

# INTERNATIONALIZATION MISSION



# INTERNATIONALIZATION MISSION

**Strategy for economic  
recovery, growth, and  
inclusion.**

August 2021

**INTERNATIONALIZATION  
MISSION** 

## Steering Committee



**Ricardo Hausmann**  
Líder temático de la misión de  
interancionalización



**Richard Baldwin**



**Caroline Freund**



**Marcela Eslava**



**Carlos Ignacio Gallego**



**Marcela Meléndez**



**Bruce Mac Master**



**Mauricio Reina**



**Ann-Lee Saxenian**

## With the leadership of



**Marta Lucia Ramirez**  
Vicepresidenta y ministra de  
Relaciones Exteriores de Colombia

## Proposed and organized



**María Ximena Lombana Villalba**  
Ministra de Comercio Industria y  
Turismo (MINCIT)



**Alejandra Botero Barco**  
Directora General del Departamento  
Nacional de Planeación (DNP)



**José Manuel Restrepo**  
Ministro de Hacienda y Crédito  
Público  
Ex-ministro de MinCIT



**Luis Alberto Rodríguez**  
Ex-director del Departamento  
Nacional de Planeación (DNP)

# INTERNATIONALIZATION MISSION

## Technical Secretariat



**Daniel Gómez Gaviria**  
(DNP)



**Gabriel Duque**  
(MinCIT)

## Stakeholders



01.

## The challenge:

Technological gaps with respect to world leaders and internationalization as a mean to close them

**INTERNATIONALIZATION  
MISSION** 

# Introduction

## The context in which the mission is developed:

- Pandemic
- Economic and employment crisis, increase in poverty

But new trends in the world economy that could open new opportunities are also evident



Climate change



Digitization



Trade polarization

This leads to a possible relocation of the global economic activity.

Digitization enables remote work and allows trade in tasks, not just goods and services.

The China-US polarization leads to changes in the architecture of value chains, favoring near-shoring.

Climate change will force us to produce things with clean energies, which are more difficult to transport than fossil energy, favoring the relocation of activities close to clean energies.

But taking advantage of these opportunities requires a strategy that considers other difficulties that Colombia has faced and that have prevented it from taking advantage of similar opportunities.

# Expanding the time horizon

If we look at the progress of Colombia in the last 60 years, we note that:



Per capita income has tripled



The educational gaps with the most advanced countries have closed



The gaps in female participation, urbanization, and employment per capita have closed



The capital-per-worker gap has closed



But the income gap has not been closed

- It remains at under 25% of the US income per capita at Purchasing Power Parity (PPP)

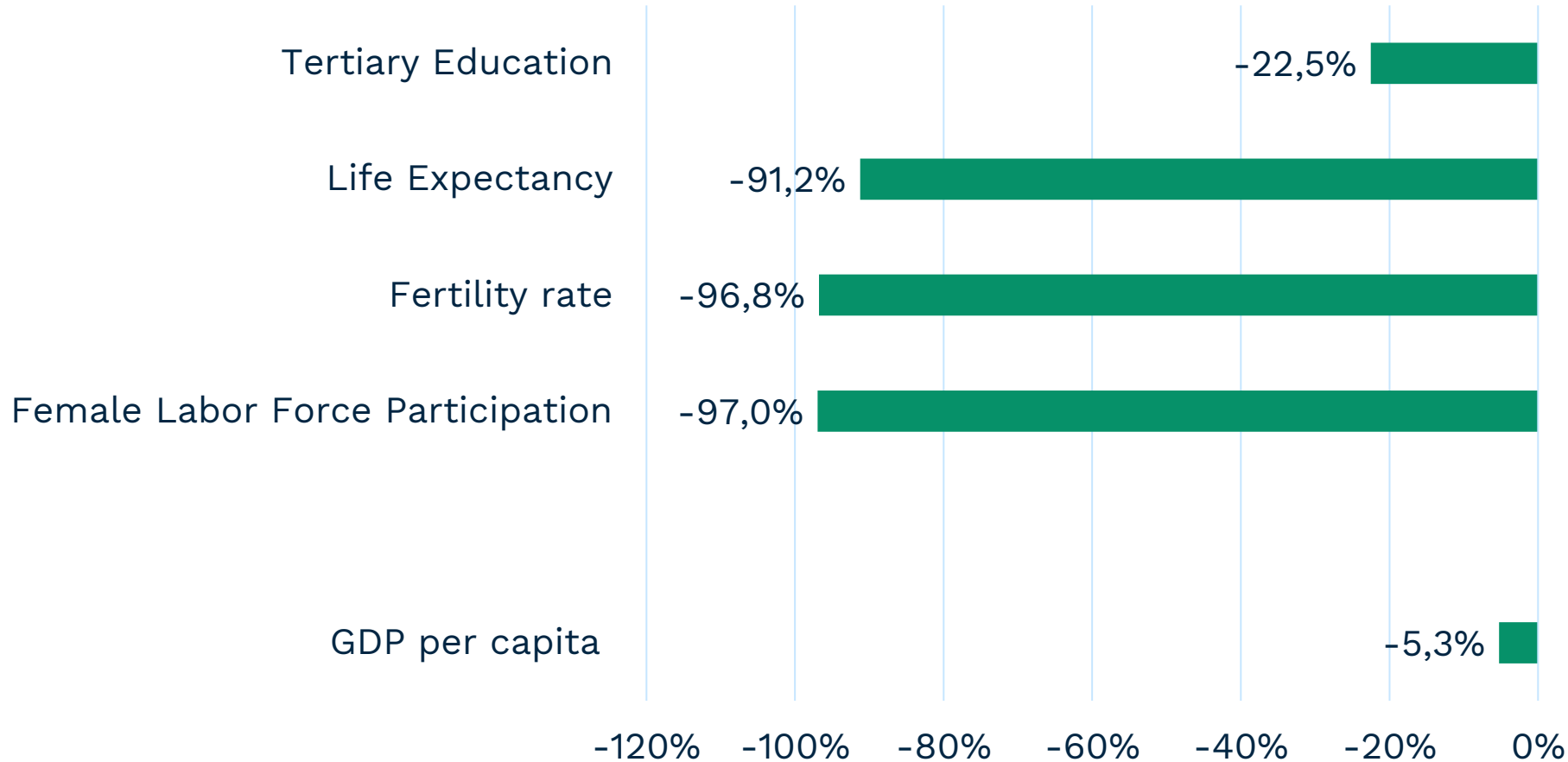


This is because the technological gap with the rest of the world has widened

- The world develops technologies faster than Colombia can adopt them

# Closing gaps

Relative variation in gaps US-Colombia, main variables; 1960 vs 2018



The gaps in main variables have closed, but remains in GDP per capita

# What do we understand by technology?



Technology answers the "how" questions

Technology represents all forms of **productive knowledge** that are used to **transform** our physical and social world.



It is composed of three forms of knowledge

- **Embodied knowledge** in artifacts: tools, materials and services
- **Codified knowledge** in formulas, recipes, protocols, algorithms
- **Tacit knowledge** or know-how in (teams of) brains



Technological adoption and adaptation is hard

- Especially the ability to **access and mobilize know-how**
- Technology implies **complementarities**



Technologies are implemented by firms, organizations and value chains

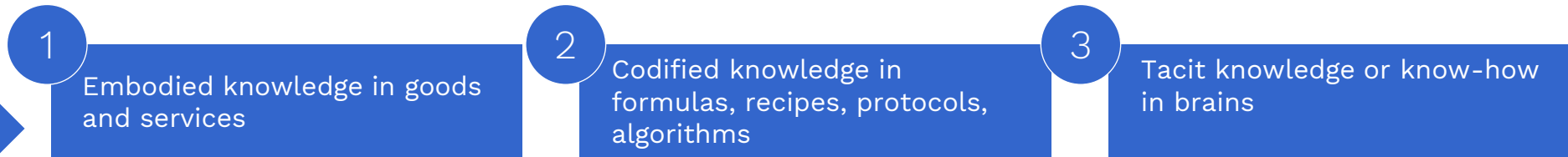
Where all three forms of knowledge are combined



# But what do we mean by technology?

**Technology is prescriptive knowledge:** answer questions about how to do things in our physical and social world

It is composed of three forms of knowledge



Firms and organizations are where these three components of knowledge come together to produce: that is, to transform our physical and social world

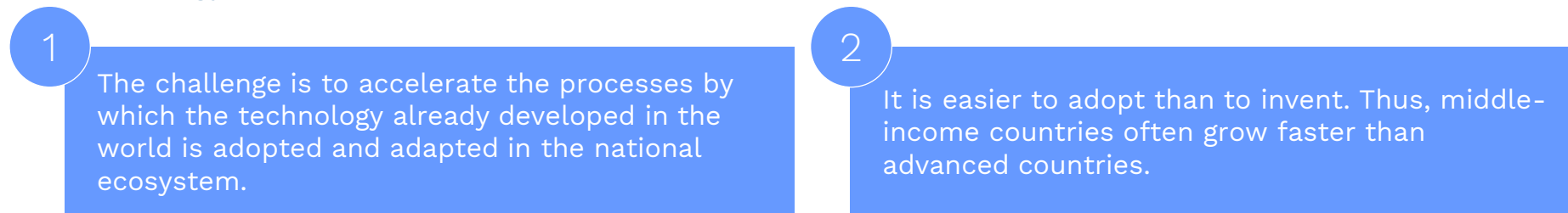
Technology flows with difficulty because:



Colombia can contribute to the world's technology, but it represents only 0.6% of the world's population.

To close the technology gap, it is not necessary to make large contributions to the world's technology

Therefore, the mission focused on expanding the channels through which this process occurs.



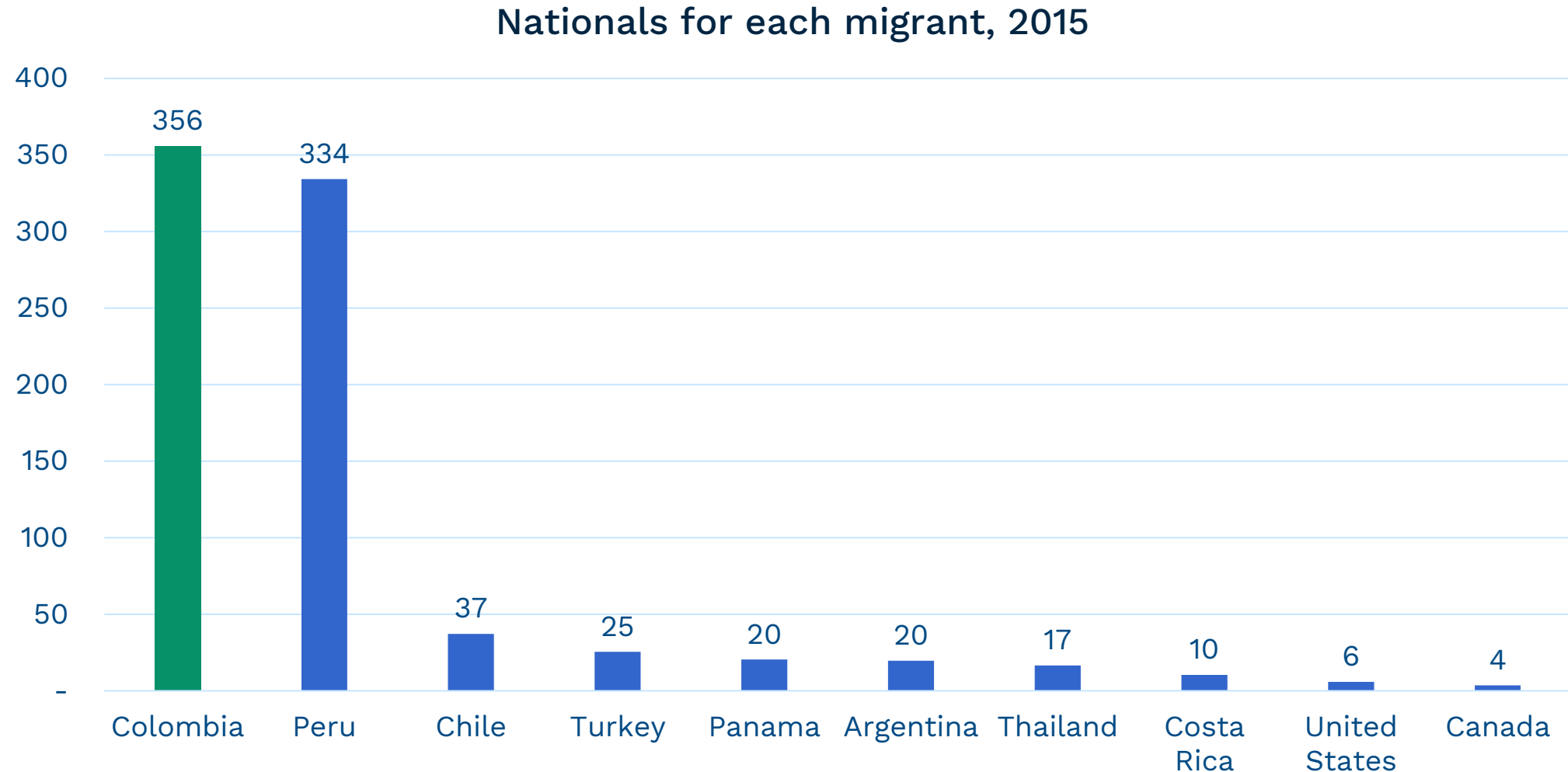
02.

**Evidence:**

Low internationalization

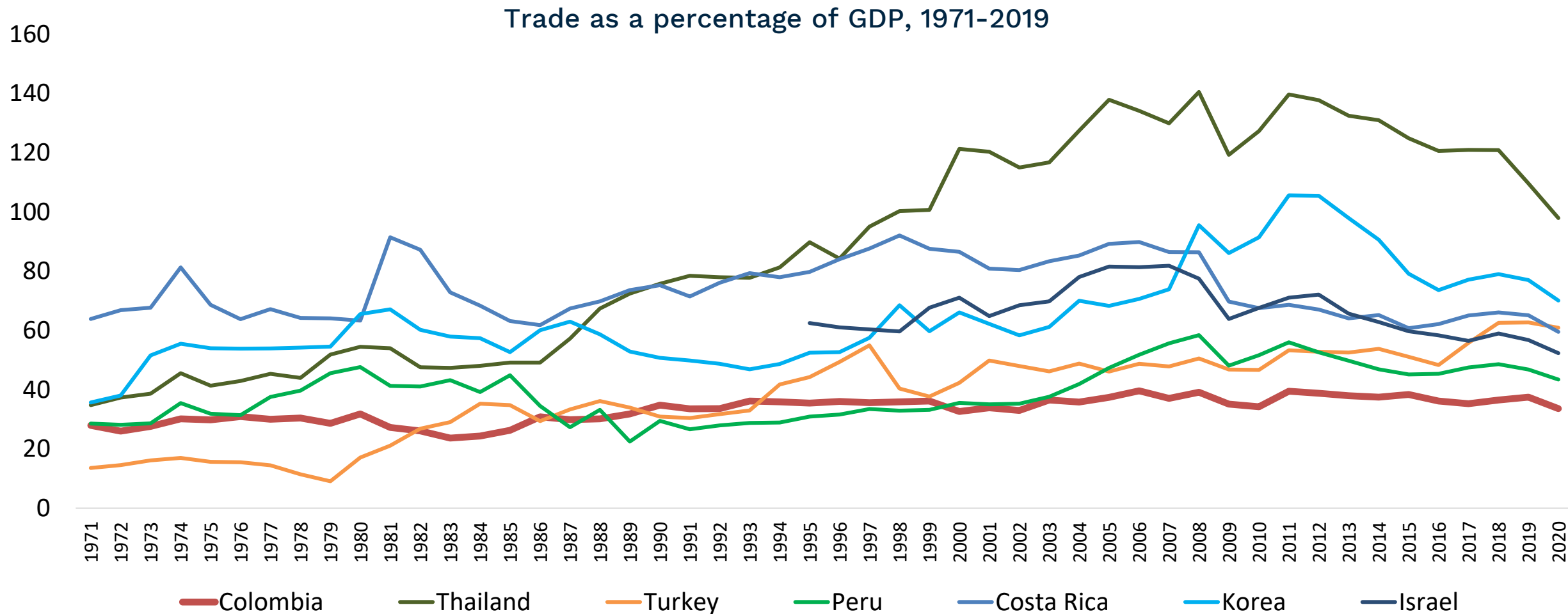
# Individuals: Low levels of immigration

Colombia is an outlier with its unusually low level of immigration.



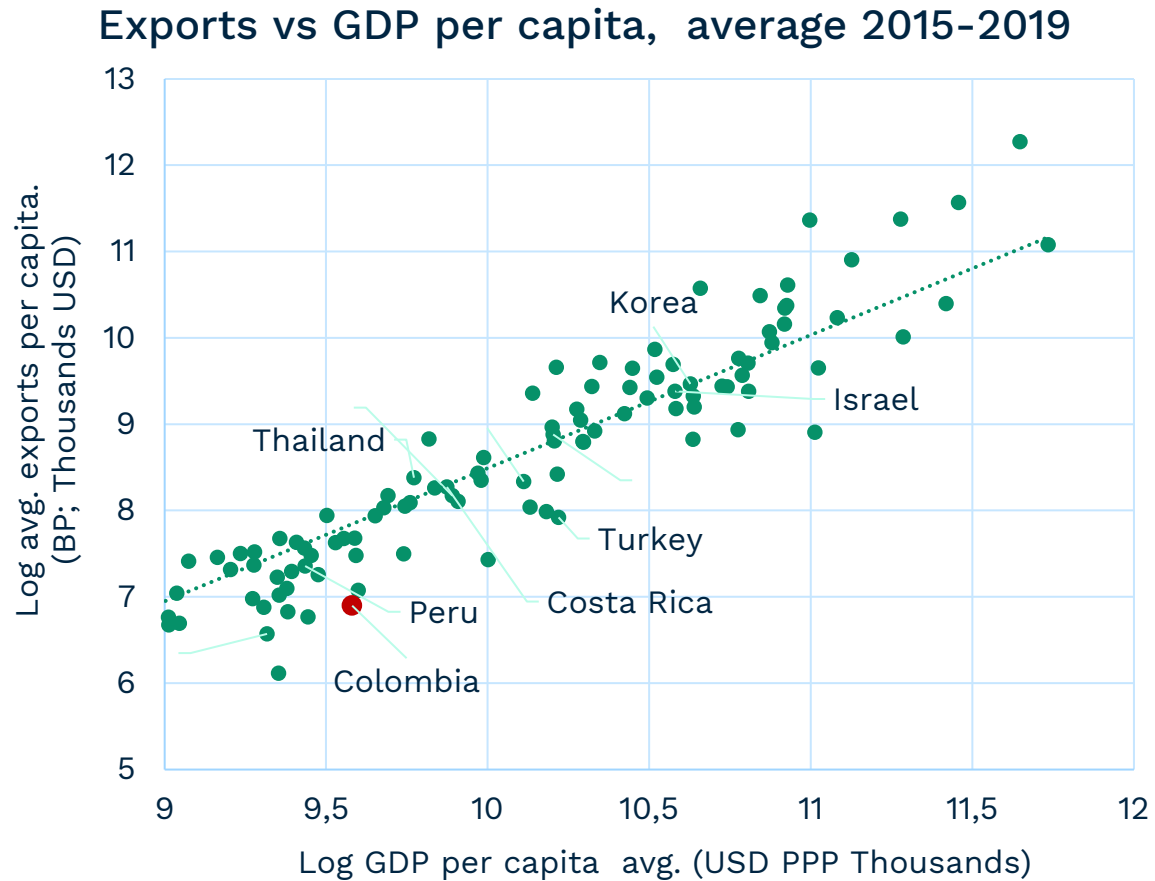
# Trade: Low trade integration

The share of trade in GDP has remained constant in the past 50 years, reflecting low integration in imports and exports.

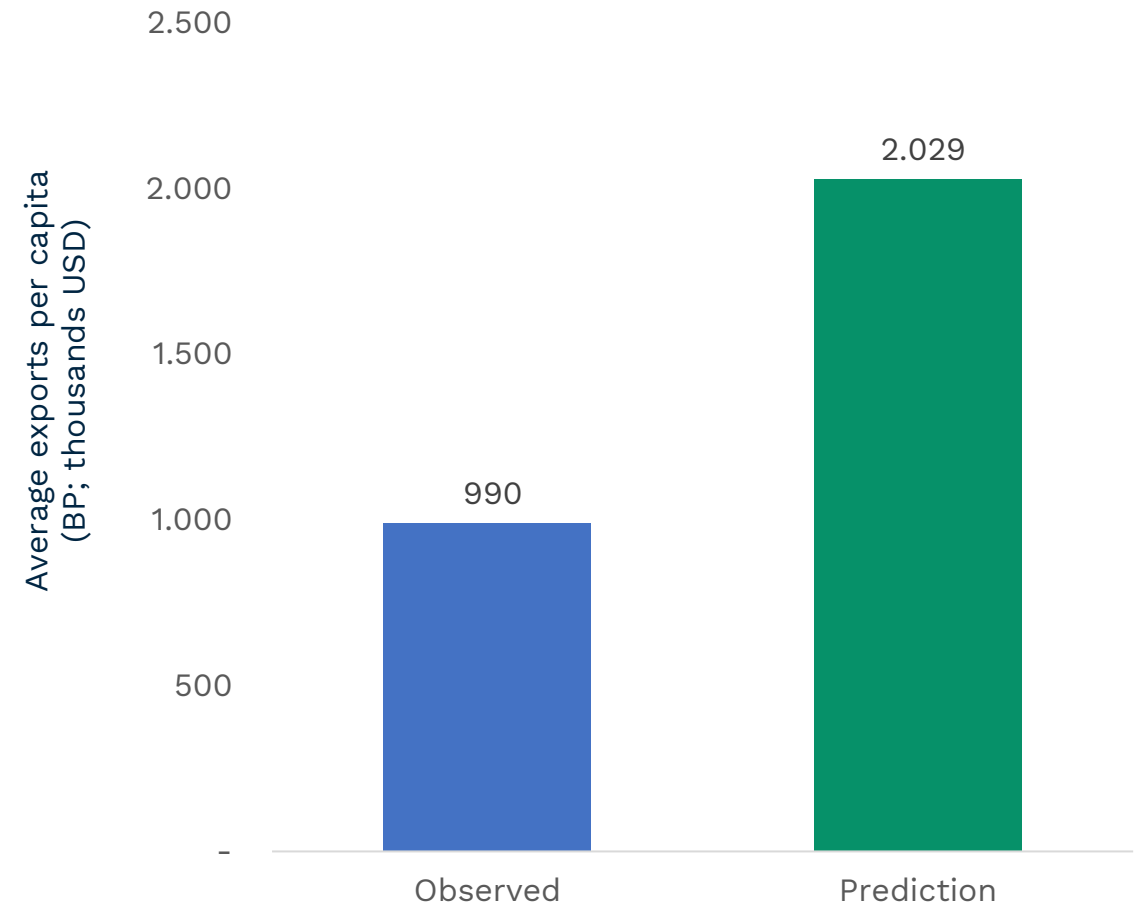


# Trade: Exports

Colombia exports less than a half of what it should export, given its size in terms of GDP and population.



Per capita exports vs. prediction of exports given GDP and population, average 2015-2019



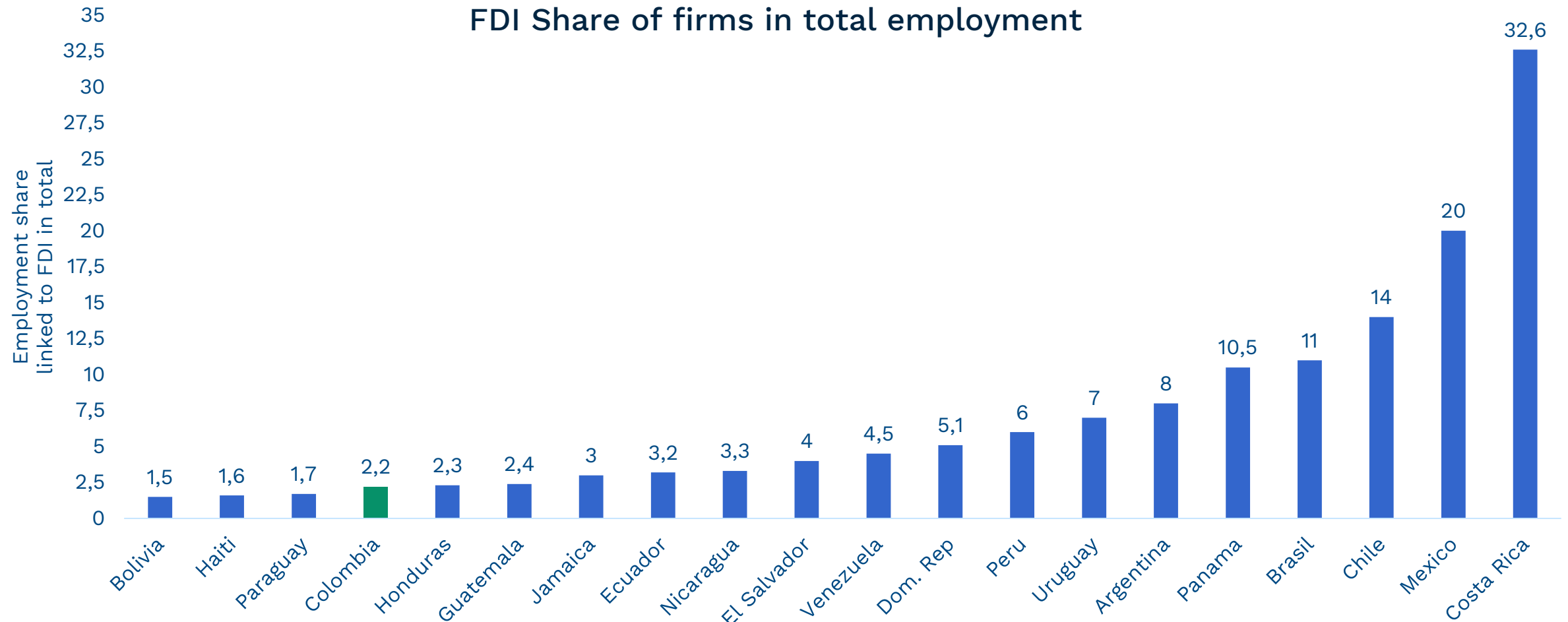
Source: WDI- World Bank.

Source: DNP calculation based on WDI- World Bank.

Based on regression  $\ln(\text{Expos pc}) = -4.380271 + 1.501722 * \ln(\text{GDP pc PPP}) - 0.1351027 * \ln(\text{POB})$  for a sample of 152 countries.

# Firms: FDI Share of employment is low

Share of total employment vs employment generated by multinationals in Colombia is relatively low.



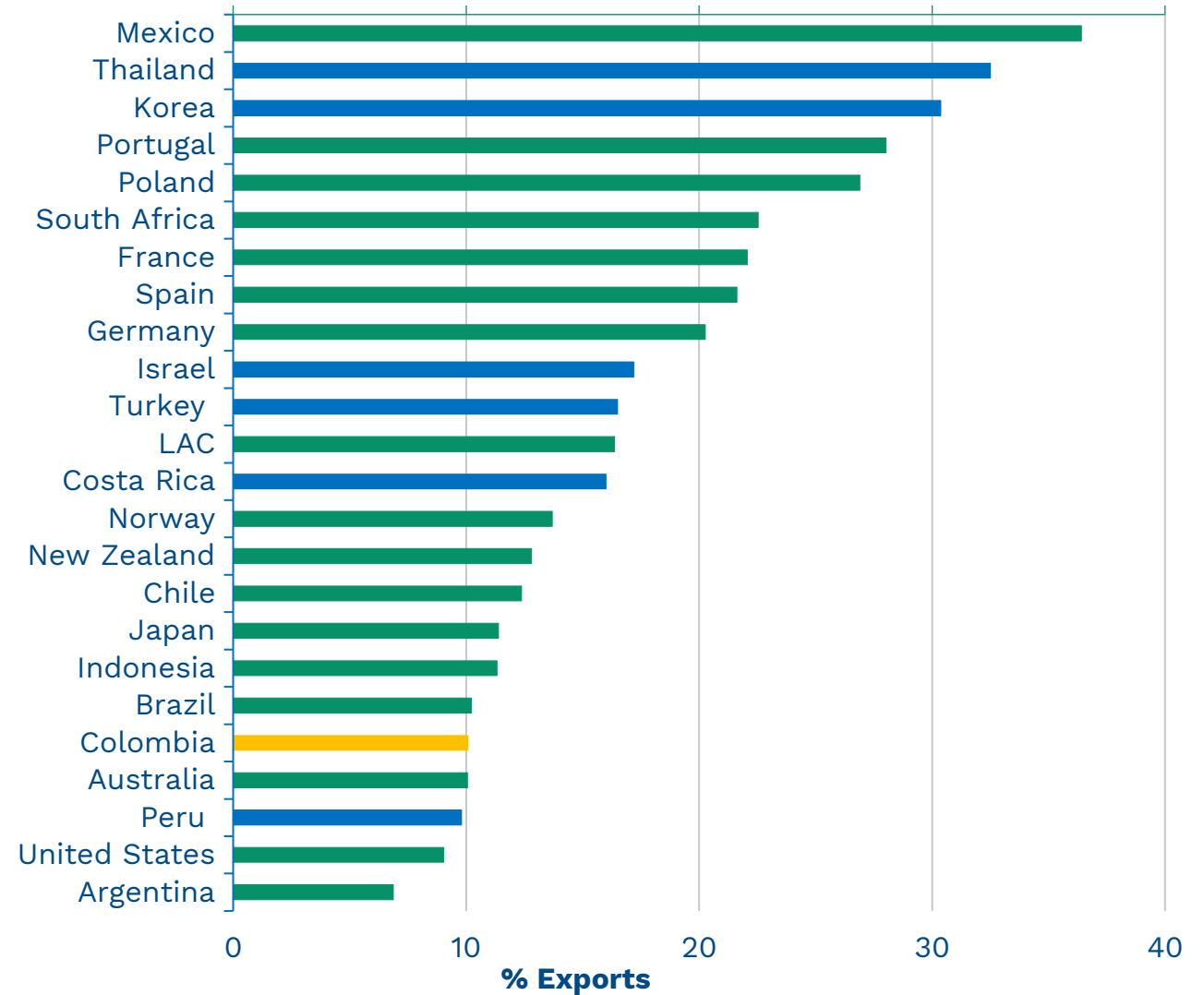
Source: CID-Harvard calculations with multinational employment data from Dun & Bradstreet and total employment from WDI World Bank.

# Firms: Colombias' Share in Global Value Chains (GVC)

Colombia's participation in GVCs is comparatively low



## Share of foreign value in exports, 2017



Note: LAC means to non ponderate average of Argentina, Brasil, Chile, Costa Rica and México.  
Source: DNP elaboration based on OECD - TIVA data.

# Patents

Colombia represents the 0,6% of total population, but jus 0,02% of world patents.

Patents per 100,000 inhabitants, 2019





03.

Recommendations  
and action initiatives.

**INTERNATIONALIZATION  
MISSION** 

# How to accelerate technology adoption and adaptation?



Facilitating the mobility of tacit knowledge in brains

Migration  
Diaspora



Promoting the connection of firms with the technologies and markets of the world

Colombian companies  
International companies  
Integration in value chains



Facilitating access to knowledge incorporated into goods and services and learning by trading

- Transaction and logistics costs reduction and trade facilitation
- Promotion of international insertion



Strengthening the ecosystem that facilitates the adoption and adaptation of technologies

The background of the slide is a dark blue image showing several hands of different skin tones reaching out to hold a globe of the Earth. The hands are positioned around the globe, with some pointing towards it. The overall tone is professional and collaborative.

3.1

## Individuals: migration and diaspora

**INTERNATIONALIZATION  
MISSION** 

# Migration

## CHALLENGE:

Colombia has had low levels of immigration (0.28% of the population), just one in each 350 inhabitants in the 2015 census and one immigrant for every 35 Colombians abroad.

## OBJECTIVE:

Ensure that Colombia has access to the global talent it requires and make the country the most competitive place to build teams with global talent through a comprehensive migration policy reform.

Proactively attract human capital with the skills that the country needs to complement, enhance and develop Colombian human talent.

- Resident visas for people with postgraduate studies at top level universities and graduates of Colombian universities and their families.
- Resident visas for qualified people required by Colombian organizations (above a multiple of the minimum wage).

Reduce obstacles to attracting global talent.

- Simplify the rules for professional accreditation and qualification recognition to attract and retain talent in many disciplines.
- Eliminate visa requirements for all visitors, except for a list of countries where significant risks have been identified.
- Let short term visitors (with or without visas) to participate in a wider range of activities, including formal payment of professional services.
- Negotiate international social security portability agreements.
- Create an inter-institutional public-private working group, in charge of identifying and addressing other regulatory and de facto barriers that affect the environment of foreign entrepreneurs and professionals seeking to work or do business in Colombia.

# Diaspora

## CHALLENGE:

The Colombian diaspora is around five million people with growing capacities, and it represents a potential as an agent of change for the internationalization of the country.

## OBJECTIVE:

Maximize the contribution of the diaspora to the internationalization of the Colombian economy. Capitalize the presence of Colombians abroad as a form of insertion in the international flows of knowledge, investment, and trade.

Strengthen links with the diaspora to facilitate the flow of technology, knowledge, and opportunities to the country. The Colombian government should invest in building a relationship of trust with members of the diaspora, providing opportunities to develop networks that promote the deepening of its relations with the country.

- Establish and maintain a system to identify and monitor members of the diaspora, necessary to strengthen “Colombia Nos Une” program.
- Establish an international network of successful Colombians abroad in business and the technology sector.
- Develop initiatives to recognize the achievements of members of this successful diaspora to bring them closer to Colombia.
- Promote internships for Colombians with diaspora entrepreneurs abroad.
- Design startup scholarship programs for the returning diaspora.
- Review tax treatment to facilitate the return of the diaspora.

Continue proactively with the elimination of visitor and short-term visas and other barriers for Colombians to facilitate their mobility abroad.

3.2

Domestic firms  
Foreign firms  
Global Value Chains

**INTERNATIONALIZATION  
MISSION** 

# Domestic Firms

## CHALLENGE:

Colombian companies have large technological gaps compared with their international peers.

## OBJECTIVE:

Increase adoption and adaptation of technology in Colombian companies through internationalization.

Call to action to Colombian firms to develop internationalization plans, including foreign trade and investments.

For the largest firms, including conglomerates and multinationals, internationalization plans should include productive diversification programs (which may include the acquisition of companies) and the use of their networks and capacities to link other Colombian companies to the world.

Review the business environment considering the internationalization plans of the companies to efficiently facilitate their execution. Reduce regulation that hinders competition.

Increase the access of Colombian companies, especially MSMEs, to technological extension services, including preparation of the offer for international markets, suppliers' development, insertion into global value chains, digitalization and development of managerial capacities.

Rotate and rebalance the government' portfolio of public companies to promote] the adoption and adaptation of technology in activities that involve discovery costs, network externalities or other market failures, ensuring the principle of neutrality of competition in public sector projects or investments.

Strengthen programs linked to the preparation and promotion of exports:

- Due to its strategic nature for internationalization, strengthen the quality infrastructure in line with national policies of productive development and laboratories.
- Create an online catalog with the foreign technical regulations for strategic sectors that must be complied by exporters.
- Promote export productivity, sophistication and diversification programs based on evidence of their effectiveness.

# International firms - Foreign Direct Investment (FDI)

## CHALLENGE:

FDI has not played an important role in the introduction of new technologies and knowledge. It has focused on investment in access to raw materials and domestic market, not in efficiency-seeking FDI.

## OBJECTIVE:

Increase presence of foreign companies to underpin the sophistication, diversification, and value creation of the Colombian productive system and employment generation.

Focus and enhance efforts to attract efficiency-seeking FDI, maximizing linkages, improving competition, and diffusion of technology to the country and the connection to GVCs. In addition, focus investment attraction efforts on national priorities (e.g., green growth) as well as local ones (e.g., cluster initiatives).

Strengthen a comprehensive FDI policy, incorporating dimensions of attraction, promotion, facilitation, retention, expansion, and productive links.

- Strengthen the planning, coordination, responsibilities and roles of the institutions related to this policy, in particular of ProColombia, investment local promotion agencies and other institutions.
- Improve information and work towards the simplification and streamlining of procedures related to FDI.
- Ongoing review and evaluation of investment incentives to ensure that they strengthen efficiency and productivity.
- Implement a systemic response mechanism to keep investment, mitigate risks, and improve the investment climate.
- Create and improve economic link programs connecting FDI with local companies, promoting opportunities and improving local supply capacity. These programs should include matching strategies.
- Continue working towards an improved, predictable and stable business environment.



# Global Value Chains (GVCs)

## CHALLENGE:

World production has been increasingly organized as GVCs in which Colombia has very low participation.

## OBJECTIVE:

Facilitate the incorporation of the Colombian productive system into regional and global value chains.

Adapt trade policy measures with a focus on GVCs considering their integrality (backward and forward linkages, synergies between trade in goods, services, tasks, investment, individuals, and knowledge).

Use cluster initiatives to identify and solve bottlenecks and transaction costs that limit participation in specific value chains.

Strengthen and scale productive linkage programs.

Review, adjust, and focus Free Trade Zones (FTZs) and “Plan Vallejo” as key instruments for insertion into GVCs.

Establish strategic, clear, specific ambitious, and transformative objectives for FTZs. Set and monitor clear internationalization goals, even if export requirements cannot be imposed (WTO).

Reduce transaction costs for the use of the Vallejo Plan.

Monitor the performance of the Free Zones and the Vallejo Plan, including the evaluation of support policies and complementary actions to ensure that the strategic objectives are achieved.

Review the institutional design, based on best international practices to guarantee that all future FTZs are designed in a way conducive to the positive spillover effects on the region, the value chain or the sector in which FTZ firms operate. The figure of single-company FTZs, in particular, should be reconsidered as beforehand stated.

The background of the slide is a dark blue image showing several hands of different skin tones reaching towards a world map. The map is centered and slightly faded, with the hands appearing to be in the process of holding or pointing to it. The overall tone is professional and collaborative.

3.3

## Trade in goods and services

**INTERNATIONALIZATION  
MISSION** 

# Goods

## CHALLENGE:

The economy's ability to take advantage of trade as a tool for technological upgrading is affected by tariff and non-tariff barriers to import-export, as well as transportation, logistics, and transaction costs.

## OBJECTIVE:

Improve access to knowledge incorporated in goods and “learning by trading” reducing barriers to trade and implementing logistics improvements.

Implement a strategy to identify and evaluate the convenience of tariffs and non-tariff measures and keep those that are welfare enhancing and adopt a mechanism that future adoption of measures that restrict trade is subject to a comprehensive cost-benefit analysis.

- Creation of a high-level commission with technical support from the National Planning Department and the Ministry of Commerce, Industry, and Tourism to undertake that evaluation and make decisions regarding which measures should be sustained. The mandate for this commission should be to work by request.
- All new regulations, non-tariff barriers, and tariff increases must be subject to Regulatory Impact Analysis.

Implement a customs processing model fully supported by electronic information systems; an integrated system of simultaneous inspection by all supervisory bodies, driven by optimal risk management and profiling; and a modern system to combat illegal trade. This includes interconnecting customs and tax systems.

Due to its strategic nature for internationalization, strengthen the implementation of the National Logistics Policy with special attention to One-Stop Trade Window (VUCE by its Spanish acronym); modernization of postal services; design, publication, and monitoring of indicators and goals on port efficiency.

# Services

## CHALLENGE:

Colombia has very low participation in trade services, especially in modern ones.

## OBJECTIVE:

Increase the insertion of Colombia in the knowledge flows incorporated into services.

Improve the ecosystem to take advantage of the opportunities of trade in services, in particular modern services (regulatory conditions).

- Identify barriers to business digitization and digital infrastructure to establish a policy agenda to solve them. There should be an ongoing evaluation of current programs.
- Implement policy measures that promote learning of tools such as programming, software, digital marketing, and bilingualism, allowing the improvement of education and training programs.
- Ensure that VAT does not tax the export of services.
- Adapt business environment including integrate international regulatory standards in digital commerce, including measures against fraud and cyber-crime, protecting intellectual property, and consumer rights; and modernize financial system providing technological tools, in line with new business models, facilitate interoperability of payment systems, and reduce the costs of electronic transactions.
- Improve collection of information and data on modern services trade through inter-institutional efforts.

Design a strategy to promote the opportunities of trade in services.

- Prioritize tourism and modern services in FDI and internationalization strategies for Colombian companies.
- Create a program to improve participation of Colombians in international freelance platforms and identify barriers to this activity derived from labor, tax regulations, or other sources.
- Encourage Colombian companies to explore their participation in the growing market of trade in tasks within the framework of the Global Value Chains.
- Use local sector-specific agendas and institutional arrangements, such as those provided by cluster initiatives, to identify and address bottlenecks that may be hindering the internationalization of modern services.

3.4

## Technology upgrading

**INTERNATIONALIZATION  
MISSION** 

# Innovation, adoption and adaption of technology

## CHALLENGE:

Colombia is poorly integrated into global technology flows because of its weak innovation ecosystem.

## OBJECTIVE:

Enhancing the innovation ecosystem to allow the adoption and adaptation of global technology to the needs of the Colombian productive system.

Increase incentives for firms to invest in innovation, especially tax benefits, innovation vouchers, and matching grants.

- This should include reducing transaction costs and uncertainty associated to the use of these instruments
- Increase resources by redirecting royalties from science, technology and innovation to this type of instruments.

Encourage universities and research centers to become suppliers of innovation services aimed at solving problems in the productive sector.

- Adjust their governance and incentive schemes including, but not limited to, salary schemes and current rankings to reward commitment to internationalization, as well as to the quality, applicability, and commercialization of research.

Establish and strengthen centers for applied research and innovation focused on either technologies or industries.

Increase the effort for post-graduate studies abroad and reduce incentives for immediate return after graduation.

Create the position of “Chief National Technology Officer”, as a high-level position, to guide the implementation of this strategy, with the capacity to monitor and evaluate global technological trends and identify gaps and opportunities for Colombia.

3.5

## Institutions

**INTERNATIONALIZATION  
MISSION** 

# Institutions for the internationalization

## CHALLENGE:

The existing institutional framework for internationalization covers only trade, tariffs, and FDI, but internationalization requires a broader approach. Additionally, there is a great multiplicity of institutions that intervene in the internationalization in an uncoordinated way.

## OBJECTIVE:

Align the existing institutional framework towards a broader internationalization approach.

Leadership of the President in the internationalization policy and its implementation.

Encourage all actors that are working on sectoral productivity agendas, particularly those within the framework of the Regional Commissions of Competitiveness and Innovation, cluster initiatives, and Pacts for Growth and Employment, to work on internationalization efforts in line with the recommendations of this mission.

Strengthen the different institutional arrangements that the government has at its disposal and that would allow to coordinate these efforts:

- The Higher Council for Foreign Trade must regain its role as the highest authority of trade policy (return to the origin of this instance). It should be the key instance in decision-making and expand its scope to all issues related to internationalization.
- Consolidate the leadership of the Ministry of Commerce, Industry and Tourism in trade policy and its articulation with a more proactive Foreign Ministry on economic integration issues.
- Unify the national and regional instances of the National System of Competitiveness and Innovation and the National System of Science, Technology, and Innovation (STI) and their articulation with relevant actors of the public and private sector, academia, STI, and civil society.

Internationalization requires proactive participation in the definition of the global rules of the game, as well as the relationship with new markets.

- Promote a proactive government participation in global, regional, and bilateral institutions related to the formal and informal rules of the game of economic integration (WTO; OECD; ITU; WIPO; among others). Importance and priority of multilateralism.
- Develop initiatives and instruments for relations with new markets in Asia and Africa, in response to global growth trends.



# INTERNATIONALIZATION MISSION

