank WDI.

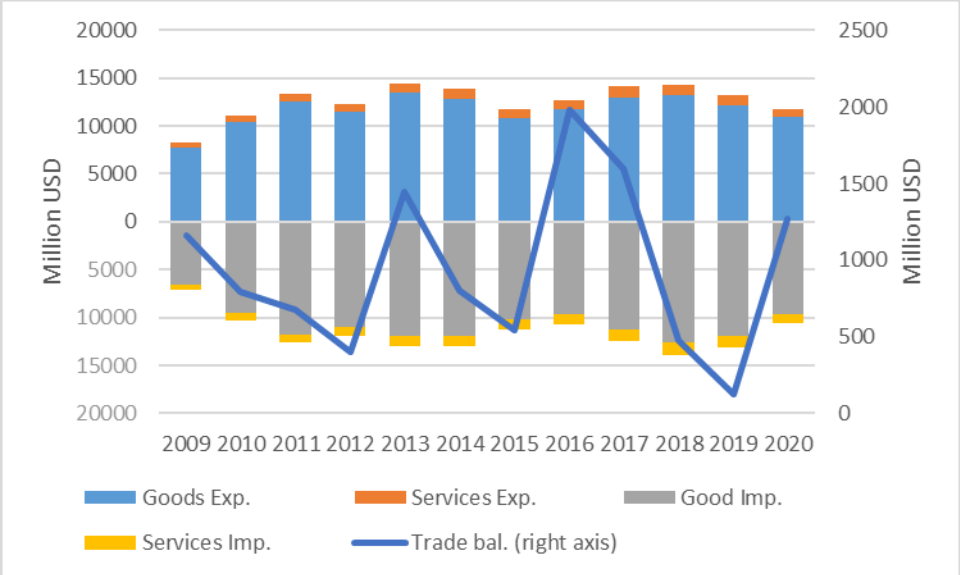
Figure 2.2. Trade to GDP in Paraguay, 2009–2020



Source: World Bank WDI.

Paraguay's net exports have fallen rapidly after 2016. This in part reflects that exports essentially plateaued between 2017 and 2018, and decreased for 2019. At the same time, imports rose in 2017 and 2018 and decreased at a slower pace than the fall in exports in 2019. From the peak trade balance of close to US$2 billion in 2016, the trade balance in 2019 had fallen to US$126 million (Figure 2.3). The trade balance increased substantially in 2020 as the fall in exports of goods and services was far smaller than that of imports of goods and services. The latter was driven by the contraction in domestic private consumption and disruptions in supply chains caused by the Covid-19 pandemic. By contrast, exports of goods rose slightly in 2020 reflecting the resilience of commodity exports as further discussed below, but the increase was too small to compensate for the sharp fall in services primarily caused by lower travel.

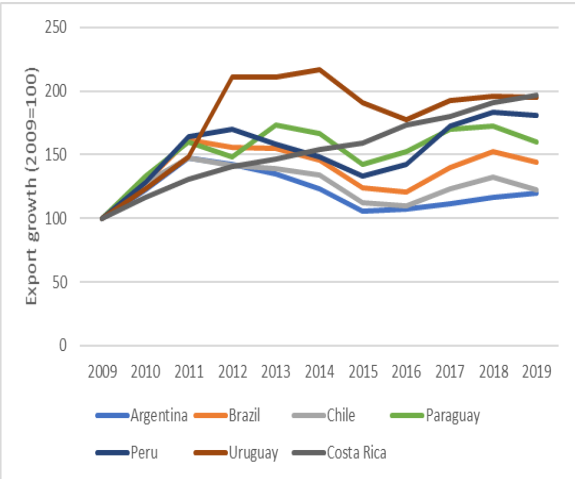
Figure 2.3. Total exports and imports and trade balance in Paraguay (2009–2020)



Source: IMF Balance of Payments Statistics.

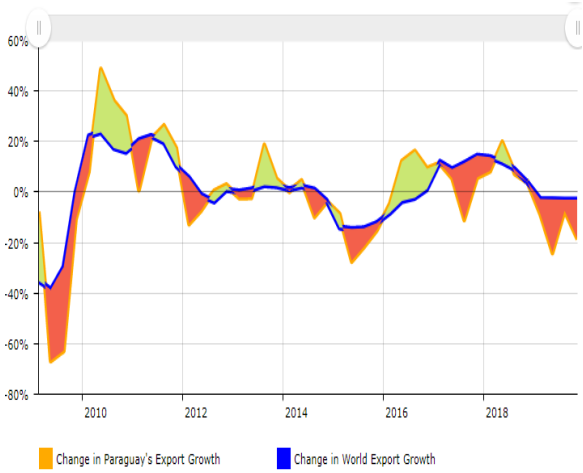
Export performance of Paraguay shows mixed results during the 2010s, relative to exports from regional peers; and its participation in the global economy has diminished in recent years. The growth of total exports for Paraguay fell in the middle of the regional comparators, for the period 2009–2019. Costa Rica, Uruguay, and Peru have experienced higher growth of exports than Paraguay (Figure 2.4). At the same time, exports from Paraguay have grown at a faster pace than exports from Argentina, Chile, and Brazil. Relative to the world, and especially since 2017, Paraguay has been losing global market shares, as its exports have expanded at a lower rate than global exports (Figure 2.5).

Figure 2.4. Export growth in Paraguay and comparators, 2009–2020



Source: World Bank WDI.

Figure 2,5. Export growth in Paraguay versus the world, 2009–2019

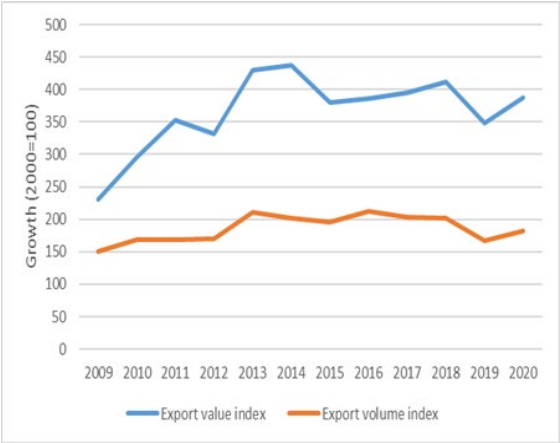


Source: World Bank Measuring Export Competitiveness.

A substantial part of Paraguay's recent export performance reflects the volatility of commodity prices. The index for export value shows a significantly less variable trend than for export quantities (Figure 2.6). While export volume has increased by 67 percent during the period 2000–2019, exports in value have grown by 248 percent over the same period. Many other regional peers are also exposed

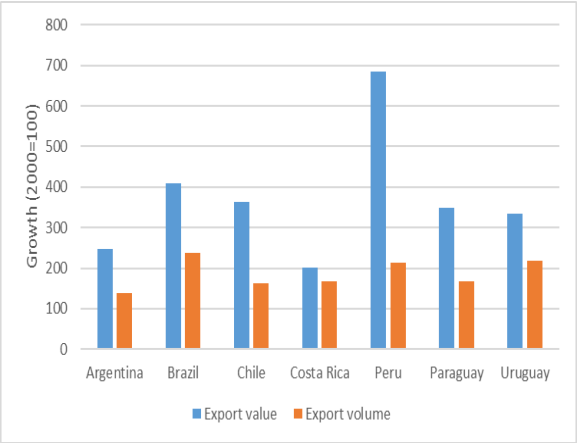
to export price volatility from commodity trade, with Peru being the most exposed during the past decade (Figure 2.7).

Figure 2.6. Export growth in Paraguay, 2009–2020



Source: World Bank WDI.

Figure 2.7. Cumulative growth of exports in Paraguay and peers, 2000–2019



Source: World Bank WDI.

Despite the Covid-19 pandemic, total goods exports in Paraguay grew by 1.1. percent in 2020 compared to a year earlier, reflecting the resilience of agricultural and livestock trade, the bulk of the export basket. By contrast, trade flows in other sectors showed heterogenous results. For food products, sectoral exports were 15 percent lower in 2020 reflecting lower exports of soybean oilcakes and of ethyl alcohol. The latter case reflects temporary measures put in place to restraint exports of sensitive medical products during the health crisis. Exports of most non-food manufacturing products also dropped, reflecting the fall in industrial production.

Table 2.1. Imports in Paraguay by sectors, 2009, 2019, and 2020

	2009			**2019**			**2020**	
	Million USD	%		Million USD	%		Million USD	%
01-05, Animal prod	28	0.4		94	0.8		95	0.9
06-15, Veg. prod	115	1.7		175	1.4		202	2.0
16-24, Food prod	442	6.4		777	6.4		666	6.5
25-26, Minerals	38	0.5		50	0.4		72	0.7
27, Fuels	1,008	14.5		1,636	13.4		1,264	12.4
28-38, Chemicals	862	12.4		1,852	15.2		1,666	16.3
39-40, Plastic, rubber	349	5.0		698	5.7		632	6.2
41-43, Hide and skins	19	0.3		39	0.3		21	0.2
44-49, Wood, paper prod	184	2.6		264	2.2		280	2.7
50-63, textiles and articles	209	3.0		379	3.1		340	3.3
64-67, Footwear, headgear	62	0.9		101	0.8		62	0.6
68-71, Sotone, ceramic, glass	81	1.2		158	1.3		139	1.4
72-83, Base metals	286	4.1		613	5.0		566	5.5
84-85, Machinery, elect equip	2,180	31.3		3,977	32.6		2,962	29.0
86-89, Vehicles and transport	596	8.6		1,107	9.1		876	8.6

90-99, Misc	502	7.2		269	2.2		375	3.7
Total	6961	100		12189	100		10218	100

Source: Staff estimates from Comtrade data.

Table 2.2 Imports in Paraguay by top source country, 2009, 2019, and 2020 (percent)

	2009			2019			2020
China	29.5		Brazil	21.6		China	29.5
Brazil	23.2		USA	19.3		Brazil	23.4
Argentina	12.3		Argentina	18.6		Argentina	9.3
EU	6.4		China	15.8		EU	8.1
Venezuela	5.2		EU	6.4		USA	6.8
Japan	4.9		Chile	3.4		Singapore	3.8
USA	4.9		Uruguay	2.7		Japan	2.3
Switzerland	3.8		Korea	1.4		India	2.3
Korea	1.7		India	1.3		Korea	1.5
Chile	1.4		Panama	1.2		Switzerland	1.4

Source: Staff estimates from Comtrade data.

In terms of imports, the country is a net importer of nonagricultural products, primarily machinery and electrical equipment. The imports of such goods account for about a third of imports in the country (Table 2.1). Other types of important imports relate to chemical products and fuels. Together machinery, chemicals, and fuels account for over 60 percent of imports. The fourth largest category relates to vehicles. Imports into Paraguay are highly concentrated from other MERCOSUR countries (primarily Brazil), accounting for about 44 percent of imports in 2019, the United States (19 percent), and China (16 percent). Together, these top suppliers accounted for close to 80 percent of imports in 2019 (Table 2.2). In 2020, imports dropped more than 19 percent as private consumption contracted and supply chains faced disruptions in the midst of the Covid-19 pandemic.

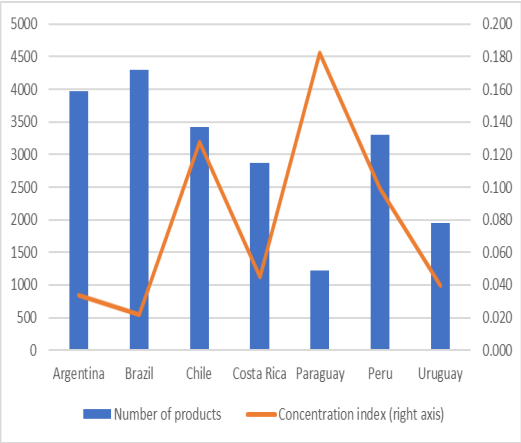
The remainder of this chapter analyzes export competitiveness along four complementary dimensions: export growth and market shares, product and market diversification, quality of exports, export firm survival, and integration in GVCs. The analysis primarily relies on the framework developed by Reis and Farole (2021) and draws from both product- and firm-level data that permit to evaluate Paraguay relative to peer countries, as well as to understand the micro-dynamics in place. While the main focus is on export outcomes, the also provides a brief picture on imports into Paraguay.

2.2 Export diversification

Export diversification, which is a key priority for Paraguay, has advanced during the past decade but at a gradual pace. Paraguay's export basket remains highly concentrated on soybeans and its products, beef, and electricity, which account for 68.6 percent of total exports in 2019 compared to more than 75 percent in 2009. The number of export products (nearly 1,500 by 2019) is the smallest relative to regional peers despite a small increase recorded during the last decade (Figures 2.8-2.9). Similarly, the composition of exports is also one of the most concentrated relative to peers when using the Herfindahl-Hirschman (HH) Index, only below that of Costa Rica (Figures 2.10a-b). The HHI index,

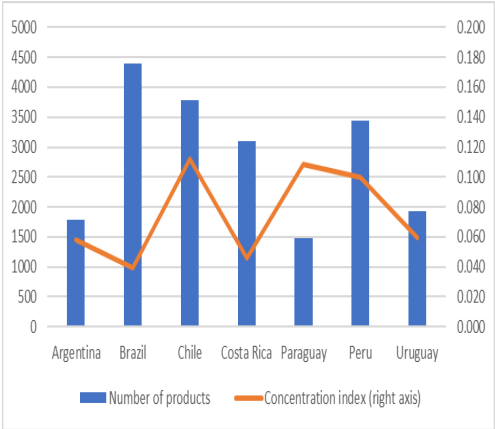
however, fell considerably from 0.18 in 2009 to 0.11 in 2019, primarily due to a sharp reduction in electricity exports. By contrast, exports of soybeans and soybean products and of beef products increased rapidly (more than 6 percent on average annually), reaching nearly half of total exports by 2019 (Table 2.3). The country remains among the [five] largest producers of soybeans and among the [ten largest exporters] of beef globally. Fertile soils and pastures and comparatively low costs have made agriculture and livestock key exports. Besides soybeans and beef products, the country also gained global market shares on corn and rice and a few non-manufacturing products such as electric wires and plastics.[11]

Figure 2.8. Exported products and concentration index for Paraguay and comparators, 2009



Source: Staff estimates from Comtrade data.

Figure 2.9. Exported products and concentration index for Paraguay and comparators, 2019



Source: Staff estimates from Comtrade data.

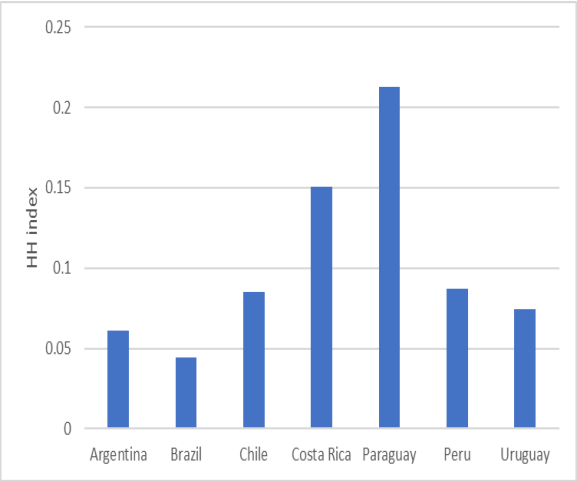
Table 2.3. Top Paraguayan exports by HS heading, by value, 2009 and 2019

		2009		2019		
	HS code	Value (US$ million)	Share (%)	Value (US$ million)	Share (%)	CAGR (%)
Soybeans	1201	781.8	15.4	1576.1	20.6	7.3
Electrical energy	2716	1919.1	37.8	1568.7	20.5	-2.0
Soybean oilcakes	2304	365.3	7.2	689.3	9.0	6.6
Bovine meat, fresh or chilled	0202	274.9	5.4	555.5	7.3	7.3
Bovine meat, frozen	0201	278.1	5.5	467.7	6.1	5.3
Corn	1005	233.8	4.6	399.8	5.2	5.5
Soybean oil	1507	204.1	4.0	388.7	5.1	6.7
Electric wires	8544	0.3	0.0	271.1	3.5	97.0
Rice	1006	48.4	1.0	226.7	3.0	16.7
Other oil seeds and oleaginous	1207	77.7	1.5	86.4	1.1	1.1
Wheat	1001	173.3	3.4	82.6	1.1	-7.2
Packing of goods, plastics	3923	36.2	0.7	80.2	1.1	8.3

Source: UN Comtrade

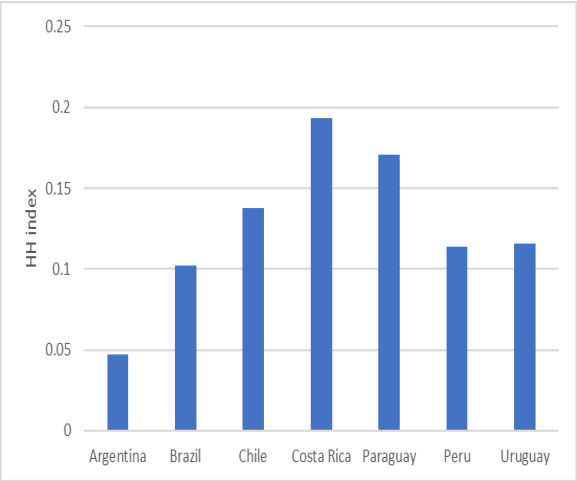
[11] This indicates market segments in which Paraguay is gaining market shares versus other exporters.

Figure 2.10.a. HH index of export market concentration by Paraguay and comparators (2009)



Source: Staff estimates from Comtrade data.

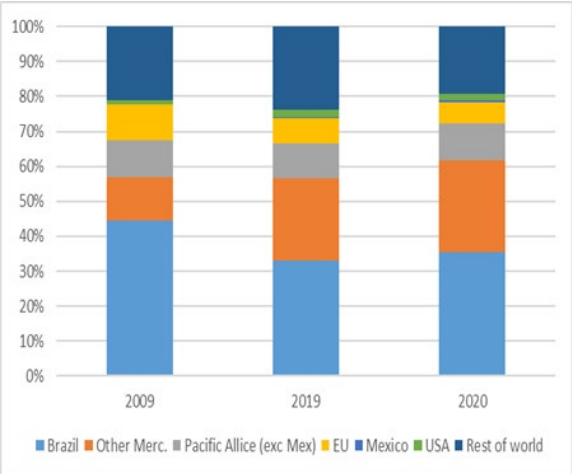
Figure 2.10.b. HH index of export market concentration by Paraguay and comparators (2019)



Source: Staff estimates from Comtrade data.

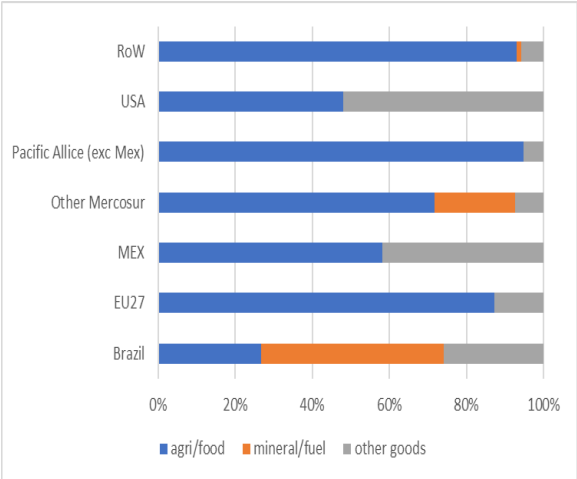
Paraguay's exports markets are also concentrated, with MERCOSUR and the Pacific alliance (excluding Mexico) accounting for more than 65 percent of total exports. Among regional peers, only Costa Rica and Mexico, with their strong orientation to regional value chains with the U.S. depict a higher export market concentration. Within MERCOSUR, a decline in the share of exports to Brazil, its main trading partner by far, has been offset by a rise in the shares to Argentina (22.8 percent in 2019) and Uruguay (1.5 percent in 2019), especially the former (Figure 2.11.a). Interestingly, the composition of exports to Brazil has become more diverse with about one fourth in non-food manufacturing (Figure 2.11.b). Paraguay has been gaining export market shares in a few less traditional markets such as Russia, Israel, India and the United States (US), with nearly 17 percent of total exports by 2019 (Figure 2.11.a).[12] By contrast to most markets, more than half of exports to the U.S. are non-agribusiness based.[13] The share of exports to the EU declined in recent years, but its composition became slightly more varied as discussed below and in Chapter 3.

Figure 2.11.a Export share of Paraguay by destination, 2009, 2019, and 2020



Source: Staff estimates from Comtrade data.

Figure 2.11.b Paraguay's export composition by broad sectors and destinations, 2019

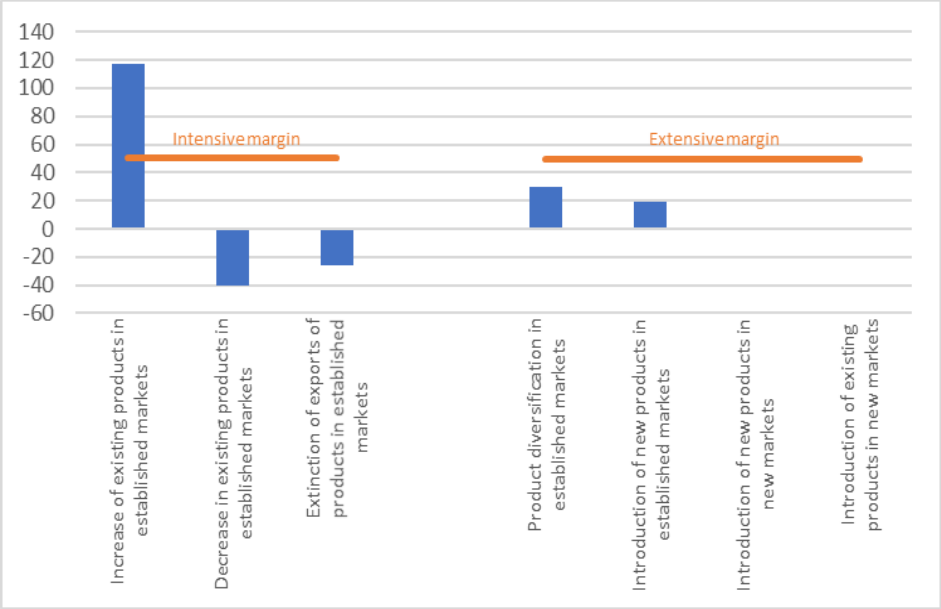


Source: Staff estimates from Comtrade data.

[12] Exports to Russia and Israel are primarily beef, and those to India essential oils and some scrap and waste metals.
[13] Important products are leather products, ignition wiring sets for vehicles, wood, and iron metals.

In general, Paraguay's export performance growth is primarily in the intensive margin with the extensive margin playing a far smaller role. That is, most of the growth in the last decade can be attributed to exporting more of the same products to the same established destinations (Figure 2.12). While this is not uncommon across years for many countries, some countries experience growth in the extensive margin by innovating through new products (e.g., via research and development or technology adoption), or breaking ground with a traditional export in a new market, e.g., (via a new preferential trade agreement), or a combination of both. To a smaller extent, Paraguay's export growth is related to the extensive margin, in particular product diversification and introduction of new products in established markets. The latter likely reflects the new maquila operations in Paraguay to serve an established market, i.e., Brazil.[14] During the last seven years, the maquila program has expanded substantially, increasing the number of maquila firms from 46 to 226, especially in the apparel and auto part sectors. About 80 percent of sales are targeted at Brazil, but more recently, maquila exports have reached other destinations, such as Chile for pet food, pharmaceutical products, and aluminum cans.

Figure 2.12. Export growth decomposition for Paraguay along margins of trade (2009–2019)



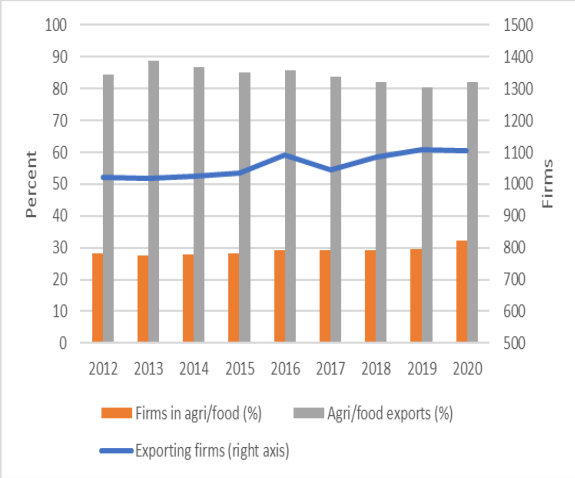
Source: Staff estimates from Comtrade data.

The firm-level experience

The country has a remarkably low number of exporting firms. For the period 2012–2020, the number of exporting firms has fluctuated between 1,000 to 1,100 per year, the lowest among peer countries (Figures 2.13 and 2.14).[15] When adjusted by population size, Paraguay's export density is only comparable to Brazil, a country with a much larger population, and almost 10 percent and 20 percent of the levels found in Costa Rica and Uruguay, respectively (Figure 2.14). While the majority of exporting firms in Paraguay are in the manufacturing sector (more than 65 percent of all exporting firms), they are relatively small and export relatively little (less than 20 percent of total exports) (Figure 2.13).

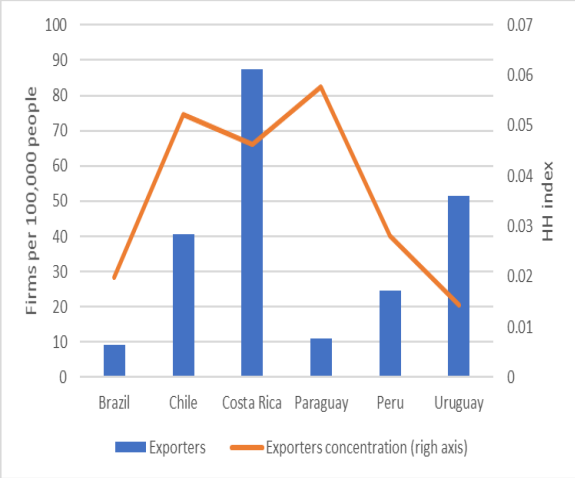
[14] The Maquila Law 60/90 offers import tariff and tax exemptions for firms qualifying under the Maquila program.
[15] This excludes export transactions below US$200 as not commercially meaningful.

Figure 2.13. Number of exporting firms and share of firms and exports in agribusiness, 2012–2020



Source: Staff estimates based on firm-level export data from *Dirección Nacional de Aduanas.*

Figure 2.14. Low number of exporting firms and high concentration in Paraguay relative to peers, 2012



Source: World Bank Exporter Dynamics Database and WDI.

Nearly 50 percent of firms export just one product. However, about a fourth of exporters in the non-agribusiness sector are able to show substantial diversification of products (i.e., more than four products) compared to about [17] percent for the agricultural and food sector. In terms of destinations, agricultural and food firms tend to reach a larger number of markets. More than 60 percent of non-agribusiness manufacturing firms export to just one destination, mainly Brazil.

2.3 Limited participation in Global Value Chains

Consistent with a pattern of limited FDI flows, growth in Paraguay's GVC participation has stalled, and is lagging comparator countries. Figures 2.15 and 2.16 show the evolution of two important measures of GVC participation for Paraguay. Figure 2.15 shows indirect value added (DVX), the value of exports from Paraguay that are used as inputs elsewhere and then exported onwards as final goods. After rising steadily to a peak of around US$1.2 billion in 2011, the value of such exports has remained largely flat in nominal terms and fallen from around six percent of GDP in 2005 to 3.1 percent in 2018. Figure 2.16 shows foreign value added (FVA), the value of imports to Paraguay that are used as inputs in the production of goods that are subsequently exported from Paraguay to other countries. Paraguay's FVA has followed a similar trajectory to DVX, albeit at lower levels, peaking at 2.8 percent of GDP in 2006 and declining to 1.7 percent in 2018.

Figure 2.15: Paraguay's Indirect Value Added in Exports (DVC) (1990-2018)

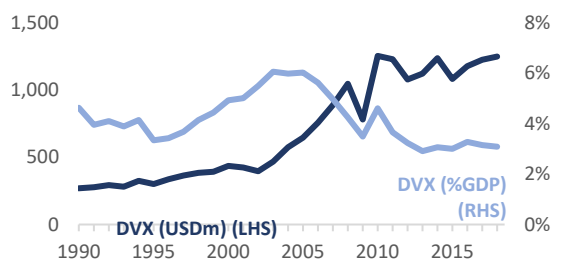
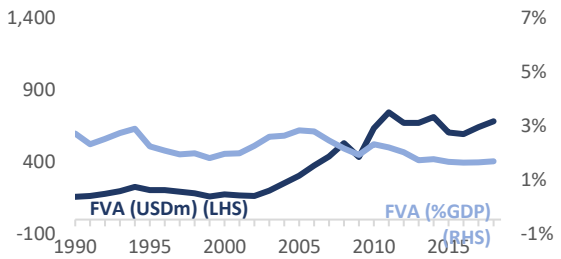


Figure 2.16: Paraguay's Foreign Value Added in Exports (FVA) (1990-2018)



Source: UNCTAD-EORA Database and World Bank WDI. Note: DVX (indirect value added) is the share of exports that are not consumed in the importing country but are instead reexported by that country to a third country as part of a good or service. FVA (foreign value added) is the share of foreign inputs used in the production of goods and services for export.

Paraguay's GVC participation also lags comparable countries. Paraguay's GVC intensity (the sum of DVX and FVA) peaked at 38.1 percent of exports in 2005 and had fallen to 29 percent by 2018, well below Colombia (34.9 percent), Costa Rica (36.6 percent), Brazil (40.3 percent), Peru (44.3 percent) and Chile (53.6 percent). Paraguay's GVC intensity was below most countries at similar income levels (Figure 2.18).

Figure 2.17: GVC Intensity: Paraguay vs Comparators (1990-2018)

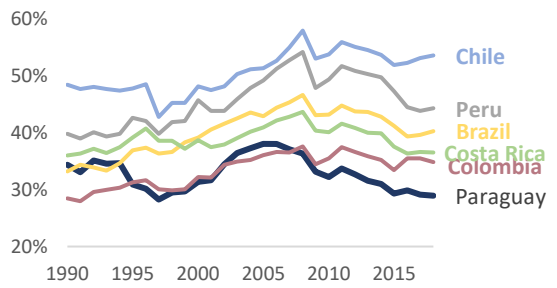
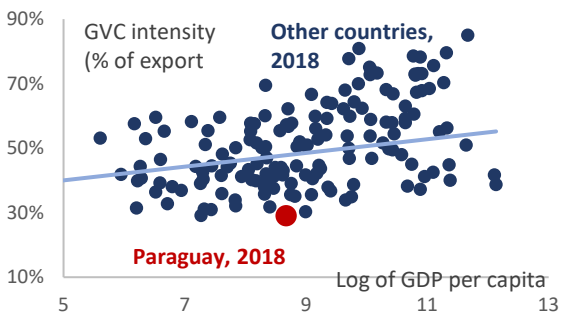


Figure 2.18: GVC Intensity: Paraguay vs World (2018)

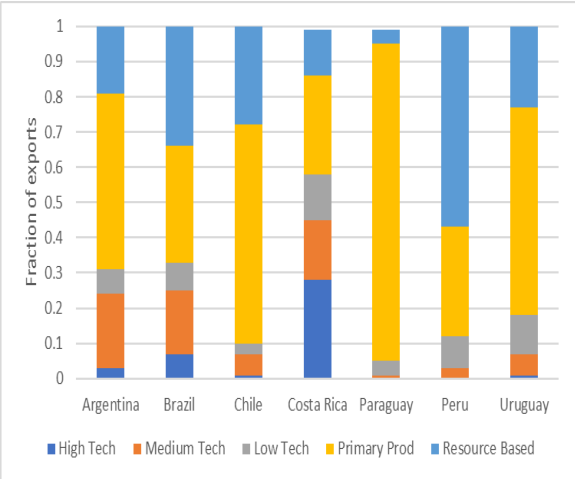


Source: UNCTAD-EORA Database and World Bank WDI. Note: GVC (global value chain) intensity is the sum of DVX and FVA, as a share of total value added of exports.

2.4 Export sophistication and upgrading

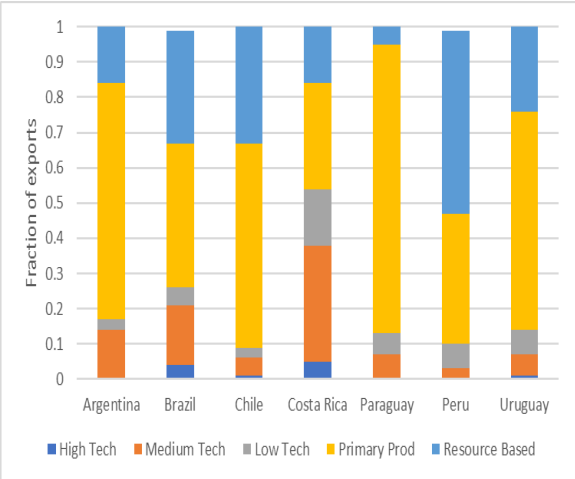
Paraguayan top exports have relatively low value-added, a condition that has improved slightly over the last decade. Primary and resource-based exports were 82 percent of exports in 2019 compared to 95 percent a decade earlier (Figures 2.19-2.20). Using the Lall classification, exports of goods with low- and medium-level of technology rose to 13 percent of exports by 2019. This includes electric wires for vehicle production, which are among the top 10 export products and are closely linked to the maquila production (Table 2.3). The higher level of exports with low to medium levels of technology puts Paraguay more in par with peers such as Uruguay, Chile, and Peru.

Figure 2.19. Exports of Paraguay and peers by level of technology, 2009



Source: Staff estimates based on UN Comtrade and classification by Lall (2000).

Figure 2.20. Exports of Paraguay and peers by level of technology, 2019



Source: Staff estimates based on UN Comtrade and classification by Lall (2000).

Exports of services from Paraguay are small and mostly focused on traditional services.[16] In 2019, traditional export services represented 80 percent of total export services compared to 4 percent for modern services such as financial, telecommunications and business services (Table 2.4). Goods-related services have increased rapidly over time, possibly connected to services in special economic zones.[17] Transport export services are also high. Travel (related to tourism) has also seen a small increase in value during the last decade. Paraguay, however, has not seen growth in modern business services in contrast to the rapidly expanding global, and to a large degree, neighboring trends (e.g., Argentina and Uruguay). Inadequate skills and slow internet connectivity have constrained the growth of the Business Processing Outsourcing (BPO) sector as reported by the private sector. In 2020, Paraguay's services registered dropped by nearly 27 percent, primarily due to the drastic contraction in travel in the context of the Covid-19 pandemic.

[16] Import of services are also relatively limited.

[17] These include processing, assembly, labeling, and packing and so forth by firms not in ownership of the good in concern, and of maintenance and repair services of transport equipment not domestically owned.

Table 2.4. Paraguay's export of services and revealed comparative advantage (2009, 2019, and 2020)

	2009				2019				2020		
	Value (USD million)	Share (%)	RCA index		Value (USD million)	Share (%)	RCA index		Value (USD million)	Share (%)	RCA index
Commercial services											
Traditional services											
Goods-related	26	5.9	1.3		231	23.9	5.2		211	32.2	6.1
Transport	163	36.8	1.4		310	32.1	1.6		317	48.3	2.3
Travel	205	46.3	1.4		379	39.2	1.4		81	12.3	0.9
Modern services											
Financial/insurance services	27	6.1	0.4		29	3.0	0.2		29	4.4	0.2
Telecom	19	4.3	0.4		15	1.6	0.1		15	2.3	0.1
Other business services	3	0.7	0.0		3	0.3	0.0		3	0.5	0.0
Other	163	26.9			188	16.3			190	22.5	
Total	606	100			1155	100			846	100	

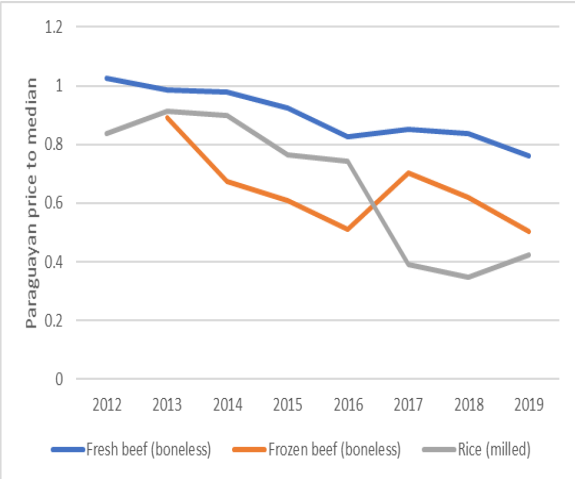
Source: Staff elaborations from UNCTAD data.

The relative quality of some important agricultural exports from Paraguay seems to have declined over time, and a similar pattern is observed for certain manufacturing products. For example, a comparison of the unit export prices of three agricultural products (rice mill, and fresh and frozen beef) exported from Paraguay to Chile shows that in all cases the prices paid for Paraguayan products are below the median price of all exporters and have been declining over time (Figure 2.21).[18,19] The prices of fresh and frozen beef from Paraguay to Chile fell to about 80 percent and 50 percent of the median export price, respectively. Exports from Germany, the US and Uruguay received the highest prices for frozen beef in 2019. Milled rice exports from Paraguay to Chile fell even more to about 40 percent of the median export price with Korea, the Netherlands and Ethiopia obtaining the highest prices in 2019. Similarly, certain manufacturing goods also seem to be declining in relative quality**.** Ignition wiring sets exported from Paraguay to the US attract prices that are significantly below the median price, and prices have also been declining over time (Figure 2.22). Mauritius, the Netherlands and Ireland show substantially higher prices for this type of goods.

[18] For narrowly defined goods with scope for product differentiation due to variations in quality, unit export prices can be used as a proxy for quality.

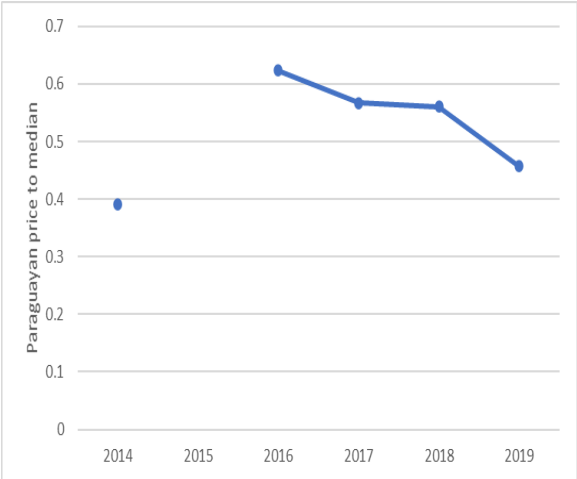
[19] The products compared include fresh bovine beef, frozen bovine beef and milled rice under subheadings 0201.30, 0202.30, and 1006.30, respectively. While these are narrow categories, they can still include a variety of subcategories that can affect the interpretation of the comparison, if countries specialize in substantially different subcategories.

Figure 2.21. Relative prices of Paraguayan agricultural exports to Chile (2012–2019)



Source: Staff estimates from CEPII Trade Unit Value database.

Figure 2.22. Relative price of Paraguayan exports of ignition wiring sets to the US (2014–2019)



Source: Staff estimates from CEPII Trade Unit Value database.

Improving the quality of products and creating a system to easily demonstrate compliance with technical regulations can increase access to markets and generate more revenue for exporters. In particular, sanitary and phytosanitary standards (SPS) and sustainability tracing can have important implications on food and agricultural trade, in which Paraguay has a comparative advantage. This is critical in the context of reaching new markets and differentiating products such as premium organic or climate-efficient products. Changes in food markets are coming from the demand side in high- and middle-income countries, as well as from regulatory changes such as the General Food Law in the EU, which limits the amount of waste obtained throughout the production chain, and new carbon taxes. Box 2.1 presents opportunities and challenges related to quality certifications for important food and agricultural exports of Paraguay (i.e., beef, organic sugar, and chia).

Paraguay's national quality infrastructure can be further strengthened in support of its competitiveness and consumer protection. Law No. 1,028/1997 on "General Science and Technology" and Decree 8419/2018 on "Quality Systems and the National Quality Policy" have established the broad legal, regulatory and institutional framework for Paraguay's quality system.[20] In particular, the National Accreditation Body (ONA) is responsible for managing the National Accreditation System and for establishing the mechanisms for accreditation, validation and control of both the certifying entities and the minimum certifications required for export. International markets demand additional certifications, depending on the type of product and consumer preferences. A recent benchmarking of national quality infrastructures in the Americas considers Paraguay to be of medium maturity, with gaps related to lack of full membership to the ISO (an international standard body) and BIPM and OIML (international metrology organizations), no involvement in ISO Technical Committees, and no membership in the International Accreditation Forum (UNIDO, 2017).

[20] Law No. 1,028/1997 on "General science and technology" established *inter alia* the National System of Science, Technology and Innovation (SNCTI), the National Quality System (SNC), and the National Council of Science and Technology (CONACYT). Complementing the law, Decree 9419/2018 on the Quality Systems and the National Quality Policy was produced to improve "Paraguay's economic competitiveness and facilitate commercial, industrial and service activities."

Box 2.1. Quality validation as an important competitiveness factor: beef, organic sugar, and chia

Beef sector. Quality is a critical factor in the commercialization of beef. Quality factors include the age, breed and sex of the animal, its feeding, fattening, and breeding process, sustainability and traceability matters, sanitation, and type of slaughter and subsequent processing. SENACSA is responsible for certifying the quality of meat production in Paraguay. FUNDASSA (the Animal Health Service Foundation) was established as a private initiative to collaborate with SENACSA and implement initiatives on animal health, and its weight has been growing over time. In addition, private companies offer other types of certifications demanded by different markets, such as livestock class, carcass category, nomenclature of cuts, traceability, organic meat, as well as certificates of Halal or Kosher. These firms are registered on CONACYT's platform.

SPS conditions can have a very important effect on the country's product branding and its international prices. Paraguay currently has the certification of "Country Free of FMD", via regular vaccination and strengthened control systems. The discussion today focuses on the costs and benefits of regular FMD vaccination versus the gradual lifting of this preventive measure and the associated risks. Certain regions of competing countries already have certifications of "FMD free without vaccination", which impacts the competitiveness of Paraguayan beef. Part of the risks of "FMD free without vaccinations" are infiltrations in border areas of FMD, as well as brucellosis. The production of sustainable meat as a differentiating factor in global markets is another opportunity and challenge for the industry. Another challenge is the strengthening of public bodies to execute health programs with more consistent testing, guaranteeing excellence in animal health and the prevention of outbreaks. Investments in technology to ensure quality and traceability are also needed.

Organic sugar. To compete in international markets, Paraguayan exporters of conventional and organic sugar have implemented multiple certifications such as the Food Safety System Certification 22000, locally managed through the SGS Paraguay Certification Company and recognized by the Global Food Safety Initiative.

The market for organic sugar is growing, presenting unique opportunities but also challenges in terms of certifications. In particular, for the US market, Paraguay has an annual quota established by the US Department of Agriculture (USDA) with a minimum of 1,117,195 metric tons. The Certificate for Quota Eligibility is issued by the USDA through recognized private agents with fees varying widely among agents. USDA offers an organic certification cost-sharing program that allows eligible operations to reimburse up to 75 percent of certification costs. The condition for labeling the product as "organic" and using the USDA certifying agent or organic seal is the maintenance of the lands free of prohibited substances during the three years prior to certification. The producer also needs (i) to register with all government entities required by the Paraguayan government, with some registrations and export certificates taking 45 days; (ii) to comply with the polarization of 99.5 percent in all the tons shipped; and (ii) to present the Certificate for Quota Eligibility at the time of export. For the Taiwanese market, Paraguay has negotiated a quota for 60,000 tons of organic sugar free of tariffs, equivalent to about US$36 million depending on market price. However, the certifications needed in the Taiwanese market are still costly and procedures slow down shipping.

Another key challenge of the sector is the homologation of norms and quality standards required between countries to reduce costs and avoid duplication of certifications. To achieve this, a strengthening of Paraguay's quality standards will be necessary in addition to diplomatic efforts.

Chia. Following improvements in the quality and safety of chia produced in Paraguay, importers have reduced controls for the presence of aflatoxins. For example, Japan will stop inspecting all chia cargoes from Paraguay and only apply controls to 30 percent of them, greatly facilitating trade.

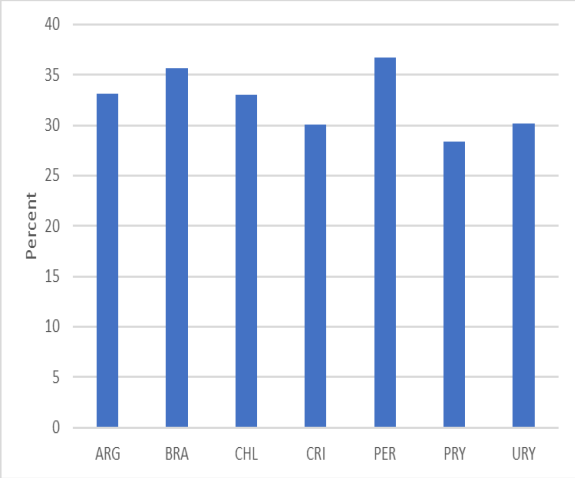
Chia certifications vary according to the type of chia (conventional or organic) and market. In the case of conventional chia, the "British Retail Consortium" certification is frequently used with costs ranging between US$5,300 and US$7,500 per year. It is relatively complete allowing for the certification of other standards such as HACCP. Local consulting companies allow these certifications to be carried out simultaneously. For organic chia, certifications depend on the market, for example, the National Organic Program, the Organic JAS and the Kosher program are used for the US, Japan and Israel, respectively.

Authors' elaboration

2.5 Export survival

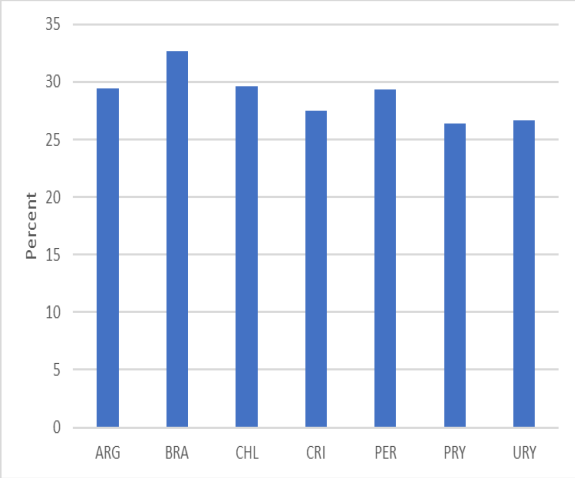
Overall, the survival of export relationships is low in Paraguay; and less than half of new exporters continue to export beyond their first year. In the period 2009–2012, Paraguay showed the lowest survival of export relationships rates among regional peers, a trend that continued in the period 2014–2017 (Figures 2.23-2.24). Only Uruguay showed similarly low survival rates during the second period. For Paraguay, less than half of exporting firms tend to survive as exporters after their first year and less than 30 percent survive after five years (Table 2.5). Survival rates for non-agribusiness firms seem even lower (less than 25 percent in the medium term), which raises concerns in the context of product diversification (Table 2.6).[21] Export support programs targeted by years of exporting activity can miss a good number of potential new exporters.

Figure 2.23. Three-year survival of export relationships for Paraguay and peers (2009–2012)



Source: Staff estimates from Comtrade data.

Figure 2.24. Three-year survival of export relationships for Paraguay and peers (2014–2017)



Source: Staff estimates from Comtrade data.

Table 2.5. Entry and survival of exporters in Paraguay, all firms (2013–2020)

	Entering year							
	2013	2014	2015	2016	2017	2018	2019	2020
2013	304							
2014	140	256						
2015	110	123	258					
2016	92	93	136	271				
2017	81	73	103	124	229			
2018	63	73	86	97	112	234		
2019	61	63	83	90	93	107	232	
2020	50	52	73	84	74	77	109	229

Table 2.6. Entry and survival of manufacturing exporters (excluding agribusiness) in Paraguay, (2013–2020)

	Entering year							
	2013	2014	2015	2016	2017	2018	2019	2020
2013	271							
2014	119	219						
2015	90	97	223					
2016	81	81	110	214				
2017	67	56	77	89	196			
2018	52	54	61	67	89	204		
2019	55	53	60	60	73	90	185	
2020	42	37	51	57	53	64	72	192

[21] For example, one-year survival rates for manufacturing firms (excluding agribusiness) entering in 2013, 2016 and 2019 were 44, 42 and 39 percent, respectively.

Source: Staff estimates based on firm-level export data from Dirección Nacional de Aduanas.

Source: Staff estimates based on firm-level export data from Dirección Nacional de Aduanas.

Export strength at entry can signal potential success in foreign markets. Firms that entered foreign markets with low export sales were far less likely to survive after two years than those with higher export sales. In particular, new exporting firms in the lowest and highest quintiles of export sales had on average a 25 percent and 75 percent survival rate after two years, respectively. The trend was similar for both agribusiness and non-agribusiness firms.

3. OVERCOMING NUMEROUS TRADE FRICTIONS[22]

Despite Paraguay's aspirations on export diversification, the trading community continues to face a number of trade frictions that can result in an 'anti-export' bias. As a landlocked country, Paraguay faces additional trade costs. Hence, the importance of strengthening its key connectivity infrastructure and putting a place a robust trade policy and facilitation framework that compensates for these additional hurdles and supports the country's global and regional integration and its prospects for export diversification away from a limited number of primary agricultural products.[23] Along with trade policy, trade facilitation is a critical engine for firms' internationalization. Countries where inputs can be imported and exported in a quick manner have become attractive locations for efficiency-seeking FDI. SMEs internalization is also influenced by trade costs, which can have a disproportionately large effect on their operations considering their relative low volume and value exported.[24] Evidence suggests that each day lost (e.g., in trade processes) is equivalent to applying an *ad-valorem* tariff rate of 2.5 percent to the merchandise value. Contracts with buyers can be broken if critical inputs are not received on time, especially damaging the reputation of new exporters.

Reducing unnecessary costs related to trade is essential for improving the participation of SMEs in export markets and increasing the low export survival of new Paraguayan exporters. However, the current tariff regime and non-tariff measures, delays in the return of value added taxes to exporters, and other weaknesses in trade facilitation processes impose costs on traders that diminish their competitiveness. This chapter examines how Paraguay's trade policies and trade facilitation measures are impacting its export competitiveness and provides actionable recommendations for strengthening policies.

3.1 High Tariffs Compounded by Costly Non-tariff Measures

Since joining MERCOSUR, Paraguay's trade policy has been largely determined by common policies adopted at the regional level.[25] Paraguay maintains a common external tariff (CET) for imports from outside MERCOSUR that is relatively high compared to the average LAC tariff. The simple CET average is about 14 percent, but member countries have been granted a limited number of national exceptions as well as exceptions related to capital goods and information and technology goods. Considering these exceptions, Paraguay's simple average tariff was 9.6 percent in 2019, lower than the rates of Argentina, Brazil and Uruguay at 13.4, 13.3 and 10.3 percent, respectively.[26] However, Paraguay's rate

[22] This section is based on two technical notes: (i) Paraguay's trade policy and the impact of the MERCOSUR-EU agreement prepared by Jose Signoret and (ii) trade facilitation in Paraguay prepared by Ernani Checcucci and Mariana Vijil.

[23] See WB Infrasap powerpoint presentation (2021) for a discussion on key challenges and opportunities for strengthening the transport infrastructure.

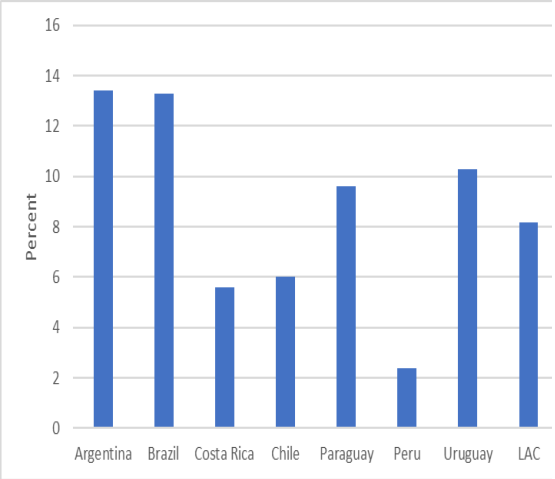
[24] OECD, Why trade facilitation matters in today´s global economy? Available: https://www.oecd.org/trade/topics/trade-facilitation/#:~:text=Trade%20facilitation%20benefits%20businesses%20and,global%20value%20chains%20(GVCs).

[25] Mercosur was created in 1991 by the Treaty of Asunción, which was signed by the heads of state of Argentina, Brazil, Paraguay, and Uruguay.

[26] Brazil and Argentina are allowed a list of national exceptions of 100 tariff lines each, while Uruguay and Paraguay can set tariffs differently for 225 and 649 tariff lines, respectively. More recently, exceptions have been granted for goods categorized under the BIT and BK designations in the Mercosur nomenclature. The BIT group amounts to about 400 tariff

is still higher than the LAC average and peer countries outside MERCOSUR (Figure 3.1). For example, Chile and Peru (members of the Pacific Alliance along with Mexico and Colombia) maintain much lower import tariffs at 6 percent and 2.4 percent, respectively, with the simple average tariff for the Pacific Alliance at 5.3 percent--nearly half of Paraguay's rate.

Figure 3.1. Average MFN tariff in Paraguay and peer countries (2019)



Source: WTO/ITC/UNCTAD, World Tariff Profiles, 2021.

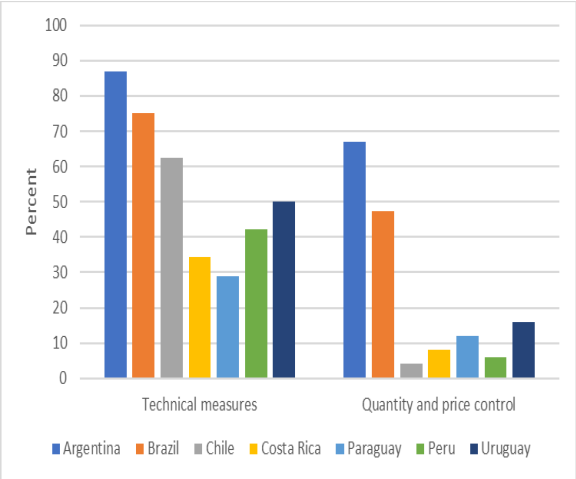
Table 3.1. Average MFN tariff in Paraguay by sector (2019)

	Average tariff	*% product with t>10%*
01-05, Animal prod	9.2	6.7
06-15, Veg. prod	8.5	4.5
16-24, Food prod	14.9	86.0
25-26, Minerals	3.5	0.0
27, Fuels	0.3	2.3
28-38, Chemicals	6.7	25.7
39-40, Plastic, rubber	11.2	56.5
41-43, Hide and skins	11.9	34.8
44-49, Wood, paper prod	9.2	46.9
50-63, textiles and articles	17.2	91.7
64-67, Footwear, headgear	17.7	83.0
68-71, Sotone, ceramic, glass	9.9	36.7
72-83, Base metals	11.6	65.4
84-85, Machinery, elect equip	3.9	12.5
86-89, Vehicles and transport	6.9	28.7
90-99, Misc	11.6	54.9

Source: Staff estimates from TRAINS data.

In addition, tariff rates in Paraguay are in the double digits for many sectors of the economy. The average MFN tariff is in double digits in 7 out of 16 broad sectors of the tariff schedule, with the highest average rates in the footwear, textile and apparel sectors at more than 17 percent (Table 3.1). Moreover, the share of products with double-digit tariffs in these sectors is at or above 83 percent. The food sector also faces high tariffs at an average close to 15 percent. Average protection is generally higher for consumer goods (14 percent) compared to intermediate products (9.4 percent), although certain sectors with relatively high tariffs such as textiles have a significant share of intermediates products.[27]

Figure 3.2. Percent of products subject to NTMs by type of NTM and peer country (2018)



Source: Staff estimates based on TRAINS-NTM data.

Negotiations to revise the CET are underway among MERCOSUR members. Reportedly, country proposals differ in the possible scope of this liberalization. An average reduction in the CET of about 50 percent would bring the average tariff closer to that of regional peers and generate less pressure on deviations

lines that are part of HS chapters 84 and 85 for machinery, appliances, and equipment and of HS chapter 90 for instruments and apparatus. The BK group account for 936 tariff lines, for which those not produced domestically are allowed a lower tariff than the CET at 2 percent. (See WTO, 2020)

[27] 63 percent of the products in the textile sector are intermediates with a high average tariff rate of about 16 percent.

from the common tariff regime. Meanwhile, regional peers such a Costa Rica, Chile and Peru have maintained lower tariffs, and even reduced them unilaterally in the last decade as in the case of Peru.

In addition to tariffs, a number of non-tariff measures (NTMs) adds to trade costs in Paraguay. Based on UNCTAD's data, close to 30 percent of product categories (at the HS 6-digit level) are subject to technical standards for imports (whether SPS or TBT measures). This is the lowest frequency ratio in comparison with peers (Figure 3.2). This most likely reflects that some technical measures are possibly used in excess in Argentina and Brazil, and the fact that the prevalence of these technical standards tends to rise with the country's income level, reflecting the more elaborate regulatory systems at higher income levels. While technical regulations may impact trade flows, their stated intent is often environmental or consumer protection. On the other hand, NTMs such as quantity and price controls could interfere with the market pattern of trade more directly. These types of NTMs are typically more common for developing countries. In terms of this type of NTMs, Paraguay shows a frequency ratio below other MERCOSUR countries, at about 12 percent of products, but above more open economies in the region such as Chile, Costa Rica, and Peru (Figure 3.2). Moreover, this type of measures has been increasing during the past decade in Paraguay.

Traders in Paraguay expressed concerns on NTMs related to quantity and price controls, including requirements for non-automatic import licenses and other para-tariff charges. During the last decade, Paraguay has increased the use of prior to import licenses, with serious shortcomings in their administration generating additional barriers to trade (Box 3.1). Three ministries and at least five public agencies had 26 requirements for prior to import licenses (17 automatic and nine non-automatic) for certain products in 2011, with requirements rising to 38 (including 22 automatic, 8 non-automatic, 3 are both, and five with no information available) by 2017 (Annex 1). Many of the non-automatic licenses issued by the MIC tend to fall in products protected by tariff measures. Trade licenses tend to be specific to each trade transaction, requiring a new license each time the firm imports. Many prior to import licenses are not issued automatically, even for frequent operators with good track records, causing delays and demanding more documentary inspections than could be necessary. In some cases, the procedure for obtaining a prior to import license at the MIC takes around 10 days, but it may take up to one month for products that require a health, sanitary or other type of certificate.[28] Once issued, the license is valid for 30 days. The MIC also manages different regulations regarding the issuance of "services visas" and "origin certificates". Many of the institutions requiring prior to import licenses have not fully automated procedures contributing to the delays and diminishing the transparency of processes.

[28] Examples of trade licenses administrated by MCI include the resolution No. 251/2002 that created the registry of sugar importers and introduced the prior to import license, while Decree No. 631/2008 listed the requirements to receive such license; and decree No. 897/2008 that created de registry of exporters and importers of steel products and introduced the related prior to export license.

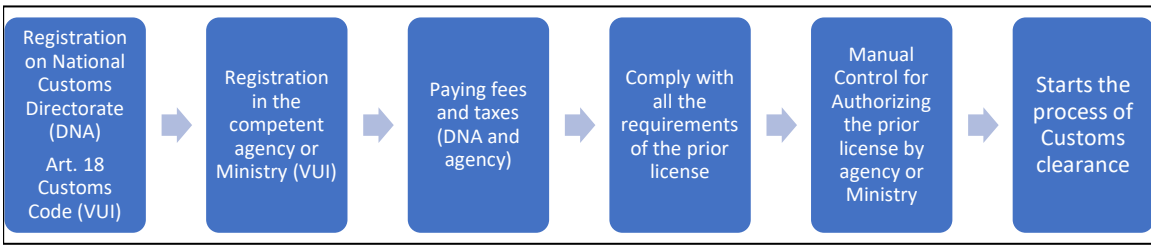
Box 3.1. Process to obtain a prior to import license

During the last decade, requirements for prior to import licenses have become more prevalent in Paraguay rising from 26 in 2011 to 38 in 2017. These are typically administered in ways that constitute a restriction to trade. A firm can apply for a trade license only after complying with all the requirements established in the relevant decrees (e.g., a registration with the relevant Ministry or agency) and paying the corresponding fees, and the import or export process can only start after the license is approved (see figure below). Licenses are generally specific to a transaction, and a new one is needed each time the enterprise imports. Most of the related import registries (*inter alia* those for 19 prior to import licenses under the MIC and one under DINAPI, and some under SENACSA) require an annual renewal. Others permit a longer period. The INAN requires two import licenses for food and for the non-marketable food products, one with an annual registration and the other with three years. The Ministry of Agriculture (MAG) requires a license to import agricultural products, with a registry duration of five years, and SENAVE requests licenses for three types of products with 5-year registries. The Ministry of Public Health and Social Wellbeing (MSPBS) requests licenses for four products with a 5-year registry. SENACSA requests licenses for five products with registries that last one, five and 10 years (Annex 1).

In a few cases, there is an overlap with prior to import licenses required by different institutions for the same product to achieve similar public policy objectives (e.g., non- marketable food products by INAN and MAG, and hygiene, toiletry and beauty products and household sanitary products by MIC and SEAM). However, multipurpose import licenses are not available. Many prior to import licenses are not granted automatically, even when operators have shown positive track records. For the most part, inspections focus on firms that import on a regular basis, from which fees can be collected, without regard to their historical compliance records instead of selecting high risk producers.

The complexity and delays caused by licensing procedures are costly to the private sector. It took 24 days on average for firms in Paraguay to obtain an import license in 2017, relative to 19 days on average in LAC and upper-middle income countries (WB Enterprise Surveys). Insufficient automation of processes contributes to delays. Licenses are legally valid for 30 days with a possible extension in certain cases.

Process to obtain a prior to import license



Source: Authors' elaboration

Para-tariff measures include surcharges for issuance of licenses and fees related to consulate certificates, with no *de minimis* threshold, which can affect export diversification. These trade surcharges and fees are required for each trade operation regardless of the imported value and for every document related to the trade operation, which can include the invoice, bill of landing, packing list, and certificate of origin.[29] The process can also be very cumbersome in countries with no consulate services. Imported products from Argentina must comply with an additional procedure to obtain the certification. Consulate requirements were censured by GATT (Article VIII 4.a), and most countries

[29] If there is a variation in the weight of the merchandise above four percent, all the documentation needs to be resubmitted.

have now ceased them. Paraguay, however, has only eliminated them as part of the EU-MERCOSUR Free Trade Agreement (FTA) and of the Paraguay-Brazil Automotive Agreement of 2020. Their broader removal has proven difficult since fees collected represent about 50 percent of the budget of the Ministry of External Relations (MER). Yet, the time spent by exporters in dealing with the procedure are charged to Paraguayan importers and ultimately to consumers, producers and exporters; these overcharges are often higher than the certification fee itself.[30] No *de minimis provision* is available, such that all these extra costs of trade accumulate and are disproportionally burdensome to relatively small traders in search of new export opportunities.

In addition, s**everal public institutions charge *ad-valorem* fees instead of fixed fees proportional to the cost of the service rendered imposing costs similar to an additional import tariff.** These fees range from 0.5 percent for each import transaction cleared by National Customs Directorate (DNA) to 2.5 percent for each service provided by the National Aeronautic Directorate (DINAC). Other agencies applying *ad-valorem* fees include DINAPI and SENAVE. A*d-valorem* fees are not compliant with Paraguay's WTO commitments.[31] Such fees are equivalent to a tax or an additional import tariff hindering Paraguay's competitiveness in international markets.

Estimates suggest that NTMs in Paraguay can increase trade costs by the equivalent of an average extra tariff of at least 4 percent in *ad valorem* terms. Based on price-gap estimates, NTMs raise the average trade cost of imported goods in Paraguay by 4 percent (Reis et al., 2018). The costs are particularly high for certain goods. Estimates from Arenas et al. (2021) find that sanitary and phytosanitary measures and technical requirements result on average in *ad-valorem* equivalents of 42, 40 and 26 percent for animal, vegetables and foods, respectively; other products also face prohibitive *ad-valorem* equivalent rates above 100 percent, including chemicals, wood, textile and clothing and transportation equipment. Together with the prevailing high tariffs, NTMs can bring the overall trade cost close to 15 percent. Conversations with the private sector approximate the extra cost of NTMs alone to be higher and as high as 15 percent.[32]

Through the National Economic Team (EEN), several ministries and public agencies are working towards the elimination or reduction of fees imposed on trade, but challenges remain. Both the public and the private sector recognize that fees and charges need to be streamlined as they deteriorate the country's competitiveness. The Ministry of Finance (MoF) and the EEN (together with other relevant public entities) have committed to reduce trade charges as part of the Economic Recovery Plan.[33] For instance, the proposed reform to the Customs Code to be submitted to Congress would replace the *ad-valorem* fee for customs valuation with a fixed-cost solution. The MRE also expressed its intent to reduce consular fees for trade originating from MERCOSUR and from the EU in the context of the FTA, and to harmonize the rates charged for digital payments and those in person.

[30] UIP (2019).

[31] As established by the WTO TFA, a fee must comply with a specific service delivered. If the fee is higher than the cost of the service, then it becomes a tax. Fees collected using an *ad valorem* formula are therefore likely to be unrelated to the cost of the service provided. Moreover, such formula generates uncertainty because the final amount due by the importer will depend on merchandise valuation, which can be subject to revision at the border. *Ad-valorem* fees could create incentives for commercial fraud through goods undervaluation.

[32] Cámara Nacional de Comercio y Servicios de Paraguay.

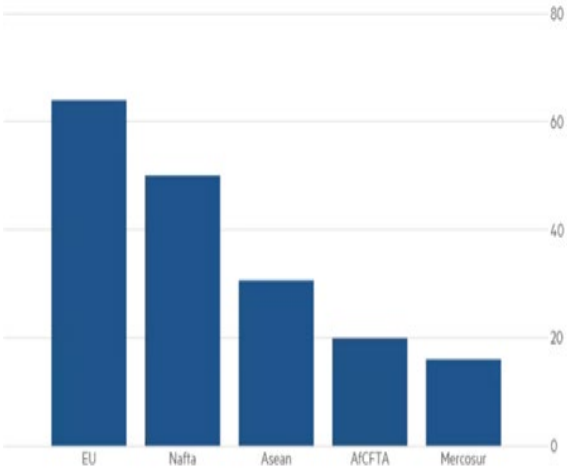
[33] Fees and charges covered include the MRE consular fee, as well as the rate of the SENAVE fee, the DINAPI fee, the INDI charge rate and the Customs valuation service fee rate.

Recent initiatives to cut charges for freight cargo highlight the need to address the financial sustainability of public institutions when reducing inefficient trade-related fees. The budgets of several ministries and border control agencies are highly dependent on the billing of services for trade procedures. Following the enactment of the Law No. 6589/2020, DINAC replaced the *ad-valorem* rate of 2.5 percent for the processing of imported freight cargo with a fixed fee equivalent to the cost of the service, which cut the charge applied by 30 to 50 percent. [34] This reform reduced substantially the revenue stream of DINAC and of the National Administration of Navigation and Ports (ANNP), also covered by the Law No. 6589/2020, leading to the issuance of Decree No. 4020/2020, which partially reversed the original cut in fees despite complaints from importers.

3.2 Opening Markets through Free Trade Agreements

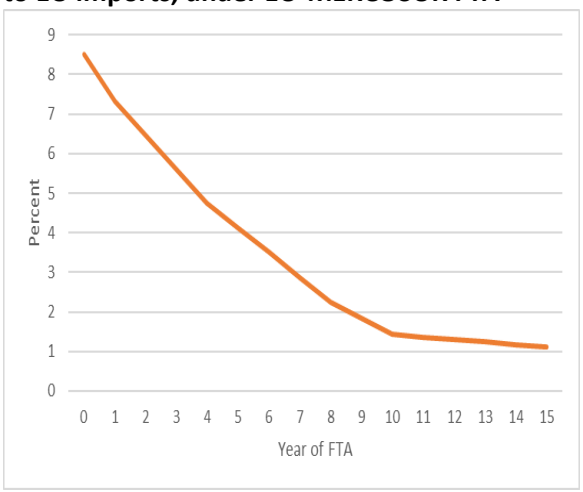
Contrary to global trends, Paraguay has not increased its participation in preferential trade agreements in recent decades, partly reflecting its membership within MERCOSUR. Paraguay faces limitations negotiating bilateral trade agreements on its own and must seek consensus and coordination with all MERCOSUR members.[35] In general, MERCOSUR members have tended to abstain from negotiating "deep trade agreements" with developed economies. In contrast, other regional peers such as countries in the Pacific Alliance have made significant strides to integrate with the rest of the world and with developed economies.[36] In addition, intra-MERCOSUR trade is low and affected by a number of internal trade frictions. Non-tariffs barriers in MERCOSUR are prevalent and restrictive, especially in Brazil and Argentina, and many of these measures affect Paraguay's trade with its

Figure 3.3. Intra-bloc trade as share of total trade



Source: Capital Economics and International Monetary Fund (IMF).

Figure 3.4. Average bilateral tariff in Paraguay to EU imports, under EU-MERCOSUR FTA



Source: Staff estimates based on tariff offers schedules of the Agreement.

neighbor countries. The share of trade within MERCOSUR is low by global standards. Just 16 percent

[34] Law No. 6589/2020 set a linear reduction of airport taxes by DINAC and of public ports' taxes by ANNP by up to 50 percent in the context of the COVID-19 pandemic. DINAC fees, at 2.5 percent, where higher than those applied by other agencies (that range between 0 percent and 2 percent).

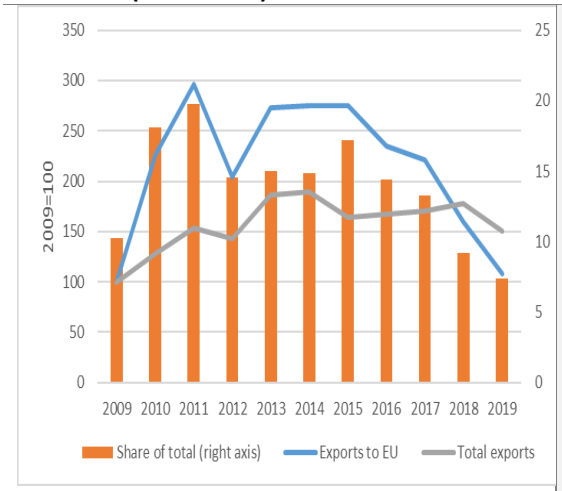
[35] The most recent FTA by Chile and Paraguay concluded in 2021 builds on an existing Economic Complementation Agreement between Chile and the MERCOSUR countries from 1996, under the ALADI Framework.

[36] For example, about half of the agreements signed by Chile are with the EU, United States, Japan, Australia, New Zealand and other developed economies. Deep FTAs are agreements that go beyond the traditional FTAs in terms of market access to include other policies such as provisions on investment, services, intellectual property, the environment, digital trade, etc.

of MERCOSUR exports are destined to other MERCOSUR countries, significantly below the 64 percent of exports by EU countries to other bloc members, as well as the corresponding figures for the US-Mexico-Canada bloc (formerly NAFTA) and ASEAN bloc (Figures 3.3). It is also below the 19.9 percent of African exports destined to other African nations under the recent African Continental FTA (AfCFTA).

The recent MERCOSUR-EU FTA, however, could be a game changer for Paraguay by opening market access, and very importantly, improving the policy and institutional environment.[37] Exports to the EU have fallen substantially in recent years as a share of total exports (from 17 percent in 2015 to about 7 percent in 2019) due to several factors (Figure 3.5). Despite no tariff barriers, soybean exports were redirected to Asia and Argentina, possibly on a transitory basis; Paraguay lost unilateral preferences into the EU market under its GSP scheme at the end of 2018;[38] and more firms integrated in the maquila program within MERCOSUR. While soybeans have dropped, beef, rice, sugar, juices, chemicals and footwear are some of the products that have expanded (Table 3.2).

Figure 3.5. Paraguayan exports to the EU and the world (2009–2019)



Source: Staff estimates from Comtrade data.

Table 3.2. Composition of exports to the EU by sector, percent of total, (2009, 2014, and 2019)

	2009	*2014*	*2019*
01-05, Animal prod	3.7	0.6	6.9
06-15, Veg. prod	64.6	49.6	36.6
16-24, Food prod	19.4	36.5	43.7
25-26, Minerals	0.0	0.0	0.0
27, Fuels	0.0	0.0	0.0
28-38, Chemicals	0.8	0.5	1.5
39-40, Plastic, rubber	0.1	0.0	0.0
41-43, Hide and skins	2.9	8.5	4.8
44-49, Wood, paper prod	6.7	1.9	3.9
50-63, textiles and articles	0.2	0.1	0.1
64-67, Footwear, headgear	0.0	0.0	0.5
68-71, Sotone, ceramic, glass	0.0	1.0	0.2
72-83, Base metals	0.1	0.2	1.1
84-85, Machinery, elect equip	0.1	0.1	0.3
86-89, Vehicles and transport	1.4	0.9	0.1
90-99, Misc	0.2	0.1	0.3

Source: Staff estimates from Comtrade data.

The private sector welcomes the Agreement and perceives it as an opportunity to permanently reestablish preferences lost by Paraguay in the EU market and improve the institutional framework. The Agreement is the first "deep" FTA reached by MERCOSUR. Besides covering tariffs, the Agreement breaks new ground in other market access areas, including technical barriers to trade, regulations on services, government procurement, and intellectual property. The provisions of the FTA will not only favor international integration but will also entail an upgrading of the policy environment within MERCOSUR and Paraguay. The agreement will eliminate many bilateral duties upon entering into force and most remaining tariffs gradually over time. Other provisions on market access will require the removal of import licenses and unnecessary surcharges on trade. In addition, the Agreement establishes commitments to identify, prevent, and eliminate unnecessary technical barriers to trade

[37] After a prolonged period of negotiations, the EU and Mercosur countries signed a FTA agreement in June 2019. The FTA needs to be ratified by Congress in each of the Mercosur member countries before entering into force.

[38] These preferences were expected to be suspended after the country had achieved upper middle-income status for three consecutive years.

(TBT) and to enhance cooperation on TBT aspects. Box 3.2 highlights NTMs that will be affected by the FTA as well as areas where Paraguay can strengthen and make more transparent procedures on NTMs.

Box 3.2. NTMs in Paraguay affected by the EU-MERCOSUR FTA

Paraguay needs to strengthen the regulatory and institutional framework that concerns the design and implementation of technical regulations, SPS requirements, and non-automatic licenses, to prevent an adverse impact on trade and to ensure compliance with the provisions of the EU FTA.

Elimination of the consular fee: The 10-year phase-out period for consular fees envisaged in the Agreement will be enough for Paraguay to ensure compliance. The country could accelerate the elimination of these fees that are burdensome to trades. This will have an impact on the budget of the Ministry of Foreign Affairs and alternative resources from the central budget will be needed.

Non-automatic licenses: As noted earlier, Paraguay needs a regulatory framework that establishes uniform and transparent procedures for requesting and processing these import permits.

Technical regulations: The country does not have general procedures for drafting, issuing, and implementing technical regulations and conformity assessment procedures. Filing this gap would give Paraguay the opportunity to guarantee that all the different public agencies in charge of producing and implementing technical regulations and conformity assessment procedures apply good regulatory practices and comply with the requirements of the Trade Agreement.

Certification: Paraguay follows a regional trend, like its MERCOSUR partners, whereby certification is performed by authorized and usually state-designated entities (i.e., third-party certification). MERCOSUR was reluctant to accept the introduction of a mandatory commitment in the FTA to embrace a self-certification model (i.e., a supplier's declaration of conformity). Nevertheless, Paraguay could consider the progressive introduction of this approach. In any case, Paraguay needs to ensure that its certifying entities comply with the Agreement's provisions (e.g., guaranteeing the independence of certifying entities from manufacturers, importers and distributors).

Labelling: Paraguay lacks a general regulation regarding labeling. This provides an opportunity to introduce a system that is Agreement compliant from the start.

SPS requirements: Paraguay is missing general regulations that govern how SPS requirements are set and how certifications are issued. While SENACSA and SENAVE are responsible for sanitary and phytosanitary vigilance, the legal framework is silent on the general procedures and requirements that they need to follow when designing, drafting and implementing SPS measures and certification procedures.

Pre-listing: Paraguay is one of the MERCOSUR Members that has not yet implemented a pre-listing system with the EU and will thus have to take the necessary institutional and legal steps to put it in place. This reform will be of great interest to agricultural and, especially, livestock exporters in Paraguay, since its establishment will greatly streamline processes.

Transparency: Paraguay will have to put in place the various pieces of institutional infrastructure necessary to implement its commitments on notification and other enhanced transparency mechanisms related to TBT and SPS measures. For example, the SPS Chapter envisages a "fast-track" consultation system to address potential requests on measures that the EU considers inconsistent with the Trade Agreement.

Source: Authors' elaboration

The implementation of the EU-MERCOSUR agreement would have a positive effect on overall trade, GDP, and welfare. The economic effects of implementing the EU-MERCOSUR FTA in Paraguay were estimated using a Computable General Equilibrium (CGE) model with an emphasis on economy-wide and sectoral effects. Annex 2 presents the model's main features. The analysis incorporates market

access commitments by the parties, as contemplated in the Agreement's current tariff offers. The FTA scenario is compared to a long-term baseline through 2040, given the long transition period for some critical sectors (granted only after 15 years). Model results show an increase of 1 percent of GDP by 2040 relative to a baseline projection without the agreement (Figure 3.6). Overall welfare would improve with real income 1.5 percent higher than the baseline, reflecting higher purchasing power of consumers. Total exports and imports would increase 0.5 and 1 percent in real terms, respectively, compared to the baseline projection. The intended EU Carbon Border Adjustment Mechanism (CBAM) is expected to have a very small effect on Paraguayan exports since it would be aimed at energy-intensive exports and electricity from non-renewable sources and would cover only direct emissions (Scope 1).[39] Both emission scopes and sectoral coverage, however, could vary in the future. Beyond CBAM considerations, EU consumers are becoming more discerning due to health and climate change awareness. The consistently fast-growing performance of sustainable and organic market sectors suggest that green commodities can provide more attractive opportunities for niche markets.[40]

Box 3.3. Potential Impact of the EU CBAM Mechanism on Paraguay

The EU CBAM is part of a broader package of measures developed to decrease the EU's greenhouse gas (GHG) emissions by at least 55 percent in 2030 compared to 1990 levels (European Commission, 2021). It is intended to be imposed as a charge in line with the EU ETS carbon prices on imports from all non-EU countries with the exemption of Iceland, Liechtenstein, Norway and Switzerland.[1] The CBAM would be levied on energy intensive industries (i.e., aluminum, iron, steel, cement, and fertilizers) and electricity, covering direct (Scope 1) emissions only. Both emission scopes and sectoral coverage could be expanded over time. The charge would be estimated based on the carbon content of the EU's trading partner (source of the imported commodity). The CBAM is meant to be implemented in 2026 following a three-year transition period. Beginning in 2026, free EU ETS allowances for the sectors covered by the CBAM would be gradually cut to "0" by 2035. Within the proposed Scope 1, the impact on Paraguayan exports to the EU is expected to be very small.

Source: European Commission (2021) and authors' elaboration.

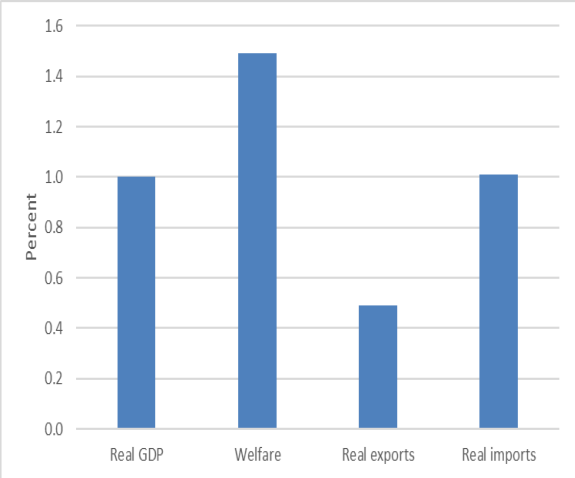
While the economy would expand as a whole, the effects would vary by sectors, with non-food manufacturing experiencing the largest growth in value terms. The overall output of food and agriculture would remain at about the same level as in the baseline projection (Figure 3.6). The output of sugar, wheat, rice, dairy, bovine meat and other meats (e.g., poultry and pork) would increase, but food and beverages and oil seeds would show some slight decline (Figure 3.7). Non-food manufacturing would register the largest increase in value, especially light manufacturing which includes products such as apparel, leather products, and wood and paper products. The output of chemicals, rubber and plastic products, auto parts, and other manufactures would also rise under the

[39] The emissions accounting framework distinguishes three scopes. Scope 1 covers direct emissions from the sources that company owns or controls. Scope 2 covers indirect emissions form the purchased electricity, heating and cooling services. Scope 3 covers all other indirect emissions within a company's value chain.

[40] During the year 2019, the organic food and drinks sales reached EUR 106 billion with the US, EU and China as being the largest markets.

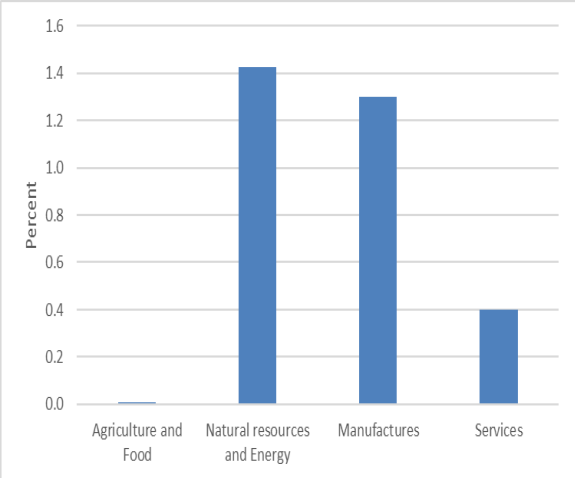
Agreement. The expansion of non-food manufacturing results from higher integration with regional supply chains as the Agreement would help dismantle many of the existing trade barriers within MERCOSUR. Natural resources and energy would register the largest expansion in percentage terms, but from a very small base (Figure 3.7).

Figure 3.6. Economy-wide effects of EU-Mercosur FTA in Paraguay (2040)



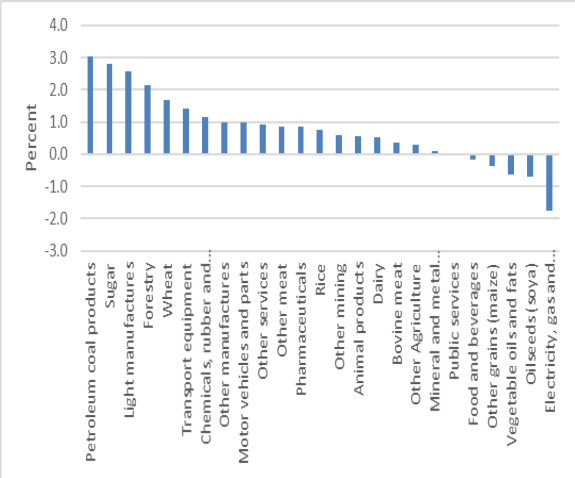
Source: Staff estimates from CGE framework.

Figure 3.7. Output effects of EU-MERCOSUR FTA in Paraguay by broad sectors (2040)



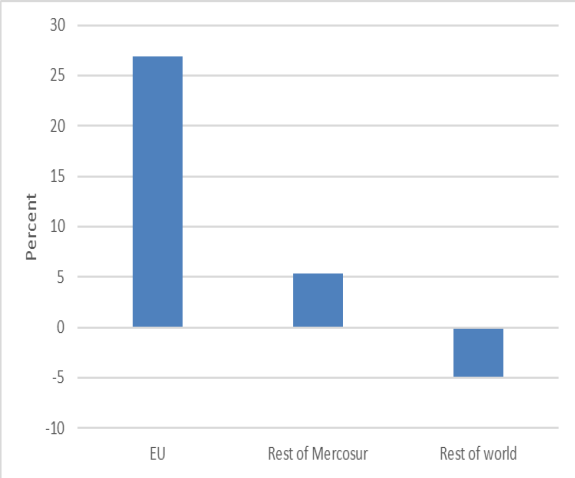
Source: Staff estimates from CGE framework.

Figure 3.8. Output effects of the EU-MERCOSUR FTA in Paraguay by sectors (2040)



Source: Staff estimates from CGE framework.

Figure 3.9. Effects of the EU-MERCOSUR FTA in Paraguayan exports by region (2040)

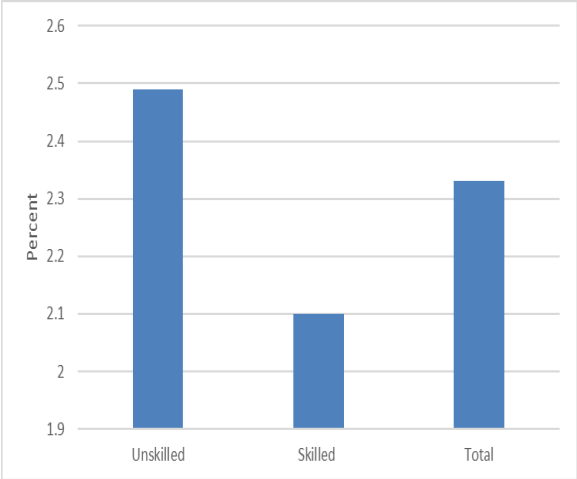


Source: Staff estimates from CGE framework.

The bilateral trade effects of the MERCOSUR-EU Agreement would be significant; the latter would result from a substantial reduction in non-tariff measures among MERCOSUR members. By 2040, Paraguay's exports to the EU and to the rest of MERCOSUR would grow by about 27 percent (Figure 3.9). Paraguay's exports to the rest of MERCOSUR would expand by 5 percent, an amount that would be larger in absolute value than the expansion to the EU given the sizable exports from Paraguay to MERCOSUR, primarily Brazil. The expansion of trade within MERCOSUR reflects the positive impact of reducing non-tariff barriers among MERCOSUR members as a result of the negotiated commitments under the Agreement. See Box 3.2 above for a summary of the main changes to non-tariff measures under the Agreement. The expansion of trade with the EU and MERCOSUR would be partly offset by less trade to the rest of the world. Total exports from Paraguay would still grow.

The positive trade and output effects of the Agreement would benefit the wages of both skilled and unskilled labor in Paraguay. The EU-Mercosur FTA would increase wages in the country by about 2.3 percent (Figure 3.10). The increase is slightly higher for unskilled workers (2.5 percent) vs. skilled workers (2.1 percent).

Figure 3.10. Effects of EU-MERCOSUR FTA on wages in Paraguay (2040)

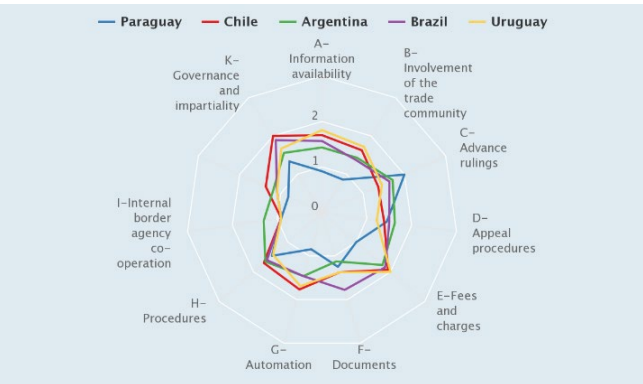


Source: Staff estimates from CGE framework.

3.3 Other much needed trade facilitation measures

International performance indicators on trade facilitation show Paraguay's improvements in recent years but also highlight areas requiring substantial upgrades. Between 2017 and 2019, the country's OECD Trade Facilitation Agreement (TFA) Indicator improved especially in the areas of advance rulings, appeal procedures, simplification and

Figure 3.11: Paraguay lags regional peers in integrated risk management, automation, access to information, public private dialogue, and fees and charges



Source: OECD TFA indicator, 2019.

harmonization of documents,[41] automation of processes[42], and cross-border agency co-operation. Despite progress, important gaps relative to peers remain in the use of risk management systems and the transition from transaction-based controls to audits, simplification and digitalization of procedures, provision of information to traders, and the extensive use of fees imposed on licenses and other authorizations for trade as noted earlier (Figure 3.11). A stronger National Trade Facilitation Committee is needed to spur the implementation of key trade facilitation reforms.

3.3.1 Streamlining and digitalizing trading processes

The implementation of the two single windows for imports and exports have facilitated processes for traders, but further developments are necessary to make them more effective. Under the single window for imports (VUI), managed by DNA, most procedures can be conducted electronically; while the single window for exports (VUE), managed by the MIC, is still lagging on some procedures and payments.[43] Key accomplishments of the single windows include: (i) the electronic issuance of import permits and licenses by DNA; (ii) the use of e-signature for most processes and institutions (but not all); (iii) the use of electronic payments for several procedures; and (iv) the VUI support to DNA's risk management system. The VUE is expected to become fully paperless. There is some degree of interoperability between the two windows, but many processes are not yet harmonized causing duplications and the simultaneous use of both platforms (e.g., traders using the maquila regime, Lanfranconi et al. 2019). The functionalities of the VUI could be further strengthened to allow for the single joint inspection of goods. In addition, a few ministries (e.g., the MAG) and most municipalities (except for Asunción) are not yet connected to the VUE and/or VUI. This implies that procedures related to sanitary tests for food imports need to be processed in person in the municipality where the cargo is destined (UIP, 2020). Although the single windows have automated processes between traders and the public sector, several public agencies have not automated their own internal procedures continuing to generate delays especially for processes requiring the interventions of multiple agencies (e.g., licenses).

Parallel efforts to automate the management of guarantees for firms operating in the 'maquila' customs regime will bring significant gains to firms participating in global and regional value chains. The recent pilot automating the customs imports clearance process for some firms in the 'maquila' regime has shortened the clearance time from 72 hours to 30 minutes. This initiative is currently being extended to all firms under the 'maquila' regime. Furthermore, the ongoing automation of export processes from 'maquila' firms will enable the automatic cancellation of guarantees imposed on the temporary admission of goods, increasing the working capital of 'maquila' firms.[44] These solutions will be extended to the automotive sector and eventually to other customs regimes that suspend import taxes for processing and re-export.

[41] In 2017, Paraguay introduced a single window for export, reducing the time required for border and document compliance.
[42] In 2019, Paraguay reduced the time required to import by introducing an electronic signature for import customs clearance.
[43] Twelve public institutions and seven chambers of commerce participate in the VUE, which is a public-private consortium. The private sector contributes to the VUE's technology and certifications. Seventeen institutions participate in the VUI.
[44] Formerly, it took 20 days to return the guarantee to the firm due to manual processes.

The DNA envisions a full digitalization of its processes, which will require amendments to the customs code as well training of officers and the trading community. The current Customs Code (Law 2422/ 2004) does not enable the automation of several processes, such as the certification of e-signatures by DNA. Currently, only third parties (three private firms) can certify e-signatures (with a token).[45] Accessing such e-signature service is costly for firms, inducing SMEs to use paper-based signatures, and for the DNA, which needs to buy tokens for its customs officers. Beyond cost considerations, customs officers continue to use paper-based documents in specific transactions, e.g., for import transactions through the green channel. This situation does not allow the DNA and the trading community to fully benefit from investments on automation.

3.3.2 Enhancing coordination among border agencies and the use of risk-based management practices

In recent years, DNA has made improvements in risk management, but practices can be strengthened and expanded to other agencies. The Authorized Economic Operator (AEO) Program, started by DNA in 2018, aims at raising the safety of international trade, while enhancing trade facilitation.[46] The program currently includes six certified companies, another five are in process, and 14 are planning to present their application soon. The MIC joined in 2020 expediting the issuance of licenses to certified firms, and discussions are underway for agencies under the Ministry of Health to join (e.g., DINAVISA). On aggregate, however, Paraguay's clearance processes do not rely sufficiently on risk management. In 2019, more than 40 percent of imported goods were subject to physical or documentary inspections by DNA, ten times more than in Brazil, causing significant delays. In addition, border control agencies other than DNA tend to conduct inspections of documents on nearly all transactions, while physical inspections are very limited due to lack of equipment. This contrasts with practices in Brazil and Colombia, where sanitary and phytosanitary agencies have introduced risk-based approaches to border control management. While a positive step, DNA's risk management procedures are still narrow in their scope covering only fiscal risks due to lack of information exchange with other agencies that have not adequately automated systems. Yet, Kee and Nicita (2016) reveal that importers tend to mis-declare product codes or country of origin to circumvent cumbersome NTMs, suggesting that accounting for such information could have fiscal implications as well.

Stronger coordination among border control agencies would enhance risk management. The multiplicity of import licenses and the duplication of controls for the same product with similar policy objectives lead to an overlap of responsibilities. For example, INAN and SENACSA inspect meat products for similar reasons, SENAVE and INAN assess risks related to grains (soja, chia, sesame, etc.) and certain herbs, and INAN and the Ministry of Health assess risks related to phyto-therapeutical medicines. In addition to overlaps, agencies do not coordinate the simultaneous implementation of an inspection, causing delays to traders and increasing the operating costs of public agencies.

[45] Law No. 4017/2010 and its decree Num. 7369/2011 regulates the legal validity of the digital signature, data messages and the electronic file", in its title IV, "Of the electronic file and the administrative procedure".

[46] The AEO Program aims at raising the security of trade, while enhancing trade facilitation. The Program adopts modern compliance management strategies, through Customs and business partnerships, where DNA offers incentives in the form of trade facilitation solutions (e.g., expedited clearance and reduced inspections) and dedicated services to accredited traders that implement internal risk procedures and other measures to raise the safety and security of international trade.

The current Customs Code does not support a strong compliance system, and reforms are also needed to provide the legal basis for modern trade facilitation measures. The current Code makes the application of sanctions slow and cumbersome. Sanctions are low relative to the infringement, which together with the challenges of corruption, renders the sanction system largely ineffective. The government has prepared a proposal to reform the Customs Code. Key reforms include the application of sanctions proportional to the infringement,[47] upgrades to the customs dispute processes to deter non-compliance, strengthened risk-management, and greater predictability to traders.[48] Other reforms would align the Code with the operation of modern GVCs. This is especially relevant to 'maquila' firms, which import to export and benefit from tariff suspensions on the temporary admission of inputs but need to present guarantees for the tax suspension. The reform would extend the waiver on guarantees to private firms, would recognize the concept of Authorized Economic Operator, and would facilitate advanced declarations reducing delays at border posts with Argentina and Brazil.

3.3.3. Expanding the availability of information on trade

Notwithstanding recent progress, Paraguay can strengthen the availability of information to the external public in line with WTO TFA commitments and good global practices. Access to trade related provisions can greatly facilitate trade. In the context of the WTO TFA, Paraguay has committed to publishing a wide range of customs-specific information, *inter alia* on duty rates and taxes, forms and documents, rules for goods classification and valuation, rules of origin, transit procedures, and penalties and appeals rules. While progress have been achieved, gaps vis-à-vis WTO TFA commitments remain (Box 3.4). In addition, multiple information portals on trade have been created, but many of these are not up to date and linked to each other. Trade regulations and procedures are developed by each Ministry or agency without sufficient coordination. A compilation of these procedures would be of great guidance to the trading community. The DNA has adopted the good practice of publishing proposals for new regulations prior to their approval and implementation. This practice could be strengthened by notifying the trading community about the availability of such information. Likewise, the MIC's website for notification and information of technical barriers to trade (SNIN) in Paraguay and other countries provides valuable information and also offers the possibility of providing

Box 3.4. Alignment of Paraguay's practices on availability of information with the WTO TFA

Paraguay could enhance performance in the following key areas related to the WTO TFA provisions on availability of information:

- Timeliness of responses in consultation channels: the administration's service charter does not indicate a standard response time for the various means of consultation, taking into account the nature or complexity of the consultation.
- Some, but not all, customs forms are available online.
- There is no interval between the publication of new or amended trade-related laws/regulations and their entry into force, or the average time is less than 20 days.
- Procedures for appeals; penalties for non-compliance with import and export formalities; and judicial decisions on customs matters would need to be published.

Source: OECD

[47] Infringements would fall under minor infractions (e.g., minor errors) with lighter penalties; fraud, for which presumptions and referral to penalties of a criminal nature could be set; and smuggling, for which the penal provisions could be enhanced.
[48] The reform proposal was prepared with the support of the WB.

comments on technical regulations under consideration. This could inform similar reforms needed in other border control agencies.

3.3.4. A stronger governance framework needed for trade facilitation reforms

Paraguay´s National Trade Facilitation Committee (NTFC) will need stronger support to effectively drive critical trade facilitation reforms. The NTFC was established in 2017 to help coordinate and oversee the implementation of Paraguay's commitments under the WTO TFA. The NTFC is led by the Minister-Secretary General and Head of the Civil Cabinet (or his/her designate) and has a technical secretariat comprising 40 public and private sector representatives.[49] The NTFC has developed a strategy and action plan with three working groups focusing on the simplification of trade procedures; on transparency and trade information; and on agricultural goods testing procedures.[50] In practice, the participation of high-level decision-makers in the NTFC is limited, weakening its authority and the capacity of border control agencies to secure the necessary financial resources and political support to implement critical yet sensitive trade facilitation reforms.

In addition to the WTO TFA commitments, the NTFC would need to embrace other important matters affecting trade facilitation in Paraguay. Priority areas would be the streamlining of NTMs, and fees and charges imposed on trade transactions. As progress is made in these areas, the NTFC could engage on the resolution of other obstacles related to logistics and connectivity, for which it has the legal mandate. [51] A number of public-private consultative committees have been established to discuss trading across border issues, but many of them work in isolation within a narrow area of competence (e.g., the customs and private sector governance committee headed by DNA, the National Technical Committee on Technical Barriers to Trade headed by the MIC, the National Technical Committee on Sanitary and Phytosanitary Measures headed by the Ministry of Agriculture as well as the National Codex Alimentarius Committee headed by the Ministry of Health). [52] Key stakeholders that are not yet members and could contribute to the NTFC include *inter alia* the National Chamber of Trade and Services of Paraguay (CNCSP), the Chamber of Private Ports (CATERPA), the Association of Freight Forwarders and Logistics Operators (ATOLPAR), and the Customs Brokers Centers (ASAPRA).

3.4 Policy recommendations

Faster, sustained, and diversified trade growth would hinge on the capacity of firms to enter the export markets with strength. This highlights a private sector agenda that focuses on helping domestic firms grow, as well as in attracting large exporting firms via FDI. Both export market and

[49]The WTO TFA, effective since 2017, contains measures for expediting the movement and clearance of goods, and for effective cooperation between customs and other agencies on trade facilitation and customs compliance issues.

[50] The first group will support the monitoring of average release times, the evaluation of the AEO Program, the system for expedited shipments, and border control cooperation procedures. The second group will work on the publication of information and prior consultations mechanisms. The third group will focus on the USFDA "Food for Progress" Program.

[51] Article 9 notes that the NTFC will oversee the coordination, implementation […] of the WTO TFA and other international standards on trade facilitation and regional integration through the participation of all stakeholders in international trade."

[52] The National Technical Committee on Technical Barriers to Trade constitutes the forum in which technical regulations are examined and Paraguay's position on such measures is decided for bilateral or multilateral negotiations. The National Technical Committee on SPS Measures and the National Codex Alimentarius Committee (CONACAP) are forums for coordinating and harmonizing the activities of institutions involved in sanitary and phytosanitary-related matters.

product diversification may be achieved by integrating into global value chains, which at present is rather limited in the country. This could also reap additional dynamic gains in terms of know-how and technology upgrading. A number of unilateral and MERCOSUR-level reforms would be needed to spur trade competitiveness in the country. These principally relate to actions to reduce trade costs and information frictions and to enhance exporters' capabilities.

Opening access through FTAs

Implementing the Chile-Paraguay FTA and the FTA between the EU and MERCOSUR would secure new market access for Paraguay. The latter would not only provide stronger access to a large market but would also lead to important policy and institutional upgrades within MERCOSUR. A lowering of MERCOSUR CET closer to regional levels would also support greater trade integration.

Streamlining NTMs and fees charged on traders

Reducing NTMs and improving their administration will be critical to cutting trade costs. While many NTMs pursue legitimate public policy objectives such as environmental or consumer protection, shortcomings in their design and administration have resulted in substantial costs to the private sector becoming a restriction to exports. New and existing NTMs, starting with prior to import licenses, could be subject to ex-ante regulatory impact assessments to provide a technical understanding of their benefits and costs. As international experiences illustrate (e.g., Colombia), regulatory impact assessments would help reduce the issuance of unnecessary NTMs, including prior to import licenses, and would strengthen the design of those with a strong public policy rationale such as environmental or consumer protection (Box 3.5). The mandatory implementation of regulatory impact assessments would entail changes to the legal framework. The review of NTMs could be informed by GATT principles and would also benefit from a strong public-private policy dialogue, where the private sector contributes to solutions (Cadot and Malouche, 2012).[53] When NTMs might have been implemented with a protectionist purpose, the support of sectors that could benefit from the reform (e.g., upstream in the value chain) could be mobilized and assistance in the form of productivity-enhancing programs could be extended to those affected by the reform.

In addition, the administration of those NTMs with a public policy objective could be streamlined. The review could identify licenses that could be issued automatically. For example, current efforts to issue automatic licenses for frequent operators with good compliance records (e.g., the AEO Program) could be expanded by adding border control agencies and by granting prior to import licenses per certified operator, rather than per transaction. Automating processes for issuing licenses would also expedite approvals and make them more transparent; and the regulatory framework could establish deadlines for license approval. Registries for import licenses could be merged into a single database (e.g., by connecting more public agencies to the VUI), rather than setting up registries in various agencies and duplicating processes to traders. In addition, multi-purpose licenses could be issued in cases where different institutions require licenses for the same product to achieve similar public policy objectives (e.g., licenses for hygiene, toiletry and beauty products and household sanitary products that are required by both the MIC and SEAM).

[53] According to GATT 1994, licenses shall be implemented i) in a non-discriminatory manner; ii) following rules of the distribution of trade, and iii) rules regarding the administration and application of import licenses".

Box 3.5: International Practices for Streamlining and Upgrading the Quality and Relevancy of NTMs

Indonesia's Institutional Set-up to Streamline New NTMs

In 2011, the Ministry of Trade of Indonesia issued a decree establishing a team to review, formulate and monitor policies on NTMs. The NTM policy team would conduct regulatory impact analyses of proposed NTMs and a review of their compliance with Indonesia's international obligations, e.g., those under the WTO, and would monitor and evaluate measures already in place. The regulatory impact analysis would include surveys and ample consultations with public and private stakeholders. The team, however, had some challenges implementing some reforms that spanned the mandate of the Ministry of Trade, such as SPS measures introduced by the Ministry of Health and the Ministry of Agriculture.

Mexico's Enhancements to Food Labelling Standards

In 2008, Mexico changed the standard mandating the labelling of nutritional content and consumer information for most packaged foods. Previously, imports were often subject to discretionary conformity assessment procedures at the border. The 2008 change was enabled by a legal reform to the Federal Standards and Metrology Law in 1997 that required a five-year review and automatic sunset clause on technical standards, and a harmonization with international standards. Upon the second five-year review in 2008, it became clear that the food labelling standard was obsolete and out of line with international standards. The reform was very timely as the Government of Mexico was implementing a major public health campaign against obesity, where it became imperative that labelling standards provide relevant health information. Other countries are following similar approaches. Brazil, for example, has also introduced regulatory impact assessments on food labelling standards and is highlighting the importance of reliable nutritional information.

Improvements to Colombia's Regulatory Policies

In 2014, Colombia upgraded its regulatory formulation policy to adhere to the best regulatory practices in the OCDE, with a focus on ex-ante RIA. In 2015, ex-ante RIAs became mandatory for all technical regulations, and an online platform for public consultation (SUCOP) was launched in 2018 to promote standardization and greater transparency. In 2020, a reform established a whole-of-government approach to the formulation and review of technical regulations, including: (i) a regulatory planning process announced in advance; (ii) evidence-based ex-ante RIAs together with public consultations; and (iii) periodic ex-post impact evaluations to assess results achievement and relevancy. With this reform, Colombia adopted best practices along the regulatory cycle introducing more predictability, transparency, and evidence.

Source: Cadot and Malouche (2012), OECD (2012) and authors' elaboration.

A high-level inter-ministerial committee needs to examine the multiplicity of fees charged on trade, including consular fees, and develop a medium-term plan to streamline them. The review needs to consider the replacement of *ad-valorem* fees with fixed charges that are more closely aligned to the actual cost of the service provided and explore collection through centralized mechanisms such as an expanded VUI. Procedures without clear value added but imposing a cost on trade, such as the legalization of trade documents and related consular fees, need to be phased out as advised by GATT and WTO and implemented by other countries in the region. The plan for streamlining trade charges will have to examine the budgetary implications to various public agencies and consider alternative resources from the central budget.

Enhancing cross-border management and information to traders

Other trade facilitation measures would also reduce substantially the burden imposed on traders, including greater integration of border management supported by broader automation and adoption of risk management practices. A more integrated border management system supported with greater automation would reduce documentary requirements, delays imposed on traders, and opportunities for corruption. The NTFC could update previous analysis by the private sector (UIP, 2019) on trade processes that are still conducted manually and together with member agencies prepare an action plan for streamlining and digitalizing them. An effective transition to digitalized processes will require extensive training of staff at various public agencies. For example, further training of customs staff would incentivize them to recognize electronic signatures in manifests.

The effectiveness of the single windows for imports and exports (VUI and VUE) could be improved. Priorities include the full interoperability of the two windows; the expansion of processes connected to the single window for importers (*inter alia* the connection of municipalities performing procedures related to sanitary tests); and completing the development of cargo consolidation in the VUE, which could reduce compliance costs for SMEs. The single windows could also help measure performance of border agencies by generating time release indicators. In addition, achieving the interoperability of these windows with other MERCOSUR single windows would facilitate the exchange of information. In the medium to long term, Paraguay could pursue the full integration of the two single windows.

In line with global and regional practices, border control agencies need to transition to a risk-based management approach that relies on greater cooperation and information exchange. Customs could strengthen its post-clearance audit processes to decrease the excessive allocation of goods through red channels. The selection of shipments for physical inspections could be coordinated. Besides exchanging information and linking systems with customs, SPS agencies could explore the delegation of administrative and simple control tasks to customs to avoid duplications. The benefits of the AEO Program could be expanded by including other key border control agencies besides DNA (e.g., DINAVISA). Collaborative border management will require political support, capacity building and necessary funding for SPS agencies given the complexities of SPS risk management (McLinden et al. 2011). The reforms proposed to the Customs Code by the Government of Paraguay would constitute a very positive step, establishing a more robust and predictable compliance system and providing legal support to key trade facilitation measures highlighted above.

Information available to the private sector in Paraguay could be enhanced. An increasing number of countries are investing on Trade Information Portals or Trade Platforms that become the main information hub on trade legislation and procedures, and provide other services such as enquiry points, business intelligence, and other support to ease the participation of SMEs on international trade (World Bank 2021).[54] In Paraguay, a review of information available through the "single windows" and the portals of other institutions engaged in international trade could be conducted to inform the work of the NTFC. In the medium term, a single platform could be developed consolidating trade information.

[54] Examples of trade portals or hubs include: Australia (https://www.abf.gov.au/importing-exporting-and-manufacturing/importing/how-to-import); Brazil (http://siscomex.gov.br/informacoes/manuais/); Canada (https://www.cbsa-asfc.gc.ca/import/guide-eng.html); and Jamaica (https://jamaicatradeportal.gov.jm/).

Enhancing the governance of trade facilitation reforms.

The NTC, needs high-level support and a results-oriented approach to provide greater momentum to trade facilitation reforms. The active participation of high-level policymakers (at least at the Deputy Minister level) will help prioritize reforms, facilitate coordination among agencies, address vested interests, and secure the necessary financial resources. The best performing countries on trade benefit from strong political champions in their NTFCs and relevant representation (e.g., Malaysia, Singapore, and Sweden). Paraguay's NTFC could also benefit from a results-based management approach, where accountability is increased, and outcomes are publicly available. For example, India and Costa Rica have developed interesting webtools to monitor and communicate progress on the World Trade Organization (WTO) Trade Facilitation Agreement (TFA). For example, in India, the NTFC has developed an innovative and agile webtool to monitor TFA implementation and compliance, track the performance of all relevant ministries and public agencies, and facilitate collaboration. In Costa Rica, the NTFC communicates progress on its development agenda through a webpage and uses several monitoring instruments *inter alia* a four-year strategy, an annual plan, and reports on priority activities (World Bank 2021).

Besides the current WTO TFA commitments, Paraguay's NTFC could expand its agenda to other key trade obstacles, very importantly, the streamlining of the extensive and burdensome NTMs and the multiplicity of fees and charges imposed on traders. Issues that are being addressed in thematic committees outside of the NTFC, such as those related to SPS, TBT or logistics, could also be discussed at the NTFC, allowing members to submit their opinions to improve the design and implementation of reforms.

Enhancing firm capabilities

Trade policy and trade facilitation reforms will have a stronger impact when complemented with initiatives to strengthen export capabilities, especially of new exporters. Artopoulos et al. (2011 and 2013) found that firms that adopt changes in their production and marketing (i.e., an 'Export Business Model') are more successful in entering and surviving in international markets. A key barrier to export is not production knowledge but the capacity to respond to the demand of clients in foreign markets. Multiple agencies across the world have developed programs to enhance export capabilities, although their impact has not generally been rigorously measured. More recently, a pilot experiment in Argentina was successful in changing export managerial practices (Iacovone 2020). Its full impact on exports could not be determined due to the Covid-19 pandemic, but the high correlation between the index on export managerial practices and export performance suggests that the probability of starting to export could rise by 7 percent and the exports value of existing exporters by 25 percent. The results of this program could inform new programs by REDIEX, the Export Promotion Agency, to enhance export capabilities. These efforts could be complemented with a further reinforcement of quality standards and the quality infrastructure. Access to finance programs for exporters have set a minimum threshold of 5 years. A review of the impact of these programs would be desirable as well as the need to modify these programs or develop complementary ones to support young exporters given the low export survival rate.

Table 3.3: Key policy recommendations on trade policy and facilitation

Reform Area	Action			Responsible Agencies
	Short term (Less than 1 year)	Medium term (2-5 years)	Long term (> than 5 years)	
Reduce Tariff Barriers		Reduce the Mercosur CET to levels more in line with regional averages.		Ministry of Foreign Affairs
		Implement completed FTAs with the EU and EFTA.	Maintain an active negotiation agenda with other trading partners.	Ministry of Foreign Affairs.
NTMs, fees and formalities	List all NTMs by product code and identify processes for registering import/export licenses.	Review and streamline existing NTMs, starting with import licenses. Integrate all registry processes for import licenses at the VUI and identify opportunities for further improving the administration of import licenses.		NTFC, all agencies involved in trade
	Devise a medium-term plan to gradually reduce fees and charges on trade, and where relevant, identify general budget resources to cover funding gaps.	Implement the plan to gradually reduce fees and charges on trade.	Continue implementation of reforms.	MoF, NTFC, all agencies involved in trade.
Integrated border management	Update the identification of trade processes conducted manually.	Improve VUI and VUE performance.	Integrate the two single windows.	NTFC, border control agencies, MCI
	Modernize the Customs Code to strengthen compliance and celerity to traders.	Design and implement complementary regulations to the Customs Code. Adopt ICT for processing Customs Disputes.		DNA

	Develop modern risk-based approaches to border management, Enhance the number of accredited AEOs.	Review the regulatory framework for food safety and plant and animal health and identify opportunities for enhancements. Strengthen institutional capacity and ICT adoption of key border control agencies.	Connect risk management systems among key border control agencies.	Border control agencies, MCI, NTFC
Governance of trade facilitation	Mobilize appropriate high-level political support to the NTFC (at the Vice-Minister level). Advance NTFC work on the Trade Single Window, Risk Management, AEO and Time Release Studies.	monitor performance of the NTFC plan and publish related information.	Continue upgrading Trade Facilitation Systems.	NTFC, Ministry of Finance, DNA
	Review the quality of access to information through the SWs and other trade portals.	Promote public and private collaboration to help harmonize and link trade databases.	Develop a single trade portal.	NTFC, DNA, MIC, MRE, Central Bank of Paraguay
Export Promotion	Enhance visibility of export promotion activities to the private sector, including market intelligence.			REDIEX
	Expedite reimbursement of VAT retention for export activities. Review impact of access to credit programs for new exporters. (The requirement of 5 years of exports is too high.)			MoF, DNA
Enhance Firm Capabilities	Design managerial skills' programs.	Develop and implement managerial skills' programs.		MIC
		Expand the number of technical accredited laboratories for conformity assessment.		MIC, private sector.

4. ATTRACTING FDI TO SPUR EXPORT DIVERSIFICATION[55]

Investment attraction is a priority in Paraguay's National Development Plan for 2030, but FDI inflows have lagged those of regional peers.[56] FDI has the potential to bring significant benefits to Paraguay, providing much needed finance as well as know-how and helping the country upgrade its position in regional and global value chains.[57] Empirical evidence has consistently found that foreign ownership increases the productivity of affiliate firms in developing countries *inter alia* by transferring sophisticated production technologies and business practices (Saurav and Kuo 2020). These mechanisms have proven critical during the Covid-19 pandemic crisis with multinational enterprises extending financial support to their affiliates as well as managerial guidance to assist with business continuity.[58] FDI can generate productivity spillovers to other firms in the host economy, in particular suppliers (Havranek and Irsova 2011). Foreign ownership can also fund the expansion of green sectors such as renewable energy, and foreign ownership can facilitate the transfer of environmentally sustainable technologies and management practices to agriculture, forestry and other sectors (Saurav and Viney 2020).

FDI attraction has become more challenging in the context of the Covid-19 pandemic, but new opportunities are also emerging. Hence, the need to strengthen investment competitiveness and provide a stronger framework for FDI attraction. This chapter provides a review of FDI outcomes in Paraguay during the past decade; an assessment of the strengths and gaps of the country's investment policy, regulatory and institutional framework; and concludes with recommendations to enhance it in pursuit of greater FDI attraction and developmental impact.

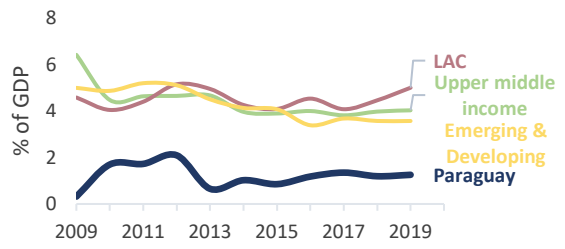
4.1 Overview of Paraguay's FDI Performance

4.1.1 FDI Inflows, Source Countries and Sectoral Distribution

While the average annual FDI inflow to Paraguay reached 1.5 percent of GDP from 2010-2019, double the rate observed in the previous decade, it remained low relative to the LAC average of 3.7 percent of GDP. With limited inflows, the accumulated stock of FDI has not kept up with other countries reaching 19 percent of GDP in 2019, compared to more than 50 percent of GDP for LAC and emerging and developing countries (Figure 4.2).

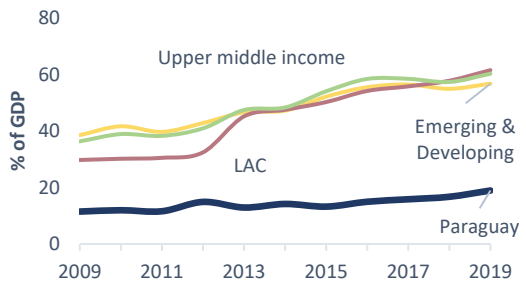
[55] This section is based on a background technical note prepared by Yago Aranda.
[56] https://www.stp.gov.py/pnd/wp-content/uploads/2014/12/pnd2030.pdf
[57] The Multinational Pulse Survey conducted by the World Bank in the third quarter of 2020 found that 61 percent of surveyed affiliates in developing countries received some support from their foreign parent company during the crisis period. Among firms that received support, three-quarters received new technologies and managerial guidance to assist with business continuity and 60 percent received financial support (Qiang, Liu, and Steenbergen, 2021).
[58] https://openknowledge.worldbank.org/handle/10986/34924

Figure 4.1: Total FDI Inflows: Paraguay vs. Comparators (2009-2019)



Source: UNCTAD. Note: FDI flows are on a net basis.

Figure 1.2. Total Inward FDI Stock: Paraguay vs. Comparator Groups (2009-2019)



Source: UNCTAD: Note: FDI stocks are presented at historical cost.

Paraguay's main trading partners are also the primary source of inward FDI. Brazil and Chile have the largest stock of FDI in Paraguay, followed by Spain, with each holding more than US$500 million in assets in Paraguay in 2018. Overall, Paraguay's FDI stocks are among the least concentrated in the world and are less concentrated than comparator countries (Figure 4.3-4.4).

Figure 4.3: Paraguay's Main Sources of Inward FDI Stock (2018)

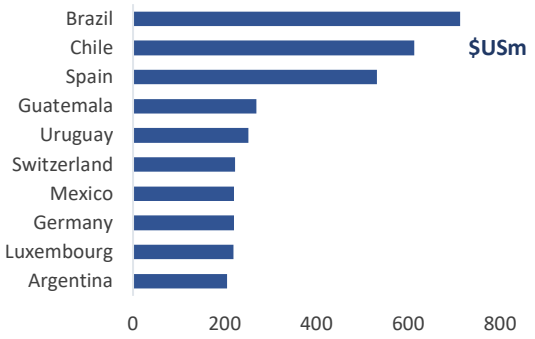
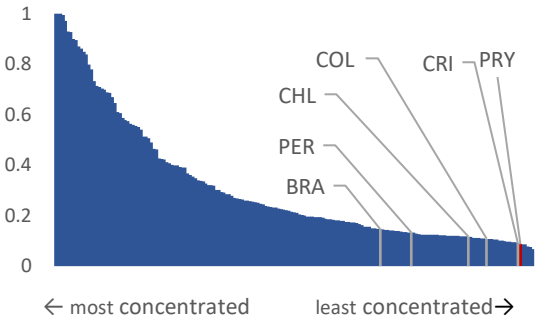


Figure 4.4: Dependency on FDI Source Countries (HHI) (2018)



Source: World Bank Bilateral FDI Database.
Note: For Figure 4.4, the HH Index of geographic concentration is defined as the sum of the squares of FDI inward stock from a given country. It would take the value of 1 in a case where all FDI originates from one country and approach zero the more dispersed FDI projects are across source countries. Negative bilateral stocks are treated as zeros.

New greenfield projects were limited during the past decade, but a couple of large FDI projects on renewables and sustainable forestry and paper have attracted large capital investments. These are expected to result in a substantial rise in exports in these sectors by the middle of the decade. The Financial Times database has recorded fewer than 15 new greenfield FDI project announcements in each of the past 10 years, with the total announced capital expenditure not exceeding US$500 million in any year from 2010 to 2018 (Figure 4.5). Two large projects--a renewable diesel biomass complex (US$800 million) and a sustainable forestry and pulp project (US$3.2 billion)--announced in 2019 and 2020, respectively, caused totals to spike in these years (Figure 4.6).[59] Excluding these projects, the evidence of an upward trend in either manufacturing or services FDI is limited. In 2019, Brazilian ECB group announced

[59] In 2019, Brazilian ECB group announced a US$800 million renewable diesel biomass complex in the industrial zone of Villeta. In 2020, Swedish company Girindus partnered with Paraguayan Zapag group to announce a US$3.2 billion sustainable forestry and pulp milling project.

a US$800 million renewable diesel biomass complex in the industrial zone of Villeta. Both projects, which dwarf other recent announcements, seek to leverage the agricultural and forestry resources while also contributing to Paraguay's sustainability and economic development goals.

Figure 4.5: Paraguay's Greenfield FDI Announcements (2010-2020)

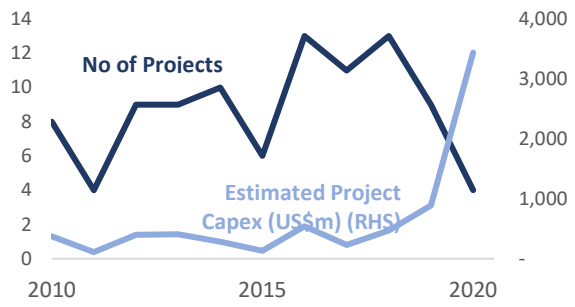
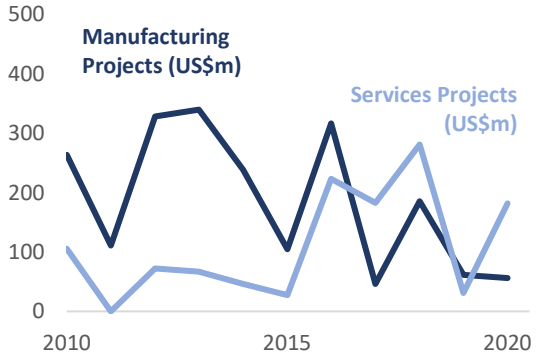


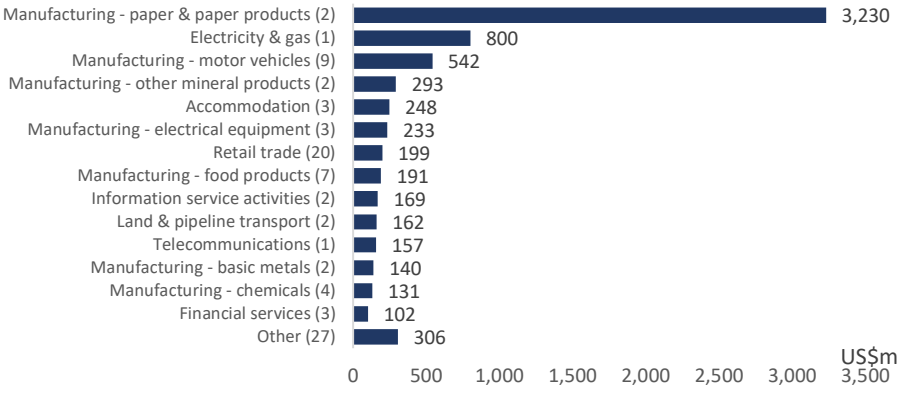
Figure 4.6: Paraguay's Greenfield FDI, Manufacturing vs. Services (2010-2020) (Excludes outliers)



Source: Financial Times fDi Markets.
Note: Data is based on the sum of announced Greenfield projects over the time period. Capex figures are estimates and should be treated with caution. Figure 10 Excludes a US$3,200m project from 2020 and a US$800m project from 2019.

The Maquila Law (1064/97) has contributed to the attraction of manufacturing projects (mainly to serve MERCOSUR and the region) and resulted in a corresponding rise in related exports over time. These investments have concentrated in vehicle assembly and electrical components as well as food. Since 2001, there have been 9 new projects or expansions in vehicle manufacturing and electronic components for vehicles, including a Chinese-owned truck assembly plant for US$26 million; three projects involving the manufacture of electrical or communications wires for US$233 million; and seven projects in food and beverages processing, totaling US$191 million (Figure 4.7). Increased FDI in these manufacturing sectors since 2005 has progressively led to a rise in related exports (Figure 4.8).[60]

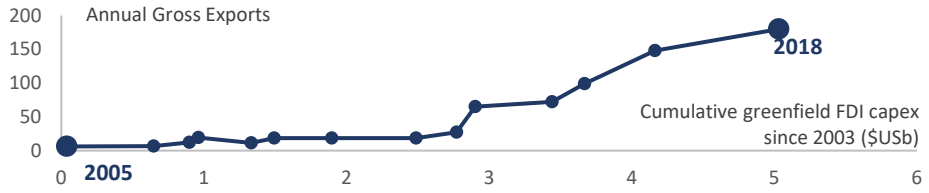
Figure 4.7: Paraguay 's Greenfield FDI by Sector in US$ million (2011-2020) (Number of projects in parentheses)



[60] According to the *Consejo Nacional de Industria Maquiladora y de Exportación* (CENIME) the role of the autoparts subsector has been key in the recent relative success and positive performance of the maquila framework in Paraguay. A total of 226 companies are part of the Maquila Framework as of April 2021.

Source: Financial Times fDi Markets. Note: Data is based on the sum of announced Greenfield projects over the time period. Capex figures are estimates and should be treated with caution.

Figure 4.8: Paraguay's Greenfield FDI and Exports of Electrical Machinery, Components, and Vehicles (2005-2018)



Source: Author's analysis of Financial Times fDi Markets and Atlas of Economic Complexity data.
Note: Gross exports are the total value of exports for HS codes 85 (electrical machinery and equipment, parts, and telecommunications equipment) and 87 (vehicles other than railway rolling stock). FDI is cumulative announced greenfield capex for ISIC divisions 26 (computer and electronic products), 27 (electrical equipment), 28 (machinery and equipment), 29 (motor vehicles), and 30 (other transport equipment).

Applying the FDI typology approach to the figures above would highlight the concentration of FDI in investments that seek to extract and transform existing raw materials in forestry and paper-related industries in Paraguay. The second most important type of investment in the country would be market-seeking FDI, mostly in services, utilities, logistics and retail. The country has received some efficiency-seeking investment focused on serving the MERCOSUR market as highlighted above. However, it appears to have still a lower presence in terms of value and relative share of total FDI flows.

4.1.2 The Impact of the COVID-19 pandemic

The COVID-19 weighed significantly on the global investments of multinational firms and Paraguay was also seriously affected. According to UNCTAD, FDI inflows into LAC amounted to US$105.5 billion, around US$56 billion less than in 2019 according to UNCTAD.[61] The decline was comparable to that of 2009, when inflows fell by 37.1 percent because of the global financial crisis. Paraguay was equally affected with FDI inflows falling by as much as 46 percent to US$120 million in 2020. The global FDI landscape remained complex in 2021. Global FDI flows showed an important rebound in the first half of 2021 but remained 25 percent to 30 percent below the 2019 level. In Central and South America, FDI flow levels have recovered to almost pre-pandemic levels for the first two quarters of 2021. The magnitude and characteristics of the recovery will depend on the pace of the global economic recovery and the strategies of transnational corporations to achieve greater resilience of their business models and global supply chains. Against this challenging context, Paraguay will need to strengthen its investment competitiveness, including its policy and institutional framework for FDI attraction.

[61] https://unctad.org/system/files/official-document/diaeiainf2021d2_en.pdf?utm_source=World+Investment+Network+%28WIN%29&utm_campaign=23e047a923-EMAIL_CAMPAIGN_2017_05_22_COPY_01&utm_medium=email&utm_term=0_646aa30cd0-23e047a923-70312317

4.2. Effectiveness of the Policy and Institutional Framework Supporting FDI

Paraguay's policy and institutional framework to foster FDI has evolved substantially over the past two decades with mixed outcomes. First, A relatively strong legal framework to foster FDI was enacted in 1991. Second, A strong push followed to enact a myriad of tax incentives programs in spite of the country's low tax rate. The effectiveness of these programs, however, has not been measured to date. Third, in 2015, REDIEX became responsible for investment promotion in addition to its traditional functions on export diversification. The institution has faced some challenges implementing its broader mandate *inter alia* due to limited resources and still evolving capacities.

4.2.1 An Open Investment Regime

Paraguay has an open investment regime that encourages FDI, but the law could be upgraded to align it changes in good international practices to the benefit of investors and the government. Global surveys of multinational companies emphasize the importance of legal protection. According to World Bank Group (2018), over 90 percent of all investors rate various types of legal protections as important or critically important, and around 33 percent of all global FDI inflow is reinvestment from existing investors.[62] The Investment Law (Law N. 117/91), which is the main domestic legislation regulating investment in Paraguay, provides important guarantees to investors with regard to national treatment, direct expropriation, transfer of funds and access to international arbitration. However, two decades after its approval, the law could be updated to offer greater clarity on sectors where it might not apply, on key definitions of investment and investor, and the scope of some of its guarantees (including protection against discrimination, fair and equitable treatment, access to international arbitration procedures, and free transfer of funds) as well as make reference to indirect expropriation. These changes would better align the law to Paraguay's international commitments and better inform investors, via one central document, of the rules they will have to abide by. Besides providing greater transparency and making the country more attractive to investors, the changes would protect the state against frivolous claims from investors that can be costly to settle. Box 4.1 provides more detailed information on the various areas where the legal framework can be strengthened.

Another important piece of legislation that could affect future investments is the proposed EU-MERCOSUR agreement. This agreement does not include a specific investment chapter and investors will have to rely on state-to state dispute settlement mechanisms and the existing BITs. As noted earlier (Box 4.1), the agreement calls for a strong commitment to transparency highlighting the need for member states to publish laws and regulations, and to implement mechanisms that address investors' queries and grant a right of appeal for stakeholders that consider that an administrative decision that impacts them needs to be corrected.

[62] World Bank Group 2017/2018 Global Investment Competitiveness Report.

Box 4.1 Paraguay. Enhancing the Transparency and Guarantees of the Legal Investment Framework

Paraguay's relatively robust legal investment framework can be further enhanced by providing greater clarity on core definitions in the Investment Law on the scope of sectors open to FDI and the extent of its guarantees.

Transparency around the scope and sectors open to FDI

Qualified asset-based definition of investment. Paraguay could consider adopting in its Investment Law a qualified asset-based definition of investment. This definition of investment is wider and provides more flexibility for the government to attract different types of economic activities. Since the definition is non-exhaustive, newer International Investment Agreements (IIAs) qualify the definition stating that the economic activity needs to have the ''characteristics of an investment''. Moreover, the definition to include in the Investment Law can also have a non-exhaustive list of economic activities generally understood to be considered investments following a model similar to the Bilateral Investment Treaties (BITs) in force with Italy and Portugal. In addition, domestic legislation could distinguish better direct from portfolio investment and not regulate the latter under the Investment Law.

Definition of investor. The Investment Law in Paraguay could specify further the definition of "investor**".** Such clarity is particularly relevant for Investor State Dispute Settlement (ISDS) procedures to state that investors that are dual nationals may not escalate grievances against the GoP to international arbitration. The BIT that Paraguay has signed with the United Arab Emirates provides a good example for such a definition.

Sectors opened, closed or restricted to FDI and the process for investing in those sectors. The law states very positively that all FDI can enter the country without prior authorization, but it does not provide a clear picture as to what sectors are open or closed to FDI. A *negative list*, which is a document that lists all sectors or subsectors that are closed or restricted (e.g., allowing only minority foreign ownership and requiring special authorization for foreign investors), could be developed as an annex of inferior legal value to the Investment Law to inform investors of where the restrictions are.

Protection guarantees under the domestic investment framework

Protection against discrimination: Paraguay's Investment Law guarantees the principle of "Protection against Discrimination" at the domestic level, but the granularity of the provision can be improved to be more aligned with good international practices. In particular, Article 2 could specifically note that it treats investors equally "in the same circumstances" to protect the GoP from frivolous claims and potential arbitration proceedings. An IIA such as the Regional Comprehensive Economic Partnership can serve as a model to strengthen the law.

Fair and Equitable Treatment: The Fair and Equitable Treatment (FET) guarantee is the most commonly used guarantee by investors to allege a violation by the State. The FET standard is designed as a rule of customary international law and is not determined by the laws of the host state. Unlike National Treatment, the FET standard might be violated even if the foreign investor received the same treatment as a domestic investor. A clear definition of this guarantee (minimum standard of treatment) is paramount for the government and investors alike. Paraguay upholds this guarantee in its BITs, but these are older agreements without a clear definition. It is recommended that the GoP includes a granular definition of the guarantee in its Investment Law.

Protection against indirect expropriation. According to good international practice, an expropriation is seen as legal if (i) it serves a public goal, (ii) follows a nondiscriminatory process where the investor has a right of appeal, (iii) offers a fair market value compensation to the investor, and (iv) allows this compensation to be transferred outside of the host country. The Constitution of Paraguay and BITs protect against unlawful expropriation but do not cover indirect expropriation. The Investment Law could include a reference to indirect expropriation. An indirect expropriation is the cumulation of actions that result in a *de facto* expropriation for the investor.

Free transfer of funds: Investors need a guarantee that they will be able to transfer their funds in and out of the host country, without undue delay, in a freely convertible currency, and in a nondiscrimination fashion**.** The current version of Investment Law provides for the free transfer of funds guarantee, but following good international practice, it could state that the transfer will be done without delay or in a nondiscriminatory way.

Access to ISDS: Paraguay offers access to international arbitration at both the international and domestic levels**.** All the reviewed BITs in force and the Investment Law include a provision that grants foreign investors' access to

ISDS. However, it is very important for the host country to clearly define the scope of this provision and disputes that can be escalated to ISDS to protect the state against frivolous claims since ISDS can be very costly. The Investment Law can be reinforced since it offers only a very general provision that "any dispute" can be brought to international arbitration.

Authors' elaboration

4.2.2 Institutional Framework for FDI Attraction

The institutional framework for FDI attraction involves multiple agencies. The MIC is the primary government institution responsible for investment policy and export diversification, and **REDIEX** ('*Red de Inversiones y Exportaciones de Paraguay'*)[63], reporting to MIC, is the agency responsible for export and investment promotion. In addition, several agencies are involved in the tax incentives regime for FDI with a mix of responsibilities, *inter alia* identifying and advising potential investors, and/or licensing them under specific tax incentives regimes (See section 4.2.3). Coordination efforts and operational contracts among all these agencies could be enhanced to assist with the country' s overall investment strategy and efforts to attract more FDI.

REDIEX has evolved positively since its mandate was expanded to include investment promotion in 2015, but it continues to operate with very few financial and human resources constraining its impact. A Directorship for Investment Promotion was created in the mid-2010s, and a new organigram was subsequently implemented in 2019—a change that has contributed to enhance its institutional performance with support from the Inter-American Development Bank.[64] Despite these positive institutional changes, REDIEX's financial and human resources (close to 35 staff) are too limited given its broad mandate. Many officials are thinly spread across export and investment promotion functions**.** The Investment Attraction Directorate has two officials to carry out all investment promoted related functions, and many more would be needed (closer to 7). Even after the Covid-19 pandemic erupted, an aftercare services program to established investors or an investor retention initiative has not been put in place. These are critical functions of an investment promotion agency since FDI inflows in most economies tend to come from existing investors.[65]

Furthermore, the institution would benefit from a more holistic strategy that translates the government's high-level policies to attract FDI into a concrete corporate plan. The plan could outline the agency's strategic vision and objectives, identify resources needed, propose how to target priority sectors and markets, and define key performance indicators (KPIs) to assess the agency's performance against its strategic objectives and mandate (Figure 4.9). To achieve greater impact, REDIEX might need to prioritize the number of targeted sectors given its limited resources and evidence from international experiences.[66]

[63] www.rediex.gov.py

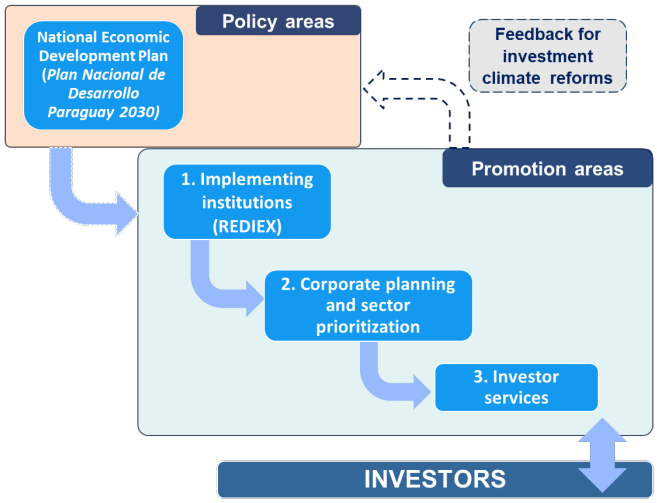
[64] The institution has benefitted from an investment project financed by the Inter-American Development Bank. As the project comes to an end in late 2021, the Government of Paraguay will need to facilitate the necessary support so the agency can continue to implement its functions.

[65] Heilbron, A., and Aranda-Larrey Y. 2020.

[66] These include forestry, light manufacturing, creative industries, IT services, agribusiness, regional logistics, valued added mining, personal services, and tourism.

International research has shown that investment promotion can be a very-cost effective tool to attract FDI when properly implemented, with the right strategic approach and dedicated resources. Harding and Javorcki (2011) found that, when investment promotion was focused effectively on average FDI inflows equivalent to US$189 for every dollar spent on investment promotion and one job was created for every US$78 spent on investment promotion. The transformation of other investment agencies provides valuable lessons for REDIEX (Box 4.2).

Figure 4.9. Cascading National Development Goals into an Investment Policy and Promotion Strategy



Source: Authors' elaboration

Box 4.2. High Performing Investment Promotion Agencies—Invest India and Malaysia Investment Development Authority (MIDA)

Invest India illustrates how a new investment promotion agency can be built in just a few years with strong vision and political support. 'Invest India' was established in 2009 but lay dormant for years. As recently as 2015, it had no more than a handful of staff, with investment traction. In 2015, the Government of India decided to reinvigorate 'Invest India' recognizing the need for an agency that would proactively attract foreign firms for the 'Make in India' program. Following international good practices, 'Invest India':

- **received full support of senior-level government officials, including direct access by the** chief executive officer to line ministers and the prime minister's office.
- **defined goals linked to the country's broader development goals.**
- **was granted strong financial support** and a functioning board with 51 percent private sector representation was established.
- **was allowed to recruit high-caliber management and staff** outside the normal civil service procedures.
- **adopted a new operating model** designed to offer high quality services to investors.

Since the agency's rejuvenation in 2015, Invest India has become an award-winning IPA, **contributing to making India one of the world's top-five greenfield destinations in 2018. Among others,** Invest India received the UNCTAD global award for best-practice IPA in 2016 and for sustainable development investments in 2019. By mid-2019, Invest India had responded to more than 193,000 business requests from 126 countries, 92 percent of which were answered within 72 hours. Working with close to 760 companies, it had generated a

project pipeline of US$138 billion, of which an estimated US$22.7 billion had been executed, with 135,000 direct jobs in the process of being created.

In the 2010s, Malaysia's National Economic Transformation Program identified FDI as critical to the country's economic transformation and placed MIDA at the center of its investment promotion efforts. Several factors were key in transforming MIDA into a highly dynamic and professional investment promotion agency:

- **A public-private board of directors was established**, including representation from key ministries (e.g., labor, customs, and environment).
- **The agency focused on attracting FDI in a few competitive sectors and set clear goals with KPIs**.
- **The agency developed a new investor service offering**.
- **It attracted highly qualified staff with public and private sector experience**.

Sources: www.investindia.gov.in; www.mida.gov.my; interviews with Invest India and MIDA top management.

4.2.3 Generous Investment Incentives

Many countries provide costly tax incentives to promote FDI, but evidence shows that other factors seem to be more important to potential investors, especially when tax rates are comparatively low. The World Bank Group's Global Investment Report 2019-2020 found that factors such as good investment climates, political stability, regulatory quality, and market opportunities are more critical to investors' initial location considerations than are tax rates and incentives (Andersen, Kett, and von Uexkull 2018; UNIDO 2011; World Bank 2018).[67] Research has also shown that **only at relatively high tax rates--above 23 percent on average--the effect of tax holidays seems to become positive** (Von Uexkull, Perea and Andersen, 2017). Tax incentives need to be conceived as part of a broader investment policy framework, and their impact in terms of FDI attraction and its benefits needs to be measured against the costs of foregone tax revenues. In this light, cost-benefit analysis can serve as a powerful tool to inform incentives policy reform and offer important inputs into a country's overall investment policy strategy.

Despite having a comparatively low tax rate, Paraguay offers extensive tax incentives to attract FDI, but their impact has not been measured (Figure 4.10). Broadly speaking, most of these programs seek to attract FDI (or sometimes national investments) in pursuit of higher exports, export diversification, or import substitution. Multiple policies and laws (*inter alia* the National Tax Investment Regime, the Maquila Law, the Investment Guarantee Law, the Free Zones Law, and the National Automotive Policy) govern these programs increasing the complexity of their management and creating some overlaps, especially since coordination among the agencies responsible for their oversight and implementation is loose (Box 4.3). In addition, there is no analysis of the cost-effectiveness of these incentives in achieving the desired policy objectives or their potential tax implications; no centralized inventory of all beneficiaries exists with information scattered across different registries. A review of the impact of each of these programs and their value addition to a larger and holistic investment competitiveness strategy would be needed.

[67] WBG Global Investment Competitiveness Report 2017-2018

Figure 4.10. Tax scheme in 2020, Paraguay and comparator countries.

TAXES					
Top corporate tax rate	**10%***	30%	25%	34%	25%
Maximum personal tax rate	**10%**	35%	36%	28%	13%
Common indirect tax rate (e.g. VAT)	**10%**	21%	22%	17%	13%
Total referential of taxes and social contributions (according to the World Bank)	**35%**	106%	42%	65%	84%

Source: REDIEX

Box 4.3. A Broad Range of Investment Incentive Regimes

Despite a comparatively low tax rate, Paraguay offers extensive tax incentives programs to attract FDI. The main programs are presented below.

- The main ***National Investment Tax Incentive Regime,*** launched in 1990 and amended in 2004, is administered by the National Council of Investments *('Consejo Nacional de Inversiones').* It establishes a tax incentive scheme for capital investments of national and international origin that seek to contribute to increase the production of goods and services, promote exports and substitute imports. Among others, it offers foreign investors total exemption from corporate and municipal taxes, customs levies and equivalents on the import of capital goods.

- ***The Investment Guarantee Law*** (Law 5542/15), also administered by the National Council of Investments, seeks to protect productive investments, when contributing to employment generation and economic and social development. It guarantees a fixed income tax rate for a minimum of 10 years and up to 20 years (depending on the amount of the investment) to companies that comply with the regime

- ***The 'Maquila Law'*** (Law 1064/97) operates under the National Council of Maquiladoras Export Industries or '*Consejo Nacional de la Industria Maquiladora de Exportación' (CNIME)*). To benefit from this regime, an international firm must register at the CNIME and sign a contract with a domestic subsidiary ('*Maquiladora'*) for the production or processing of exporting goods (total or intermediate) as well as the provision of services. Firms require a minimum of 60 percent of regional value added (including Paraguay) to obtain a certificate of MERCOSUR origin. Close to 80 percent of foreign firms under this regime come from MERCOSUR, mainly for automotive and textile sectors. CNIME also undertakes promotional efforts, in coordination with REDIEX, proposes policies related to the 'Maquila scheme', and elevates to the MIC and the Ministry of Finance issues related to the implementation of the scheme that necessitate resolution.

- ***The Free Zones Law*** *(Law 523/95)* functions under the oversight of the National Council of Free Zones, an autonomous body. In order to benefit from the scheme, firms must comply with legal trade requirements, be registered in the relevant national register, and carry accounting books that are separate from any other activity conducted outside the free zone. Firms who are exclusively engaged in exports to third countries are subject to a single tax called the '*Free Zone Tax*', whose rate is 0.5 percent of the total value of the yearly gross income from sales to third countries. Those who also sell to the national territory more than 10 percent of yearly gross sales revenue are subject to income tax but benefit from a 70 percent reduction of the applicable rate.

- ***The National Automotive Policy,*** governed by Law 4838/12 and Law 5819/17 and managed by the Directorate of the National Motor Policy ('*Dirección de Política Automotriz Nacional*'), outlines tax incentives for capital investment of national and foreign origin that stimulate the manufacture and/or assembly of vehicles motorized and non-motorized, and auto parts.

- Other laws that can also affect investments include Law 4903/13 on Industrial Parks; Law 5074/13 on the Public Works Regime; and Law 4427/12 on High-Tech Goods.

Authors' elaboration

4.3 Potential Reform Areas

While the national development strategy supports foreign investment attraction, the development of a holistic investment attraction strategy would be desirable. The strategy would seek to leverage FDI to advance Paraguay's development goals, and among others, it could identify sectors where the country could position itself to attract efficient seeking FDI in the post-Covid world where multinational enterprises are reexamining investment locations. The strategy would define roles and responsibilities and establish mechanisms to foster strong coordination among government agencies involved in investment attraction**.** Introducing a range of clear and measurable key performance indicators (KPIs) would help in tracking progress and evaluating the strategy's effectiveness.[68]

Increasing the transparency, targeting and effectiveness of investment incentives will need to be a critical element of the investment attraction strategy. This will require putting in place a comprehensive inventory of investment programs at all government levels and conducting an evaluation of their cost-effectiveness. The evaluation would cover costs in terms of foregone tax revenue as well as their developmental impact. Possible areas for reform include the targeting of sectors; selection of appropriate instruments (including behavioral and non-fiscal incentives such as loans or rebates to support business development) or subsidizing skills training; and the timeframe of fiscal or financial incentives to avoid granting privileges for excessive periods of time. The review of incentives programs could also examine administrative guidelines to streamline procedures, diminish discretion, and encourage transparency. (Box 4.4 provides further information on how the Philippines has been leveraging benefit-cost analysis to revamp its tax incentives program.) Efficiency seeking investors—whose investment decisions are primarily driven by saving costs—are more likely to be responsive to tax incentives, but are also more demanding in terms of the overall investment climate and the ability to connect easily with global markets. Hence, incentives are far more effective when embedded into an overall investment promotion strategy that also strengthens the investment climate.

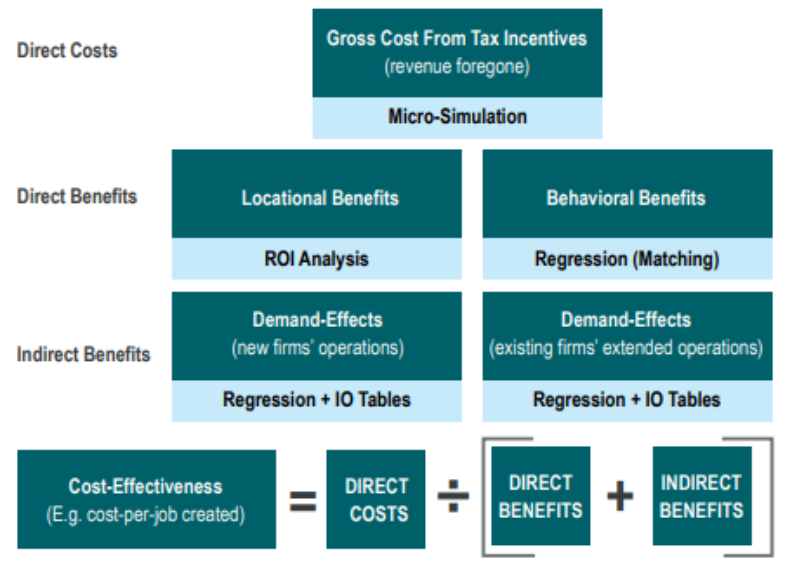
[68] Governments generally adopt two sets of targets. The first is a series of economic impact targets such as capital invested, broken down by new investors and expansions by existing investors; by sector; and jobs created. The second is a set of internal operational targets showing input activities that will lead to the economic impact targets.

Box 4.4: A Benefit-Cost Analysis to Revamp Corporate Tax Incentives in the Philippines

In 2018, the Government of the Philippines decided to understand the overall revenue and developmental impact of tax incentives and embarked on a cost-benefit analysis of incentives with support from the WB. The evaluation considered the potential benefits across a range of objectives (locational and behavioral) and combining various empirical methods. As illustrated in the figure below, the approach brought together four components:

1. **Direct costs** (revenue foregone) estimated through a micro-simulation;
2. **Direct locational benefits** (attracting new firms) analyzed using a return on investment (ROI) approach;
3. **Direct behavioral benefits** (such as raising employment for existing firms) identified through matching-based regression analysis; and
4. **Indirect benefits** (such as jobs created via supplier linkages) identified by considering sectoral input links (via industry Input-Output (IO) tables, combined with estimated employment-to-sales elasticities.

Combining these components, all the costs and benefits were compared across sectors via aggregate cost-benefit ratios. The output reflected a wide range of cost-per-job ratios. Policymakers leveraged this analysis to inform recommendations on streamlining the country's incentives regime by focusing resources on those sectors and incentive instruments for which the cost-benefit ratios were more favorable.



Source: Evaluating the Costs and Benefits of Corporate Tax Incentives, WBG, 2020

The current institutional capacity and available resources to undertake proactive investment promotion efforts in Paraguay present room for improvement. This significantly restricts the country's ability to compete for projects and effectively attract and retain international investments. While REDIEX's investment promotion capacity has grown in recent years, a clear strategy with KPIs (possibly focused on fewer sectors) coupled with further resources will be necessary for the agency to perform proactive FDI promotion and provide investor assistance along the entire investment cycle (Figure 4.11). REDIEXs' strategy needs to prioritize the introduction of a strong aftercare program with key services for

established investors since globally most investments tend to come from existing investors.[69] New digital means could support promotion and investor services replacing more costly participation in conferences and trade fairs. Box 4.2 describes examples of good practice investment promotion agencies from India and Malaysia.

Figure 4.11: Investor Services Provision across the Investment Cycle

	ATTRACTION	ENTRY & ESTABLISHMENT	RETENTION & EXPANSION	LINKAGES & SPILLOVERS
Category 1 Marketing services	✓		✓	✓
Category 2 Information services	✓	✓	✓	✓
Category 3 Assistance services	✓	✓	✓	✓
Category 4 Advocacy services	✓	✓	✓	✓

Source: World Bank Group

In the medium term, as REDIEX develops greater capacities, the institution could sponsor a program to link local firms to FDI and foster their participation in regional value chains. During consultations held for this report, private sector stakeholders highlighted the inadequate availability of suppliers of key inputs. At the same time, weak linkages limit the positive spillover effects that FDI can bring to the rest of the country. The Government of Paraguay can play a role in encouraging linkages between domestic SMEs and FDI. Countries such as the Czech Republic and Costa Rica, and more recently, Vietnam have successfully implemented suppliers' linkages programs. These programs, typically housed in the investment promotion agency, have entailed (i) a supply-demand gap analysis to understand the potential for backward linkages in sectors with a critical mass of FDI; (ii) a pre-selection of companies that satisfy minimum criteria; and (iii) an upgrading of the pre-selected firms to meet the quality standards of multinational enterprises. The investment promotion agency also maintains a database of qualified suppliers. For example*, Czech Invest* contains more than 3,500 records of qualified Czech suppliers. Contracts concluded between Czech suppliers and multinational enterprises between 2001 and 2011 amounted to US$586 million. In Costa Rica, the directory of local suppliers managed by the national investment promotion agency has been key in helping multinational enterprises start operating in the country.[70]

Finally, while the Investment Law provides a relatively robust framework, amendments will be needed in the medium term to adapt it to new international practices and investors' expectations.

[69] To complement aftercare efforts, the GoP could establish an Investment Grievance Mechanism that would provide the minimum institutional infrastructure to identify and manage grievances between investors and public agencies as early as possible. This type of mechanisms helps ensure that the government responds to investor grievances in a suitable manner and in accordance with the country's international investment agreements, and domestic laws.

[70] In 2015, CINDE attracted 39 new projects in the services, advanced manufacturing, life sciences, light manufacturing and food industry sectors. Each of the new investors used the directory of local suppliers during their scoping and establishment phases.

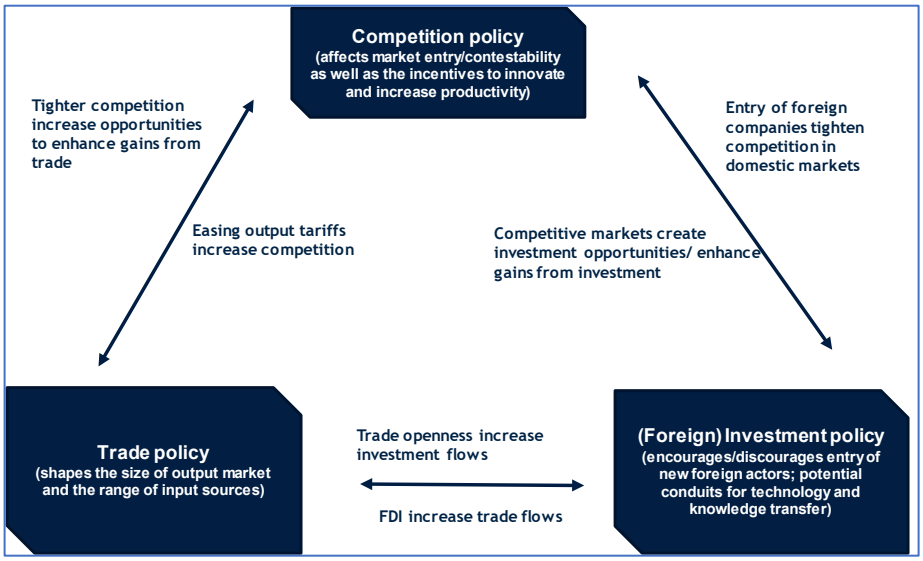
Table 4. 1 Policy Recommendation to Spur FDI

Reform area	Short-term (<1 year)	Medium-term (2-5 years)	Long-term (<5 years)	Responsible Agencies
	Action			
Strategic framework for FDI attraction	Clarify the role of FDI, defining objectives, contribution to policy goals, targes, roles of key agencies, and M&E framework.			MIC in consultation with private/public stakeholders
	Update REDIEX's sector investment promotion strategy, including further prioritization and targeting, based on a robust sectoral evaluation.			**MIC / REDIEX**
Institutional framework for FDI attraction		Consider establishing a formal integrated coordination mechanism that would aim to maximize national investment promotion efforts.		**REDIEX**
	Design institutional strengthening program for REDIEX with a focus on key functions (promotion and services), financial and human resources, M&E.	Implement institutional strengthening program		**REDIEX**
	Design a full-service offering for foreign investors at all stages of the investment cycle including an aftercare program.	Implement full-service program		
Increasing effectiveness of tax incentives	Evaluate the effectiveness of existing incentives via cost-benefit analyses and qualitative assessments.	Redesign, eliminate and/or replace with lower fiscal cost instruments to improve effectiveness. Bylaw changes might be needed. Create an online centralized incentives inventory.		**MIC**
Stimulating participation of SMEs in GVCs		Design and implement programs to foster linkages between FDI and SMEs.		**MIC/REDIEX**
Legal and regulatory framework for investment			Review the Investment Law to clarify key elements, including the scope of coverage, the sectors where it may not apply, and referencing indirect expropriation.	MIC

5. UNLEASHING DOMESTIC MARKET COMPETITION TO SUPPORT GLOBAL INTEGRATION [71]

Competitive domestic markets improve productivity and international competitiveness, complementing the benefits of other trade and FDI policies aiming to integrate into the global economy. Competition fosters cost reductions, innovation, productivity and economic growth (Acemoglu et al., 2007; Aghion and Griffith, 2008; Bloom, Draca and Von Reenen, 2011), shifts market share toward more efficient producers, and induces firms to become more efficient to be successful increasing their chances of prospering in international markets (Kitzmuller and Licetti, 2013; Buccirossi et al., 2009; Voigt, 2009). Evidence indicates that firms in competitive markets export more (Goodwin and Pierola, 2015). Export firms typically acquire important inputs (both goods and services) in local markets, and weak competition in upstream markets may cause domestic firms to be less competitive in export markets than their foreign rivals. Indeed, effective trade, investment, and competition policies complement each other. Foreign investment policy encourages or discourages entry of new international firms; trade policy affects the size of the output market and the inputs available to exporting firms; and competition influences "behind the border" market entry and contestability of both input and output markets while encouraging firms to innovate and increase productivity (Figure 5.1).

Figure 5.1. Trade, investment, and competition policies: attributes, synergies, and complementarities



Source: Strengthening Argentina's Integration in the Global Economy: Policy Proposals for Trade, Investment and Competition (WBG, 2018)

Several data sources, however, point to limited competition in markets in Paraguay, which could be holding back the country's international competitiveness. Among others, lack of competition in key network industries could be affecting the competitiveness of downstream industries. While the Competition Law, enacted in 2013, provides a relatively solid legal framework, more forceful implementation is necessary. CONACOM, the competition agency, has made a good effort at applying the

[71] This section is based on a background technical note prepared by Noelia Carreras (Legal Specialist) and Graciela Miralles (Senior Economist).

legal framework. However, the agency is still relatively young and scarce human and financial resources are slowing down its development. A few key legal gaps could also undermine its mandate and future effectiveness. A more systematic application of regulatory impact assessments as adopted in many LAC countries would help improve the quality of business regulations, reducing the cost imposed on firms and creating better conditions for market contestability and firm entry and rivalry.

This Chapter assesses indicators of competition in Paraguayan markets and the strengths and gaps of the competition policy and institutional framework and proposes recommendations. The competition policy framework is a set of public policies aimed at protecting and promoting market competition which involves: (i) the promotion of regulations and other interventions that enable contestability firm entry and rivalry; (ii) the effective enforcement of competition laws, and (iii) the safeguard of competitive neutrality.

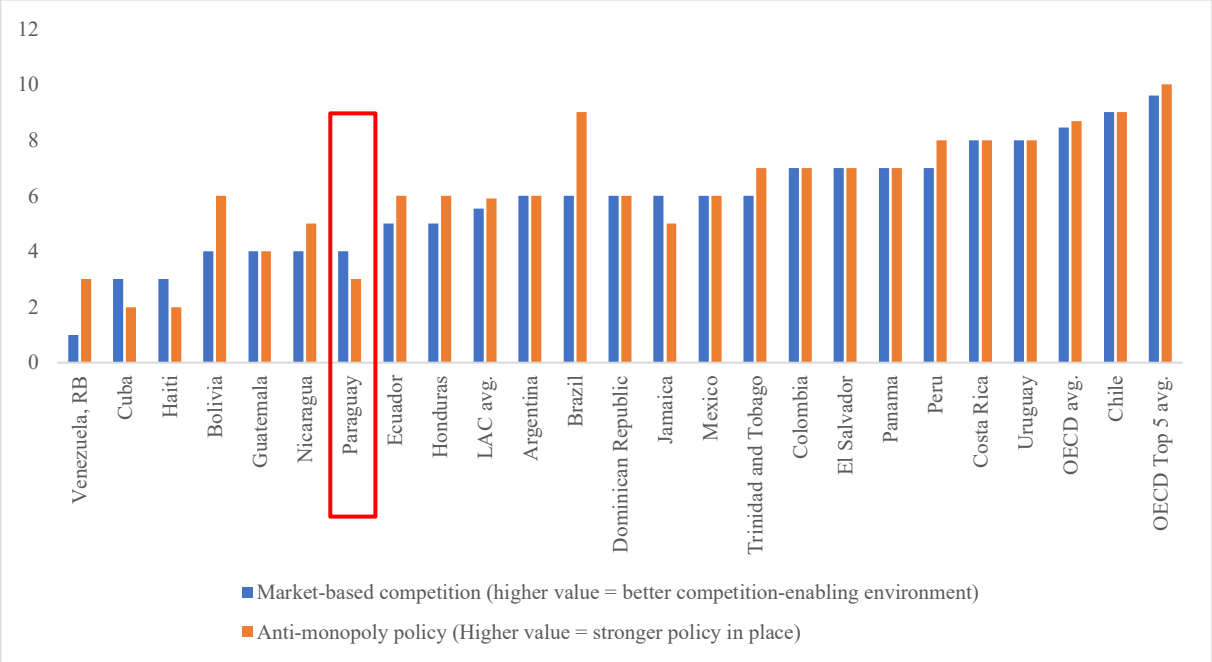
5.1 The power of competition to transform markets is still to be unleashed

Paraguay approved a modern competition regulatory and institutional framework almost a decade ago, but strong implementation needs to follow. In 2013, a new Competition Law (Law 4956/13) for Paraguay entered into force and in 2015 CONACOM--National Competition Commission--was established. These reforms confirmed the government's commitment to more open and dynamic markets and laid the groundwork for a potentially transformative framework, including the ability to sanction anticompetitive practices and control the negative effects of mergers. However, despite significant efforts, institutional resources within CONACOM are scarce and no cases against anticompetitive practices have been finalized yet.

Various data sources suggest limited competition in Paraguayan markets, which may be affecting the international competitiveness of the country. According to the latest Bertelsmann Transformation Index (BTI), the fundamentals of market-based competition and antimonopoly policy in Paraguay are perceived to be less developed than in regional peers and remain below the LAC average (Figure 5.2).[72] These results reflect a relatively weak institutional framework, with uneven rules for market participants, and a rare enforcement of the existing competition law. In turn, these conditions increase risks for the private sector, especially those related to vested interests and unfair business practices (Figure 5.3).

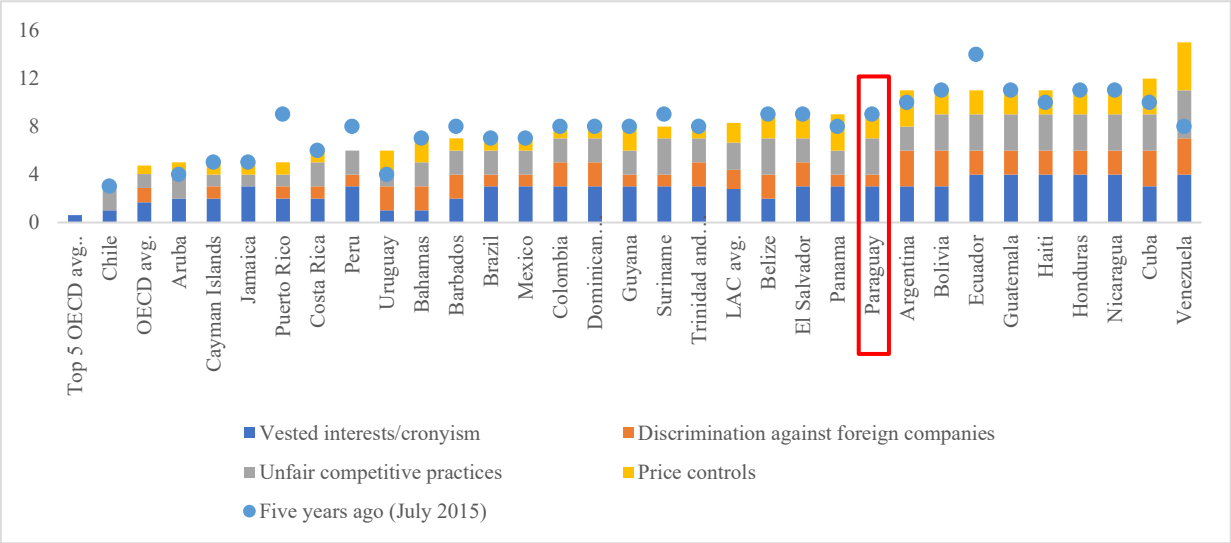
[72] The BTI indicators answer the following questions based on expert judgment: (i) to what level have the fundamentals of market-based competition developed (including the low importance of administered pricing, currency convertibility, no significant entry and exit barriers in product and factor markets, freedom to launch and withdraw investments, and no discrimination based on ownership (state/private, foreign/local) and size; and (ii) to what extent safeguards exist to prevent economic monopolies and cartels, and to what extent they are enforced (including the existence of antitrust or competition laws and enforcement).

Figure 5.2: Market-based competition and anti-monopoly policy for Paraguay and select LAC countries, 2020



Source: WB estimates based on Bertelsmann Transformation Index, 2020.

Figure 5.3: Business risks related to weak competition policies for Paraguay and selected LAC countries, 2020 (component score, 0-4, with 4 = worst)



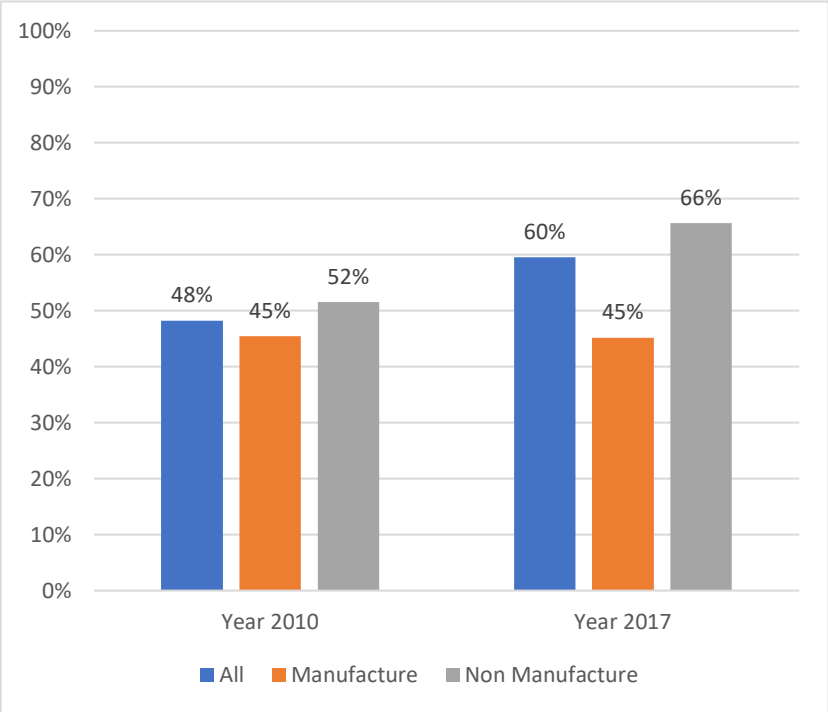
Source: WB estimates based on the Economist Intelligence Unit Risk Tracker (a perception indicator), October 2020.

Despite improvements, close to 30 percent of firms in the manufacturing sector consider to be competing in relatively concentrated markets. The manufacturing sector is typically characterized by low levels of market concentration. However, data from the WB's Enterprise Survey show that the share of Paraguayan manufacturing firms that consider to be operating in oligopolistic markets is still relatively high at 29 percent in 2017, although a decline since the 36 percent recorded in 2010. While market concentration might organically result from market characteristics, it might also be related to firm

limitations to enter and compete. On the one hand, market concentration may result from natural barriers, small market size, or firms operating more efficiently because of scale economies. On the other hand, it can be associated with government regulations and interventions that disrupt the marketplace by limiting entry or facilitating dominance; by enabling agreements among competitors or restricting the ability to choose their market variables; or by discriminating and protecting vested interests. To this end, it is important to observe market outcomes such as price-cost margins (PCMs), often used as a proxy for firms' market power, that is, the ability of firms to raise prices above marginal costs.

The large proportion of firms that seem to enjoy relatively high markups indicates that competition conditions could be improved. Price-cost margins (PCMs) are often used as a proxy for firms' market power as they reflect the ability of firms to raise prices above marginal costs.–Evidence from the WB Enterprise Survey for Paraguay in years 2010 and 2017 suggests that average price-cost margins (PCMs) have increased in the services sector (Figure 5.4). The analysis of the Kernel density presented in Figure 5.5 shows the PCM distribution function and provides an overall view of the degree of markup heterogeneity and/or dispersion across Paraguayan firms. The figure shows the tail of the services sector shifted to the right, showing a large mass of firms with larger markup, than in the manufacturing sector where the highest values are below 0.5.[73] In addition, a regression analysis shows that manufacturing firms—with similar characteristics (in terms of age, size, ownership, exporter status, and region) as services firms—have 18 percent lower PCMs on average than services firms.[74]

Figure 5.4: Paraguay. Average firm Price Cost Margin by sector

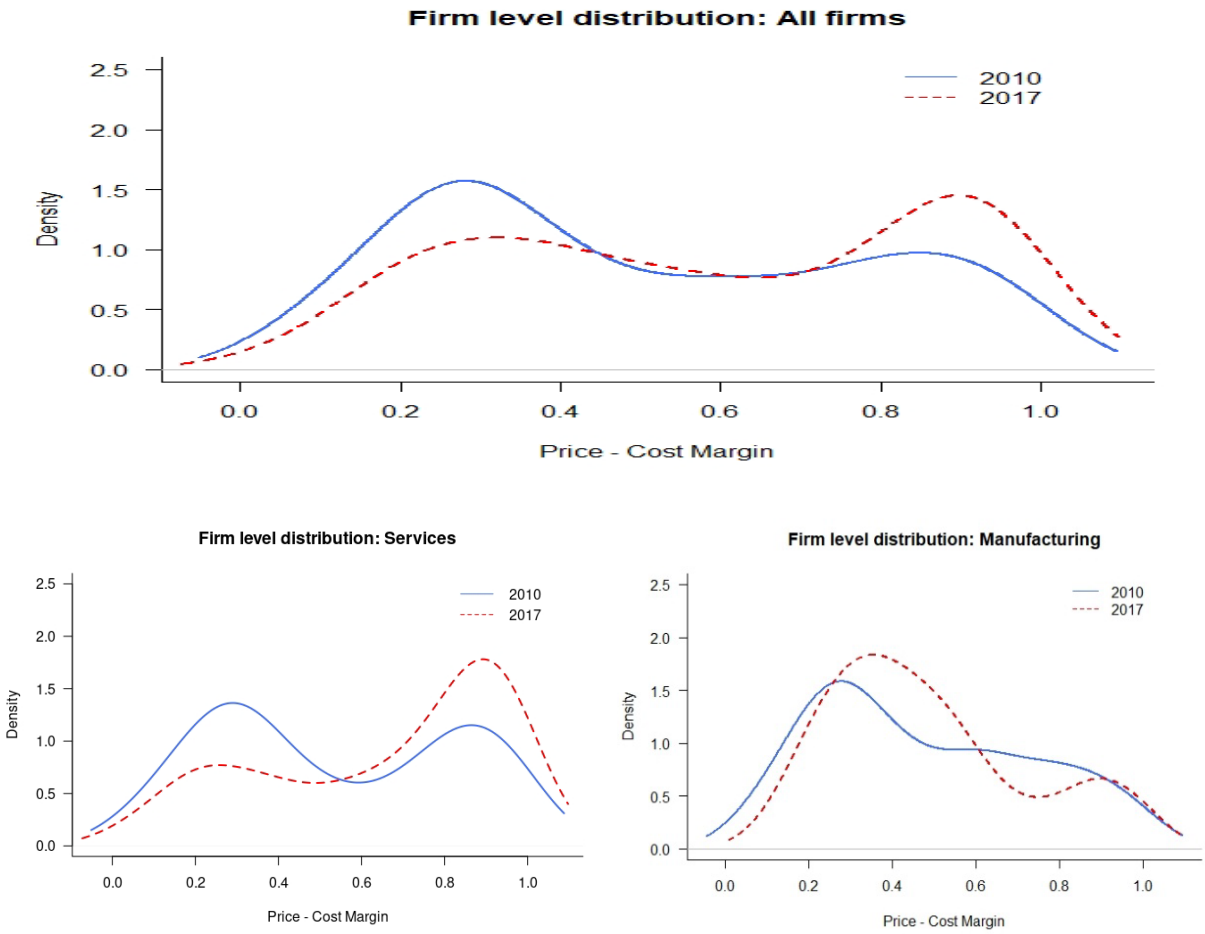


Source: WB estimates based on WB Enterprise Survey for most recent years.
Note: The PCM is defined as (sales - total cost of sales)/sales. Observations in the top and bottom percentile of each ISIC rev 3.1 two-digit sector and year distribution are excluded as outliers. Survey weights are applied. For interpretation purposes, a PCM value of 40 percent reflects that prices exceed costs by 67 percent, for example.

[73] Services includes the following sectors for Paraguay data: ISIC codes 45 (Construction), 50-53 (Wholesale, Retail trade), 55 (Hotels and restaurants), 65-67 (Financial intermediation), and 70-74 (Real estate, renting and business activities).

[74] A cross-section regression was conducted to explain price-cost margin (PCM) performance between manufacturing and services sectors firms. The dependent variable—the logarithm of price-cost margin, defined as (sales - total cost of sales)/sales—was related to firm characteristics such as the age group (i.e., young, mature and old if the firm is at most 5 years, between 6 and 15 years, and more than 15, respectively); size group (i.e., small, medium, and large if the number of employees is less or equal to

Figure 5.5: Paraguay. Distribution of Price Cost Margins by year and sector



Source: WB estimates based on WB Enterprise Survey for most recent years.
Note: The PCM measure is defined as (sales - total cost of sales)/sales. The analysis excludes negative PCM values and those above 100 percent. Observations in the top and bottom percentile of each ISIC rev 3.1 two-digit sector and year distribution are excluded as outliers. Survey weights are applied. For interpretation purposes, a PCM value of 40 percent reflects that prices exceed costs by 67 percent, for example.

Implementing pro-competition reforms in key service and network sectors in Paraguay may lead to increases in gross value added and economic productivity (Arnold et al.,2008; Barone and Cingano, 2011). Barone and Cingano (2011) find that, for OECD countries, lifting restrictive regulations in input services sectors can generate gains in value-added growth in downstream service-dependent industries.[75] Thus, a simulation exercise considering only pro-competition reforms in services sectors

20, greater than 20 but less than 100, and above 100, respectively); ownership (i.e., a dummy variable equals 1 if foreigners have more than 10 percent of ownership and 0 otherwise); export status (i.e., a dummy variable equals to 1 if a firm's export revenue is at least 10 percent of sales); a regional dummy; a manufacturing sector dummy; and a year effect (i.e., a dummy for 2017).

[75] Barone & Cingano (2011) studies the effect of restrictive service regulation on value added growth. To do so, it quantifies the value-added growth differential of a country with relatively low restrictive regulation compared to one with more restrictive regulation in service sectors. The former lies within the 25th percentile of the PMR distribution, and the latter within the 75th

(such as energy, water, telecommunications, transportation and professional services) – keeping other things equal – suggests potential additions to Paraguay's annual GDP growth of 0.2 percentage points in one year (Table 5.1).

Table 5.1: Paraguay. Simulation of potential effects of reforms in four services sectors on annual GDP growth

Sector	Effect of reform on growth in downstream industries with above the median service intensity			
	Estimated impact on annual value added (percent)	Expected impact on GDP measured at market prices 2019		Number of service intensive sectors
		(bill. PYG)	(bill. USD)	
Electricity, water, business/professional services, transport, and telecommunications	0.20	467.31	0.07	14

Source: WB analysis using data from Paraguay's 2015 Input-Output Table available in the EORA Global MRIO and the IMF World Economic Outlook Database.
Note: Following Barone and Cingano (2011), the estimate assumes that, all else being equal, reforms in services sectors will translate into additional value-added growth of 0.2 pp annually. This effect is indicative and may be affected, among others, by 1) differences between OECD and non-OECD economies; 2) differences in production processes over time; and 3) changes in PMR methodology. The estimate does not reflect changes in ownership of firms or market structure. The estimate does not include growth in 34 sectors with below-average dependency on services. The estimate assumes that value added and output remained unchanged in Paraguay between 2015 and 2019.

5.2 Multiple factors restrict competition

Multiple factors are influencing the effectiveness of Paraguay's competition policy framework. First, regulations are affecting the incentives or ability of firms to compete in certain markets. Second, the strengths of the competition law are partly undermined by gaps in CONACOM's enforcement powers. Third, there are gaps in market institutions. Addressing both public and private practices that restrict competition is essential to promote contestable and open markets in order to drive investment and private sector competitiveness. In this context, it is important to ensure that regulation does not impede market entry or facilitate anti-competitive practices which, in turn, need to be effectively penalized. To achieve this, market institutions have to be operational and effective. These three elements are further analyzed below.

5.2.1 Regulatory restrictions limit entry and contestability

Restrictive product market regulations (PMRs) can limit competition in key enabling markets and negatively affect competitiveness. Although government interventions in markets are sometimes justified and indeed necessary, they may also unduly limit competition conditions. Studies have shown

percentile. The simulation does not take into account specific restrictive regulations, but the reduction of the level of restrictiveness according to the PMR indicators/values.

that countries with more restrictive regulations export less and grow more slowly.[76] For example, a simulated reduction in the regulatory restrictions affecting the Mexican services sector suggested that targeted reforms could yield an additional 0.4 to 0.5 percentage points of GDP growth each year (WBG 2019).

Product Market Regulations (PMR) in Paraguay appear to restrict competition in input sectors, thus limiting the competitiveness of downstream firms. PMR Indicators developed for Paraguay in 2016 showed that the country was strong on the level of direct control over firms with public participation in fully commercial sectors (e.g., manufacturing, retail trade, road freight transport), lack of antitrust exemptions for state-owned enterprises (SOEs), low legal barriers to enter non-network industries and relatively low FDI restrictions. [77,78] The data also showed that Paraguay could substantially improve on aspects related to government involvement and barriers in network sectors, governance of SOEs, administrative burden for firms, as well as tariff trade barriers and barriers to trade facilitation (Box 5.1). This Chapter analyzes the progress achieved since the 2016 PMR and areas where further improvements are needed. It includes a comparison with the latest PMR data available for the LAC region and other countries in the dataset as of 2021.[79]

[76] OECD (2005) assessed the potential long-run trade and output gains to OECD countries from a package of structural reforms to enhance product market competition, reduce broad tariff barriers and ease FDI restrictions. Product market reforms were found to provide the largest part of overall gains in GDP and were "by far the largest driver" of an expected increase of total OECD exports by 30 percent.

[77] The PMR was jointly developed by the WB, OECD and IADB.

[78] Areas addressed by the methodology shed light on economy-wide and key sectors regulatory restrictions on twelve topics: electricity; gas; telecom; post; transport; water; retail; professional services; other sectors; administrative requirements for business start-ups; treatment of foreign parties; others such as governance of public-controlled enterprises or antitrust exclusions and exemptions. PMR values for all countries are available at https://www.oecd.org/economy/reform/indicators-of-product-market-regulation/

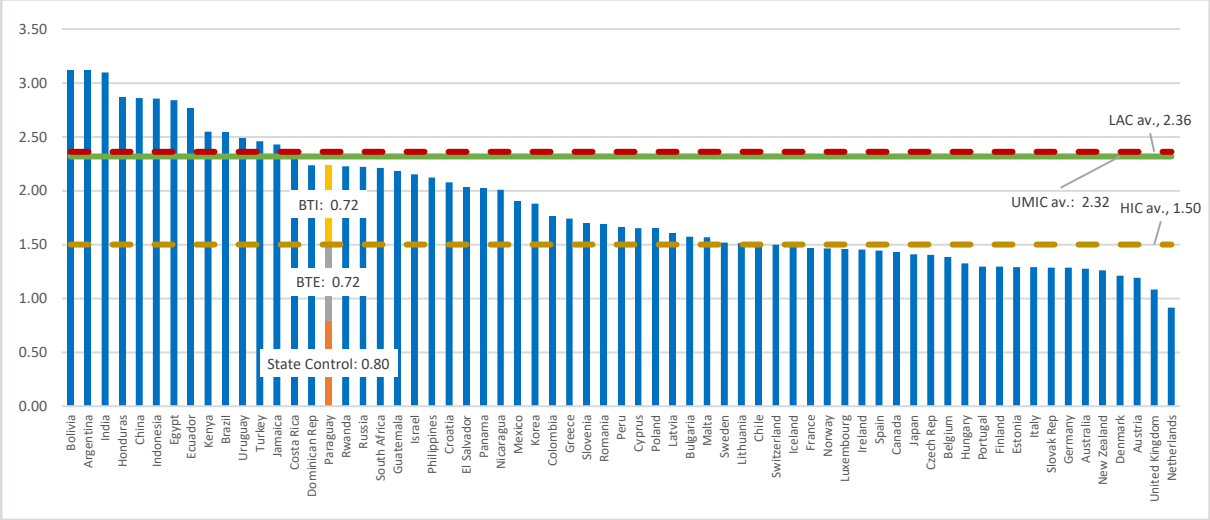
[79] The latest PMR database covers 7 countries in Latin America, including Argentina, Brazil, Chile, Colombia, Costa Rica, Mexico, and Perú in Latin America; 36 high income countries; and 8 upper middle-income countries.

Box 5.1: OECD-WBG Product Market Regulation Indicators for Paraguay 2016

The PMR database offers internationally comparable indicators that measure the degree to which regulations on the books foster or limit firm entry and competition in areas of the product market where competition is viable.[80] The PMR indicators cover both economywide barriers to competition and barriers in key enabling sectors.

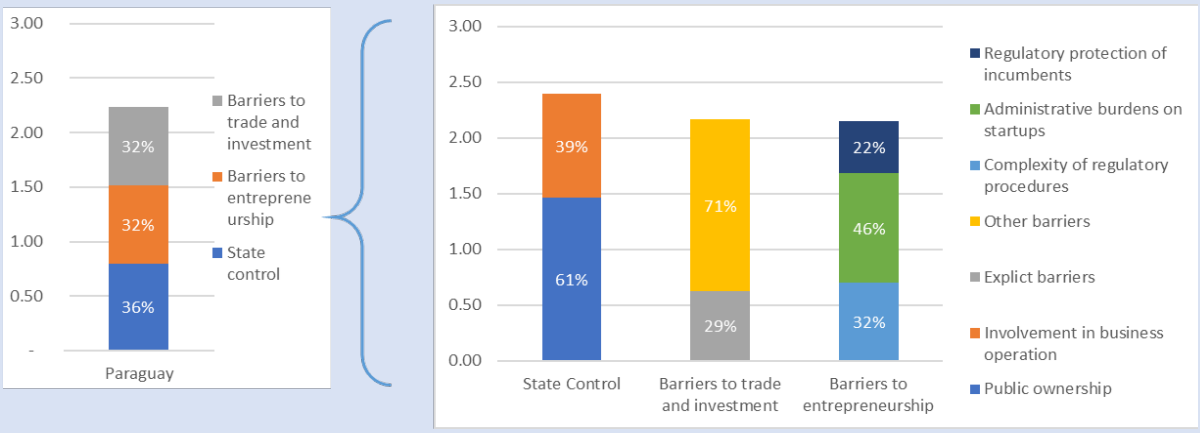
In 2016, the overall PMR indicator of 2.24 for Paraguay showed that regulatory restrictiveness was high compared with regional peers such as Mexico, Colombia, Peru and Chile, and above the OECD average (Figures 5.5-5.6). However, the score was slightly below the LAC and Upper Middle-Income countries average.

Figure 5.5: OECD Economy-wide Product Market Regulation Indicator 2013-2016



Source: OECD PMR Database and OECD-WBG PMR Database for non-OECD countries. Note: Absolute values from 0 to 6 with higher values associated with more restrictive regulations. The averages for LAC, upper-middle income countries, and high-income countries are marked in red, green, and brown, respectively.

Figure 5.6: Decomposition of PMR sub-indicators for Paraguay



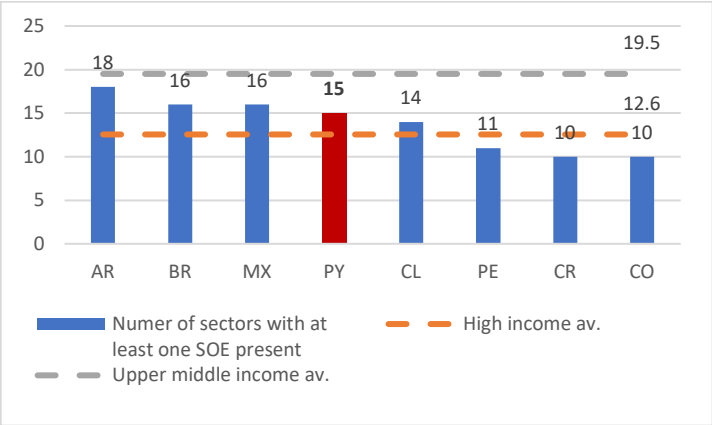
Source: Source: OECD PMR Database and OECD-WBG PMR Database for non-OECD countries.

[80] The PMR indicators do not reflect the extent which laws and regulations are enforced. Hence, a country that has competition-friendly laws "on the books", but that does not enforce such laws, would still obtain a favorable score.

5.2.1.a Reinforcing competitive neutrality to level the playing field between public and private operators

SOE presence paired with exclusive rights may stifle private sector participation in key enabling sectors, where it is viable. PMR data shows that SOEs are present in 15 subsectors of the Paraguayan economy, all of them wholly owned by the State and several which are not incorporated into limited liability companies, which puts it at a midpoint of regional peers (Figure 5.6). The presence of SOEs in network industries is common across countries both in the region and beyond. Along these lines, public ownership in Paraguay is more significant in network and infrastructure sectors where SOEs also hold legal or *de facto* monopolies in certain markets, such as electricity, fixed-line telecommunications,[81] railways,[82] and operation of airports and ports (for specific products).[83] Although few non-infrastructure sectors have SOE presence, where they do, they still enjoy exclusive rights. For instance, in the cement sector, the National Cement Industry (INC) is the sole firm allowed to manufacture cement with imported clinker –an essential input for the production of cement— which *de facto* confers INC a quasi-monopolistic position.[84] Similar exclusive rights can be found in other sectors such as postal services,[85] health services[86] as well as the import and distribution of fuels.[87] SOEs are also present in foods and beverages (*Cañas Paraguayas S.A.*), air transport (SETAM) and financial services (*Banco Nacional de Fomento*).

Figure 5.6: Number of sectors/subsectors with at least one SOE in LAC Countries compared to High and Upper Middle-Income Countries



Source: PMR for Paraguay and OECD and WBG-OECD Product Market Regulation Database, 2018-2020.

Lack of critical regulatory tools to embed competition in network industries may be creating barriers to entry. The presence of SOEs in network industries is not uncommon. Yet, the unique features of network industries, including segments that operate in natural monopoly conditions, call for critical regulatory tools to enable and promote competition in market segments where it is viable. Nevertheless, Paraguay has yet to introduce some of these pro-competition tools in network industries, particularly in the presence of vertically integrated state-owned incumbents which remain as the largest, often monopolistic, operators in their sectors (Table 5.2). In telecommunications, such protection is enacted

[81] Compañía Paraguaya de Comunicaciones S.A. ("COPACO, S.A") is the sole provider of fixed telephony services in Paraguay.
[82] Although currently inactive, Ferrocarriles del Paraguay, S.A. ("FEPASA") is the sole operator in the railway sector.
[83] Chemical and agrochemical products can only be dispatched in public ports (Decree no. 856/13).
[84] Law 3103/06 established that cement companies must use clinker produced domestically. INC, however, holds most of the inputs necessary to produce clinker and is allowed to import clinker, consolidating its prominent market position. See https://www.abc.com.py/edicion-impresa/economia/a-inc-le-permiten-transgredir-la-ley-que-prohibe-usar-clinker-importado-1678983.html#:~:text=La%20Ley%203103%2C%20promulgada%20en,insumo%20fundamental%20para%20el%20cemento.
[85] Paraguay's National Postal Services (DINACOPA) has exclusivity on national post services for mail weighing less than 100 grams.
[86] Instituto de Previsión Social (IPS), Decree Law N° 1.860/50 and Law N° 375/56; and Article 2 of the Decree no. 856/2013.
[87] PETROPAR has exclusivity over 36 of the imports of diesel type I and III in Paraguay.

through restrictive licensing requirements,[88] without mandatory access to key passive infrastructure— such as poles or ducts— and limited implementation of the unbundling of the local loop, which may be negatively affecting market outcomes. In the electricity sector, ANDE remains as the sole operator throughout all market segments except for generation[89] (Figure 5.7a) with no third-party access framework (Figure 5.7b) and no liberalized wholesale market (Figure 5.7c), despite most of these regulatory tools having been widely adopted by regional peers. Lack of vertical separation and of mandatory third-party access to natural monopoly segments (e.g., open access to electricity transmission and distribution networks) significantly increase the risk of foreclosure of competitors by vertically integrated incumbents. A new draft law on renewable energy generation currently under consideration in Congress could open the door for private sector participation in energy generation together with ANDE.

Table 5.2: Degree of government participation in the largest companies within network industries

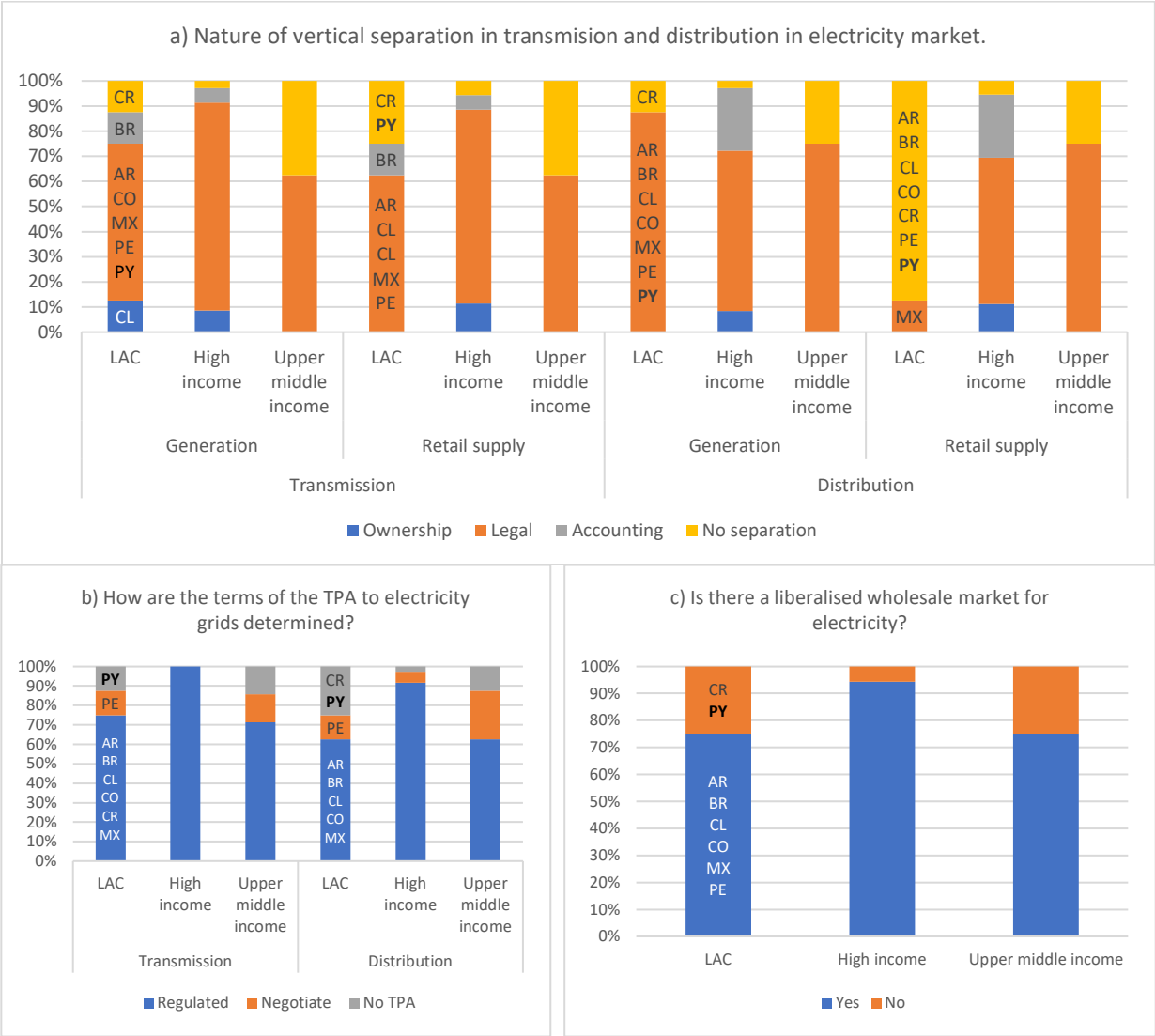
National government holds equity stakes in the largest firm in the sector	Yes	No	Government share in the largest firm in the sector	Number of firms in the market	Market share of the largest firm in the sector
Electricity					
Electricity generation	X		50%	3	86%
Electricity generation, import and transmission	X		100%	1	100%
Electricity distribution and supply	X		100%	1	100%
Telecom					
Fixed-line network	X		100%	1	100%
Fixed-line services	X		100%	1	100%
Mobile services	X		0%	4	43%
Internet services	X		0%	4	more than 50%
Postal services					
Post - basic letter	X		100%	1	100%
Post - courier services and parcel services	X		0%	>3	
Transport					
Railways - passenger transport	X		100%	1	100%
Railways - freight transport	X		100%	1	100%
Railways - operation of railroad infrastructure	X		100%	1	100%
Water transport - freight and passenger transport		X			
Water transport - operation of water transport infrastructure		X			
Air transport - passenger and freight transport, domestic and international traffic combined		X			
Air transport - operation of air transport infrastructure	X		100%	1	100%
Road transport - operation of road infrastructure		X			

Source: PMR questionnaire for Paraguay as of 2021

[88] The provision of telecommunications services generally relies on a licensing system, which allows regulators to set limits on the number of permits that can be issued. Moreover, foreign companies must establish a domicile in Paraguay or appoint a legal representative domiciled in the country in order to provide a telecommunications service.

[89] Besides ANDE's generator of Acaray, there are two public binational entities: Itaipú (Brasil and Paraguay) and Yacyreta (Paraguay and Argentina). ANDE purchases the energy generated by the binational entities Itaipú and Yacyreta.

Figure 5.7: Electricity sector: vertical integration, access, and wholesale markets in Paraguay and LAC countries



Source: PMR questionnaire for Paraguay and OECD and WBG-OECD Product Market Regulation database, 2018-2020.

In this context, stronger governance and competitive neutrality safeguards would be key to level the playing field between public and private operators. Although the competition law includes SOEs within its scope of application, an important tool to promote and protect competition in markets with direct state participation, this framework has not been coupled with governance and competitive neutrality safeguards. For example, ownership rights over SOEs are exercised by line ministries, which are often the same bodies supervising and performing regulatory functions, thus potentially raising conflicts of interest in decision-making (Figure 5.8a). Moreover, SOE Board appointments do not follow transparent and competitive procedures and can be removed at the sole discretion of the appointing authority, while CEOs are appointed directly by the President from a list of candidates recommended by the National SOE Council (Law 5058/13). This framework is not sufficient to limit the presence and direct intervention in decision-making of Government representatives in SOE activities or to enable operational autonomy, or clear and transparent criteria under which governmental intervention is accepted. In addition, as in other LAC countries, competitive neutrality is not sufficiently ensured. On the one hand, lack of separation between commercial and non-commercial activities of SOEs can make it more burdensome for private business to compete in markets with SOE presence (Figure 5.8b).[90] On the other hand, SOEs benefit from regulatory exemptions in public procurement,[91] labor [92] and bankruptcy laws[93] (Figure 5.8c) and can access financing at conditions not available for private firms, such as state guarantees (Figure 5.8d). See Box 5.2 for a summary of the key elements of an effective competitive neutrality framework and Figure 5.11 on a preliminary gap analysis of the implementation of the Competitive Neutrality framework in Paraguay.

Figure 5.8: SOEs governance and competitive neutrality in Paraguay and LAC countries

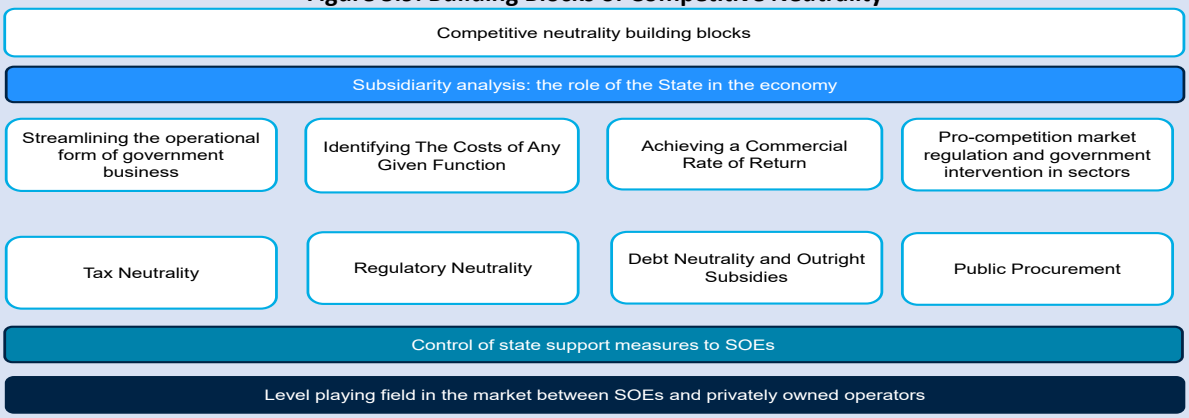
Source: PMR questionnaire for Paraguay and OECD and WBG-OECD Product Market Regulation database, 2018-2020

[90] Law 5058/13 on the National Council of Public Enterprises and Law 1535/99 on the financial administration of the State define the organizational and accounting framework for SOEs but do not mandate the division of commercial and non-commercial tasks.
[91] Law 2051/2003, article 2 d).
[92] Law 1626/2000.
[93] Law 154/1969 article 2, and Law 1183/1985 (Civil Code) articles 1898.

Box 5.2: Elements of an effective Competitive Neutrality Framework

Competitive neutrality policy recognizes that government business activities that are in competition with the private sector should not have a competitive advantage merely by virtue of government ownership and control. In practice, competitive neutrality policy is a regulatory framework (i) within which public and private enterprises face the same set of rules and (ii) where contact with the state does not bring a competitive advantage to any market participant. Competitive neutrality policy is based on the assumption that markets which are competitively neutral foster a level playing field, which allows resources to flow to efficient producers, regardless of whether they are privately or government owned. The competitive neutrality building blocks include: i) the control of state support measures to SOEs in order to minimize anti-competitive market distortions; and ii) specific measures to level the playing field between public and private operators such as the implementation of regulatory neutrality or the need for SOEs to achieve a commercial rate of return (Figure 5.10).

Figure 5.9: Building Blocks of Competitive Neutrality



Source: OECD 2005 and authors' elaboration.

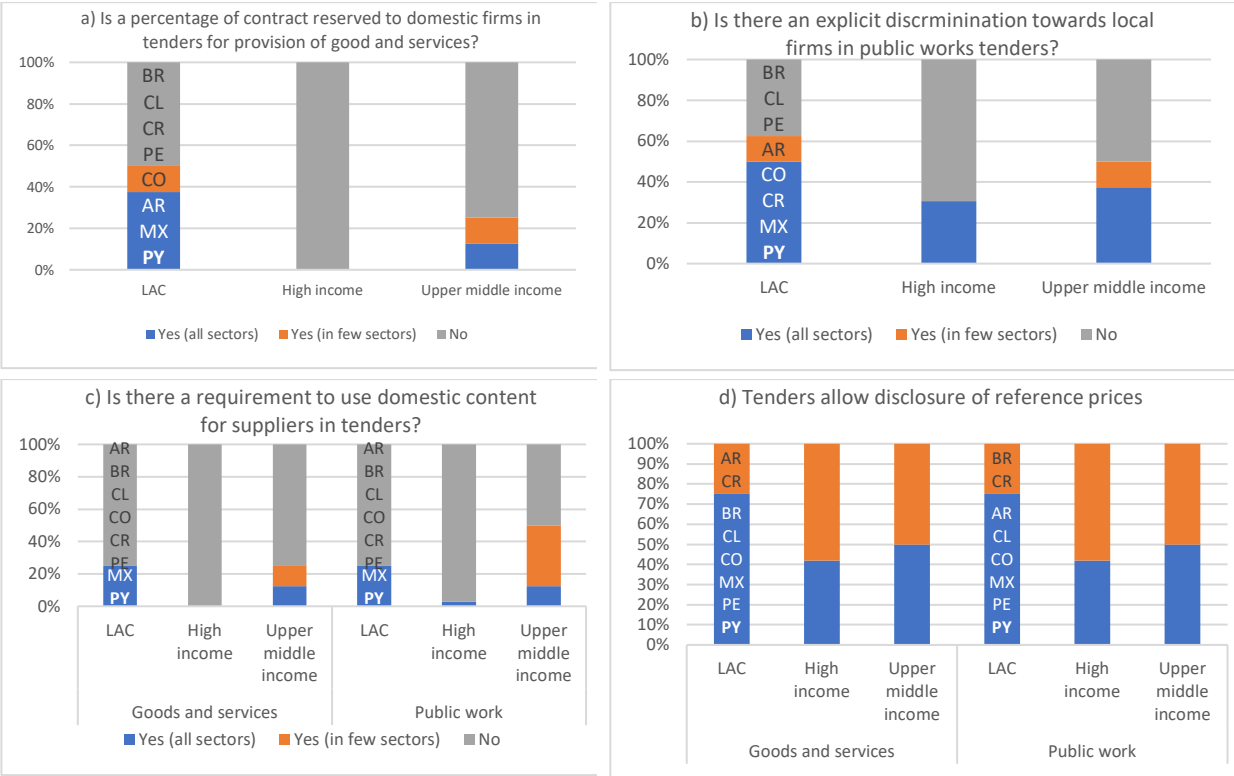
In public procurement, Paraguay has introduced important regulatory and implementation tools to enhance competition and prevent anticompetitive practices in public tenders. Pro-competition features of the public procurement framework include increased availability of e-procurement; requirements for collecting information prior to the tender; and the need to adapt the tender design and timelines to the size, value, and complexity of the tender. In addition, the National Directorate for Public Procurement has engaged in several initiatives aimed at promoting competition, including sophisticated data analytics to identify suspicious bidding patterns and a proposal to amend the public procurement law.[94]

However, some aspects of the public procurement regulatory framework still allow for differential treatment of certain firms. Procurement policies and procedures need to be non-discriminatory in order to level the playing field and facilitate entry into public contract markets. All firms, including SOEs, need to be allowed to bid on equal footing without preferential treatments. However, in Paraguay, SOEs can enter into contracts with public bodies without a tender (Law 2051/2003), excluding private bidders from the market. Domestic bidders enjoy multiple privileges over foreign bidders, including a preference gap in the price of up to 40 percent[95] and reserving a percentage of contracts of goods and services (Figure 5.10a). Moreover, there is explicit discrimination in favor of domestic firms in public works tenders (Figure

[94] Available at: https://static.dncp.gov.py/PublishingImages/Lists/Banners/AllItems/proyectodeley.pdf
[95] Law 6575/2020

5.10b), as well as domestic content requirements (Figure 5.10c).[96] All these aspects may hinder competitive neutrality in bidding markets and limit FDI attraction. Finally, the disclosure of tender reference prices may facilitate bid rigging practices by serving as a reference point or target price for bidders to collude (Figure 5.10d).[97]

Figure 5.10: Public procurement regulatory frameworks and foreign suppliers in Paraguay and LAC countries



Source: PMR questionnaire for Paraguay and OECD and WBG-OECD Product Market Regulation database, 2018-2020

[96] Law 2051/2003, article 18 and Law 6575/20.
[97] Law 2051/2003, articles 20 and 26.

Figure 5.11: Preliminary Competitive Neutrality gap analysis applied to the Paraguay

Competitive neutrality gap analysis

	Streamlining the operational form of government business	Identifying the costs of any given function	Achieving a commercial rate of return	Accounting for public service obligations
PARAGUAY	Non corporatization of public bodies delivering services (air transport of passengers delivered by Air Force) No distinction between commercial vs. non-commercial activities of SOEs (e.g., network industries)	Lack of accounting separation/cost allocation for SOEs.	No express requirement to achieve commercial rate of return by SOEs. Absence of obligation on SOEs to cover direct costs using internally generated revenues and no systematized benchmarking of SOEs transactions against similar transactions of private operators.	Lack of transparent and objective criteria in the compensation of PSO delivered by SOEs.
BENCHMARK	Legislation requires business separation of SOEs.	Accountancy for separating commercial and non-commercial activities of SOEs. SOEs objectively assessed based on transparent performance reports	SOEs commercial operations and investments are required to have positive NPVs, market consistent rates of return, and to being measured based on private sector performance.	Compensation paid to SOEs for the provision of PSOs is based on transparent accountability and objective criteria. Cross-subsidization is avoided.

Firm-level principles: Separation of SOE commercial and non-commercial activities

	Regulatory Neutrality	Public Procurement	Tax Neutrality	Debt neutrality and outright subsidies
PARAGUAY	SOEs benefit form sectoral regulatory privileges e.g., energy, telecommunication, aviation and ports and exclusive rights in certain markets e.g., cement and postal services Lack of clear separation between roles as market regulator and operator e.g., ANDE (electricity), ANNP (ports)	SOEs can enter into contracts with public bodies without a tender	SOEs are, in principle, subject to full tax liability under the same reference tax system, whether income or sales tax, as the private sector, but some exceptions prevail e.g., VAT to be paid at accrual, donation at tax free	SOEs have access to state guarantees to access financing Indirect subsidies through mandatory state purchasing of goods and services e.g., fuel, chemical products, postal services No rules on subsidy design to minimize competition distortions.
BENCHMARK	Companies compete on a level playing field, with no trade protection and market-based competition for rights to invest in state assets. Sectors where competition is feasible are open to private sector investment.	Market based competition in public procurement. Bids/auctions designed to reduce the risk of bid rigging.	Tax exemptions, subsidies, and debt guarantees granted following competitive neutrality principles	

Principles embedded in cross-cutting regulatory framework and sectoral policies

Source: WB

5.2.1.b Improving the quality of regulations, especially for regulated professional services

Paraguay could introduce a programmatic approach to reduce compliance costs and limit the complexity of regulatory procedures. A number of LAC countries have explicit programs to reduce the government's compliance costs and administrative burdens; have on-line databases with primary laws in force; and programs to review ex-post regulations that could be removed or simplified. Notably, Mexico's efforts on deregulation have resulted in a full regulatory and institutional setup--both at the national and the subnational levels--to enhance the quality of the regulatory framework (Box 5.3). Navigating Paraguay's legal system could prove difficult to a new entrant since there is no online database of subordinate regulations, or mandatory use of plain language to facilitate the understanding of applicable rules.

Box 5.3: An evolutionary approach to regulatory reform in Mexico

In 1989, the Government of Mexico launched a program to review the regulatory framework in order to foster competition and growth and created the Economic Deregulation Office at the Ministry of Trade and Industrial Promotion to spearhead these efforts. In the years that followed, key laws were enacted to create a more competitive environment *inter alia* the Federal Law on Metrology and Standardization (1992), the Federal Law of Economic Competition (1992), the Law of Roads, Bridges and Federal Motor Transport (1993), the Foreign Trade Law (1993), the Law of Ports (1993), the Federal Telecommunications Law (1995), and the Airports Law (1995).

In 1995, a new program to support the Deregulation of Business Activity was introduced. This was coupled with a new institutional setup that included the Council for Economic Deregulation and the Federal Registry of Business Procedures, as well as mechanisms to enable coordination with state governments on their regulatory activities. In addition, new procedures were set up so that all proposed federal regulations undergo an economic impact analysis, and a record of all federal procedures affecting economic activity was established.

In 2000, the Federal Law of Administrative Procedure was amended to institutionalize the policy for regulatory improvements. The Federal Commission for Regulatory Improvement (COFEMER) was created as the office in charge of promoting regulatory improvements, while the Federal Council for Regulatory Improvement was created as a platform for citizens and the private sector to participate in regulatory activities. To reinforce the institutional framework, the National Commission for Regulatory Improvement (CONAMER) was created in 2018 as a decentralized unit of the Ministry of Economy with the mandate to improve regulations, simplify services and procedures, and improve transparency in regulatory and adjudicatory activities. All procedures, regulations, services, inspections are fully available online to citizens and firms.

Source: Miralles, G., Zipitria, L., & Dauda, S. (Forthcoming).

In addition, entry and conduct restrictions in regulated services could limit contestability and hinder market dynamics. While international best practice reflects the importance of promoting effective competition in professional services, regulatory restrictions are still prevalent in Paraguay.[98] Entry is limited not only by the need to obtain authorization from public authorities (accountants, lawyers, notaries, and architects) or professional bodies (engineers) but also by the quasi-exclusivity of certain tasks. However, not all tasks covered by such rights might be strictly necessary to protect the quality of services. For instance, certain tasks exclusively performed by notaries could be carried out by lawyers, which would enhance competition and service availability. Price regulations are still in place for several

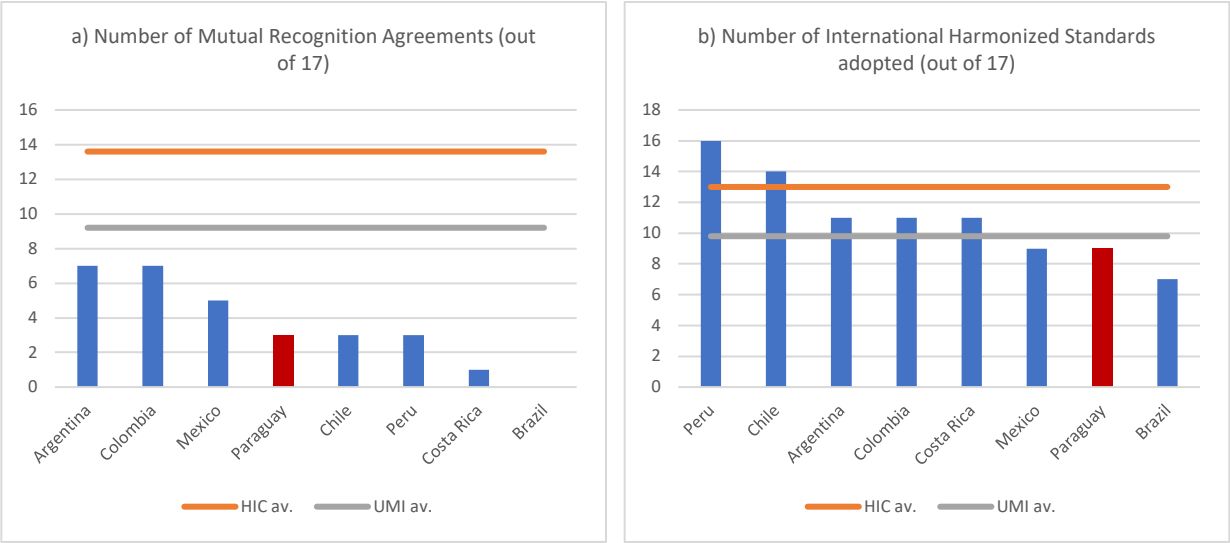
[98] See Barone and Cingano (2011), which using PMR data suggest that, along with the energy sector, liberalizing professions would generate the most significant gains from deregulation with a significant impact on downstream, service-dependent industries.

professional services, including minimum prices for activities conducted by lawyers and notaries and binding maximum prices for architects; the former could have similar effects to cartel agreements. Pellizari and Pica (2011) find that in Italy competition policy reforms that eliminate regulated fees in professional services have been consistently identified to yield large economic benefits by boosting productivity while not affecting the quality of professional standards.

5.2.1.c Promoting equal treatment of foreign suppliers to reinforce competitive pressure in domestic markets

While Paraguay has a relatively open investment framework, foreign suppliers often receive unequal treatment. For instance, licensing requirements in road freight transport limit foreign *ownership*[99] *and* cabotage between national ports is prohibited unless an exception is approved by the executive.[100] Regulations are not published in a manner easily accessible at the international level. Notably, Paraguay only has mutual recognition agreements in air and maritime transport, and hotels and restaurants (Figure 5.12a). Finally, regulators are not required to use internationally harmonized standards and certification procedures in construction, distribution, road transport, hotel and restaurants, and professional services (except for accountancy) (Figure 5.12b).

Figure 5.12: Mutual Recognition Agreements and International Harmonization Standards adopted



Source: PMR questionnaire for Paraguay and OECD and WBG-OECD Product Market Regulation database, 2018-2020.

5.2.2 Strengthening competition enforcement and advocacy

Preventing anti-competitive practices and minimizing negative effects of mergers is key to keep domestic markets competitive. Anticompetitive practices are common in input markets affecting the

[99] In order to operate national and international automotive cargo transportation services, companies must be under shareholder and management control of Paraguayan citizens (Law 1128/97 and Resolution 53/2002).
[100] See Law N° 476/1957 and Decree N° 6984/1959.

overall trade competitiveness of countries. In Latin America, for example, cartels have been detected in markets for fertilizers, cement, fuels, freight transport, and construction, many of them transnational in nature. These practices are particularly harmful and difficult to detect and thus the need to have strong anti-cartel programs (Box 5.4).

Paraguay´s competition regulatory framework, in place since 2013, contains key features to support enforcement and advocacy. An effective competition policy framework encourages competition by ensuring that all businesses can interact on a level playing field and by facilitating entry to markets, while penalizing and preventing anticompetitive behavior. On the enforcement side, the competition law prohibits cartels and anticompetitive agreements as well as abuse of dominance and enables CONACOM to control the anticompetitive effects of mergers, including through structural and behavioral remedies. On the advocacy side, the law grants powers to the competition authority to issue non-binding opinions. CONACOM recently approved guidelines for the notification of mergers[101] and a guide for market studies.[102] It has also launched a public consultation on the "Instructions for the declaration of confidentiality of documents submitted to CONACOM" and on the "Guidelines for the definition of relevant market."[103]

Notwithstanding this progress, CONACOM's enforcement actions are incipient and key enforcement and advocacy tools are still missing. First, gaps in the legal framework need to be addressed to enable CONACOM to tackle anticompetitive practices. Cartels and horizontal agreements result in a welfare loss for the economy as a whole due to significant overcharges of key products and services.[104] However, Article 8 of the competition law unduly limits the scope of conducts typically considered hard-core cartels as it requires price/quantity fixing agreements to be "abusive" in order to be prohibited.[105] The lack of a leniency program also constitutes a critical weakness of the law. A well-functioning leniency program is crucial to destabilize cartels by creating a permanent threat that any of its members may come forward to the authority in order to avoid the fine. In addition, limitations to access direct evidence of cartels further prevents CONACOM from building more solid cases. In addition, the deficient legal basis to conduct dawn raids[106] weakens the ability of CONACOM to uncover anticompetitive behavior as investigations rely only on information requests and complaints. As of 2021, CONACOM has initiated only

[101] Resolution A/D No. 29/2021. Available at: https://www.conacom.gov.py/institucion/unidades/directorio
[102] Resoluation A/D No. 002/2021. Available at https://www.conacom.gov.py/institucion/unidades/directorio
[103] https://www.conacom.gov.py/noticias/la-conacom-realizo-audiencias-en-el-marco-de-consultas-publicas
[104] Connor (2010) examined studies and judicial decisions on 381 cartelized markets worldwide and estimated a long-run median overcharge of 23.3 percent of prices above competitive levels.
[105] This is at odds with international experience as the very nature of hardcore cartels as the "the most egregious violation of a competition law" typically exempts authorities from further investigating into their specific effects.
[106] Law 4956/2013 sets forth CONACOM's powers but does not include the power to carry dawn raids or inspections. Nevertheless, the Regulatory Decree 1490/2014 (which regulates Law 4056/2013) sets forth the authority's right to carry out "inspections" with or without prior notice, and "…with judicial authorization". This regulatory framework presents two shortcomings: i) the power to carry dawn raids or inspections is not foreseen in the law but in a regulatory decree creating an uncertainty over the constitutionality of the tool; and, ii) the competent judge (civil or criminal) in charge of granting the authorization is not specified. As a result, CONACOM has been reluctant to gather evidence through inspections.

two investigations on possible anti-competitive practices on bid rigging on medical supplies and the refusal to deal in the broadcasting rights for football markets [107], but it has not yet imposed sanctions.

Box 5.4: The importance of the introduction of a strong anticartel program

The pervasiveness of cartels in LAC highlights the importance of having a competition authority with enough resources and tools to effectively identify, sanction and prevent anticompetitive agreements through an anticartel program. Agreements among competitors to restrict competition or cartels have harmful effects: the poorest households pay up to 50 percent more for essential goods; growth, productivity and competitiveness decline, public policies become less effective and citizens' trust in market economies and in the role of the private sector is significantly lessened. Despite being common across markets, cartels are notoriously difficult to detect, with even mature competition authorities only detecting between 10 and 20 percent of them. Cartel activity will likely rise due to the effect of the COVID-19 pandemic of more concentrated and less dynamic markets. Smaller and concentrated economies not fully open to trade are fertile ground for cartels, particularly when institutions to tackle them are weak and government interventions are still not assessed to prevent an unintentional facilitation of cartels.

Between 1980 and 2020, over 300 cartels were dismantled in LAC but the true pervasiveness maybe at least tenfold. Among others, cartels affected critical goods such as milk, sugar, poultry, transport, energy and medicines. Price overcharges ranged between 5 and 30 percent, but in at least 4 percent of cases, consumers payed twice as much for the affected products and services. Cartel activity also hinders productivity growth and harms export competitiveness when cartels affect the availability or prices of critical input goods and services in value chains. They undermine the benefits of trade liberalization, when they agree to block imports or affect critical services such as shipping.

Tackling cartels brings particularly tangible gains, especially to the poorest households, and minimizes the risks of unintended consequences to the business environment. In contrast to other more complex and risky policies to address lack of competition, tackling cartels brings concrete benefits. For example, leniency programs destabilize cartels, shortening their duration and reducing the level of their overcharges, as has been the case in the United States, Russia, Korea and other OECD countries. Additionally, anticartel programs usually receive broad-based support and increase public trust in market economies.

Successful anticartel programs require clear legal powers and effective investigation techniques. Countries such as Brazil, Chile, Colombia, Mexico and Peru have strengthened their legal framework to grant competition authorities clear powers to conduct dawn raids, impose sanctions and introduce leniency programs. In turn, increasing the probability of detection has required strengthening market intelligence tools, investigative techniques, as well as capacities to process electronic evidence.

Source: World Bank (Forthcoming).

More clarity on the merger control framework would also be key to prevent the negative effects of market consolidation. Merger control seeks to complement the enforcement of behavior regulations and identify situations in which a change in market structure will likely affect market outcomes and harm consumers. However, the wording of Paraguay´s Competition Law generates uncertainty on whether operations need to be notified *ex ante* or *ex post.* This is yet to be clarified through administrative or judicial interpretation. Article 14 of the Competition Law states that merger notifications should be filed within 10 days after its celebration but there is a prior authorization process in the Regulatory Decree

[107] Teledeportes Paraguay S.A. regarding alleged violation of Law No. 4956/2013 – File No. 3/2020. Resolution A/D No. 29/2021 (https://www.conacom.gov.py/institucion/unidades/directorio

1490/2014. In addition, lack of an explicit prohibition to carry out a merger or acquisition before obtaining CONACOM's authorization prevents it from sanctioning 'Gun Jumping' cases.[108] This differentiation has strong implications in practice, and very few countries have adopted *ex post* notification systems given the difficulties to revert mergers and acquisitions deals that have already taken place. Since 2016, CONACOM has analyzed 30 economic concentrations in a number of sectors, with technology and telecommunications and fuel and lubricants as the most prevalent. Out of these, only one was blocked in the meat processing market[109] and five were authorized with conditions, mostly of behavioral nature. The preference for behavioral conditions creates difficulties for the authority to effectively monitor compliance, particularly for young authorities such as CONACOM. To this end, competition authorities tend to favor structural conditions.

Finally, although CONACOM has strived to embed competition principles in laws and regulations, its advocacy powers could be strengthened.[110] The authority has issued a series of non-binding opinions regarding bills and sectorial regulations in health, ride hailing applications, and import licenses, among others, aimed at ensuring their compliance with market competition.[111] However, none of these opinions was taken into account by authorities as there is no obligation to justify deviation/lack of compliance with CONACOM's opinions. Enhancing the Commission's advocacy powers to inform regulation following successful regional examples could have a positive impact on the overall coherence of Paraguay's legal framework and help embed competition principles in sector-specific regulations. In Colombia, for instance, public authorities can deviate from the opinions of the Superintendency of Industry and Commerce, the Colombian competition authority, but they need to justify the reason why.

5.2.3 Reinforcing market institutions

Paraguay has taken important actions to support its network industries, but lack of independent regulators could be hindering further market developments. For instance, in electricity, ANDE remains under the control of its line Ministry with conflicting roles both as regulator and operator. [112] In fluvial infrastructure, there is no separation between port authorities and operators of port terminals, which could harm competition such as exclusivity rights in the handling of certain cargo.

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[108] 'Gun-jumping' refers to a variety of actions taken by the parties to a merger prior to closing to accelerate the integration of companies. Premature integration can lead to liability of the parties under merger control laws, which require the parties to maintain their status as competitors until closing.

[109] See https://www.conacom.gov.py/ambitos-de-actuacion/concentraciones/historial-de-expedientes

[110]Competition advocacy refers to the promotion of a competitive environment by means of non-enforcement mechanisms, such as relationships with other governmental entities and increasing public awareness of the benefits of competition.

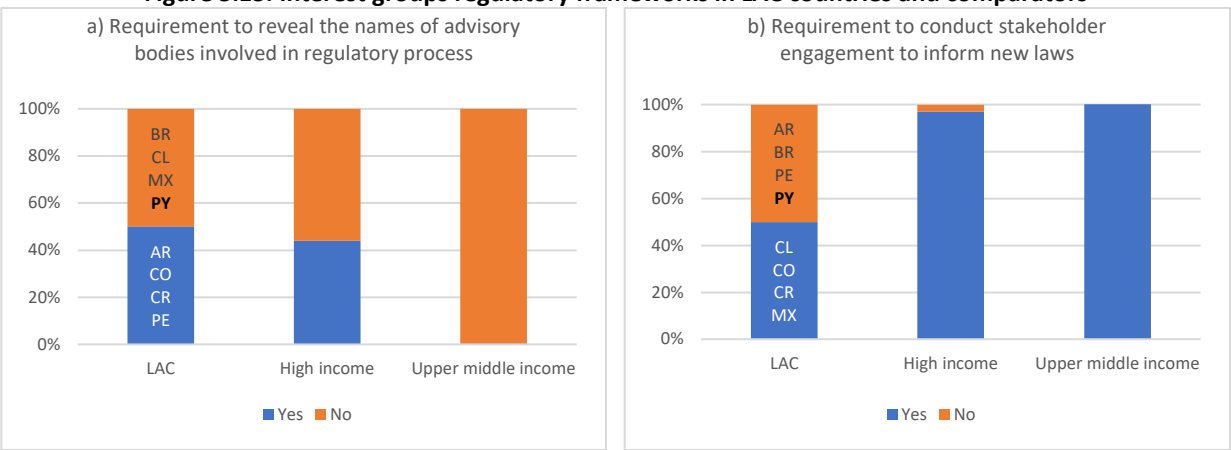
[111] Opinion on the bill amending Law No. 1119/97 on Health Promotion and Others (which sought to regulate maximum pricing and price control procedures on health products); opinion on the implementation of prior import licenses imposed by the Ministry of Industry and Commerce for the importation of iron or steel rods; opinion on the licensing system for the production, industrialization and controlled commercialization of medical cannabis oil; opinion on Municipal Ordinance No. 326/2021 *"Establishing the provision, handling, storage of fuels, liquid and gaseous, as well as the operation of premises, intended for its commercialization and related activities*"; opinion on regulation of passenger transportation services in vehicles hired through digital applications (https://www.conacom.gov.py/ambitos-de-actuacion/abogacia).

[112] WB 2021. ''Powerpoint Presentation Infrasap Paraguay''.

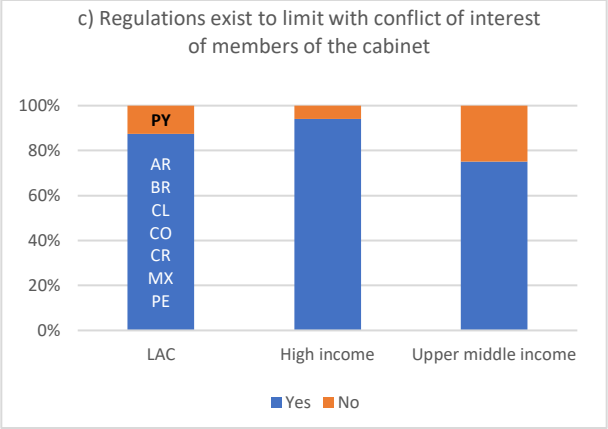
Moreover, limited institutional resources hinder the ability of the competition authority to scale up its work and fully implement the competition regulatory framework. CONACOM's technical and financial resources are still not on par with regional and OECD peers. OECD information competition agencies' budgets shows that the average budget in 2019 was US$23.6 million[113], while Global Competition Review Enforcement Ratings (2019) shows that the average budget for Latin American agencies in 2018 was US$10.7 million. In contrast, CONACOM's budget for 2021 was US$780 thousand,[114] well below the regional average. In terms of staff, CONACOM faces significant operational restrictions with no more than fifteen people dedicated to technical competition work.[115] By comparison, in 2019, Argentina had 84 staff and the Colombian authority had 164 people working on competition issues. Costa Rica, which also has a relatively young competition authority, had 23 staff dedicated to competition issues in 2020.

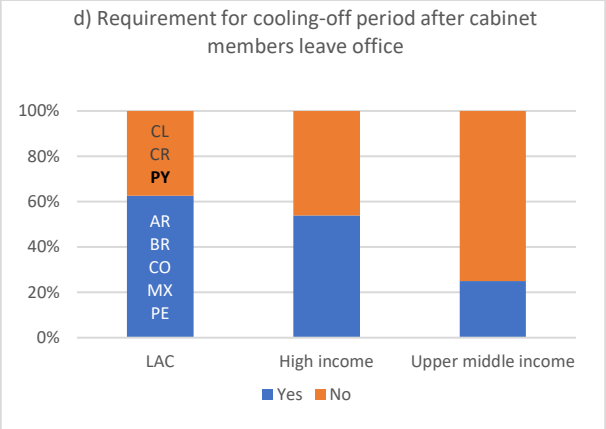
In addition, Paraguay has yet to implement regulatory measures to frame relationships with interest groups and enhance transparency of regulatory processes. First, Paraguay has not enacted rules to regulate the interaction between public officials and interest groups, including professional consultancies, companies, and business associations and there are no requirements to disclose the identity of the interest groups that were consulted in each regulatory process. The names of the members of permanent advisory bodies involved in the regulatory process are also not disclosed (Figure 5.13a). Second, stakeholders are not informed of regulatory processes to develop primary laws and regulators are not formally required to consider consultation comments received from stakeholders (Figure 5.13b). Finally, there are no regulations on conflict of interest regarding the members of the cabinet (Figure 5.13c), or cooling-off periods (Figure 5.13d). Lack of a regulatory framework to manage relationships with interest groups and prevent conflicts of interest of public officials can affect the legitimacy of entities with regulatory functions. In turn, this may result in regulation that protects incumbents or hinders policy reform. In LAC, Peru, Colombia, Chile, and Mexico have all introduced lobby regulations that address some of the issues identified in Paraguay.

Figure 5.13: Interest groups regulatory frameworks in LAC countries and comparators



[113] OECD, 2020. ''Competition Trends 2020''. p 19. Available at: http://www.oecd.org/competition/oecd-competition-trends.htm
[114] https://www.conacom.gov.py/transparencia.
[115] See https://www.conacom.gov.py/institucion/organigrama. For instance The Investigation Directorate, in its Restrictive Practices Department, only has three technical officers, two lawyers and an economist.





Source: PMR questionnaire for Paraguay and OECD and WBG-OECD Product Market Regulation database, 2018-2020

The weakness of market institutions could contribute to the lack of initiatives to introduce tools to evaluate the regulatory impact for laws and regulations, especially regarding competition. Performing ex-ante regulatory impact assessments for new laws and regulations, including their impact on competition has become a critical tool to foster regulatory efficiency across countries. However, in Paraguay, there is no such obligation regarding primary laws, and the regulatory impact assessment applicable to secondary legislation: (i) does not include an assessment of the impact on competition and (ii) is not subject to review by a government body outside of the sponsoring entity. In LAC, Mexico, Chile and Costa Rica have adopted regulatory impact assessment frameworks, while Brazil made it mandatory starting in April 2021.[116] Only those of Mexico and Chile include the evaluation of impact on competition.

5.3 Policy Recommendations

Enhancing competition policy in Paraguay to promote international competitiveness will require interventions in three priority areas: (i) promoting pro-competitive conditions in key product markets; (ii) reinforcing the competition regulatory framework; and (iii) strengthening market institutions.

i. *Promoting pro-competitive conditions in key product markets* will require (a) considering the progressive expansion of private sector participation in network industries and (b) lowering entry barriers in regulated professional services; together with (c) a more effective implementation of the competitive neutrality framework to level the playing field between market operators regardless of ownership (whether public/private or domestic/foreign). In addition, this will also involve (d) reducing the costs of market entry.

ii. *Reinforcing the competition regulatory framework* will entail (a) legal reforms to enable CONACOM to access direct evidence of antirust infringements and to reinforce competition enforcement and advocacy; and (b) greater use of structural remedies to limit anticompetitive effects of mergers and acquisitions.

[116] Established by Decree 10.411 of June 30th, 2020.

iii. *Strengthening market institutions* implies both (a) the creation or capacity building of key institutions, especially CONACOM, with adequate financial and staffing resources and regulatory frameworks to avoid conflict of interests; as well as (b) the progressive implementation of Regulatory Impact Assessments (RIA), especially covering the competition impact of regulations (first) and primary laws (later).

The following table articulates a number of policy option to address key shortcomings of the Paraguayan competition policy framework.

Table 5.3. Policy Recommendation to Enhance Competition

Reform Area	Action			Responsible Agencies
	Short term (> than 1 year)	Medium term (2-5 years)	Long term (>than 5 years)	
Promoting pro-competitive conditions in key product markets	**Support private sector participation in network industries**			
		Evaluate costs/benefits of lifting monopolies in markets where competition is viable Progressively lift monopolies and support access to private operators to markets where competition is viable (e.g., energy, transportation, telecommunications) Introduce key regulatory tools to enable private sector participation in network industries including TPA in energy sectors or unbundling of the local loop and infrastructure sharing policies in telecommunications. Limit exclusive rights for selected operators (e.g., cement, postal services, fuel import) These actions require amending primary laws.		National Congress; Line ministries *inter alia* MIC; Ministry of Public Works and Communications; and MoF; Technical Secretary of Planning; and National SOEs Council; and CONACOM.
	Increase contestability in regulated professional services			
		Eliminate pricing guidelines and facilitate entry while ensuring service quality through easier entry paths and re-evaluation of (quasi) exclusive tasks. This action requires legal changes.		National Congress, professional bodies, and CONACOM
	Implement the competitive neutrality principles and level the playing field between public and private operators			
	Enhance interinstitutional cooperation between CONACOM and the National Directorate of Public Procurement, including executing a Memorandum of Understanding (MOU) to define a coordination framework.	Introduce transparent and competitive procedures to designate Board members and involve them in the appointment of CEOs. Consider the establishment of a specialized agency to manage ownership rights of SOEs.	Limit regulatory privileges for SOEs (public procurement. Labor law, bankruptcy law) Limit the disclosure of reference prices in tenders. These actions require amending primary laws.	National Congress; MOF: line ministries; Technical Secretary of Planning; National SOEs Council
		Separate commercial and non-commercial activities of SOEs, at least through account separation. These actions require legal amendments.		

		Eliminate restrictions for foreign operators to provide road freight services and allow for cabotage in water transport. These actions require legal amendments.	Limit regulatory privileges for national firms in tenders (price advantages, reserves for contract percentages, local content). These actions require legal changes.	National Congress; Line ministries; National Directorate of Public Procurement, CONACOM
	Reduce the costs of market entry and limit the complexity of regulations			
	Establish online database of secondary legislation/subordinated regulation.	Establish a one-stop shop for authorizations and permits. This action requires amending primary laws. Establish programs to reduce the number of licenses and permits and compliance costs. This action required amending secondary regulations.	Establish the 'silence is consent' rule for authorizations. This action requires amending primary laws.	National Congress; Line ministries, (MIC; Ministry of Finance); Technical Secretary of Planning; National Supreme Court
Reinforcing the competition regulatory framework	**Reinforce the fight against anticompetitive practices**			
	Reevaluate the use of structural remedies as preferred to behavioral remedies.	Amend the legal framework (1) to clarify CONACOM's mandate to carry dawn raids and have access to direct evidence of anticompetitive behavior. (2) eliminate the need to show abusive intent for price fixing cartels; (3) develop a leniency policy; (4) clarify ex-ante/ex-post nature of merger notifications and their effects; and (5) introduce an obligation for public bodies that deviate from CONACOM opinions to justify such deviation. Develop in-house tools to perform IT forensics.		National Congress and CONACOM
Strengthening market institutions	**Create/reinforce market institutions with adequate resources and regulatory frameworks to avoid conflict of interest**			
	Progressively reinforce budgetary and staff capacities of CONACOM.	Consider creating independent sector regulators in network industries to avoid conflict of interest between regulators and market operators. This action requires legal amendments.		National Congress; MIC; MoF; line ministries; CONACOM
		Develop procedures to consult key stakeholders in the development of primary laws and consider their comments	Consider enacting legal frameworks (i) to manage relationships between regulators and groups of interest, including disclosure	Legislative bodies (National Congress); CONACOM

		within the legislative process. This action requires legal amendments.	of members of advisory bodies involved in the regulatory process.	
	Implement RIAs covering competition impact			
		Implement ex-ante RIA for secondary regulation, with consideration to competition impact.	Implement ex-ante RIA for primary legislation, covering competition impact. This action requires legal changes.	Legislative bodies (National Congress); Sectoral regulators

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7. Annexes

Annex 1 Agency, duration of registration of importers and reasons invoked for prior import licenses

Authority	Product	Duration Registry	Reason Invoked for Prior LiC
DINAPI	Magnetic and optical media and rawmaterials for their manufacture (RISMOMPP) [a]	Annual	1. Prevention ofpiracy and counterfeiting
MIC	Sugar (HS 1701) [b]	Quarterly	2. Quality and health
MIC	Cement [b]	Annual	3. Quality and safety
MIC	Mate (*Yerba mate*) [a]	Annual	4. Quality
MIC	Articles of iron and steel [a]	Annual	5. Quality and safety
MIC	Articles of wire, iron and/or steel bars,towers and lattice masts [c]	Annual	6. Quality and safety
MIC	Cellular mobile telephone devices and theirparts; only motherboards [c]	Annual	7. Quality
MIC	Incandescent and fluorescent lamps [a]	Annual	8. Quality
SENAVE	Phytosanitary products for agricultural use [a]	5 years	9. Phytosanitaryprotection
SENAVE	Plant products and by-products [a]	5 years	10. Phytosanitary protection
SENAVE	Seeds b	5 years	11. Phytosanitary protection
MIC	Boneless beef [a]	N/A	12. Administrative procedures
MIC	Wheat flour (NCM1101.00.00) [a]	Annual	13. Registration
MIC	Made-up articles (NCM chapters 61, 62 and63) [a]	Annual	14. Registration
MIC	Footwear (25 headings ofNCM chapter 64)[a]	N/A	15. Statistical monitoring
DIMABEL	Firearms, ammunition, explosives and the like [a]	N/A	16. National security
INAN	Food products [a]	N/A	17. Health
MIC	Meat and offal of fowls (NCM 0207.11.00; 0207.12.00; 0207.13.00; and 0207.14.00) [a]	Annual	18. Health and statistical monitoring
INAN	Washed and centrifuged salt [a]	3 years	19. Health (MIC)
MSPBS	Medicines, proprietary pharmaceuticals (phytotherapeutic and homeopathic) [b]	5 years	20. Health
MIC	Household insecticides	N/A	21. Health
MSPBS	Hypodermic syringes and needles [b]	N/A	22. Health
SENAD MSPBS	Narcotic substances and dangerous drugs [b]	N/A	23. Health
INAN MAG	Non-marketable food products a	N/A	24. Health
SENACSA	Animals, products and by-products of animal origind	N/A	25. Health
SEAM	Used tyres with prior remanufacturing [a]	N/A	26. Health
SENACSA	Bovine or other animals forbreeding susceptible to tuberculosis [d]	N/A	27. Protection of animal health
SENACSA	Swine[d]	N/A	28. Protection of animal health
SENACSA	Cattle and sheep from Argentina, Brazil and Uruguay [d]	N/A	29. Protection of animal health
SENACSA	Frozen semen and embryos ofanimal origin [d]	N/A	30. Protection of animal health
SEAM	Ozone-depleting substances [b]	N/A	31. Protection of the environment
MSPBS	Hygiene products for domestic use andcosmetics [a]	5 years	32. Health and protection environ
MIC	Aerosol-type extinguishers containingextinguishing foam with a maximum capacity of 250 ml [a]	Annual	33. Environment
MIC	Ordinary primary cells and batteries of zinccarbon and alkaline manganese [a]	Annual	34. Health and protection of the environment
MIC	Petroleum-based products c	For each import	35. Protection of the environment
MIC	Plastic bags and biodegradable bags [a]	Annual	36. Protection of the environment
SEAM	Endangered species of wildfauna and flora [b]	N/A	37. Protection of the environment
SEAM	Recyclable articles (paperboard, aluminium, plastic, glass, copper, etc.)[a]	N/A	38. Certificate of innocuity
MAG MSPBS	Toxic or dangerous substances of the typeused in household sanitary products (risk category 1)	Once	N/A
MIC	Beef	Annual	N/A
MIC	Footwear	Annual	N/A
MIC	Wiring insulated with polyvinyl chloride(PVC) for rated voltages not exceeding450/750 V	Annual	N/A
MIC	Power cables with extruded insulation forrated voltages of 1.0 kV 3.0kV	Annual	N/A
MIC	Lubricant oils and greases for automotiveand industrial uses	Annual	N/A
MIC INAN	"Gourmet"-type food products, beveragesand additives	Annual	N/A
MSPBS	Medical, odonatological and laboratory apparatus, instruments, equipment, anddevices	5 years	N/A
MSPBSMAG	Food products and beverages	5 years	N/A
SENACSA	Salt for animal consumption	5 y. (imp)10 years/prods	N/A

Source: WT/TPR/S/360 (p. 37 and p. 53)

Annex 2: Main Features of the Computable General Equilibrium Model

The economic effects in Paraguay of implementing the EU-MERCOSUR FTA are modeled using CGE simulations, in particular the "Envisage" model. Production in the model is implemented as a series of nested constant-elasticity-of-substitution (CES) functions to capture the substitutability and complementarity across all inputs. Crops and livestock have a production structure different from the rest of the production goods. The model incorporates five types of production factors: labor (differentiated by skill and by gender); capital; land; a sector specific natural resource (such as fossil fuel energy reserves); and water.

Domestic production is allocated to the domestic market or exported, following a constant elasticity of transformation (CET) function. There are three domestic final demand agents: households (h), a government sector (gov) and an aggregate investment sector (inv). Income comes from payments to factors of production and is allocated to households (after taxes). The government sector accrues all net tax payments and purchases goods and services. Investment income is equated to the sum of domestic and foreign savings. A portion of capital income flows to a 'global' holder of equity that then portions out profits from the global fund. Remittances are also incorporated and are fully bilateral.

The model incorporates multiple utility functions for determining household demand. In this specification, a constant difference of elasticities (CDE) utility function is assumed. This function allows for more flexibility in terms of substitution effects across goods and for non-homotheticity.

The capital market assumes vintage capital. New capital is allocated across sectors to equalize rates of returns. Installed capital is imperfectly mobile across sectors. If all sectors are expanding, old (installed) capital is assumed to receive the economy-wide rate of return. In contracting sectors, old capital is sold on secondary markets using an upward sloping supply curve. This implies that capital is only partially mobile across sectors. Land and water are allocated across activities using a nested CET specification. Natural resources are supplied to each sector using an iso-elastic supply function with the possibility of differentiated elasticities depending on market conditions.

Trade is modeled using the so-called Armington specification that assumes that demand for goods is differentiated by region of origin. The model allows for domestic/import sourcing at the aggregate level (after aggregating domestic absorption across all agents), as well as at the agent level. Thus, a second Armington nest allocates aggregate import demand across all exporting regions using a representative agent specification. Exports are modeled in an analogous fashion using a nested constant-elasticity of-transformation (CET) specification. The domestic supply of each commodity is supplied to the domestic market and to an aggregate export bundle using a top-level CET function. The latter is allocated across regions of destination using a second-level CET function.

Dynamics in "Envisage" involve three elements. Labor supply (by skill level) grows at an exogenously determined rate. The aggregate capital supply evolves according to the standard stock/flow motion equation, i.e., the capital stock at the beginning of each period is equal to the previous period's capital stock, less depreciation, plus the previous period's level of investment. The third element is technological change. The standard version of the model assumes labor augmenting technical change—calibrated to given assumptions about GDP growth and inter-sectoral productivity differences. In policy simulations, technology is typically assumed to be fixed at the calibrated levels.