CURRENCY AND EXCHANGE RATE
(As of December 15, 2009)
Currency Unit = Uruguayan Peso
US$1.00 = $19.54 (URUGUAYAN PESOS)

GLOSSARY

AEO Authorized Economic Operator
ANP National Ports Authority
ANTJEL Public Telephone Company
ATIT International Surface Transportation Agreement
BROU Bank of the Oriental Republic of Uruguay
BW Bonded Warehousing
CONALOG National Logistics Commission
DGI General Tax Bureau
DNA National Customs Authority
ECLAC Economic Commission for Latin America
ECSA East Coast of South America
FZ Free Zones
GATS General Agreement on Trade in Services
GATT General Agreement on Tariffs and Trade
ICT Information and Communications Technology
IADB Inter-American Development Bank
IIRSA Initiative for Integration of Regional Infrastructure in South America
LAC Latin American & The Caribbean
LAIA Latin American Integration Association
LPI Logistics Performance Indicator
MERCOSUR Southern Cone Common Market
MTOP Ministry of Transport and Public Works
OECD Organization for Economic Co-operation and Development
RDC Regional Distribution Centre
SITC Standard International Trade Classification System
TCP Terminal Cuenca del Plata
TEU Twenty Foot Equivalent Unit (20ft Container)
UNCTAD United Nations Conference for Trade and Development
VAL Value-Added Logistic
WCO World Customs Organization
WTO World Trade Organization

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# Table of Contents

**Executive Summary** .................................................................................................................................................................................. i

**Chapter 1: Introduction** .................................................................................................................................................................................. 1

1.1. Recent developments in logistics ................................................................................................................................................... 1

1.2. Case of Uruguay .................................................................................................................................................................................. 3

1.3. A rational for Trade Facilitation Reforms ................................................................................................................................. 4

1.4. The Road Ahead ................................................................................................................................................................................ 8

1.5. Scope, Objective and Coverage of the Report ........................................................................................................................... 9

**Chapter 2: Business Logistics in Uruguay** .................................................................................................................................................. 13

2.1. The scope of the industry .................................................................................................................................................................. 13

2.2. Evolution of the logistics industry in Uruguay .......................................................................................................................... 15

2.3. Towards the Institutionalization of Logistics in Uruguay .......................................................................................................... 19

2.4. Transport and Logistics Services: Quantitative Data ................................................................................................................. 21

2.5. Conclusion ....................................................................................................................................................................................... 25

**Chapter 3: Maritime Transport Infrastructure and Services** ................................................................................................................. 27

3.1. Introduction ................................................................................................................................................................................... 27

3.2. Port of Montevideo ....................................................................................................................................................................... 28

3.3. Port Infrastructure ......................................................................................................................................................................... 29

3.4. Shipping Services ......................................................................................................................................................................... 33

3.5. Port Management System .......................................................................................................................................................... 35

3.6. The Role of Port of Montevideo in the Regional Context ......................................................................................................... 35

3.7. Conclusion ....................................................................................................................................................................................... 38

**Chapter 4: Trade and Transit Facilitation: Hinterland Connections** ........................................................................................................ 39

4.1. Introduction ................................................................................................................................................................................... 39

4.2. Road Infrastructure and Transport Services .......................................................................................................................... 40

4.3. Railways ......................................................................................................................................................................................... 45

4.4. River Transport ............................................................................................................................................................................ 47

4.5. Air Transportation ...................................................................................................................................................................... 48

4.6. Potential for Multimodal Operations ........................................................................................................................................ 50

4.7. Conclusion ....................................................................................................................................................................................... 53

**Chapter 5: Transnational Infrastructure: Initiatives and Challenges** .......................................................................................................... 55

5.1. Introduction ................................................................................................................................................................................... 55

5.2. Initiative for Integration of Regional Infrastructure in South America ......................................................................................... 55

5.3. MERCOSUR initiatives ................................................................................................................................................................. 57

5.4. The “Hidrovía Paraguay – Paraná” .............................................................................................................................................. 58

**Chapter 6: Customs Efficiency and Trade Facilitation** ......................................................................................................................... 63

6.1. Introduction ................................................................................................................................................................................... 63

6.2. Main problems: bureaucracy and inefficiency .......................................................................................................................... 64

6.3. Control and Auditing ................................................................................................................................................................. 67
LIST OF TABLES

Table 1. Total exports of containerized cargo transshipped in Montevideo, in TEU ........................................5
Table 2. Trade Facilitation Indicators: Best performers in Latin America, 2007 ................................................8
Table 3. Logistics Performance Indicator .....................................................................................................18
Table 4. Numbers of Workers in Transport sector, in thousands ....................................................................23
Table 5. Cargo transportation: 2000-2007, thousands of tons ......................................................................24
Table 6. Port of Montevideo: Infrastructure and equipment characteristics for container operation ........30
Table 7. Historical changes in containerized cargo movement in the Port of Montevideo between 1999 and 2008 (in thousands of TEU) .................................................................33
Table 8. Impact on Transport costs and Trade, in percent .............................................................................37
Table 9. Road distances between Montevideo and economic centers in neighboring countries (km) ....40
Table 10. Container Traffic in Ports of the Southern cone .....................................................................42
Table 11. Major Road Links and Border Crossings .....................................................................................43
Table 12. Comparison of Road Transport Costs, MERCOSUR .................................................................45
Table 13. Uruguay’s Railway – Traffic Volumes .........................................................................................46
Table 14. Water transport distances from Port of Montevideo to centers in neighboring countries ....47
Table 15. Juan Lacaze port – Trend in truck movement (in units - 2004 to 2008) .....................................48
Table 16. Air Cargo movements in the Carrasco International Airport according to commercial operations between 2000 and 2007, in tons ..........................................................48
Table 17. Uruguay: Air cargo transport cost-price structure ..................................................................49
Table 18. Commodities with Similar Supply Chains ..................................................................................52
Table 19. Logistics Performance Index: Customs Dimension ..................................................................52
Table 20. Trading Across the Border, Doing Business 2010 ....................................................................65
Table 21. Uruguay’s Trade Policy Indicators Compared: 2006-2008 .........................................................77
Table 22. Regional Free trade agreements concluded by MERCOSUR .....................................................78
Table 23. Connectivity characteristics of the Port of Montevideo with neighboring countries ........86
Table 24. Summary of Uruguay Trade and Investment Policy .................................................................89
Table AI.1: Uruguay: Modal split for exports to Outside Latin America, 2006 ........................................99
Table AI.2: Uruguay: Modal split for Imports from Outside Latin America, 2006 ........................100
Table AI.3: Uruguay: Modal split for exports to Latin America Latin countries, 2006 ..................100
Table AI.4: Uruguay: Modal split for imports from Latin American countries, 2006 ..................101

Table AII.1: Uruguay’s Foreign Investment Restrictions ...........................................................................105
Table AII.2: Uruguay: Foreign Investment Future (Possible) Restrictions ..............................................106
Table AII.3: Logistics Services: Comparing GATS and MERCOSUR commitments ...........................113
Table AII.4: MERCOSUR Sixth Round of Negotiations: Results not ratified .........................................115
Table AIV.1: Regression Results of Trade Facilitation Gravity Model ....................................................119
Table AIV.2: Exports growth and ad-valorem equivalent of improvement half the way to the level of the US ..............................................................120
Table AIV.3: Summary Statistics for Trade Facilitation Factors and Indicators ....................................121
LIST OF FIGURES

Figure 1. Major Global Trade Flows ................................................................. 2
Figure 2. Global Hub and Spoke System .......................................................... 2
Figure 3. Ten largest Ports in the World, 2007 .............................................. 2
Figure 4. Largest Ports, East Coast of LAC, 2007 ........................................ 2
Figure 5. Containerized Cargo Traffic in the Port of Montevideo, in thousands of TEU ............................. 5
Figure 6. Road map to the Report ................................................................. 11
Figure 7. Logistics service activities ............................................................ 14
Figure 8. Value Added for Total Transport & Storage Services and GDP, 1988-2008, in 1983 prices 22
Figure 9. GDP share of Maritime transport and Related Port Services; Supporting and Auxiliary
Transport Activities and Transportation and Storage Services. .................. 22
Figure 10. Labor productivity in selected logistics activities in Uruguay ........ 23
Figure 11. Relationship between Draft and Vessel Capacity ....................... 28
Figure 12: Liner Shipping Connectivity INDEX ........................................... 34
Figure 13. Uruguay’s Road Network .......................................................... 41
Figure 14. Uruguay: heavy load roads....................................................... 41
Figure 15. Port Hinterlands in Southern Cone ........................................... 42
Figure 16. Uruguay’s potential port hinterland .......................................... 42
Figure 17. Freight movements through major border posts ....................... 43
Figure 18. Uruguay’s Railway Network ..................................................... 46
Figure 19: Modal split for imports from Latin American countries, 2006 ...... 50
Figure 20. IIRSA project status 2009 ......................................................... 57
Figure 21. Hidrovía Paraguay – Paraná and Ports ..................................... 60
Figure 22. IIRSA projects related to Uruguay ............................................ 61
Figure 23. Current Trade Processes Scheme vs. Single Window .................. 70
Figure AI.1: Modal split – Imports to Uruguay from Argentina, 2006 ......... 102
Figure AI.2: Modal split – Imports to Uruguay from Brazil, 2006 .......... 102

LIST OF BOXES

Box 1: Import/export cargo and transhipment cargo ........................................ 5
Box 2: Measuring Trade Facilitation .............................................................. 7
Box 3: The Lifecycle Of Business Logistics in Uruguay ................................ 16
Box 4: Uruguay’s Logistics Performance Indicator .................................... 18
Box 5: The Comisión Nacional de Logística (CONALOG) and Instituto Nacional de Logística (INALOG) ......................................................... 20
Box 6: Maritime Transport Regulations ...................................................... 31
Box 8: Montevideo’s Port Hinterland ......................................................... 42
Box 9: Modal Spilt Imbalances ..................................................................... 50
Box 10: The Meat Supply Chain – an Example of Intermodality ................. 52
Box 11: Chilean Customs Considered Best Practice .................................. 64
Box 12: International Best Practice in Customs Efficiency ......................... 67
Box 13: An Agenda for Customs Modernization ....................................... 68
Box 14: An Effective Customs Transit Regime ........................................... 72
Box 15: Constraints to Logistics Services Providers ................................... 76
Box 16: Annexes to the Montevideo Protocol ............................................. 80
Box 17: The Treatment of Free Zones in Uruguay Trade Policy with Third Countries .......................... 81
Box 18: Cabotage as a Means to Reduce Transport Costs ............................. 85
EXECUTIVE SUMMARY

In response to the government’s request, this study assesses Uruguay’s potential as a logistics hub and as a regional distribution center. The competitiveness of Uruguay’s logistics system is assessed from an international perspective and policy recommendations towards further efficiency gains are provided. The study focuses on policies related to enhancing domestic and regional trade facilitation and assesses the wider economic impact of such reforms on logistics costs and trade.

Introduction to Logistics System

Logistics services cover a large number of service activities that range from management consulting to transportation services for all modes of transport. These activities are subject to different regulatory environments that may affect national and foreign providers in different ways.

Introduction

Globalization has brought about a rapid expansion of international trade and a dramatic change in trade structure. The liberalization of trade in goods and services, containerization, new integrated transport networks, advances in information communication technology and modern business logistics have created unprecedented business opportunities for the trade and transport industries, as firms increasingly rely on global supply chains for production and distribution.

An efficient and cost-effective logistics system facilitates trade and fosters growth and competitiveness in the economy as a whole. Substantial research shows that logistics costs – costs associated with the transportation, storage and distribution of goods from producer to consumer – are often a greater impediment to trade than external tariffs. Reducing logistics costs has a significant impact on growth and competitiveness since efficient transport systems facilitate trade by opening up international markets to local producers and consumers.

Logistics hubs are special nodes that form part of a global logistics network. Hubs form the center of hub-spoke distribution systems, allowing cargo to be exchanged via several modes of transport (intermodality) and carried from one destination to another until the cargo reaches its final destination. The benefits of intermodal transport solutions extend beyond costs and operational flexibility; the balancing of loads between rail-road-sea can also benefit the environment and reduce traffic congestion.

Approximately ninety percent of world trade in volume is being transported by sea today, which means that ports play a central role in modern transport logistics. In today’s world, ports not only compete for transshipment activity but also handle cargo from the hinterland. To best serve the hinterland, port facilities are increasingly linking up with dedicated logistics zones, which act as regional distribution centers (RDC). Strategically located, RDCs facilitate
intermodal transport and improve competitiveness via customer-oriented, just-in-time services and value added logistics.

The success of a logistics hub is not due to one single factor but to several attributes and patterns, including: geography - especially intermediacy in a major trade lane; depth of harbor; effectiveness of transport infrastructure and services; efficiency of trade logistics and effectiveness of trade facilitation measures. Overall, logistics hubs emerge and prosper based on their ability to reduce costs.

Key Messages

Over the last two decades, Uruguay has developed into a regional hub for the Southern Cone. The Port of Montevideo, Uruguay’s principal port, currently handles about 7% off all MERCOSUR container shipping. Currently, 63% of goods that pass thorough Uruguay’s ports originate from the port’s hinterland (Paraguay, Bolivia and parts of Argentina and Brazil). Uruguay’s attractiveness as a logistics hub is due to several factors. Its central location in the south-eastern South American market; its free-trade-zone legislation; more competitive transit times to major destinations than from Buenos Aires; low port costs and the Paraguay-Paraná river connection to inland production areas.

Uruguay’s growth potential as a logistics hub is closely tied to its ability to facilitate trade for the Southern Cone. The size of Uruguay’s GDP and external trade alone do not generate sufficient cargo volumes to make Montevideo an attractive main port for shipping lines on the East Coast of South America. To grow as a regional hub, a highly efficient logistics system is required that facilitates both domestic trade and regional transit flows. More cost effective logistics will not only support domestic trade, but also make it more attractive for regional cargo to transit through Uruguay. Greater transit flows, in turn, will generate the necessary scale economies that will allow local trade to benefit from lower unit shipping costs.

The benefits of trade facilitation reform for lowering logistics costs and promoting trade could be substantial. Empirical estimates suggest that a 10 percent reduction in transport costs could increase trade by 3.6%. Such a reduction in transport costs could be achieved by either a 10 percent increase in port connectivity; a 30 percent reduction in the time required to comply with border procedures; or a 50 percent rise in container through-put. Put differently, such reforms would leave Uruguay with port connectivity similar to Argentina, time required to comply with trade border procedures similar to Mexico; and a comparable container through-put rate to the Port of Buenaventura in Colombia.

Current Scope

Even though Latin America lies off the major global trading lanes, increasing trade volumes in recent years have led to the growth of regional traffic flows and the emergence of some regional hubs. According to UNCTAD (2008) the ports in Latin America and the Caribbean handled 6.8 per cent of world container traffic in 2006. The traffic volume has been increasing rapidly over the past decade, both in terms of container traffic and bulk commodities. In fact, bulk commodities, have had higher rates of increase, riding on the wave of the boom in prices that preceded the current global financial and trade crisis. In terms of overall traffic volume Brazil handled the largest one followed by Mexico, Argentina then Chile, reflecting the
dominance of bulk trade in these countries. However, over the period 2004–2007, Belize, Colombia and Uruguay experienced the highest growth rates in port through-put volumes.

**Uruguay is geographically well positioned to act as a gateway for regional trade and as a regional transit hub.** The Port of Montevideo is centrally located in the River Plate Basin and is an important gateway to the markets of south-eastern and central South America. It further serves as the entrance point to the Paraguay-Paraná river system, which not only connects with the hinterlands of Argentina and Uruguay, but also the landlocked countries’ of Paraguay and Bolivia, as well as interior parts of south-western Brazil.

A favorable regulatory framework has supported the recent development of Uruguay as a logistics hub. Domestic policies have played a crucial part in the development of Uruguay’s logistics sector. In particular, trade and investment policies and policies for trade in services have enabled the provision of logistic services by national and foreign providers, which have been able to benefit from two special regimes: the free port and the free zone legislations.

Under free port and free zone legislation, providers of maritime services and logistics services have been able to develop a world class services sector. The port legislation allowed services providers to handle goods in transit, while the free zone legislation has enabled service providers to add value to traded goods, beyond such activities as packing and picking. Goods passing through the free zones are mainly destined for MERCOSUR countries and to a lesser extent other regional markets.

Transport and transport related services activities account for approximately one third of service exports. The main activity within this sector is port activity, mainly related to transshipment. Maritime transport and related port services accounted for about 43% of total value added in Transportation & Storage Services. The production of Supporting and Auxiliary Transport Activities (including those associated with air and maritime transport and storage) increased their share from about 30% in 1988 to about 50% in 2008 of value-added in Transportation and Storage Services. Other modes of freight transportation have had a less dynamic performance in recent years.

**Issues and Policy Recommendations**

Uruguay’s potential as a regional logistics hub depends on its ability to increase the scale of its operations while reducing overall logistics costs. Policy reforms should therefore aim to facilitating both domestic trade and regional transit flows. Such a strategy should consider three main strains (1) strengthening of the port logistics system to function as a gateway port for Uruguay’s domestic cargo; (2) development of Montevideo as highly efficient, intermodal hub for Argentinean, Paraguayan and Brazilian cargo and (3) developing efficient hinterland logistics systems.

All three strains are related and mutually reinforcing. Cost-effective handling of domestic import/export cargo is critical for the development of Uruguay’s domestic economy and industry. Transit cargo generates the necessary scale economies that will allow local exporters and importers to benefit from more competitive shipping costs. In addition, transit cargo
generates additional revenues and provides the opportunity to develop Uruguay’s logistics industry based on the resources of the transshipment cargo industry.

Despite progress made, the WB Logistics Performance Indicator shows Uruguay lagging behind other countries, and in the region. Uruguay ranks 79th out of 150 countries according to the 2007 LPI - below Argentina, Brazil and Chile - and performs less well than the LAC and Upper Middle Income averages. The ranking within the subcomponents is as follows: customs efficiency (86th), infrastructure quality (70th), affordability and availability of international shipments (100th), logistics competence (85th), tracking & tracing ability (77th), domestic logistics costs (103rd) and timeliness of services (82nd).

Going forward better integration of the various components in the logistics chain is important for the continuous improvement of Uruguay’s logistics system. Uruguay has potential to develop into a regional logistics hub for the Southern Cone, but to reap its fullest potential, future developments should target the development of an integrated logistics chain system with a strong focus on inter-modality. For this to materialize, at the minimum, transport policy, Customs, and the regulatory environment need to be oriented towards supporting an integrated logistics chain, in both a national and transnational context.

Transport Policy Reform

Strengthen the Port System

Montevideo should actively seek to increase the number of vessel calls. Montevideo currently does not have a large number of vessel calls. If the Port of Montevideo can strengthen its position as a hub port and consequently increase the number of direct services calling in the port, the resulting lower transport costs would benefit transshipments, transit and local trade. Improved access to the extended port hinterland and investment in port infrastructure to attract greater levels of transshipments are important to increase the scale of port operations. Key to attracting more vessel calls is the ability of the port to turn around vessels quickly, which is a function of several factors including equipment, processes, systems, and general efficiency. A well designed strategy to market the Port of Montevideo internationally could also help to increase vessel calls.

Port efficiency could be greatly improved by a ‘Single Window’. While data exchange between shipping lines and customs authorities, as well as between shipping lines and port authority is paperless for transshipments, other procedures related to domestic imports and exports require extensive, and often parallel, documentation. The efficiency of cargo management in the port could be greatly improved by the creation of a ‘Single Window’ approach where all port related information is communicated between private and public agents within an integrated, computerized system.

Besides depth, the Port of Montevideo is constrained due to the absence of land for expansion. The port depends on substantial dredging to handle some of the larger vessels increasingly deployed by shipping lines. In addition, this port faces landside constraints to expansion. To compensate for these physical constraints, the port will have to adopt strategies to increase its efficiency and productivity. Access to a highly efficient multimodal network that
connects to an extended hinterland would also help preserve attractiveness and exploit scale economies.

Reinforce Hinterland Connectivity

**Hinterland connectivity is the key to Uruguay’s potential as a logistics hub.** More than four-fifths of the country’s trade volumes pass through the port. The Port of Montevideo’s hinterland extends to Paraguay, Southern Brazil, Argentina and Bolivia, and Uruguay is generally well connected to all its neighbors. Uruguay possesses all the major modes of transport on which to build a logistics platform. However the performance and level of integration of the national transport system is such that it suffers significant disadvantages when compared to neighboring countries. In particular, air, river and rail components are underutilized due to weaknesses in infrastructure and operational efficiency.

**Efficiency of road transport sector should be improved.** Road transport suffers from delays at the port and at border crossings; moreover, transport fleet faces low utilization rates. Delays can add as much as one day in transit time. The delays can be reduced with the implementation of innovative operational practices; new gate and inspection technology and infrastructure; improvements to customs facilitation; and a port community system. Higher road transport costs compared to neighboring countries are partly due to differences in national taxation and regulatory regimes. Harmonization of such regulations across countries would serve to level the operating environment. Freight rates are also elevated as cargo is often only carried on one leg of the journey. Such unmatched transport flows could be reduced by more efficient information systems, such as online freight exchanges which act as ‘clearinghouses’ where available cargo spaces are efficiently matched with shippers’ needs.

**Rail traffic has stagnated despite recent increases in national and regional freight volumes.** Incompatible gauge width with Brazil; the need to rehabilitate a substantial part of the rail link to Argentina and Paraguay; and absence of a rail-road interface severely hamper the inclusion of Uruguay’s railways as part of an integrated logistics chain that connects the port with its hinterland. Improving efficiency in the railway system is important to provide a viable alternative to road transportation. A multimodal approach that uses both rail and road would further help to increase rail freight volumes.

Enhance Scope for Multimodal Operations

**Enhancing the potential of Uruguay as a logistics hub requires optimizing the use of all available modes of transport to develop an efficient multimodal logistics network.** While Uruguay has the infrastructure to provide seamless multimodal logistics services, the various components of the logistics infrastructure are presently operated as separate systems, with little complementarities. As it is, the port-land interface, especially railroad-maritime multimodal transport at the Port of Montevideo, remain largely underutilized. Deliberate measures should be taken to develop efficient interfaces between these components. Multimodal transport requires the possibility of transporting containerized merchandise in a time sensitive and flexible manner.
The Ro-Ro concept\(^1\) has potential for transit transportation, in particular between Uruguay and Argentina. The Ro-Ro concept, which is effectively used in the Danube basin would not only provide high flexibility for transit transportation but also reduce delays at border crossings, load times, pollution and road accidents. Implementation of the Ro-Ro concept requires a common regulatory regime between participating countries.

**Modal interfaces and multimodal operations in Uruguay can be designed and extended through the development of freight villages.** Especially built for the intermodal transfer of goods, freight villages provide a way of increasing the capacity of the port by offering off-site storage and handling facilities for cargo. Such freight villages would be developed in proximity to the Port of Montevideo and to Carrasco Airport and would be framed and integrated within the free port regime.

Endorse Transnational Infrastructure Initiatives

**Enhanced hinterland accessibility beyond Uruguay’s national borders is crucial to strengthen Uruguay’s potential as a regional hub.** Regional hinterland accessibility requires greater interconnectivity between Uruguay’s transport networks and its neighbors. Greater regional interconnectivity requires regional cooperation and is therefore directly linked to progress in regional integration efforts, such as those under MERCOSUR, LAIA and IIRSA. These platforms could be used more effectively to build a consensus on transnational infrastructure needs and to promote regional trade facilitation.

In particular, Uruguay should take advantage of the identification of the Port of Montevideo as a central port for the ‘MERCOSUR-Chile’ axis within the IIRSA initiative. Recent projects in Uruguay’s IIRSA portfolio specifically aim to strengthen Uruguay’s position as a regional logistics centre through improvement of the sea-land interfaces. Efficiency gains at a gateway port are likely to benefit all countries along the transport chain.

Redirect Customs Towards Trade Facilitation

**Uruguay’s dependence on international trade requires efficient and effective trade facilitation institutions.** Inefficient Customs operations add a premium to transport costs and undermine Uruguay’s ability to attract investments and trade. Uruguay’s ambition to evolve into a logistics hub requires a re-orientation of Customs towards an effective trade facilitator for both domestic trade and regional transit flows. This requires striking the right balance between the need for security and business-friendliness.

**Key areas in need of reform are: human resources management, auditing and inspection.** Due to its dual role as trade facilitator and border protection agency, customs needs to strike the right balance to facilitate efficient and secure integrated logistics chains. Reform implies: increasing human resource capabilities; simplifying release and clearance procedures; the adoption of a single window approach and effective risk management analysis; adherence to international standards; and cooperation with other border agencies and the private sector are

\(^{1}\) Ro-Ro or roll on/roll off refers to ships designed to carry rolling-stock cargo which does not require cranes to be loaded or off-loaded but is driven on and off the ship’s decks.
essential prerequisites for an efficient and flexible Customs organization that facilitate cross-border flows.

**An effective Customs Transit Regime is important to attract transit flows.** An efficient Customs transit regime should allow goods in transit to travel through Uruguay’s Customs territory free of import duties and other charges and without the need for physical inspection en route during transit, other than the checking of the transit document, the seals and the external conditions of the load compartment or container.

**Establish a Business Friendly Operational and Regulatory Environment**

Although Uruguay’s regulatory framework for logistics has been quite progressive and instrumental for the growth of the sector, a complementary regulatory framework is needed to establish a more secure business environment. Uruguay’s success as a regional hub further depends on the cooperation of Uruguay’s trading partners to develop and enforce all the necessarily rules for an integrated, logistics chain.

**Encourage non-discriminatory access to infrastructure and adopt pro-competition safeguards.** Logistics services providers require access to available infrastructure to operate. The current regulatory environment could be improved by introducing legislation that ensures nondiscriminatory access to infrastructure and encourages the use of the same. It also requires pro-competition safeguards that ensure that infrastructure operators do not prevent others from providing services. Pro-competition safeguards would also avoid possible conflicts of interest in cases where owner/regulators are also service providers; e.g., the case of National Port Authority (ANP) who currently not only regulates the port but also is a minority share holder in the Terminal Cuenca del Plata (TCP) container terminal. Such a complementary regulatory framework is needed to establish a more secure business environment.

**Cooperation among trading partners remains an important condition for achieving an integrated logistics chain.** Although Uruguay’s unilateral policies will continue to play a relevant role in the development of the logistics industry, further developments, in particular aligned with transit facilitation, will require stronger collaboration among trading partners in a number of areas. For instance, cross-border collaboration is required to address constraints faced by an integrated, transnational logistics chain. As an example, the development of Ro-Ro transportation will require coordination and collaboration with Argentina and Paraguay.

**Need to address border controls and improve transit regime.** There is also an urgent need to address other areas of cooperation among MERCOSUR and associated countries. In particular, border controls need to be improved to reduce delays and to improve the provision of services. Moreover, land transportation is the main mode of delivery of transit goods, and while a well developed land transportation regime exists, its operation is impaired by inadequate computer systems; insufficient infrastructure; and the absence of trained personnel in neighboring countries that require investment decisions by the incumbent country.

**A regional approach to lifting restrictions on cabotage operations offers great potential to lower transport costs.** Available evidence suggests that lifting such restrictions would lower freight rates, lead to better use of spare capacity, result in more frequent services; minimize the
need for waivers; encourage greater competition in the market; and increase trade volumes especially of water-borne cargo. However, such liberalization would have to be tackled gradually, in a manner that is sensitive to the operators in each country and ideally, after harmonization of the regulatory regimes.

**Complementary Agenda**

**Data Collection Efforts**

Reliable and up-to-date statistics on logistics are essential to developing effective transport and trade facilitation policies. To date, official statistics lack sufficient coverage to provide a detailed picture of the size and activities of the entire sector. There is also no comprehensive information about Uruguay’s logistics costs. Such information is needed to provide a better understanding of the full costs of the different modes of transport; to establish a reference data source for the transport profession and to assist evaluation of the effectiveness of government policy against pre-determined policy targets.

**Capacity Building for Overall Development of Logistics System**

Importance of capacity building and continued professional development for all actors involved in logistics, especially road transportation and Customs. While logistics service providers within free zones are highly sophisticated, an efficient logistics system requires a skilled workforce along the entire logistics chain. Capacity building and continued professional development for all actors involved in logistics are therefore important. Uruguay’s education system should therefore be geared towards supporting the needs of the logistics community.

**Closing Remarks**

Overdependence on shipping lines bears potential risks. The Port of Montevideo currently benefits from the strategy of Latin America’s biggest shipping company (CSAV) to intensify the use of Montevideo as a transshipment hub for cargo from Southern Argentina. The port, in this case, is also benefiting from the existing cabotage restrictions that restrict foreign flagged vessels from moving cargo between Argentinean ports. However, dependency on shipping lines bears potential risks as shipping lines are known to act footloose and have in the past moved between ports in search of the best economic offer (Sanchez and Wilmsmeier, 2006).

Although Montevideo is currently the largest transshipment port in the River Plate, the Port of Rio Grande is emerging as a significant competitor. Rio Grande (Brazil) has several advantages over Montevideo. While transshipment activity is crucial for Montevideo to reach a sufficient volume in freight to attract shipping services, Rio Grande has access to a significant captive hinterland that generates high economies of scale. The Port of Rio Grande can also handle larger ships than Montevideo and Buenos Aires. Its port access, unlike in the others does not depend on the dredging of long access channels.

Future port infrastructure development on the East Coast of South America will also influence the structure of shipping liner services. Once main ports, like Santos (Brazil), provide greater water depths, shipping lines are likely to respond and change port calls. If ports
are not prepared, shipping lines will bypass them and only provide them with feeder services (e.g., Buenaventura, Colombia). This would reduce the direct connectivity of Uruguay’s ports and affect Uruguay’s attractiveness as a logistics hub.

Expanding into traditional core markets and new niche markets as well as focusing on developing as a gateway for Paraguay seems like a good option for increasing competitiveness and reducing dependency on shipping lines.
CHAPTER 1: INTRODUCTION

1.1. Recent developments in logistics

1. Recent years witnessed a rapid expansion of international trade and a dramatic change in trade structure. The liberalization of trade in goods and services, new integrated transport networks, advances in information communication technology and modern business logistics have created unprecedented business opportunities for the trade and transport industry, as companies increasingly rely on global supply chains from the multiple sourcing of raw material to the production and final distribution of the finished product. Companies are also increasingly taking steps to concentrate merchandise in regional distribution centers to improve their competitiveness by reducing inventory and raw material procurement costs, and by providing swift, customer-oriented just-in-time services and value added logistics services.

2. International trade increasingly flows along major trade routes which connect a hierarchical network of logistics hubs. These hubs are special nodes that form part of a global logistics network that replicates at different scales: domestic, regional and international. In order to play a strategic role in global transportation, logistics hubs have to be capable of facilitating efficient connectivity between various nodes in a transport network. The main benefit of such hubs is that they serve as catalysts for agglomeration and scale economies, which are crucial for lowering the unit cost of international shipments. In 2007, the top 20 ports handled about 50% of world container port traffic. Major trade routes connect East Asia and North America, East Asia and Europe and Europe and North America. Latin American and Africa lie off the major trade routes.

3. Containerization has played a central role in modern transport logistics. Containers, invented in the last 1960s, allow for intermodal transport operations that enable door to door service. Traditionally transport services were influenced by the nature of the commodity being handled, the global use of containers enabled facilitates intermodal freight transport (rail, ship, truck). Containerization has led to the evolution of complex global patterns of movement establishing global container lines that offer point to point services. How the various players in between are able to cater for the necessary seamless and efficient services has become a critical factor in maintaining a market edge (Phillips, 1993).

4. International ports have been transformed from their original role as cargo handlers for import/export to international transshipment hubs and gateways for regional distribution. As about ninety percent of world trade in volume is transported by sea today, and maritime traffic nearly doubled between 2003 and 2007 (UNCTAD, 2008), ports play a central role in modern transport logistics. Port facilities are also increasingly linked up with dedicated logistics zones, which act as regional distribution centers and provide important services such as e.g. bonded warehousing and valued added logistics (i.e. light processing of goods, customization, after-sales services).
5. The above characteristics are evident in the patterns of major global trade flows which have a generally east-west orientation (Figure 1). Most of the flows are between East Asia and North America, East Asia and Europe and Europe and North – America. Based on this Rimmer (2004) characterizes shipping lanes and hub ports using the analogy of main street and cul-de-sacs (Figure 2). Main street links the major economic centers, in the Northern hemisphere with smaller links to centers in the Southern hemisphere. The shortest distance around the globe is along the equator. Therefore, it is not surprising that most of the major hub ports in the world are located along the equator, but mainly in East Asia (Figure 3). Aside from the Chinese ports, most of the largest ports in the world are transshipment ports.

6. **Logistics hubs emerge and prosper based on their ability to reduce costs.** Cost and time in logistics are in part functions of geography and as such in most cases the development of logistics hubs depends on the location of the hub relative to the major flows of traffic. UNCTAD (1992) maintains that a port is strategically located if it has at least one of the following three characteristics: location on the major maritime routes, situated in or near large center of production or consumption and has a deep natural harbor with significant landside development potential. But determinants of logistics costs extend beyond geography; the quality of
infrastructure (World Bank 2006); the efficiency of business logistics (Guasch and Kogan, 2006) and effective trade facilitation institutions (Wilson et al. 2004) are also highly relevant.

7. **An efficient and cost-effective logistics system facilitates trade and fosters growth and competitiveness.** For many countries, logistics costs – costs associated with e.g. the transportation, storage and distribution of goods from producer to consumer – are often a greater impediment to trade than external tariffs (Gonzalez et al. 2008). Reducing logistics costs has a significant impact on growth and competitiveness (World Bank, 2010b) as an efficient transport system facilitates trade by opening up international markets to local producers and consumers.

1.2. **Case of Uruguay**

Even though Latin America lies off the major global trading lanes, increasing trade volumes in recent years have led to the growth of regional traffic flows and the emergence of some regional hubs. According to the UNCTAD (2008) the ports in Latin America and the Caribbean handled 6.8 per cent of world container traffic in 2006. Traffic volumes have increased rapidly over the past decade, both in terms of container traffic and bulk commodities. In fact, bulk commodities, have had higher rates of increase, riding on the wave of the boom in prices that preceded the current global financial and trade crisis. In terms of overall traffic volumes Brazil handled the largest traffic volume followed by Mexico, Argentina and Chile, reflecting the dominance of bulk trade in these countries. However, over the period 2004–2007, Belize, Colombia and Uruguay experienced the highest growth rates in port throughput volumes.

8. **Over the last two decades, Uruguay has developed into a regional hub for the Southern Cone.** To illustrate, the Port of Montevideo currently handles about 7% off all MERCOSUR container shipping. More than four-fifths of the country’s trade volumes pass through the port of Montevideo. Currently, 63% of goods that pass thorough Uruguay’s ports originate from the port’s hinterland (Paraguay, Bolivia and parts of Argentina and Brazil). Figure 2 identifies the hinterland for different ports in the Southern Cone and shows Uruguay’s potential for hinterland expansion (Hodara, Opertti and Punti, 2008). (see Box 7 for further information.)

9. **Uruguay is geographically well positioned to act as a gateway for regional trade and as a regional transit hub.** The Port of Montevideo, Uruguay’s principal port, is centrally located in the River Plate Basin and is a central gateway to the south-eastern and central markets of South America. It further serves as the entrance point to the Paraguay-Paraná river system, which not only connects with the hinterlands of Argentina and Uruguay, but also the landlocked countries’ Paraguay and Bolivia, as well as interior parts of south-western Brazil. Due to its geographic location, the port of Montevideo has been a strategic access point to these markets from the end of the 19th century.
Figure 2: Uruguay’s port hinterland

Source: Hodara, Opertti and Puntiilago (2008)

10. **A favorable regulatory framework has further supported the recent development of Uruguay as a logistics hub.** In particular the laws of Free Trade Zones and of Free Ports (Law N° 15.921 approved in 1987 and Law N° 16.246 approved in 1992, respectively) established a regulatory framework which enabled the provision of logistics services by both national and foreign providers. The approbation of the Free Port Law in 1992 was followed by particular strong growth in Maritime Transport and Port Services during 1993 and 1994.

1.3. **A rational for Trade Facilitation Reforms**

11. For many countries, logistics costs – for example costs associated with the transportation, storage and distribution of goods from producer to consumer – are often a greater impediment to trade than external tariffs (Gonzalez et al. 2008).

12. As logistics hubs emerge and prosper based on their ability to reduce costs, lowering logistics costs seems of particular importance to Uruguay. Cost and time in logistics are in part functions of geography, but **effective trade facilitation** also clearly matters (Wilson et al. 2004).

13. **Trade facilitation can be broadly defined as the set of policies aiming at reducing logistics costs.** These policies can range from the simplification and standardization of customs procedures, to investment in physical infrastructure projects such as port improvements or road constructions. In an international environment of declining tariffs, trade facilitation has been at the forefront of policy discussions as the next key policy option to diminish trade costs for developing countries.
**Box 1: Import/export cargo and transshipment cargo**

There are fundamentally two kinds of cargo: import/export cargo and transshipment cargo. Handling import/export cargo is critical for a country to develop its domestic economy and industry. Transshipment cargo is different; such cargo is not vital but optional for a country’s economic development. Transshipment gives additional revenue and brings other opportunities to develop a country’s logistics industry based on the resources of the transshipment cargo industry. By attracting economies of scale, transshipment activity can further benefit local exporters and imports through access to more competitive shipping costs.

The concept of transshipment is usually defined as the movement of cargo through an intermediate port en route from the origin port to the destination port. This description is from the perspective of a shipping line. From the perspective of a port, transshipment can be defined as all cargo arriving at a port from another country irrespective of the mode of transport. With the development of land transport networks and the opening of land transport borders between countries, ports compete for cargo from a larger hinterland. This extension of the hinterland is closely linked to the development of intermodal transport.

Import/export cargo accounts for about half of container traffic in the Port of Montevideo. In 2008, transshipment cargo accounted for 52 percent of the 637,000 TEU handled by the Port of Montevideo. Transshipments increased sharply from about 70,000 TEU in 2000 to 350,000 TEU in 2008, due to a sharp increase in transshipments from Argentina, which increased from 4,000 TEU to 128,000 TEU over the same period of time. Transshipment cargo from Paraguay makes up a small portion of overall transshipments (19,000 TEU).

![Figure 5. Containerized Cargo Traffic in the Port of Montevideo, in thousands of TEU](image)

The strong growth in transshipment cargo since 2001 is explained by two factors: (1) since 2001 Argentine exporters have increasingly turned to the Port of Montevideo for transshipments - in particular for refrigerated containers of fruit and vegetables from Patagonia. Greater efficiency implies that transshipment operations in Montevideo save one day of transit time for fruit exports; transshipments of fruits and vegetables from San Antonio Este and Bahía Blanca account for 70,000 TEU of total volume handled by the Port of Montevideo. (2) In 2001, the container port Terminal Cuenca del Plata became operational. TCP is operated by the Belgium consortium Katoen Natie which holds 80 percent of the shares, the National Port Authority (ANP) owns 20 percent. The privatization of the terminal consolidated the modernization process of the port system which began in 1992 with the Free port law. Extrapolating from transshipment data from San Antonio Este and Bahia Blanca, for which detailed data by destination is available, Sgut (2009) estimates that 71.1 percent of cargo transshipped in the Port of Montevideo is destined to Northern Europe, 21.0 percent to the Mediterranean and 6.1 percent to North America.

<table>
<thead>
<tr>
<th>Destination</th>
<th>Percentage share in total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northern Europe</td>
<td>71.1%</td>
</tr>
<tr>
<td>Mediterranean</td>
<td>21.0%</td>
</tr>
<tr>
<td>North America</td>
<td>6.1%</td>
</tr>
<tr>
<td>Far East</td>
<td>1.1%</td>
</tr>
<tr>
<td>Middle East</td>
<td>0.7%</td>
</tr>
<tr>
<td>Brazil</td>
<td>0.02%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>100%</td>
</tr>
</tbody>
</table>

*Source: Sgut (2009).*
14. Trade facilitation measures can be perceived along two dimensions: investment in “hard” infrastructure (highways, railroads, ports, etc.) and in “soft” infrastructure (transparency, customs efficiency, institutional reforms, etc.). A particular interest of this distinction resides in comparing the benefits and costs of investment or policy reform along both dimensions. Large investments in physical infrastructure projects to improve infrastructure quality alone do not necessarily lead to lower transport prices or a more efficient logistics system; complementary steps in regulatory reform are also often required. To illustrate, certain regulatory barriers (market access restrictions, technical regulations, and customs regulations) can protect inefficient logistics operators and discourage the entry of more cost-efficient operators. Reforms to enhance competition are therefore crucial to lower trade costs and improve the overall logistics system. In a more competitive environment, measures to improve physical infrastructure are likely to produce better results.

15. Quantitative analysis provides empirical underpinnings for the rationale and impact of trade facilitation reform in Uruguay. Portugal-Perez and Wilson (2009) capitalize on the information spanned by several commonly used trade facilitation measures (Doing Business’s Trading Across Borders; the World Economic Forum, Transparency International; and the World Bank’s Logistics Performance Indicator) and construct trade facilitation indicators for ‘hard’ and ‘soft’ infrastructure to quantify the impact of trade facilitation reform on trade (see Box 4 for methodological detail).²

16. Uruguay lags the region in efficiency of Trading across the Border. Table 2 ranks the best performing countries in Latin America along four trade facilitation dimensions. Uruguay is shown to be the second best performer in Business Environment, and is ranked eighth in both Infrastructure and ICT. Uruguay’s performance is less impressive in efficiency of Trading across the Border, due to the high number of documents required and the time taken to complete export and import procedures.

17. Substantial trade gains expected from trade facilitation reforms. Illustrative estimates by Portugal-Perez and Wilson (2009) show that improvements in infrastructure quality up to at least half the level of the United States could increase Uruguayan exports by about US$ 872 million. Efficiency of Trading across Borders appears another important indicator to focus on. If investment and regulatory reforms were to reduce the number of documents and the time required to comply with export and import procedures to half the level of the US, exports are estimated to increase by about 3.7 percent (or an equivalent US$ 166.5 million compared to exports in 2007).

18. Trade facilitation reforms aimed at efficient and cost-effective logistics system should benefit both domestic trade and regional transit flows. Scale economies from greater trade volumes, in turn, are expected to further enhance the cost-effectiveness of Uruguay’s logistics system.

²Hard infrastructure relates to e.g. ports and road networks, while ‘soft’ infrastructure captures transparency, customs efficiency, the business environment, etc..
Box 2: MEASURING TRADE FACILITATION

Portugal-Perez and Wilson (2009) capitalize on the information spanned by several commonly used trade facilitation measures (Doing Business’s Trading Across Borders; the World Economic Forum, Transparency International; and the World Bank’s Logistics Performance Indicator) and construct trade facilitation indicators based on Principal Factors Analysis (PFA) (see Table 7). Factor analysis is a statistical method that analyzes the behavior of a number of correlated variables in order to identify an underlying common unobserved factor, which is supposed to be the common driver of the variation in the variables. The approach estimates the contribution (loading weight) of each single variable in the obtained synthetic indicators from a total of 17 indicators commonly used to measure several aspects of trade facilitation (Doing Business, World Economic Forum, Logistics Performance Indicator and Transparency International) (see Table 3 in Annex IV). Two criteria are used to select the single indicators that will be covered in the principal factor analysis. First, each indicator has to cover more than one hundred countries. Second, each single indicator has to be available over the period 2004-2007.

From the 17 indicators included, four different synthetic indicators of trade facilitation are derived which cover the following dimensions:

- **Physical Infrastructure** measures the level of development and quality of ports, airports, roads, and rail infrastructure.
- **Information and Communications Technology (ICT)** measures the extent to which an economy has and uses information and communication technology to improve efficiency and economic activity.
- **Efficiency of Trading across Borders** measures the level of efficiency of exports and imports of each country.
- **Business/Regulatory Environment** measures the level of transparency and regulations that make each economy more business friendly.

Estimates of the impact that trade facilitation reform on exports are based on a gravity model, which since Tinbergen (1962) has become the workhorse for trade analysis. Table 1 in Annex IV shows estimates of the impact on exports of each variable. As a robustness check, two estimation methods are provided: Ordinary Least Squares (OLS) and the more robust two-stage Heckman procedures; both estimation methods yield comparable results.

The empirical findings highlight the importance of trade facilitation on trade. Countries where trade facilitation institutions are more effective experience higher trade volumes. These findings are robust to the other control variables which are generally introduced in gravity models: countries with low tariffs, proximity to trading partners and common language tend to trade more intensively.

Coefficient estimates from Table 1 (column 1) in Annex IV can be used to simulate the impact of several trade facilitation reforms on trade for Uruguay and other Latin American countries. Since the gravity model contains tariffs, reform outcomes can also be expressed in terms of ad-valorem tariff cuts. The benchmark for reforms is an improvement of each exporter’s trade facilitation indicator half-way to the level of the United States.

Corresponding “ad-valorem equivalent” improvements of changes for each trade facilitation indicator for Latin American countries in the sample, to half the level of the US are reported in Table 2 in Annex IV.
Table 2. Trade Facilitation Indicators: Best performers in Latin America, 2007

<table>
<thead>
<tr>
<th>Hard Indicators</th>
<th>Soft Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Country</strong></td>
<td><strong>Physical Infrastructure</strong></td>
</tr>
<tr>
<td>Chile</td>
<td>0.65</td>
</tr>
<tr>
<td>Panama</td>
<td>0.61</td>
</tr>
<tr>
<td>Jamaica</td>
<td>0.52</td>
</tr>
<tr>
<td>El Salvador</td>
<td>0.52</td>
</tr>
<tr>
<td>Honduras</td>
<td>0.44</td>
</tr>
<tr>
<td>Mexico</td>
<td>0.42</td>
</tr>
<tr>
<td>Guatemala</td>
<td>0.40</td>
</tr>
<tr>
<td><strong>Uruguay</strong></td>
<td>0.39</td>
</tr>
<tr>
<td>Colombia</td>
<td>0.32</td>
</tr>
<tr>
<td>Ecuador</td>
<td>0.30</td>
</tr>
<tr>
<td>Argentina</td>
<td>0.30</td>
</tr>
<tr>
<td>Brazil</td>
<td>0.27</td>
</tr>
<tr>
<td>Venezuela</td>
<td>0.26</td>
</tr>
<tr>
<td>Guyana</td>
<td>0.26</td>
</tr>
<tr>
<td>Costa Rica</td>
<td>0.26</td>
</tr>
<tr>
<td>Peru</td>
<td>0.25</td>
</tr>
<tr>
<td>Nicaragua</td>
<td>0.25</td>
</tr>
<tr>
<td>Paraguay</td>
<td>0.14</td>
</tr>
<tr>
<td>Bolivia</td>
<td>0.14</td>
</tr>
</tbody>
</table>

Source: Portugal-Perez and Wilson (2009)

1.4. The Road Ahead

20. **Uruguay’s attractiveness as a logistics hub is due to several factors.** Its central location in the south-eastern South American market, its free-trade-zone status, more competitive transit times to major destinations than from Buenos Aires, low port costs\(^3\) and the Paraguay-Paraná river connection which links the River Plate to inland production areas.

21. **Uruguay’s potential as a logistics hub depends on the ability to increase the scale of its operations while reducing overall logistics costs.** Policy reforms should therefore aim to facilitating both domestic trade and regional transit flows. Such a strategy should consider three main strains (1) strengthening of the port logistics system to function as a gateway port for Uruguay’s domestic cargo; (2) development of Montevideo as highly efficient, intermodal hub for Argentinean, Paraguayan and Brazilian cargo and (3) developing efficient hinterland logistics systems.

22. All three strains are related and mutually reinforcing. Cost-effective handling of domestic import/export cargo is critical for the development of Uruguay’s domestic economy and industry. Transit cargo generates the necessary scale economies that will allow local exporters and importers to benefit from more competitive shipping costs and more frequent

\(^3\) Estimated about three times lower than in Buenos Aires in 2003. (Wilmsmeier 2009)
service. In addition, transit and transshipment cargo generates additional revenues and provides the opportunity to develop Uruguay’s logistics industry based on the resources of the transshipment cargo industry.

23. **Despite progress made, the WB Logistics Performance Indicator shows Uruguay lagging behind other countries, and in the region.** Uruguay ranks 79th out of 150 countries according to the 2007 LPI - below Argentina, Brazil and Chile - and performs less well than the LAC and Upper Middle Income averages. The ranking within the subcomponents is as follows: customs efficiency (86th), infrastructure quality (70th), affordability and availability of international shipments (100th), logistics competence (85th), tracking & tracing ability (77th), domestic logistics costs (103rd) and timeliness of services (82nd). (See Box 4).

24. **Going forward better integration of the various components in the logistics chain is important for the continuous improvement of Uruguay’s logistics system.** Uruguay has witnessed important gains, particularly in port and terminal efficiency and has developed a world-class logistics system within its Free Zone context. Uruguay has potential to develop into a regional logistics hub, but to reap its fullest potential, further investment in infrastructure to facilitate multi and inter-modality is required. This should be combined with reforms in the national and regional trade facilitation. Future developments should target the development of an integrated logistics chain system with a strong focus on inter-modality. For this to materialize, at the minimum, transport policy, Customs, and the regulatory environment need to be oriented towards supporting an integrated logistics chain within the national and transnational context.

1.5. **Scope, Objective and Coverage of the Report**

25. **In response to the government’s request, this study assesses Uruguay’s potential as a logistics hub and a regional distribution center.** The competitiveness of Uruguay’s logistics system is assessed from an international perspective and policy recommendations towards further efficiency gains are provided. The study focuses on policies related to enhancing domestic and regional trade facilitation, and assesses the wider economic impact of such reforms on logistics costs and trade.

26. The remainder of this report is organized as follows:

- Chapter 1 describes recent developments in Uruguay’s business logistic sector and quantifies the importance of the sector for Uruguay’s economy. Particular focus is drawn to the development of institutional capacity as well as developments taking place in Uruguay’s Free Trade Zone environment.

- Chapter 2 assesses Uruguay’s maritime transport infrastructure and services. Special focus is given to the Port of Montevideo, which is a key component of Uruguay’s trade facilitation infrastructure. The chapter describes port infrastructure, shipping services and the current regulatory framework; it also compares maritime costs of Uruguay with those for Argentina and Brazil – Uruguay’s direct competitors with respect to maritime transport services. This chapter also quantifies the impact of maritime transport costs on international trade based on a transport cost augmented gravity model.
• As Uruguay’s potential as a regional hub depends on attracting regional cargo, Chapter 3 assesses port hinterland accessibility from a multimodal point of view. The characteristics of the road, rail, river and air transport systems are described and prospects for a multimodal logistics platform, which is central to a successful logistics hub operation.

• As hinterland accessibility also requires greater interconnectivity with the regional transport network, Chapter 4 provides a brief overview of existing regional integration efforts in the area of transnational infrastructure. The chapter will review briefly the influence of three of the regional initiatives namely, IIRSA; infrastructure development under MERCOSUR and the Paraguay- Paraná River System (Hidrovía Paraguay- Paraná).

• Customs plays a key role in trade facilitation as the efficiency of customs management directly impacts competitiveness. Chapter 6 describes the current practice in Uruguay’s customs and outlines a customs modernization strategy in support of trade facilitation.

• Chapter 7 examines the impact of Uruguay’s domestic and international regulatory environment on logistics services in Uruguay. Special attention is given to the role of domestic trade policy in the development of logistics services in Uruguay. The General Agreement on Trade in Services (GATS) and its relationship with logistics services are also examined and MERCOSUR’s Montevideo Protocol on Trade in Services and logistics services is reviewed.
Scale Economies and Cost Efficiency are Essential, and Mutually Reinforcing. Both are Needed for Uruguay to Prosper as a Regional hub

Greater transit and transshipment cargo require:
- Hinterland logistics system (Chapter 4)
- Transnational Infrastructure (Chapter 5)
- Regional Transit Facilitation (Chapters 6.5 and 7.6)

An efficient and cost-effective logistics systems requires:
- Efficient Business Logistics (Chapter 2)
- Quality of Transport Infrastructure (Chapter 3)
- Effective Trade Facilitation
  - Customs (Chapter 6)
  - Regulatory Environment & Trade Policy (Chapter 7)
CHAPTER 2: BUSINESS LOGISTICS IN URUGUAY

27. This chapter describes recent developments in Uruguay’s business logistic sector and quantifies the importance of the sector for Uruguay’s economy. Attention is drawn to the development of institutional capacity as well as developments taking place in Uruguay’s Free Trade Zone environment. Insufficient data availability prevents a detailed assessment of the economic importance and performance of Uruguay’s business logistics sector.

2.1. The scope of the industry

28. Many definitions have attempted to capture the essence of logistics services. A commonly used definition describes logistics as "having the right thing, at the right place, at the right time". The Council of Logistics Management defines logistics as "... the process of planning, implementing, and controlling the efficient, effective flow and storage of goods, services, and related information from point of origin to point of consumption for the purpose of conforming to customer requirements". Here, we adopt the WTO Logistics Services Checklist which groups third-party providers of transport and logistics services along the following categories:

- Core Freight Logistics Services;
- Related Freight Logistics Services;
- Non-Core Freight Logistics Services and Other-Related Logistics Services.

29. Supply chain consulting services and transportation management services are considered Core freight logistics services. Both are core services which are offered by the majority of logistic service firms and are often supplied on a stand-alone basis or together with other logistics services. Supply chain consulting services involve global network design and distribution strategies, where warehouse locations and transportation needs are determined. Supply chain consulting may also include inventory forecasting and planning; product design strategies; information technology needs assessment; and vendor identification and management. Such specialized services are however generally not offered as stand-alone services, but usually customized to client needs. Transportation management services include storage and warehousing; cargo handling; transport agency services; and customs brokerage.

30. Related freight logistics services are transportation services that are integral to the movement of goods throughout the supply chain. Most core logistics providers also engage in transportation services. Related Freight Logistics Services may be provided by firms that use their own equipment and transportation fleet or by intermediaries that act between clients and transportation firms.

31. Non-core freight logistics services include fleet maintenance and repair; packing services; computer and related services. They are inputs or value-added services for the supply chain, but they do not necessarily generate revenue. The following two examples from USITC (2005) illustrate: regular maintenance and repair of transport equipment ensures the integrity of the transportation fleets, they are not necessarily offered as third-party services to client firms (USITC, 2005). Also, while data and message transmission services and other
telecommunication services are key value-added services which are necessary to track the movement of goods, they are often integrated with Core Freight Logistics or Related Freight Logistics Services.

32. Core Freight Logistics and Related Freight Logistics Services are generally considered the most relevant aspects of logistics services. This report therefore focuses mainly on logistics service activities that fall under these two categories.

**Figure 7. Logistics service activities**

*Note: Adapted from USITC (2005) and WTO's Logistics Checklist.*
2.2. Evolution of the logistics industry in Uruguay

Historic Roots

116. Thanks to its natural harbor, Montevideo developed early into an entrepôt for goods from Argentina, Brazil and Paraguay. Montevideo was founded by the Spanish in the early 18th century as a military stronghold, due to its natural harbor it soon developed into a commercial center which competed with Buenos Aires. Uruguay's early 19th century history was shaped by ongoing fights between Brazil and Argentina, as well as colonial forces for dominance in the Argentina-Brazil-Uruguay region. As a result of a British mediated treaty, the rivalry between neighbouring countries of Argentina and Brazil led to Uruguay’s independence in 1828. The British, however, had commercial interests of their own as Montevideo's port was superior to Buenos Aires' in several respects, making it a focal point for overseas shipping. From the 1950s onwards, Montevideo became a hub for a growing agricultural sector. Between 1860 and 1911, the British built a railroad network that greatly assisted Montevideo's growth and linked it with the countryside. Towards the end of the 19th century, Montevideo became a major economic center in the region. Thanks to its natural harbour, it became an entrepôt for goods from Argentina, Brazil and Paraguay. The towns of Paysandú and Salto, both on the River Uruguay, also experienced similar development.

117. In the late 1950s, partly because of a decrease in demand in the world market for agricultural products, Uruguay’s economic and political situation deteriorated, giving rise to a military dictatorship during 1973 and 1985. The return to democracy in 1985 brought a re-orientation towards international integration and renewed interest in developing Uruguay as a logistical hub. Uruguay’s ports have expanded rapidly over the last three decades and transport services increased their share of total services from 18% in 1980 to about 34% in 2006.

Recent Developments

33. The more recent development of Uruguay’s logistics sector is closely related to a specific regulatory framework; the laws of Free Trade Zones and of Free Ports (Law N° 15.921 approved in 1987 and Law N° 16.246 approved in 1992, respectively). These laws established a regulatory framework which prompted multinational firms to centralize inventories in Uruguay and to distribute merchandise to clients in the region. The Free Port/Free Zone regulatory framework ensured a higher level of protection for the merchandise than any other country in the region. Under this legal framework, goods remain “in international transit”, i.e., outside of the jurisdiction of customs. As the merchandise is hence not nationalized, it can be easily re-routed to another destination without the need to comply with export procedures, should the need arise. In addition, the free zones offer substantial fiscal and financial benefits.

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4 The Port of Montevideo, which provides access to the Atlantic is better positioned than the Port of Buenos Aires, as the River Plate’s currents deposit silt on the south side of the river along the Argentine coast and especially in Buenos Aires, which makes dredging the harbor and its access channels significantly easier in Montevideo.
Opertti (2009) structures the lifecycle of logistics in Uruguay into four phases:

<table>
<thead>
<tr>
<th>Time period</th>
<th>Key feature</th>
<th>Estimated Share of logistics services exports in GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>1985 – 1998:</td>
<td>Free Trade Zone and Free Port Law establish regulatory framework. Business Model: traditional logistics operations, including loading, unloading, national distribution.</td>
<td>1.5%</td>
</tr>
<tr>
<td>1998 – 2008:</td>
<td>Multinationals increasingly use Free Zones as basis for Regional Distribution Center (RDC); provision of Value Added Logistics (VAL) services to goods in international transit.</td>
<td>3.9%</td>
</tr>
<tr>
<td>After 2009:</td>
<td>Local firm adopt supply chain logistics; Institutionalization and internationalization of the Uruguayan logistics model</td>
<td>5.0%-7.5%</td>
</tr>
</tbody>
</table>

Note: The source of the exports/GDP estimates of Logistics Services for the period 2002-2008 is Prolog (2001-2003-2006-2008) and the projections for 2015-2020 are from Clúster de Logística and Prolog.

34. Since the late 1990s, multilateral firms increasingly concentrated merchandise in Uruguay’s free trade zones for the purpose of regional distribution. The “in transit” status of the merchandise ensured flexibility in the operation of regional distribution centers (RDC) as part of global supply chain management. With the advent of regional distribution centers, business logistics in Uruguay adapted and matured beyond traditional transport logistics, which up until then mainly involved transport and cargo handling.

35. RDCs require complex logistics operations which involve supply chain consulting and global network design, and distribution strategies. Supply chain consulting also includes inventory forecasting and planning, product design strategies and software support. According to Opertti (2009a), logistics providers in the free zones of Montevideo, Libertad, Colonia, Florida, Rivera and Colonia Suiza, as well as in the ports of Montevideo and Nueva Palmira adopted warehouse management systems and operational guidelines in accordance with the latest international standards (e.g. ISO 9000, ISO 14000, OSHAS 18000, BASC and CT-PAT).

36. About one third of the exports of transportation services are performed from inside the FZ. Outside Uruguay’s free trade zones, third-party logistics is still at a relatively early stage of development as many local businesses still rely on “in-house” transportation and distribution services.

37. The establishment of regional distribution centers, increased the level of sophistication of the business logistics community operating inside the free trade zones, but this learning process did not generally extend beyond the free zones. Opertti (2009b) puts Uruguay’s relatively low performance in the World Bank’s Logistics Performance Indicator (see
Box 2) down to the fact that the LPI focuses on transport logistics for domestic imports and exports and do not cover the more sophisticated RDC operations performed within Uruguay’s free trade zones. According to Opertti (2009a) some logistic operators in Uruguay’s free zones are currently even considering the possibility of replicating their business model in other locations in Latin America, e.g. El Salvador, Colombia, Chile, Panama, Paraguay and Ecuador, where Uruguayan logistics providers have already established successful links.

38. **FZ are attractive for logistics providers due to “speed to market” supply chain management, reduction in lead times relative to direct delivery, centralized inventory, and lower administrative and inventory costs.** A survey conducted by Costa Oriental S.A in 2007 of 30 international corporations and logistics providers - that currently use or consider using Uruguay as a regional distribution center identified the following reasons as to why international firms opt to establish themselves in Uruguay’s free port/free trade zone environment. They are mainly a) Free port/free trade zone environment enables “speed to market” supply chain management b) Uruguay’s RDCs facilitate “just in time” operations, reducing lead times relative to direct delivery, c) Inventory centralization in free port/free trade zones provides flexibility both in terms of volume and product design (customization for final consumer), d) RDC in Uruguay reduces administrative costs and e) Lower inventory costs resulting from reduced inventory holdings at the final destination

39. **Increase in demand highlighted operational bottlenecks in distribution and inventory management underscored the need for professional supply chain management in domestic economy.** From 2004-2008, many Uruguayan companies faced strong demand due to the recovery of the domestic economy and due to favorable external conditions. The sudden increase in demand highlighted operational bottlenecks in distribution and inventory management, and as a result, local firms became aware of the need to professionalize their supply chain management, taking inspiration from the high degree of professionalization of logistics providers in FZs.

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Box 4: URUGUAY’S LOGISTICS PERFORMANCE INDICATOR

The Logistics Performance Index (LPI) is based on a survey of operators (global freight forwarders and express carriers) on the ground worldwide. The LPI consists of both perception and objective measures, and helps build profiles of a country’s logistics ‘friendliness’. It measures performance along the logistics supply chain within a country and has three parts:

- Perceptions of the logistics environment of trading partner countries
- Information on the logistics environment in the home country of operation
- Real time-cost performance data for country of operation

The LPI measures the perceptions of the logistics environment in seven areas: i) efficiency of the clearance process by customs and other border agencies, ii) quality of transport and information technology infrastructure for logistics, iii) ease and affordability of arranging international shipments, iv) competence of the local logistics industry, v) ability to track and trace international shipments, vi) domestic logistics costs, and vii) timeliness of shipments in reaching destination. It allows for comparison across countries and regions and is based on a yearly survey of international freight forwarders. The survey uses an anonymous, web-based questionnaire that asks professionals in logistics service companies worldwide to evaluate their country of residence, as well as eight countries they are working with. Country performance is evaluated using a 5-point scale (1 for the lowest score, 5 for highest) for seven dimensions.

Uruguay ranks 79th out of 150 countries according to the 2007 LPI - below Argentina, Brazil and Chile - and performs less well than the LAC and Upper Middle Income averages. The ranking of the subcomponents is as follows: customs efficiency (86th), infrastructure quality (70th), affordability and availability of international shipments (100th), logistics competence (85th), tracking & tracing ability (77th), domestic logistics costs (103rd) and timeliness of services (82nd).

Countries with top LPI scores are major global transport and logistics hubs (Singapore) or the base for a strong logistics services industry (Switzerland). Logistics services in these countries tend to benefit from economies of scale and are often sources of innovation and technological change.

<table>
<thead>
<tr>
<th>Country</th>
<th>LPI (global rank in brackets)</th>
<th>Customs</th>
<th>Infrastructure</th>
<th>International Shipments</th>
<th>Logistics Competence</th>
<th>Tracking &amp; Tracing</th>
<th>Domestic Logistics Costs</th>
<th>Timeliness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Singapore</td>
<td>4.19 (1)</td>
<td>3.9</td>
<td>4.27</td>
<td>4.04</td>
<td>4.21</td>
<td>4.25</td>
<td>2.7</td>
<td>4.53</td>
</tr>
<tr>
<td>Ireland</td>
<td>3.91 (11)</td>
<td>3.82</td>
<td>3.72</td>
<td>3.76</td>
<td>3.93</td>
<td>3.96</td>
<td>2.65</td>
<td>4.32</td>
</tr>
<tr>
<td>Finland</td>
<td>3.82 (15)</td>
<td>3.68</td>
<td>3.81</td>
<td>3.3</td>
<td>3.85</td>
<td>4.17</td>
<td>2.22</td>
<td>4.18</td>
</tr>
<tr>
<td>Chile</td>
<td>3.25 (32)</td>
<td>3.32</td>
<td>3.06</td>
<td>3.21</td>
<td>3.19</td>
<td>3.17</td>
<td>2.68</td>
<td>3.55</td>
</tr>
<tr>
<td>Argentina</td>
<td>2.98 (35)</td>
<td>2.65</td>
<td>2.81</td>
<td>2.97</td>
<td>3</td>
<td>3</td>
<td>2.84</td>
<td>3.5</td>
</tr>
<tr>
<td>Brazil</td>
<td>2.75 (61)</td>
<td>2.39</td>
<td>2.75</td>
<td>2.61</td>
<td>2.94</td>
<td>2.77</td>
<td>2.58</td>
<td>3.1</td>
</tr>
<tr>
<td>LAC</td>
<td>2.57</td>
<td>2.38</td>
<td>2.38</td>
<td>2.55</td>
<td>2.52</td>
<td>2.58</td>
<td>2.97</td>
<td>3.02</td>
</tr>
<tr>
<td>Upper Middle Income countries</td>
<td>2.85</td>
<td>2.64</td>
<td>2.70</td>
<td>2.84</td>
<td>2.80</td>
<td>2.83</td>
<td>2.94</td>
<td>3.31</td>
</tr>
<tr>
<td>Uruguay</td>
<td>2.51 (79)</td>
<td>2.29</td>
<td>2.38</td>
<td>2.4</td>
<td>2.45</td>
<td>2.57</td>
<td>2.78</td>
<td>3</td>
</tr>
</tbody>
</table>

Portugal-Perez and Wilson (2009) estimate that improvements to customs and business logistics services to about half the level observed in the US alone would raise Uruguayan exports by 3.7 percent (or an equivalent US$ 166.5 million compared to exports in 2007).
40. Uruguay’s logistics sector is estimated to have grown to about 9,000 firms by 2007. Clúster de Logística estimates that at the end of the 1990s, Uruguay’s logistics sector consisted of 4092 companies that employed about 37,000 workers. About 60% of companies were engaged in road transportation, while the second largest activities (115 companies) were linked to port logistics. It is estimated that Uruguay’s logistics sector had grown to about 9000 firms by 2007. Clúster de Logística further estimates that in 2005 about 135,904 containers circulated in transit. Clúster de Logística estimates that domestic logistics providers add to each container in transit about US$2,350 in value, which roughly translated into US$320,000 millions of transit related services exports in 2005. “Prospective Tecnológica 2015” - a study by the University of Montevideo, estimates that each container or truck in transit in Uruguay requires 261 hours of labor. The study concluded that for every nine TEUs in transit, added-value of local firm is one job is created. If 5% of all TEUs unloaded in Uruguay are subject to value-added logistics, about 5,500,000 hours of Uruguayan labor is likely to be created.

2.3. Towards the Institutionalization of Logistics in Uruguay

41. The growing importance of the logistics sector in Uruguay has sparked a formal process of institutionalization of logistics in Uruguay. This was preceded by several initiatives by both the public and the private sector. In 2001, the Uruguayan port and logistics community, led by the Laboratorio Tecnológico del Uruguay (LATU) organized the first in a series of bi-annual events (Prolog) that served as a platform for introspection and stock-taking of the main logistics-related projects in Uruguay. The agenda of these meetings has evolved with the maturity of the logistics sector.

42. Priority to strengthen and identify logistics community in 2003. In its first meeting, Prolog focused on the convergence towards a single regime for merchandise in international transit, i.e. the unification of the legal frameworks applied to Free Trade Zones and to Free Ports. The main objective of the second meeting in 2003 was to strengthen and to provide an identity to Uruguay’s logistics community. In Prolog 2006, logistics was defined as a State Policy and finally in Prolog 2008, participants reached a consensus on the need to institutionalize the logistics sector, with exports of logistics services having reached US$ 1250 million in 2008.

43. Working groups were set up to analyze the sector in 2005. The Clúster de Logística, created in 2005, set up different working groups to prepare a report, to be delivered in 2009, with a census of the sector as well as a strategic map6 to be used in the future by the entire the logistics community. The results of the census, which are not yet available, are expected to help fill an important gap in the data which will allow a richer assessment of the economic importance and performance of business logistics in Uruguay.

44. Reliable and up-to-date statistics on logistics are essential to develop effective transport and trade facilitation policies. To date, official statistics lack sufficient coverage to provide a detailed picture of the size and activities of the entire sector. There is also no comprehensive information about Uruguay’s logistics costs. Such information is needed to provide a better understanding of the full costs of the different modes of transport; to establish a

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6 Programa PACPYMES, Ministerio de Industria, Energía y Minería del Uruguay, convenio con la UE. http://www.pacpymes.gub.uy/web/logistica/inicio
reference data source for the transport professions and to assist evaluation of the effectiveness of government policy against pre-determined policy targets.

45. **The drive to professionalization and efficiency of logistics in Uruguay is welcome, as the transport and logistics industry is a modern professional sector that relies on complex technologies to meet the changing demands of international trade.** To compete at an international level, a highly-skilled workforce is required. While logistics service providers within Uruguay’s FZ are highly sophisticated, an efficient logistics system requires a highly skilled workforce along entire logistics chain. Capacity building and continued professional development for all actors involved in logistics, in particular in the road transportation and customs, are therefore important.

<table>
<thead>
<tr>
<th>Box 5: The Comisión Nacional de Logística (CONALOG) and Instituto Nacional de Logística (INALOG)</th>
</tr>
</thead>
<tbody>
<tr>
<td>On May 20, 2009, the Executive approved Decree 237/009 that established the Comisión Nacional de Logística (CONALOG). This initiative was promoted by the Ministry of Transport and Public Works which established a working group with the objective of creating the Instituto Nacional de Logística (INALOG). The CONALOG is perceived by the Ministry of Transport as an instrument to speed up the institutionalization of logistics in Uruguay.</td>
</tr>
</tbody>
</table>

The proposed law to create INALOG – the proposal presented to the Parliament on August 10, 2009 - is under consideration for approval. Once approved, CONALOG will be replaced by INALOG. Both institutions will have the same structure and objectives. While CONALOG is fully funded by the public sector, INALOG will have its own resources and scope to invest in logistics-related projects.

The CONALOG is led by the Director of National Logistics, Planning and Investment, and its board has representatives from the Ministry of Transport and Public Works, the Ministry of Economy and Finance, the Foreign Affairs Ministry, as well as the private sector.

**The main objectives of CONALOG/INALOG are:** to promote professionalization and efficiency of logistics in Uruguay in an effort to: increase export competitiveness of logistics services, strengthen Uruguay as a regional distribution center, to promote sector-specific regulation, to coordinate sector-specific actions and policies with the rest of the State, to provide advice to the government in logistics-related issues to engage in research at a national and regional level looking for alternatives to develop the sector, to provide advice in international negotiations that affect the sector, to promote the brand “Uruguay Logístico” and to provide training to logistics agents at every level.
2.4. Transport and Logistics Services: Quantitative Data

46. In Uruguay, around one third of service exports correspond to transport and transport related service activities. The main activity within this sector is port activity. Export of transport services are undertaken both inside and outside of FZs. Almost one third of the exports of transportation services are performed from FZ and these are characterized by their intensity in logistics activities. In the FZ, the activities carried out are primarily logistics related to some transformation of goods. In the evolution of specialization within the export of transport services, the FZ takes up prominently but transshipment port activity still dominates. Out of every ten full containers received in Montevideo, six are transshipped to another destination, three enter the domestic territory as imports and one is transferred to the Free Zone (Lalanne et al., 2009). Figure 8 presents the evolution of the production of transport and storage services over the past 20 years. This evolution shows a growing trend for the entire period, which intensified since 2003 to date, after overcoming the drop in economic activity in 2002, due to the crisis. In 1988, the sector represented a share of 5.1 percent of total economic activity while in 2008 this figure reached 7.3 percent.

47. Supporting and Auxiliary Transport Activities (including those associated with air and maritime transport and storage) increased their GDP share from about 1.5% in 1988 to 3.6% in 2008. The increase was largely due to the growing importance of maritime transport and port services, which increased from 1.0% of GDP in 1988 to 3.1% in 2008. In 2008, Maritime Transport and Related Port Services accounted for about 43% of total value added in Transportation & Storage Services. The production of Supporting and Auxiliary Transport Activities (including those associated with air transportation, maritime transport and storage) increased their share from about 30% in 1988 to about 50% in 2008 of the total value-added in Transportation and Storage Services.8

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7 Port services that are provided are multiple (use of port, use spring-water-sanitation services and electricity supply, tug services, etc.). In addition there are the logistics services associated with goods that are load-unloading, transport, transfer; transit; removal; tank storage, disposal and supply ships. Among those mentioned warehousing and transit services are particularly important. Multinational companies with operation in the major markets participate in the provision of these services.

8 National Accounts in Uruguay follow the UN ISCI classification of industrial activity. Transportation, Storage Services and Communications make are treated in Category I of the ISCI classification (Revision 3). Within that category codes 60 to 63 cover Transport and Storage Services, while 64 corresponds to Communications. Code 60 covers: Land Transport and Transport via Pipelines; 61 Water Transport, 62 Air Transport and 63 Supporting and Auxiliary Transport Activities as well as activities of travel agencies.
Figure 8. Value Added for Total Transport & Storage Services and GDP, 1988-2008, in 1983 prices

Source: BCU, provided by Lalanne et al. (2009)

48. The approbation of the Free Port Law in 1992 was followed by particular strong growth in Maritime Transport and Port Services during 1993 and 1994. (See Figure 2).

Figure 9. GDP share of Maritime transport and Related Port Services; Supporting and Auxiliary Transport Activities and Transportation and Storage Services.

Source: based on Lalanne et al. (2009), BCU

49. Productivity increased during 1998 and 2005 in the overall transportation sector, with the increase largely driven by logistics activities related maritime transport and port services. Table 1 shows employment in the Transport sector. About 4% of the total workforce is employed in this sector and the labor force has largely remained stable during 1997 and 2005. A relatively stable labor force combined with a strong increase in output implies significant increases in productivity. While productivity rose during 1998 and 2005 in the overall transportation sector, the increase was largely driven by logistics activities related to maritime
shipping and port services (see Figure 3). Land transportation did not share the increase in productivity; land transportation productivity has even slightly declined since 2002. (Lalanne et al. 2009).

Table 4. Numbers of Workers in Transport sector, in thousands

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Land Transportation &amp; Pipelines</td>
<td>20.2</td>
<td>21.1</td>
<td>20.3</td>
<td>20.3</td>
<td>18.8</td>
<td>17.0</td>
<td>16.7</td>
<td>18.2</td>
<td>19.5</td>
</tr>
<tr>
<td>Water, air transportation &amp; supporting and auxiliary services</td>
<td>43.7</td>
<td>45.6</td>
<td>47.0</td>
<td>44.9</td>
<td>42.7</td>
<td>35.1</td>
<td>33.8</td>
<td>36.7</td>
<td>39.3</td>
</tr>
<tr>
<td>Total Transportation services</td>
<td>63.9</td>
<td>66.7</td>
<td>67.3</td>
<td>65.2</td>
<td>61.5</td>
<td>52.1</td>
<td>50.4</td>
<td>54.9</td>
<td>58.8</td>
</tr>
<tr>
<td>Total, Uruguay</td>
<td>1,522</td>
<td>1,584</td>
<td>1,584</td>
<td>1,544</td>
<td>1,467</td>
<td>1,365</td>
<td>1,334</td>
<td>1,392</td>
<td>1,463</td>
</tr>
</tbody>
</table>

Source: BCU

Figure 10. Labor productivity in select logistics activities in Uruguay

Note: Labor productivity: output per worker, displayed as an index, where 1998=1. Source: based on Lalanne et al. (2009), BCU.
Table 5. Cargo transportation: 2000-2007, thousands of tons

<table>
<thead>
<tr>
<th></th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>Average growth rate</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Road Transportation</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exports</td>
<td>1,535</td>
<td>1,221</td>
<td>909</td>
<td>1,033</td>
<td>1,011</td>
<td>1,091</td>
<td>1,196</td>
<td>-3.5</td>
<td></td>
</tr>
<tr>
<td>Imports</td>
<td>1,443</td>
<td>1,195</td>
<td>884</td>
<td>935</td>
<td>1,152</td>
<td>1,31</td>
<td>1,326</td>
<td>1,226</td>
<td>-2.3</td>
</tr>
<tr>
<td>Transit</td>
<td>26.9</td>
<td>21.6</td>
<td>16.2</td>
<td>18.8</td>
<td>11.8</td>
<td>18.3</td>
<td>22.8</td>
<td>22.2</td>
<td>-2.7</td>
</tr>
<tr>
<td>Others</td>
<td>40.9</td>
<td>25.2</td>
<td>13.8</td>
<td>14.1</td>
<td>12.4</td>
<td>11.2</td>
<td>16.2</td>
<td>20.7</td>
<td>-9.3</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>3,047</td>
<td>2,463</td>
<td>1,824</td>
<td>2,001</td>
<td>2,188</td>
<td>2,361</td>
<td>2,458</td>
<td>2,466</td>
<td>-3.0</td>
</tr>
<tr>
<td><strong>Rail Transportation</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Imports</td>
<td>24.8</td>
<td>11.7</td>
<td>0.06</td>
<td>0.4</td>
<td>2.4</td>
<td>0</td>
<td>7</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Exports</td>
<td>202</td>
<td>227</td>
<td>190</td>
<td>156</td>
<td>235</td>
<td>328</td>
<td>291</td>
<td>228</td>
<td>1.7</td>
</tr>
<tr>
<td>Transit</td>
<td>0.5</td>
<td>2.1</td>
<td>7.2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>227</td>
<td>240</td>
<td>197</td>
<td>157</td>
<td>237</td>
<td>328</td>
<td>298</td>
<td>228</td>
<td>0.1</td>
</tr>
<tr>
<td><strong>Air Transportation</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Imports</td>
<td>10.9</td>
<td>13.1</td>
<td>7.9</td>
<td>9.9</td>
<td>11.5</td>
<td>11.3</td>
<td>12</td>
<td>12.4</td>
<td>1.9</td>
</tr>
<tr>
<td>Exports</td>
<td>9.7</td>
<td>12.8</td>
<td>12.3</td>
<td>13.2</td>
<td>13.9</td>
<td>14.8</td>
<td>12.7</td>
<td>12.2</td>
<td>3.3</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>20.6</td>
<td>25.9</td>
<td>20.2</td>
<td>23.1</td>
<td>25.4</td>
<td>26.1</td>
<td>24.7</td>
<td>24.6</td>
<td>2.6</td>
</tr>
<tr>
<td><strong>Maritime Transportation</strong> (Port of Montevideo)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unload</td>
<td>2,121</td>
<td>1,959</td>
<td>2,204</td>
<td>2,25</td>
<td>1,396</td>
<td>2,541</td>
<td>3,427</td>
<td>3,697</td>
<td>8.3</td>
</tr>
<tr>
<td>Load</td>
<td>2,023</td>
<td>2,211</td>
<td>2,164</td>
<td>2,692</td>
<td>3,869</td>
<td>4,64</td>
<td>5,298</td>
<td>5,699</td>
<td>15.9</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td>4,144</td>
<td>4,171</td>
<td>4,368</td>
<td>4,942</td>
<td>5,265</td>
<td>7,181</td>
<td>8,725</td>
<td>9,396</td>
<td>12.4</td>
</tr>
<tr>
<td><strong>Cargo movements at interior ports (in tons)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td></td>
<td>3,790</td>
<td>4,234</td>
<td>3,699</td>
<td>5,425</td>
<td>6,636</td>
<td>6,585</td>
<td>6,804</td>
<td>6,435</td>
<td>7.9</td>
</tr>
</tbody>
</table>

*Source: Lalanne et al. (2009), BCU*
2.5. Conclusion

A favorable regulatory framework strongly supported the recent development of Uruguay’s business logistics sector. In particular the laws of Free Trade Zones and of Free Ports (Law N° 15.921 approved in 1987 and Law N° 16.246 approved in 1992, respectively) established a regulatory framework which enabled the provision of logistics services by both national and foreign providers. The port legislation allowed services providers to handle goods in transit, while the free zone legislation has enabled service providers to add value to traded goods, beyond such activities as packing and picking.\(^9\) Goods passing through the free zones are mainly destined for MERCOSUR countries and to a lesser extent other regional markets.

50. In Uruguay, around one third of service exports correspond to transport and transport related service activities. The main activity within this sector is related to port activity. Export of transport services are undertaken both from FZ and outside the FZ. Almost one third of the exports of transportation services are performed from FZ and these are characterized by their intensity in logistics activities. In the FZ, the activities carried out are primarily logistics related to some transformation of goods. In the evolution of specialization within the export of transport services, the FZ takes up prominently but transshipment port activity is still predominant.

51. Logistics activity inside of FZ is more advanced. Outside Uruguay’s free trade zones, third-party logistics is still at an early stage of development as most local business rely on “in-house” transportation and distribution services. The establishment of regional distribution centers, increased the level of sophistication of the business logistics community operating inside FZ, but this learning process so far has not much extend beyond the free zones.

\(^9\) In the port, goods may be subject to certain transformations as long as they do not modify their nature. Permitted activities are limited to warehousing, repackaging, assembly, consolidation, handling and fractionation.
CHAPTER 3: MARITIME TRANSPORT INFRASTRUCTURE AND SERVICES

This chapter assess Uruguay’s maritime transport infrastructure and services. Special focus is given to the Port of Montevideo, which is a key node in Uruguay’s trade facilitation infrastructure. This Chapter describes port infrastructure, shipping services and the current regulatory framework for maritime transportation; it also compares maritime shipping costs in Uruguay with those of Argentina and Brazil – Uruguay’s direct competitors with respect to maritime services.

3.1. Introduction

52. With global maritime trade on the rise, maritime shipping cost have become an important determinant of international trade and competitiveness. Maritime trade grew due to globalization, and regional and global integration of production and markets. According to UNCTAD (2007), maritime traffic in 2007 nearly doubled relative to 2003. Since artificial barriers to trade, and more specifically tariff barriers, have been falling in the last decades, freight costs have emerged as an important determinant of international trade and competitiveness. Overall, countries are likely to benefit more in terms of welfare from reduction in shipping costs over a reduction in artificial trade barriers.

53. Maritime trade is very important for Uruguay, close to 70 percent of goods enter or leave Uruguay via a sea port. The trade is dominated by the Port of Montevideo which to a large extent well located as a gateway to the south-eastern and central markets of South America. It is located at the entrance point to the Paraguay-Paraná river system, which connects with the hinterlands of Argentina and Uruguay, as well as the landlocked countries of Paraguay and Bolivia and the interior parts of south-western Brazil. It has also good road connections to neighboring countries.

54. Maritime transport hubs cater for two types of traffic flows: traffic within a port’s hinterland and transit movement. The first type of traffic is generated by the location of a hub relative to the region it serves, while the second depends of the hub’s ability to provide a service to en-route locations, a concept termed intermediacy. There in important role that is played by a port’s relative location which impacts on its ability to play a role as an intermediate location. A hub with a strong intermediacy position can improve its hinterland penetration and have a competitive advantage over other ports without access to intermodal systems. This is best illustrated by the top ranked port in the world, Singapore, which is located on the Straits of Malacca, a major shipping lane. It is also close to the world’s fastest growing region. It is from this perspective that due to its geographic location, the port of Montevideo provides access point to the markets of Argentina, Brazil, Paraguay and Bolivia and has good prospects to serve the larger south-eastern South American market.

55. The ability of a port to play a hub role depends very much on its characteristics, operational efficiency, shipping services and overland connections. The rest of this chapter explores the first three factors while the last is dealt with in the chapter that follows.
3.2. Port of Montevideo

56. **The physical attributes of a port impact traffic volumes and hence the ability to serve as a hub.** The ability to handle large vessels is important as it is through volume that ships contribute to economies of scale. Until recently, the rapid growth of international trade has seen the increased deployment and utilization of large containerships. The success of global supply chain operations hinges on the containership's accessibility to hub-seaports. The more shallow the draft, the lower the carrying capacity of the vessels that can be handled. The largest vessels that are increasingly deployed by the major shipping lines require channel depths of at least 13 meters.

57. **The Port of Montevideo lacks sufficient depth to handle some of the large vessels increasingly deployed by shipping lines.** It has an average depth of 10.50m (the approach channel is 11.50). However, some of the berths have only 10m of available depth. One of the reasons for the shallow depth of the channel at Montevideo is that the port is at the mouth of a river, which means the channel is subjected to siltation.10 As a result, the Port of Montevideo is currently unable to handle large vessels. Empirical evidence points to a relationship between draft and vessel size (see Figure 10) and it is not every port in the world that is capable of handling the large vessels. Potentially therefore, with its limited depth, the maximum size of the container vessel that can be handled at Montevideo is approximately 3,500 TEU capacity.

![Figure 11. Relationship between Draft and Vessel Capacity](image)

Source: Palsson (1998)

10 Harbors at the mouths of rivers are generally prone to siltation. At Montevideo the river current deposits silt on the south side of the river along the Argentine coast and in particular, at Buenos Aires. As a result Buenos Aires has a shallower depth 9.5m to 9.75m. However the channels to both ports require dredging, though this is likely easier at Montevideo than at Buenos Aires. However, the larger volume of traffic at Buenos Aires allows the port to recover the cost associated much more effectively than at Montevideo.
58. **Investment projects being implemented will enable the Port of Montevideo to handle larger vessels in future, including those with TEU capacity of over 6,000 TEUs.** The authorities are deepening the channel and berths at Montevideo through dredging to increase the available depth of the approach channel to 11.50-12.50 meters and berth depth to 14m. The work is already yielding some results, for instance the River Plate Hamburg Süd vessel which operates between Montevideo and Buenos Aires was for the first time able to dock in early 2009. The vessel with a length of 285m was carrying 5905 TEU.

59. **Besides depth, ports that are co-located with cities, such as Montevideo, face an additional constraint from the absence of land for expansion.** Expansion may not always be possible due to density, land constraints, and congested traffic arterials. For example, Hong Kong has had to contend with space limitations both within the ports and also on the outside. The measures adopted there have been to increase the efficiency and productivity of the port. Singapore as well has used a similar strategy, especially involving highly efficient logistics centers near the port. Efficiency of a hub is derived at the hub’s terminal. Hub ports often focus on multimodal networks in order to preserve their attractiveness and to be able to exploit fully, potential economies of scale. Montevideo, which faces landside constraints, will have to adopt strategies to increase its efficiency as land for expansion increasingly becomes scarce.

3.3. **Port Infrastructure**

60. **The ability of a port to develop as a logistics hub depends on both endogenous and exogenous factors.** Particularly important are infrastructure availability and general port efficiency. Distribution centers respond to structural change and competition by expanding infrastructure and rationalizing flows in order to meet demand. Owing to increasing competition, all logistical hubs have been committed to expanding their infrastructure.

61. **A critical factor for Montevideo is the fact that the port has presently only one operational specialized site for handling container ships.** There are three other sites for full container ship operations, but they are equipped with mobile cranes and the berths are for public use (they are not part of the container terminal). The Montevideo container terminal area, called berth of scale, is operated by Terminal Cuenca del Plata (TCP). Within this terminal, another approach site has been built that is expected to be operational with four additional gantry cranes by the end of 2009. Apart from the main container terminal, containers are handled also at five sites in the public berths. However, these are operated with mobile cranes and operations are not efficient neither in terms of productivity nor quality of service. Present infrastructure availability is as shown in Table 7.
62. **Services within the Port of Montevideo are provided by both the private and public sectors.** There is some competition between the two. There is also limited intra-port competition between private port operators and port terminals (Montevideo and Nueva Palmira). Even though the regulatory framework for private port operations in Uruguay is progressive (see Chapter 7), restrictions on the type of cargo that can be handled are not uncommon. These restrictions, in addition to delays in authorization, have limited the development of private terminals when for instance compared to Argentina and Paraguay.

63. **A second terminal is planned at the Port of Montevideo and is expected to be operational by 2015.** While Montevideo has traditionally focused on inter-port competition with Buenos Aires, a second terminal, potentially with a different operator, will add a new dimension to the competition within the River Plate Basin. In addition there is a proposal to develop a dry port. It is envisaged that the dry port will provide equal access to all logistics operators. As such, the ownership and operation of a dry port has to be managed carefully so as to minimize conflict.\(^\text{11}\)

\[\text{\textsuperscript{11}}\text{For discussion on Dryports in relation to port life cycles see Cullinane and Wilmsmeier (2009).}\]

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**Table 6. Port of Montevideo: Infrastructure and equipment characteristics for container operation**

<table>
<thead>
<tr>
<th></th>
<th>2009 TCP</th>
<th>2009 Public Berths 3,4,5,8 &amp; 9</th>
<th>2010 TCP</th>
<th>2010 Public Berths 3,4,5,8 &amp; 9</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GANTRY CRANES</strong></td>
<td>4</td>
<td>8</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>MOBILE CRANES</strong></td>
<td></td>
<td>6</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td><strong>Berth (m)</strong></td>
<td>288</td>
<td>819</td>
<td>638</td>
<td>819</td>
</tr>
<tr>
<td><strong>Area (hectares)</strong></td>
<td>15.2</td>
<td></td>
<td>30</td>
<td></td>
</tr>
</tbody>
</table>
Box 6: Maritime Transport Regulations

The Port of Montevideo has operated as a Free Port since 1992. It was the first terminal in the Latin-American Atlantic coast to have merchandise circulating freely without the need for formal authorization. This transformed the port into a logistics center, where international companies could centralize their merchandise for later distribution in the region. Operations permitted under this law include the loading and unloading, stuffing and un-stuffing of containers. The Free Port provisions act as an umbrella protection for the merchandise in the region. In fact, one of the major reasons behind the recent growth in traffic through the Port of Montevideo was its development as a free port. The regulatory framework for the Port of Montevideo is established under Law 16.246/992 which has five regulatory executive orders: i) Executive Order 412/922, Law of Ports Regulations; ii) Executive Order 413/992, Port Services Supply Companies Regulations; iii) Executive Order 57/994, Port Services General Rules; iv) Executive Order 184/994, Port Captaincies and Operations; and Executive Order 183/994, Free Ports Regulation. Further reforms are anticipated as authorities have indicated plans to transform the regulatory framework to provide for an Advanced Landlord or Main Port Manager model.

Presently, water transport in Uruguay is regulated by the Direccion General de Transporte Maritimo y Fluvial, under the responsibility of the Direccion Nacional del Transporte within the MTOP and by of the Navy’s Registry and Merchant Office. Freight rates are not regulated.

Although the port regulatory framework in Uruguay is progressive, it still has several weaknesses. In particular, four key restrictions exist:

a. There is no one government agency vested with all the necessary structure and resources to execute policies for the Merchant Navy. Currently, control functions are divided between the Ministry of Defense and a division within MTOP that deals with maritime and river transportation.

b. Lack of a bilateral agreement between Argentina and Brazil limits the participation of vessels with the Uruguay flag. As there are no restrictions to bilateral traffic, any third country vessel can operate between Argentine and Uruguayan ports. This provides a competitive advantage to shippers who export from the Argentine river coastline area, where regular services do not exist. The exporters in these ports choose to hire feeder services to Montevideo and then use river transport to the destination port. By so doing a) they use convenience flags in the stretch from the origin to Montevideo with a lower cost than the freight cost to Buenos Aires, where an Argentine ship should be used; b) After loading it is possible to obtain the bill of lading that allows the exporter to recover his letter of credit. If operated via Buenos Aires, the bill of lading is granted after loading; this implies that the exporter receives the letter of credit typically after a week; and c) Patagonia traffic to Montevideo saves one day.

c. The Brazil-Uruguay water transport agreement does not protect Uruguay. Although Uruguay has entered into a treaty with Brazil that states that bilateral traffic should preferably be made with ships of both flags, in practice, there is little bilateral traffic between the two countries and the little there is generally occurs by road. Furthermore, given the fact that Uruguay does not have a fleet in practice, Uruguay almost systematically authorizes third parties to operate in both countries.

d. Restrictions to freedom of navigation on the internal waterways affect the participation of the vessels registered under the Uruguay flag.

13 http://www.armada.mil.uy/prena/dirme/mision.html
Port Performance

64. **The measurement of port efficiency is not easy while comparisons of relative performance are even more difficult.** Measuring efficiency is a function of several interrelated aspects and activities which cannot be captured by one single measure or indicator. Consequently, ports have developed a number of efficiency indicators to use as a basis for assessing port performance. Common indicators include the total number of containers loaded and unloaded. In addition, container handling is of interest to shipping lines as it constitutes the largest component of total ship turnaround time, affecting as it does the speed with which cargoes are moved off and onto ships at berth. Container handling is typically expressed in terms of the amount of cargo handled per berth hour. Port authorities are interested in maximizing berth utilization, a factor which influences both port charges imposed on shipping lines and the actual throughput handled.

65. The number of containers handled is also affected by the quality and quantity of support infrastructure provided, such as the number of container berths and gantry cranes. The number of quay cranes is closely related to the number of TEUs per quay crane hour.

66. **It is important that services are integrated and the port is regarded as an integral component of a logistic chain.** Vessels typically call at ports for more than one service. The port becomes the point at which supply chain activities are coordinated and streamlined. Other services are also offered to shipping lines, including bunkering, pilotage, warehousing, cold storage and other value adding services. It is important that these various services are integrated and the port operates as an integral component of a logistic chain.

166. **Port volumes handled at Montevideo have more than doubled in the past decade and increased much faster than other ports in the region.** Containerized traffic through the Port of Montevideo over the period 1999 - 2008. Over that 10 year period, traffic volume has shown significant growth of over 170%. As shown in Table 20, there has been a significant increase in transshipment volumes since 1999. Volumes increased from 51,000 TEU in 1999 to 333,000 TEU in 2008. In 2008, the transshipment was 52% of the port throughput. However, while transshipment volumes have increased significantly at Montevideo, they have increased much faster at other ports in the region.

167. According to UNCTAD statistics the region’s key transshipment hubs are (a) Manzanillo, Panama, with 84.4 percent of its overall port throughput being trans-shipment; (b) Kingston, Jamaica (85.9 per cent); (c) Freeport, Bahamas (99 per cent); and (d) Balboa, Panama (84.9 per cent). Other ports that are positioning themselves as transshipment hubs are Cartagena, Colombia, and Point Lisas, Trinidad and Tobago. As a result of these new entrants, port throughput in Central America has now become less concentrated.

168. Generally across the region, besides the general increase in shipping capacity, the capacity for transport of reefer containers has grown substantially. The changes in trade composition and the growing importance of food products (e.g. fruits and fish) have also increased the demand for capacity for the transport of refrigerated cargo. Reefer capacity in the region increased more than three times between 2000 and 2007. Reefer capacity between the
East Coast ports of the region and Asia and Europe more than trebled between 2004 and 2007 (UNCTAD, 2008).

Table 7. Historical changes in containerized cargo movement in the Port of Montevideo between 1999 and 2008 (in thousands of TEU)

<table>
<thead>
<tr>
<th>Year</th>
<th>1999</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Imports and Exports</td>
<td>199</td>
<td>219</td>
<td>208</td>
<td>179</td>
<td>138</td>
<td>195</td>
<td>222</td>
<td>245</td>
<td>299</td>
<td>324</td>
</tr>
<tr>
<td>Transshipments RA</td>
<td>4</td>
<td>4</td>
<td>18</td>
<td>28</td>
<td>71</td>
<td>85</td>
<td>86</td>
<td>102</td>
<td>110</td>
<td>130</td>
</tr>
<tr>
<td>Transshipments PY</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>7</td>
<td>13</td>
<td>13</td>
<td>15</td>
<td>16</td>
<td>16</td>
<td>19</td>
</tr>
<tr>
<td>Other Transshipments</td>
<td>42</td>
<td>58</td>
<td>69</td>
<td>80</td>
<td>112</td>
<td>132</td>
<td>134</td>
<td>158</td>
<td>171</td>
<td>202</td>
</tr>
<tr>
<td>Total Transshipments</td>
<td>51</td>
<td>68</td>
<td>94</td>
<td>114</td>
<td>196</td>
<td>230</td>
<td>232</td>
<td>275</td>
<td>298</td>
<td>351</td>
</tr>
<tr>
<td>Grand Total</td>
<td>250</td>
<td>287</td>
<td>302</td>
<td>293</td>
<td>334</td>
<td>425</td>
<td>455</td>
<td>519</td>
<td>596</td>
<td>675</td>
</tr>
<tr>
<td>Annual growth (%)</td>
<td>-5.9%</td>
<td>14.8%</td>
<td>5.0%</td>
<td>2.9%</td>
<td>14.0%</td>
<td>27.2%</td>
<td>7.0%</td>
<td>14.2%</td>
<td>14.9%</td>
<td>13.2%</td>
</tr>
</tbody>
</table>

Source: Study of containerized traffic demand in the Port of Montevideo, Martin Sgut, Administración Nacional de Puertos (ANP), 2009.

67. The expansion of the Panama Canal and other port developments has given new impetus to various ports to develop as hub ports in the Latin America and Caribbean region. The widening of the canal will open new opportunities for bigger ships in these services. Shipping capacity on routes to South America has been increasing with increasing market demand, and capacity on routes between the Latin America and North America and Europe more than doubled between 2000 and 2007 (UNCTAD, 2008).

68. An increase in vessel calls in Montevideo will likely reduce unit costs. If the Port of Montevideo can increase the number of direct services calling in the port, the resulting lower transport costs is likely to benefit transshipments, transit flows and local trade. Moreover, the supply of shipping services is directly related to the scale and efficiency of a port’s operations. Improved access to the extended port hinterland, as well as investment in port infrastructure to attract greater levels of transshipments are needed to increase the scale and efficiency of port operations. However such scale economies can only be realized, if the investment in infrastructure is matched with the required growth in demand.

3.4. Shipping Services

69. The development of hub ports results in close cooperation between shipping lines, shippers and port developers and operators. In addition to physical constraints, shipping connectivity and services also have an important influence on the emergence and development of hub ports. In recent times, there has been much consolidation in world shipping, and shipping lines have started offering round the world pendulum services, especially on the major east-west trade routes. The development of hub ports is therefore a result of close cooperation between shipping lines, shippers and port developers and operators.
70. **Today, Uruguay has lower shipping line connectivity than neighboring countries.** The Liner Shipping Connectivity Index has been calculated by UNCTAD since 2004 as a way of assessing access to maritime liner shipping services from a country level. It provides a picture of the structure of the network and patterns of connectivity and contributes to the analysis of global value and supply chains and their corresponding transport networks. Scores are calculated for 163 countries based on five components: number of ships, the container carrying capacity in twenty-foot equivalent units (TEU) of those ships, the number of companies, the number of services, and the maximum ship size, always referring to the ships that are deployed to provide liner shipping services to a country. The top ranked country in 2008 was China with a score of 137.

71. By contrast in the same year Uruguay had a score of 23 and a global rank of 45 (Figure 12). By comparison, Brazil and Argentina ranked of 27 and 39. The implications for Uruguay are that if it is to develop as a regional logistics hub, it would have to continue improving its connectivity and possibly identify a niche market. Although Uruguay’s score has improved from 16 in 2004, its overall rank remained nearly unchanged (2004: 44; 2008: 45), as other countries experienced similar increases in their performance relative to Uruguay.

![Figure 12: Liner Shipping Connectivity INDEX](source: UNCTAD)

72. **Montevideo is currently benefiting from CSAV’s strategy to intensify the use of Montevideo as transshipments hub for cargo from Southern Argentina.** The port in this case is also making profit from the existing cabotage restrictions that restrict foreign flagged vessels from moving cargo between Argentinean ports. However, a dependency on shipping lines bears potential risks as these are known to act footloose (e.g. the case of Kingston). Shipping lines have in history moved between ports looking for the best economic offer.

73. **The port of Rio Grande is a significant competitor for transshipment cargo,** especially since this port also counts on a significant captive hinterland, water depth and is not dependent on dredging of long access channels like in the River Plate.
Future port infrastructure development on the East Coast of South America will also influence the structure of liner shipping services, which is mainly driven by cost considerations. Once main ports, like Santos, provide water depths of 14m, shipping lines are likely to respond and change port calls. If ports are not prepared, shipping lines will bypass them and only provide them with feeder services (e.g., Buenaventura, Colombia). This would reduce the direct connectivity of Uruguay’s ports and potentially affect Uruguay’s attractiveness as a logistics hub and intermodal gateway.

3.5. Port Management System

Even though some components of port management at Montevideo are computerized, processes are mainly bi-directional and various systems lack integration. While for transshipment operations data exchange between shipping lines and customs authorities, as well as between shipping lines and port authority is paperless, other procedures, in particular related to domestic imports and exports requires extensive and often require parallel documentation. Cargo management in the port could be greatly improved by a Single Window Approach, which connects private and public agents operating in the port. It is estimated that for every container that passes through the port, a minimum of 27 documents are generated, at a cost U$S 5 each. The total cost of paperwork is as much as U$S 135 per container. The Single Window Approach is discussed in detail in the Customs Chapter of this report.

Generally, there are several problems faced in processing cargo through the port:

- All cargo is weighed when entering and exiting the port. In fact, trucks are weighted twice (full and empty). This contributes to delays and encourages rent seeking behavior.
- Even though TCP has a scheduling system for trucks, most trucks experience waiting times of on average 3 hours.
- When the import or export cargo must be inspected by customs or any other controlling authority, the truck must move into a different premise called Florida, as there no inspection facilities in the port terminal area.
- Around the Florida inspection area there various intermediaries who offer to help with documentation which also adds to delays and contributes to rent seeking behavior.

Increased overheads due to the aforementioned problems faced in container operations in Montevideo. However, the costs could be lowered through installation of a common computerized system. The absence of an effective system most likely contributes to operational inefficiencies. Moreover, it is not possible to track cargo through the port, now a requirement in some markets due to raised international security standards.

3.6. The Role of Port of Montevideo in the Regional Context14

Given the close proximity of the ports of Uruguay, Argentina and Brazil, the role that each port plays is likely to be determined in part by its costs and efficiency relative to the neighboring ports. It is therefore important to assess the relative importance of the various dimensions of port competitiveness and ascertain how significant they are for Montevideo in

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14 This section is based on Fiess, Martinez-Zarzoso and Wilmsmeir (2009), a background paper for this study.
particular. Drawing on a considerable body of literature\textsuperscript{15}, such an analysis was attempted based on several determinants of maritime transport costs, including: distance, transit time, volume, value, a port’s container through-put rate, shipping liner connectivity and border efficiency.

79. Some of the findings are important and quite relevant to the understanding of the role that Uruguay can play in regional logistics. The most important findings are the following:

80. There is a strong relation between the unit product value and transport costs; higher valued products have to bear higher transport costs per unit weight. A 10\% increase in unit product value increases transport costs by 4.0\% in Uruguay, 5.6\% in Argentina and 7.7\% in Brazil.

81. **Volume of the shipment confirms that economies of scale matter.** Scale economies are the greatest for Brazil, which is to be expected given the size of Brazil’s hinterland. The finding clearly underlines the importance of volume in trade, if a country wants to achieve savings through economies of scale. For Uruguay, hinterland expansion, to widen the scale of demand and supply, will be crucial to increase international competitiveness in maritime transportation. This aspect is the subject of the next chapter.

82. **Container port throughput is another key determinant of maritime transport costs.** Port throughput has the strongest impact in Uruguayan trade; an increase in port movements of 10\% is associated with a reduction in transport cost of 2.3 in Uruguay and slightly lower reductions in Brazil (1.5\%) and Argentina (1.6\%). However, some care is needed when interpreting the results since port throughput is just a simple proxy and as such can only be interpreted as the effect of economies of scale in port operations.

83. **Transit time matters for shipping costs.** A 10\% reduction in transit time reduces ad-valorem transport costs by 1.18\% in Uruguay, whereas the respective reductions in transport costs for Brazil and Argentina are 4.7\% and 6.7\% respectively. Wilmsmeier and Martinez-Zarzoso (2006) and Wilmsmeier and Hoffmann (2006) underline the fact that time is a better proxy for operating costs than distance; as it not only accounts for varying vessels speeds but also for the number of port calls (stays) during a journey.

84. **Port connectivity has a greater impact on transport costs than transit time and port movements.** An improvement in port connectivity of 10\% reduces transport costs by 9.8\% for Uruguay imports (8.9\% and 9.7\% for Brazil and Argentina respectively).

85. **The time needed to import and exports also matters for transport costs.** Table 12 present the effect of reductions in the number of days to import/days to export associated to inland transport costs. A reduction of 10\% in the time required to complete all import procedures decreases transport cost by 3.2\% in Uruguay and by 5\% in Brazil, whereas this variable is not statistically significant for Argentina.

86. When considering shipping costs by product type, Uruguay and Argentina seem to experience slightly cheaper transport costs for crude materials, such as wood pulp, animal hides

\textsuperscript{15}Hummels 1999, Hummels 2001, Hoffmann, Micco, Sanchez, Pizzolitto, Sgut and Wilmsmeier 2001, Wilmsmeier, Hoffmann and Sanchez 2006, Wilmsmeier and Martinez-Zarzoso 2006,
and metalliferous ores (SITC 2) than Brazil, while Brazil and Argentina fare better in mineral fuels (SITC 3). Only Argentina appears to have a cost advantage for manufactured goods (SITC 6) and machinery (SITC 7), while these types of goods demand a transport costs premium in Uruguay and Brazil. Shipping costs for SITC 8 goods are more expensive in all three countries, with the highest premia for Brazil, followed by Uruguay.

87. **Using a gravity model to determine the impact of maritime transport costs on trade it was observed that a 10% reduction in transport costs increases trade by 5.3%. For Uruguay, the effect is smaller but significant; a 10 percent reduction in transport costs would increase trade by 3.6 percent.** Comparing the same effect for the individual countries we find that a reduction of transport costs seems to have the strongest impact on Brazilian trade. In this case a 10 percent decrease in transport costs increases trade by 5.5 percent. For Uruguay, the effect is smaller but significant; a 10 percent reduction in transport costs increase trade by 3.6 percent.

<table>
<thead>
<tr>
<th>Impact on Transport costs</th>
<th>Argentina</th>
<th>Brazil</th>
<th>Uruguay</th>
</tr>
</thead>
<tbody>
<tr>
<td>10% reduction in transit time between ports</td>
<td>-6.7%</td>
<td>-4.7%</td>
<td>-1.2%</td>
</tr>
<tr>
<td>10% improvement in container through-put rate</td>
<td>-1.6%</td>
<td>-1.5%</td>
<td>-2.3%</td>
</tr>
<tr>
<td>10% improvement in port connectivity</td>
<td>-9.7%</td>
<td>-8.9%</td>
<td>-9.8%</td>
</tr>
<tr>
<td>10% reduction in time required to comply with border procedures</td>
<td>not significant</td>
<td>-5.0%</td>
<td>-3.2%</td>
</tr>
</tbody>
</table>

**Impact on Trade**

| 10% reduction of maritime transport costs | 3.3% | 5.5% | 3.6% |

3.7. Conclusion

88. **Given its geographic position Uruguay can serve as a sub-regional hub for the Southern Cone.** In particular, Montevideo is well located to serve Paraguay and other traffic from all its immediate neighbors. However, for this to happen there is the need to improve port container terminal infrastructure and equipment, increase efficiency of operations at the terminal and attract more shipping services. These various measures will lead to lower shipping costs which will benefit not only local exporters and importers, but also strengthen Uruguay’s position as a transshipment hub and trade gateway.

89. Of the countries on the east on South America, Uruguay has the smallest economy. As such, growing volumes sufficiently to reduce unit costs will require that the port is highly accessible to neighboring countries and appropriately equipped with a competitive edge over neighboring ports. Deepening the port as already being implemented is important to being able to handle larger vessels. Shipping lines across the globe are deploying increasingly larger vessels, a trend that will grow with the expansion of the Panama Canal.

90. **Montevideo currently does not have a large number of vessel calls.** If the Port of Montevideo can strengthen its position as a hub port and consequently increase the number of direct services calling in the port, resulting lower transport costs would benefit transshipments, transit and local trade. Furthermore, economies of scale through a greater scale of port operations are identified. Improved access to the extended port hinterland and investment in port infrastructure to attract greater levels of transshipments would be important to increase the scale of port operations. However, such economies can only be realized, if infrastructure investments are matched with the required growth in demand. Key to attracting more vessel calls is the ability of the port to turn around vessels quickly, which is a function of several factors including equipment, processes, systems, and general efficiency.

91. Uruguay in general and Montevideo specifically are the gateway for Paraguayan East bound trade. The more Uruguay can facilitate Paraguay’s access to maritime trade services the more it will benefit from increasing trade and the related positive effects. The development of inland shipping as well as a rail link to Southern Brazil is imperative. These are issues that are explored in the following chapter.
CHAPTER 4: TRADE AND TRANSIT FACILITATION: HINTERLAND CONNECTIONS

4.1. Introduction

92. **Uruguay’s ports are the key nodes and strategic components in Uruguay’s logistics system.** This is because more than 85% of all import and exports are being transported by sea. At the same time, the majority of Uruguay’s imports from Brazil and Argentina arrive by water transport. The ports are therefore a major interface of the various modes of transport in Uruguay. In addition to improving the efficiency of the ports it is essential to assess the capacity and operational efficiency of the landside transport system. It is the latter that determines the size of the port’s hinterland and its potential market reach.

93. **A port’s hinterland is the interior region it serves, or the area of origin and destination of traffic passing through the port.** The size of this area is obviously important to understanding the market reach of a port. Traditional approaches to estimating the size of the market have made use of transport rates from the port to the interior. The answer would then be simple and straightforward in that those places that can be served by the port cheaper than from other ports belong to the port’s hinterland. In practice, however, the situation is more complicated than this. Other factors would have to be taken into consideration, especially the time taken to move shipments and also the risks associated with using a particular port. As such, a measure that uses a combination of these three primary factors can be used to estimate the spatial extent of a port’s hinterland. This is a well established methodology in transport, using the concept of the generalized cost. However, as is common with this technique, the hinterland would be dynamic depending of various factors including the commodity, infrastructure, services, ITC, etc.

94. **Port authorities can play a critical role to position a port as a hub.** In order to be able to do this effectively the port authority would need to develop a vision of the hinterland so as to identify markets to be reached by intermodal transport and to be able to bring various interested parties together. Thus, port authorities should have both a strategic vision for the seaside as well as for the landside. The authority should also be aware that globalization means there is a lot of competition both within the immediate neighborhood as well as internationally.

95. **The greatest proportion of Uruguay’s trade is with Argentina and Brazil while the largest proportion of traffic in transit is destined for Paraguay.** Most of the trade traffic to and from Paraguay is transported by land. In recent years there has been an increase in traffic between Bolivia and Uruguay, though volumes remain relatively small. Significantly, approximately 64% of the trade traffic entering the MERCOSUR bloc from elsewhere passes through Uruguay. This proportion is larger than what would be expected given Uruguay’s GDP. It is therefore apparent that Uruguay handles a greater share of such traffic illustrating some preference to use the country as the preferred point of entry into the MERCOSUR bloc.

96. However, the inbound and outbound traffic flows are not balanced as export volumes from MERCOSUR countries that pass through Uruguay are very small compared to import volumes. Currently, a very low volume of regional cargo is exported through the Port of
Montevideo or enters Uruguay via land borders. As described in the following sections, low transit exports are not necessarily due to the absence of land transport links between Uruguay and the neighboring countries, but can be explained in part by the nature of exports from neighboring countries which are predominantly bulk commodities, as well as the presence of competing ports.

97. The following sections describe the characteristics of the road, rail, river and air transport systems in Uruguay. The last section assesses the prospects for a multimodal logistics platform, which is central to a successful logistics hub operation. Annex 1 provides a breakdown of Uruguay’s trade profile by modal split.

4.2. Road Infrastructure and Transport Services

98. From a strategic perspective of a regional network, Uruguay is generally well connected to all its neighbors. Connectivity is provided by river transport, roads and a railway network. The reach of these various land transport modes essentially defines the extent of the hinterland of the Port of Montevideo. Road transport in particular is the dominant mode of transport.

99. The distances to Argentina and Southern Brazil are not long and can be covered in a few hours, enabling the port to handle various types of cargo including fresh produce. Table 9 provides the distances to major economic centers in neighboring countries; due to the geographical layout of the countries, for certain key regions such as North-East Argentina, Southern Brazil and Paraguay and Bolivia, distances are actually shorter than those indicated.

<p>| Table 9. Road distances between Montevideo and economic centers in neighboring countries (km) |
|---------------------------------------------|----------------|---------|</p>
<table>
<thead>
<tr>
<th>Country</th>
<th>City</th>
<th>Distance</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>Buenos Aires</td>
<td>210</td>
<td>(road – ferry Juan Lacaze)</td>
</tr>
<tr>
<td></td>
<td>Buenos Aires</td>
<td>598</td>
<td>(via Fray Bentos)</td>
</tr>
<tr>
<td>Bolivia</td>
<td>Santa Cruz de la Sierra</td>
<td>2023</td>
<td></td>
</tr>
<tr>
<td>Brazil</td>
<td>San Paulo</td>
<td>1970</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Porto Alegre</td>
<td>870</td>
<td></td>
</tr>
<tr>
<td>Chile</td>
<td>Santiago</td>
<td>1900</td>
<td></td>
</tr>
<tr>
<td>Paraguay</td>
<td>Asunción</td>
<td>1550</td>
<td></td>
</tr>
</tbody>
</table>

100. Uruguay has an extensive paved road network which radiates outwards from Montevideo. In 2007, the National Directorate of Roads of Uruguay reported the total length of the National Road Network as approximately 16,398 km. The major roads are Route 1 which connects Montevideo with Colonia, via Route 3 to Bella Unión. Route 5 runs from Montevideo to Rivera; Route 8 connects Minas and Treinta y Tres and then extends to the Rio Branco; Route 9 connects cities on the Atlantic coast. Uruguay’s major roads in Uruguay are overall in good condition. Parts of the Uruguay road network are tolled.
101. Three international bridges, located in the cities of Salto, Paysandú and Fray Bentos connect the Uruguay with Argentina over the River Uruguay. The General San Martín bridge, which connects the city of Fray Bentos in Uruguay with Puerto Unzué in Argentina has however been blocked since 2005 by environmental activists that protest the establishment of a paper mill plant near Fray Bentos. Important border crossing into Brazil are located in the Cities of Artigas, Rivera, Río Branco and Chuy.

![Figure 13. Uruguay’s Road Network](image1)

![Figure 14. Uruguay: heavy load roads](image2)

102. Transport services are provided by various private companies that operate services across the border into Argentina, Brazil, Chile and Paraguay. In 2007, a total of 17,780 vehicles where registered for freight operations: 8,071 trucks, 2,927 tractors, 3,410 trailers and 3,372 semi-trailers. All vehicles with a carrying capacity greater than 5 tons are subjected to mandatory checks required to obtain a one-year operating license.
Box 7: Montevideo’s Port Hinterland

Figure 15 identifies the port hinterland for the eight most important ports in the Southern. Puntigliano et al. (2008) divide the port hinterland of the Southern Cone into three, largely independent, subsystems, where there is little hinterland competition. Table 10 provides information on container traffic for the different ports in the different sub-systems.

Table 10. Container Traffic in Ports of the Southern cone

<table>
<thead>
<tr>
<th>Sub-system</th>
<th>Container handled in 2006, TEUs</th>
<th>Average growth rate in TEUs handled (2002-2006)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Northern sub-system</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Santos</td>
<td>2,460,000</td>
<td>19%</td>
</tr>
<tr>
<td>Paranaguá</td>
<td>494,000</td>
<td>12%</td>
</tr>
<tr>
<td>Itajaí</td>
<td>688,000</td>
<td>23%</td>
</tr>
<tr>
<td><strong>Southern sub-system</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rio Grande</td>
<td>636,000</td>
<td>12%</td>
</tr>
<tr>
<td>Montevideo</td>
<td>519,000</td>
<td>11%</td>
</tr>
<tr>
<td>Buenos Aires</td>
<td>1,568,000</td>
<td>10%</td>
</tr>
<tr>
<td><strong>Eastern sub-system</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Valparaíso</td>
<td>613,889</td>
<td>16%</td>
</tr>
<tr>
<td>San Antonio</td>
<td>673,000</td>
<td>10%</td>
</tr>
</tbody>
</table>

Figure 16 provides an estimate of the current (darker grey) and potential, medium-term (light grey) hinterland of the Port of Montevideo according to Puntigliano et al. (2008). The Port of Montevideo serves already today as a transshipment hub for fruit and fish exports from Patagonia, and to a certain extent, for cargo from Rosario and Santa Fe. Puntigliano et al. (2008) point to a strong potential for goods from Brazil from the Uruguay River basin, where exporters are considering alternative export routes given the current port congestion in adjacent Brazilian ports. In their assessment, a rail link would be key to attract cargo from Southern Brazil. The east of Bolivia, and in particular the region of Santa Cruz, has further great logistical importance for Uruguay. They estimate that the cost of shipping soya to Arica is about US$ 59/ton, while the cost of shipping to Nueva Palmira would been only US$40/ton. The Parana-Paraguay waterway (Hidrovia) has also great potential for wood and iron ore exports from Bolivia, Paraguay and Northern Argentina. To reap the full potential, however, a significant expansion of trade facilitation, intermodality as well as regional cooperation is needed. While Uruguay has potential to serves as a hub for Paraguay and also Southern Bolivia, one also needs to keep in mind that potential hinterland competition could arise from IIRSA corridor linking Brazil and Chile. Chile is currently considering building a rail way link to La Paz to serves as a hub for Bolivian cargo.
103. **Delays at the port and border posts, low vehicle utilization rates and relatively higher costs than in neighboring countries hamper road transport operations in Uruguay.**

<table>
<thead>
<tr>
<th>ROAD</th>
<th>Border crossing points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Route 1</td>
<td>Colonia</td>
</tr>
<tr>
<td>Routes 1 and 2</td>
<td>Fray Bentos</td>
</tr>
<tr>
<td>Route 3</td>
<td>Paysandú</td>
</tr>
<tr>
<td>Route 3</td>
<td>Salto</td>
</tr>
<tr>
<td>Route 3</td>
<td>Bella Unión</td>
</tr>
<tr>
<td>Route 5</td>
<td>Rivera</td>
</tr>
<tr>
<td>Route 8</td>
<td>Aceguá</td>
</tr>
<tr>
<td>Route 9</td>
<td>Chuy</td>
</tr>
<tr>
<td>Route 18</td>
<td>Rio Branco</td>
</tr>
</tbody>
</table>

**Figure 17. Freight movements through major border posts**

104. **Delays at the port and border crossings stems from poor coordination of agency systems and general inefficiencies:** Delays occur especially in the port and at the border posts. Depending on whether trucks are delivering or picking up full or empty containers, delays range between 3 and 6 hours. Delays in the port are due to poor coordination of agency systems and general inefficiencies. At the border crossings ECLAC16 has previously identified the following as some of the problems contributing to delays:

- Poor organization of border controls, short working hours, inadequate incentives to improve staff performance in agencies at the border crossings, poor coordination of schedules between countries. It is estimated that inefficiency at border crossing points especially those between Uruguay and Argentina and Brazil can increase transit time by as much as 24 hours;
- Poor integration of systems within the border control areas;
- Congestion;
- Regulatory, commercial or organizational restrictions which necessitate transfers at the border compounded by private-sector organizational problems in loading and unloading cargo; and
- Delays caused by requirement that drivers go through immigration procedures.

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105. At the port delays can be reduced with the implementation of innovative operational practices, with new gate and inspection technology and infrastructure, with customs facilitation improvements, and with the implementation of a port community system.

106. Road transport services between Uruguay and Argentina are affected by the closure of the border crossing point between Fray Bentos and Puerto Unzuéy. The closure has resulted in long transit times as trucks have to use alternative routes which add up to 200km of distance. In the north, the Riviera border crossing point between Uruguay and Brazil is the busiest of the various border crossing points between Uruguay and her neighbors and experiences some of the more serious delays.

107. Delays contribute to low vehicle utilization rates. The estimated monthly truck mileage in Uruguay is 8,000 km. This utilization rate is similar to Paraguay, but is generally lower than it is in Argentina. The estimate is that in Argentina one driver covers between 10,000 and 14,000 km per month, whereas in Paraguay the covered monthly distance is between 6,000 and 7,000 km per month. Drivers in Argentina cover longer distances whereas in Uruguay a long distance trip is typically 450km. Delays mentioned above often mean a truck can do only one pick up or delivery per day, thereby reducing efficiency.

108. Uruguay has higher road transport costs than its neighboring countries (Table 12). It is estimated that transporting a 28 ton load on a truck for 300 kilometers costs about US$ 720 in Uruguay, while the same journey in Argentina would cost US$ 522 and only US$ 321 in Brazil. Generally, vehicle costs per vehicle-km reduce as the trip distance increases. The explanation of this is simple: fixed costs represent a smaller proportion when more kilometers are covered, while, at the same time, the proportion of time taken in loading and unloading cargo declines. Trip costs may be more competitive if the truck returns with new cargo, which is more plausible the longer the trip is. The short distances covered in Uruguay translate into a higher proportion of fixed cost per trip, compared to the geographically larger neighboring countries.

109. Important to include strategies to level the regional playing field, as well as increase the operation efficiency of the local road transport sector to develop Uruguay as a logistics hub. The Uruguayan trucking fleet has a competitive disadvantage with the Argentine and Brazilian fleets due to the subsidies the latter receive for both fleet operation (e.g., fuel subsidies) and truck manufacturing while in Paraguay it is possible to import used trucks at competitive prices. The result of these factors has resulted in reduced Uruguayan fleet participation in regional operations. Initiatives to develop Uruguay as a logistics hub have to include strategies to level the regional playing field as well as to increase the operation efficiency of the local road transport sector.

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17Information provided by Roberto Liatis.
Table 12. Comparison of Road Transport Costs, MERCOSUR

<table>
<thead>
<tr>
<th>Distance in km</th>
<th>Brazil</th>
<th>Argentina</th>
<th>Uruguay</th>
</tr>
</thead>
<tbody>
<tr>
<td>up to 50</td>
<td>115</td>
<td>165</td>
<td>215</td>
</tr>
<tr>
<td>between 50 and 100</td>
<td>156</td>
<td>237</td>
<td>310</td>
</tr>
<tr>
<td>between 100 and 150</td>
<td>196</td>
<td>303</td>
<td>465</td>
</tr>
<tr>
<td>between 150 and 200</td>
<td>238</td>
<td>374</td>
<td>520</td>
</tr>
<tr>
<td>between 200 and 250</td>
<td>279</td>
<td>447</td>
<td>600</td>
</tr>
<tr>
<td>between 250 and 300</td>
<td>321</td>
<td>522</td>
<td>720</td>
</tr>
<tr>
<td>between 300 and 350</td>
<td>362</td>
<td>577</td>
<td>700</td>
</tr>
<tr>
<td>between 350 and 400</td>
<td>405</td>
<td>602</td>
<td>800</td>
</tr>
<tr>
<td>between 400 and 450</td>
<td>446</td>
<td>665</td>
<td>855</td>
</tr>
<tr>
<td>between 450 and 500</td>
<td>489</td>
<td>727</td>
<td>950</td>
</tr>
</tbody>
</table>

Source: Vallarino (2009)

110. Freight rates for road transportation and other modes of transport are also elevated as cargo is often only carried on one leg of the journey. Such unmatched transport flows could be reduced by more efficient information systems, such as online freight exchanges which act as ‘clearinghouses’ where available cargo spaces are efficiently matched with shippers’ needs. Freight exchanges or so-called ‘virtual container yards’, could in particular benefit small and medium sized firms, which often do not require a full container and also have less logistical expertise in the management of containerized assets.

4.3. Railways

111. Uruguay has a railway network that connects to the networks of neighboring countries. The network is some 3073km long, with a gauge of 1435mm. A significant section of the network is not in service. The network is largely single track except for about 11km in Montevideo which are double track. The railways presently carry about 1.3m tons of traffic per year.

112. The operational network runs to the border with Argentina at the Salto Grande international bridge, where it joins the Salto and Concordia links. The connection allows for rail transport services to Argentina and Paraguay (Encarnación) and further on to Chile. The network is connected also to Brazil through the Rivera-Livramento border crossing point. This is the most important line in terms of volumes handled. However, operations are encumbered by the differences in gauge between Uruguay and Brazil. The Brazil network is meter gauge. In addition, though there are facilities for transshipment of bulk, general and containerized cargo they are presently not in use limiting trans-country shipments by rail. A third line, currently closed, runs between Montevideo and Rio Branco also on the border with Brazil.
113. Out of the total railway network, the National Railways Association (AFE) estimates that some 700 km must be rehabilitated. In particular, the main short term challenge is to improve the Cacequí Santana does Livramento link to Brazil\(^{18}\). This would add a new link between Brazil and Uruguay, in addition to the present road connectivity. A recent study by Hodara et al. (2008) for the Central Bank of Uruguay estimates that this connection is profitable and necessary. It would provide an alternative outlet to the sea for the Brazilian river coastal area.

114. Railway traffic in Uruguay is concentrated in eight main products: rice, barley, cement, clinker, petroleum products, wood, containers and limestone (see Table 13). Their combined weight accounts for 98% of total tonnage carried and to 99% in terms of ton-km\(^{19}\). Total tonnage carried was 1,390,221 in 2008. The average distance travelled was 216km in 2006. Rail freight traffic is concentrated between only a few points in the country, the main ones being transportation of:

- Rice from Treinta y Tres, Tacuarembó Vergara, Salto and Rio Branco to Montevideo;
- Clinker between Verdum and Montevideo;
- Petroleum products from Montevideo to Durazno, Treinta y Tres and Verdum;
- Barley between Paysandú and Rivera;
- Cement almost entirely between Verdum and Manga;
- Limestone between Verdum and Paysandú Queguay respectively and Montevideo; and timber between Rivera and Montevideo.

115. **Rail freight is prone to competition from road transport which tends to be more competitive over short distances.** Rail freight traffic volumes have been largely constant since 2000. As the economy has grown and overall traffic has increased in recent years, railways are therefore carrying a lower proportion of overall traffic compared to other modes of transport. In fact, as freight is generally carried over short distances, rail freight is prone to competition from road transport which tends to be more competitive over short distances.

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\(^{18}\) Hodara, I., Opertti, J., Puntigliano, F (2008): Logistics Uruguay, BROU.

\(^{19}\) World Bank (2009) Mejoramiento de la eficiencia del ferrocarril en Uruguay, Banco Mundial.
116. Incompatible gauge width with Brazil, the need to rehabilitate a substantial part of the rail link to Argentina and Paraguay and a lacking rail-road interface severely hamper the inclusion of Uruguay’s railways as part of an integrated logistics chain that connects the port with its hinterland.

117. One way of increasing volumes on the railways would be to adopt a clear multimodal approach that utilizes both road and rail transport. Intermodal rail-road terminals would enable efficient transfer of merchandise between rail and road.

4.4. River Transport

118. The extended hinterland of the Port of Montevideo embraces Paraguay, Bolivia and several interior regions of Argentina and Brazil. The Port of Montevideo and the Port of Buenos Aires are both located at the mouth of the waterways of the River Plate basin. These waterways have been navigated since the early sixteenth century. The Paraguay and Paraná Rivers are natural transport corridors extending in a north-south direction, connecting the central part of South America to the Atlantic Ocean. The extended hinterland of the Port of Montevideo therefore embraces Paraguay, Bolivia and several interior regions of Argentina and Brazil. Montevideo is well located relative to the main centers in neighboring countries. Table 14 presents distances by water to the main economic centers in the region.

<table>
<thead>
<tr>
<th>Country</th>
<th>City</th>
<th>Distance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>Buenos Aires</td>
<td>133</td>
</tr>
<tr>
<td></td>
<td>Bahia Blanca</td>
<td>460</td>
</tr>
<tr>
<td></td>
<td>Puerto Madryn</td>
<td>668</td>
</tr>
<tr>
<td>Brazil</td>
<td>Rio Grande</td>
<td>332</td>
</tr>
<tr>
<td></td>
<td>Santos</td>
<td>901</td>
</tr>
<tr>
<td>Chile</td>
<td>Valparaiso</td>
<td>2723</td>
</tr>
<tr>
<td>Paraguay</td>
<td>Asunción</td>
<td>1550</td>
</tr>
</tbody>
</table>

Source: National Ports Association (ANP)

119. The inland waterways of the region are an important component of the regional logistics infrastructure. For instance, in Uruguay up to 2007 there was an increase in the use of the Ro-Ro transport on the River Plate connecting to Nueva Palmira and Juan Lacaze. This alternative has reduced the impact of the blockade of the Gualeguaychu-Fray Bentos bridge. Table 15 shows truck movements at the Juan Lacaze port. These movements are also complemented by some Ro-Ro operations made from the Port of Colonia, which at approximately 500 trucks per year are substantially less than those at Juan Lacaze.
Table 15. Juan Lacaze port – Trend in truck movement (in units - 2004 to 2008)

<table>
<thead>
<tr>
<th>Year</th>
<th>Trucks</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>11,344</td>
</tr>
<tr>
<td>2005</td>
<td>12,099</td>
</tr>
<tr>
<td>2006</td>
<td>12,819</td>
</tr>
<tr>
<td>2007</td>
<td>13,085</td>
</tr>
<tr>
<td>2008</td>
<td>12,814</td>
</tr>
</tbody>
</table>

Source: National Ports Association (ANP)

120. **Expanded utilization of the river system depends on a major regional project, the Hidrovía project.** The project aims to transform the Paraguay-Paraná-Uruguay-La Plata river system into a 3,400-kilometer long shipping canal. The main components of the system are the Paraguay and Paraná rivers. The Hidrovía project aims to bring about an improved navigation in this system, between the ports of Cáceres, in Mato Grosso, and Nueva Palmira in Uruguay, at the beginning of the Río de la Plata, the largest estuary in the world. In order to complete the project, the river will have to be dredged to cater for large vessels (see Chapter 5 for further details).

4.5. **Air Transportation**

121. Air cargo operations in Uruguay are centered on the Carrasco International Airport, located some 14km from Montevideo. Other airports nearby are the military airport at Durazo (Santa Bernardina base) and Argentina’s International Airport at Ezeiza. However, even though the national airport network has 8 international airports, Carrasco is the only international airport equipped for international cargo transport.

122. **Small volumes are a result of short runway at the airport.** Air cargo volumes at the Carrasco International Airport have been fairly stable over the past few years, at around 24,000 tons per year - approximately 1% of Uruguay’s total freight volumes (see Table 16). Currently, intercontinental connections are provided by ten international airlines which offer both passenger and cargo services. Prior to 2009, an important reason for the small volumes was that the main runway at the airport was too short to allow fully loaded and fully fueled intercontinental planes to take off. The construction of a new runway now allows the airport to handle large aircraft, including Boeing 747s.

Table 16. Air Cargo movements in the Carrasco International Airport according to commercial operations between 2000 and 2007, in tons.

<table>
<thead>
<tr>
<th></th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Imports</td>
<td>10,960</td>
<td>13,131</td>
<td>7,962</td>
<td>9,881</td>
<td>11,501</td>
<td>11,351</td>
<td>12,021</td>
<td>12,417</td>
</tr>
<tr>
<td>Exports</td>
<td>9,684</td>
<td>12,798</td>
<td>12,275</td>
<td>13,216</td>
<td>13,944</td>
<td>14,798</td>
<td>12,691</td>
<td>12,216</td>
</tr>
<tr>
<td>Total</td>
<td>20,644</td>
<td>25,929</td>
<td>20,237</td>
<td>23,097</td>
<td>25,445</td>
<td>26,149</td>
<td>24,712</td>
<td>24,633</td>
</tr>
</tbody>
</table>

Source: National Transportation Office, Transport and Public Works Department (MTOP)

123. The Cargo Terminal at the Carrasco Airport is managed by Cargo Terminal Uruguay. The cargo terminal enjoys the benefits of the free port status for both transshipment and transit (see Chapter 7). The current airport concessionaire aims to develop a regional hub of cargo distribution. This policy is being pursued together with PLUNA, the national flag carrier. The concessionaire took possession of the Air Cargo Terminal on March 1, 2004, and has since
embarked on a major investment plan, including refurbishment of premises and reconfiguring the layout operational area. Changes were also made to procedures and to the organizational structure of the Cargo Terminal by incorporating new technologies, new computerized systems and new infrastructure for cargo management and storage. The refurbishment further included security improvements, such as installations of vehicle control posts to comply with international regulations.

124. These actions have improved the quality of the intermodal interface between airport and road transport, speeding up processes and improving efficiency in cargo management.

125. Table 17 provides a breakdown of air cargo transport costs in Uruguay. As for road transportation, fuel expenditures make up the largest cost component. Costs associated with vessel leasing and administrative expenses are also significant.

<table>
<thead>
<tr>
<th>Item</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fuel</td>
<td>31.3%</td>
</tr>
<tr>
<td>Marketing</td>
<td>6.3%</td>
</tr>
<tr>
<td>Administration</td>
<td>10.5%</td>
</tr>
<tr>
<td>Leasing planes</td>
<td>12.6%</td>
</tr>
<tr>
<td>Maintenance</td>
<td>9.9%</td>
</tr>
<tr>
<td>Crew</td>
<td>4.5%</td>
</tr>
<tr>
<td>Taxes and services</td>
<td>6.6%</td>
</tr>
<tr>
<td>Insurance</td>
<td>8.5%</td>
</tr>
<tr>
<td>Net Profit</td>
<td>10.0%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

*Source: Bounomo (2004)*

126. In the short-to medium term, there seems to be limited scope to expand cargo volumes through Carrasco airport. At present, there is little domestic traffic that could generate economies of scale. As already noted, cargo traffic has not experienced much growth since 2000. Furthermore, the number of international airlines serving the airport has recently declined, and so has the number of local flights. Despite this, a new Cargo Terminal with over 10,000 m2 of space is being developed. While this will generate sufficient spare capacity to grow air cargo volumes through Carrasco, it will be crucial to attract the required demand to make the investment viable.
4.6. Potential for Multimodal Operations

127. Uruguay has the infrastructure to provide seamless multimodal logistics services. However, the various components of the logistics infrastructure are presently operated as separate systems, with poor complementarities. Therefore, it is important that deliberate measures are taken to develop efficient interfaces between the components.

128. The port-land interface, especially railroad-maritime multimodal transport at the Port of Montevideo remains largely underutilized. Multimodal transport requires the possibility of transporting containerized merchandise with high levels of reliability regarding time frames and increased flexibility. Land intermodal operations are a combination of railroad and road transport. The operations can be performed in three alternative means: a) containers can be transferred from one mode to the other, b) piggy back (truck tractor towage) and c) road railer. At an international level, it is generally more efficient that the longer part of the covered distance is made by railroad, given that it is more economical for long distance movement of cargo in large quantities.

Box 8: Modal Spilt Imbalances

Imbalances in the modal split of exports and imports by volume pose challenges for Uruguay’s transportation system and imply higher freight rates. The modal split of Uruguay’s trade profile shows a clear distinction between LAC internal trade and extra-regional trade, both in terms of value and volume of trade. Extra-regional trade is dominated by waterborne transport, in particular maritime shipping, and intra-regional trade is dominated by road transport. (See Figure 19). Imbalances in the modal split of exports and imports by volume pose challenges for the country’s transportation system. In addition, unmatched transport flows imply higher freight rates, as cargo is only carried on one leg of the journey.

Figure 19: Modal split for imports from Latin American countries, 2006

Source: BTI.

Annex I provides further information on Uruguay modal split.

128. The port-land interface, especially railroad-maritime multimodal transport at the Port of Montevideo remains largely underutilized. Multimodal transport requires the possibility of transporting containerized merchandise with high levels of reliability regarding time frames and increased flexibility. Land intermodal operations are a combination of railroad and road transport. The operations can be performed in three alternative means: a) containers can be transferred from one mode to the other, b) piggy back (truck tractor towage) and c) road railer. At an international level, it is generally more efficient that the longer part of the covered distance is made by railroad, given that it is more economical for long distance movement of cargo in large quantities.

129. The Ro-Ro operation is generally a more efficient development alternative involving transporting only the trailer without the tractor. This kind of alternative is used mainly in the
Danube basin. In South America it has potential in particular to traffic between Uruguay and Argentina. However, this has not been put into practice though it has been studied for many reasons including lack of regulation.

130. The Ro-Ro concept especially built around river and road transport, if developed, besides providing high flexibility for transit transportation, has a few other advantages including: a) Reduction in delays at border crossing points; b) Reduction in loading and unloading costs. A conventional Lift on/ Lift off operation costs between $150 and $200 while a Ro-Ro operation $20 to $30; c) Improved security - cargo security is better because there is no piracy at the navigable rivers in the region, whereas road security is a serious problem d) Reduced negative impact on the environment as Ro-Ro would reduce emissions and as well road accidents.

131. **Modal interfaces and multimodal operations in Uruguay can be designed and extended through the development of freight villages.** Freight villages or logistics zones are defined as premises specially built for the transfer of goods, whether within one mode, or between two or more. Freight villages provide a way of increasing the capacity of the port by offering off-site storage and handling facilities for cargo.

132. **While there are adequate cross-docking installations in the free zones, the port areas are limited and the developments of private warehouses are fairly low.** Infrastructure developments in Uruguay for the concentration of logistic services, such as freight villages, make sense to be based near the Port of Montevideo and to the Carrasco Airport. The need for this kind of development should be framed and integrated within the free port. It is also possible to develop Freight villages as alternative port customs clearance facilities.

133. **The main issue to solve if a development of this kind is to take place would be urban and environmental, given that the available areas near the port are few.** The only possible alternative in order to have freight villages near the port is reclaiming land in the bay area. However, although there is space in the Punta Sayago area, it is not fully utilized as it quite distant from the port. Some of the possibilities and requirements of multimodal operations in Uruguay are shown by looking a specific supply chains. In Uruguay, ten commodities account for 70% of total export tonnages. These commodities with the exception of petroleum products are predominately primary ones with little value added and a large weight to volume ratios. Generally, groups of related products share part or the whole logistics chain. For instance, although beef and leather have the same origin, beef has different transport requirements downstream. In the forestry sector, raw wood (logs) and wood chips share the first part of the logistics chain: transport from the mountains to the points of collection is the same, but the movement then varies to the ports. Within the top commodities are also included three grains: rice, soybean and malt. These three grains are also common in the first stage of production. They differ in the downstream processes where rice is husked and generally exported in bags, while soybeans and malt can go straight from the countryside to the holds of ships for export.

134. Grouping the various products according to their demands for similar transportation, yields three "families" of products which together account for 58% of the tonnage exported by Uruguay (see Table 18). They have in common a high dependence on road transport and export by sea, the ports of Nueva Palmira and Montevideo.
Table 18. Commodities with Similar Supply Chains

<table>
<thead>
<tr>
<th>Products with similar supply chains</th>
<th>US$</th>
<th>Tons</th>
<th>Total Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meat: beef, frozen &amp; chilled meat</td>
<td>1,209,712,369</td>
<td>251,059</td>
<td>3%</td>
</tr>
<tr>
<td>Forest: timber, logs &amp; chips</td>
<td>341,628,860</td>
<td>3,494,517</td>
<td>42%</td>
</tr>
<tr>
<td>Bulk grain, soybean &amp; malt</td>
<td>497,755,050</td>
<td>1,068,248</td>
<td>13%</td>
</tr>
</tbody>
</table>

135. **Analysis of specific supply chains suggests that the country should build on areas where it has the best comparative advantage to handle current or future increase of traffic flows.** The country has to undertake several measures to develop a competitive edge by developing expertise in certain niche markets within the region. That niche could be in handling fresh produce from Southern Brazil, Bolivia and from Paraguay. Trends in traffic volumes in this area, which do not require huge capacity, but specialization, holds promising prospect for Uruguay.

**Box 9: The Meat Supply Chain – an Example of Intermodality**

An example of the beef supply chain is shown below for exports from Paraguay. The example serves to show the potential for Uruguay to serve as a regional export gateway for products requiring a cold chain.

The first step in the chain of this product in the field begins with the transport of farm (livestock) to the refrigeration plant in trucks. There are about twenty plants licensed to export, scattered throughout the country, and generally tend to buy stock in their areas of influence. Freight from the farms is over distances of 200 - 250 kilometers. The average cost of transporting 15 tons of livestock (30 steers) in December 2008 for a trip of 225 kilometers, was about US$375. The meat is then processed and exported in refrigerated containers. Meat exports are through the port of Montevideo. Reefer container exports cost approximately US$36 per ton. There the transportation costs for meat are about US$ 82 per ton.

The example illustrates the intermodal transport possibilities provided by the Uruguay trade facilitation infrastructure, utilizing road, river and maritime transport modes. In addition, there is infrastructure in place to maintain cold chains. The basic pieces are therefore in place to offer integrated logistics services.
4.7. Conclusion

169. Sea transport is the key to Uruguay’s potential as a logistics hub. More than four-fifths of the country’s trade volumes pass through the port. The port is the strategic interface between sea and land transport systems. On the other hand the land transport systems define the size of the port’s hinterland. Port of Montevideo’s hinterland extends to Paraguay, Southern Brazil, Argentina and Bolivia. The extent to which the country can serve as a regional logistics hub therefore depends on the efficiency and capacity of the road, rail and river transport systems.

170. Uruguay has all the major modes of transport on which to build a logistics platform. However, the air, river and rail components are not as well utilized due to weaknesses in infrastructure and also in their operational efficiency.

171. It is imperative to enhance the operation efficiency in the road transport sector. It is apparent that vehicle utilization rates in Uruguay are lower than in neighboring countries. This is a result of the interaction of several factors including geography and delays at the port and at border crossing points. Measures should be taken to address the causes of the delays, some of which are proposed elsewhere in this report.

172. The railways in Uruguay can contribute only a limited role to logistics in the region. Rail traffic has stagnated in recent years even though volumes have national and regional freight volume generation has increased. Part of the network requires rehabilitation. While such rehabilitation will likely be costly, the interfaces between the railway and other modes of transport can be improved. This will have two effects, it will develop lead to better integration of the transport system and secondly cargo volumes on the railways can be increased, leading to improved line viability. Still, it is not anticipated that the railways will play a big role in the Uruguay logistics system, at least until and unless the network is upgraded.

173. The inland waterways of the region are an important component of the regional logistics network but are not fully utilized. A deliberate strategy to develop RO-RO infrastructure is central to exploiting the large potential that river transport has in the region.

174. In the short to medium term there is limited scope to grow air cargo volumes through Carrasco airport. There is not much domestic traffic potential to benefit from economies of scale. However as the country increasingly moves up the value chain, air transport volumes and contribution will grow.

175. Enhancing the potential of Uruguay as a logistics hub lies in developing an effective and efficient multimodal logistics network that utilizes all the available modes of transport. This requires provision of fast cargo interchange systems. Besides the port, the envisaged freight villages can be developed strategically as the other sites where transfers can take place. However, even with multimodal platforms, it is imperative that the operational efficiencies of all components of the system are enhanced.
CHAPTER 5: TRANSNATIONAL INFRASTRUCTURE: INITIATIVES AND CHALLENGES

136. This chapter provides a brief overview of regional integration efforts in the area of transnational infrastructure, which will have a bearing on Uruguay’s potential as a regional gateway for trade since hinterland accessibility beyond Uruguay’s national borders is required to attract regional cargo. The chapter reviews briefly the influence of three regional initiatives, namely: IIRSA; infrastructure development under MERCOSUR; and the Paraguay-Paraná River System (Hidrovia Paraguay-Paraná).

5.1. Introduction

137. Hinterland accessibility beyond Uruguay’s national borders is crucial to strengthen Uruguay’s potential as a regional hub. Regional hinterland accessibility requires greater interconnectivity of Uruguay’s transport networks with that of its neighbors, which will provide the necessary infrastructure to expand cross-border trade. Success and development potentials of regional interconnectivity require regional cooperation and are therefore directly linked to progress in regional integration efforts.

138. Regional integration efforts are currently being organized and managed through MERCOSUR, LAIA and IIRSA. These platforms could be used more effectively to build a consensus on transnational infrastructure needs and to promote regional trade facilitation. The European experience clearly illustrates that international cooperation and coordination in transport and trade can strengthen trade and competitiveness for the region as a whole. The implementation of international fluvial transportation in the Danube river delta is one example of the development of an integrated transport chain along a fluvial system which has lessons to offer for the development of the Parana-Paraguay waterway.

5.2. Initiative for Integration of Regional Infrastructure in South America

139. The IIRSA focuses also on the reduction of internal trade barriers, infrastructural bottlenecks and inefficiencies in the regulatory framework at a regional level. The Initiative for Integration of Regional Infrastructure in South America (IIRSA20) was established in 2000, as a dialogue forum to strengthen transport, energy and communications infrastructure developments in South America. The IIRSA initiative is driven by the vision that the physical integration of South America contributes to more sustainable development. IIRSA focuses also on the reduction of internal trade barriers, infrastructural bottlenecks and inefficiencies in the regulatory framework at a regional level.

140. IIRSA constitutes of twelve South American countries21 and provides a coordination and interchange mechanism between governments at a very high level. Three regional multilateral financial bodies, the Inter American Development Bank (IADB), the Andean Development Corporation (CAF) and FONPLATA (Fondo financiero para el desarrollo del Plata) have been the main contributors to the initiative and also provide project financing.

20 Iniciativa para la Integración de la Infraestructura Regional Suramericana, website: www.iirsa.org
21 Argentina, Brazil, Bolivia, Chile, Colombia, Ecuador, Guyana, Paraguay, Peru, Uruguay, Surinam, Venezuela.
141. **Slow Project implementation. If fully implemented, the IIRSA initiative will have a significant impact of improving transnational infrastructure in South America.** According to IIRSA, trade flows in South America are concentrated along ten trade corridors, so-called integration and development hubs, which are expected to grow even more important in future. In an effort to promote the development of these hubs, IIRSA targets a common minimum standard in terms of infrastructure quality, aimed at supporting the productive sectors along each corridor. The initial project portfolio, set out in the “Implementation Agenda based on Consensus 2005-2010”, consisted of 31 integration projects, agreed upon by all participating countries on the basis of territorial planning exercise conducted by IIRSA. These 31 projects were selected due to a high, strategic impact on physical integration of South America.

142. Project implementation so far has been slow. To date only a few projects are in execution or post completion, while the majority of projects still at the profiling stage. If fully implemented, the IIRSA initiative will have a significant impact of improving transnational infrastructure in South America.

**Uruguay in the context of IIRSA**

143. **In the context of the IIRSA initiative, Uruguay forms part of the ‘MERCOSUR-Chile’ axis. Uruguay’s overall IIRSA points to a clear trimodal focus in strengthening hinterland access.** This includes the facilitation of river shipping and the development of river ports, the renewal and expansion of the railway system and the expansion of the road network. Until 2008, Uruguay’s projects under the IIRSA portfolio focused on road, rail infrastructure and border crossings. Figures 20 and 22 show projects and project status as of 2009 for Uruguay.

144. In 2008/2009 three new projects in Uruguay were included in the IIRSA portfolio. These projects specifically aim at strengthening Uruguay’s position as a regional logistics centre by improving the sea-land interface:

- Construction of a dry port near the Port of Montevideo
- Modernization of the port of Montevideo and complementary works
- Relocation of the Montevideo Fishing Terminal

The initiative to include the port of Montevideo in the IIRSA portfolio, originated from the idea that Montevideo is a central port for the MERCOSUR-Chile axis.

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22 For a full list of the ‘Uruguayan IIRSA’ see [www.iirsa.org](http://www.iirsa.org).
Potential hinterland competition could arise from another IIRSA corridor, which aims to strengthen transportation links between Chile and Brazil (Capricon Hub).

While infrastructure developments within the MERCOSUR-Chile axis have a clear potential to establish Uruguay as a hub for Paraguay and also Southern Bolivia, potential hinterland competition could arise from another IIRSA corridor, which aims to strengthen transportation links between Chile and Brazil (Capricon Hub). Within this context, Chile is currently considering building a railway link to La Paz to serve as a gateway for Bolivian cargo.

5.3. MERCOSUR initiatives

Structural Cohesion Fund

At MERCOSUR level, several decisions have recently been made that aim to create a level playing field for production chains and to reduce asymmetries between member countries. An important development was the creation of the “Fondo para Convergencia Estructural del MERCOSUR (FOCEM)” in July 2006. FOCEM is designed to reduce existing infrastructure asymmetries between MERCOSUR member countries. The principal aims of this fund are: (1) to assist structural and social cohesion in particular for smaller member states and less developed regions, (2) to support institutional structures and strengthen the process of integration.
(MERCOSUR/CMC/DEC. Nº 17/06). The current list of pilot projects is aligned with the strategic aims of promoting the development of smaller member states; a significant number of pilot projects are located in Paraguay. Funds are only accessible to member countries and not to associated countries, e.g. Bolivía.

**Strategic Plan to Overcome Regional Asymmetries**

148. In July 2007, MERCOSUR set up a high level working group to prepare a strategic plan to overcome existing asymmetries within MERCOSUR. The strategic plan rests on a number of pillars, which all relate to improving the competitive position of landlocked and small economies: pillar I, in particular, targets the development and integration of landlocked countries in MERCOSUR; it focuses on the improvement of infrastructure; trade facilitation, expansion and diversification of exports in regional and extra regional trade and to neutralize the adverse effects of being landlocked. (MERCOSUR/CMC/DEC Nº 33/07).

149. Both initiatives recognize the need for structural, political and social cohesion in MERCOSUR if fully implemented, they could play a significant role in regional trade facilitation.

5.4. **The “Hidrovía Paraguay – Paraná”**

150. The “Hidrovía” is an initiative by the five countries of the La Plata Basin to convert the Paraguay and Paraná rivers into an industrial shipping channel. Under the original plan developed in 1997 by the “Hidrovía” Inter–Governmental Commission (CIH), with support from the Inter–American Development Bank and the United Nations Development Program, river alterations including dredging, rock removal, and structural channeling would have taken place at hundreds of sites along the 2,100 mile river system, from Cáceres, Mato Grosso, Brazil to Nueva Palmira, Uruguay. Figure 21 provides a map of the Hidrovía Paraguay-Paraná system.

151. However, as the Hidrovia project is in the Pantanal, the world’s largest tropical wetlands, scientists predicted that the canalization of the Paraguay River would cause the wetlands to shrink, with associated losses in biodiversity. The original studies for the project were therefore disqualified following independent technical critiques, organized by the Rios Vivos Coalition. The group not only disseminated technical objections to the project, but also helped organize a broad–based coalition of environmental, social, and indigenous organizations to offer alternatives to the “Hidrovia” with local communities throughout the region.

152. The current fate of the “Hidrovia” is uncertain. The Andean Development Corporation (CAF) has provided CIH with $940,000 of funds to complement the original studies. These new studies call for even more intensive dredging and rock removal to guarantee passage of barge convoys through 23 "critical" river passes, including those in the Tamengo Channel (Bolivia) and between Corumbá and the Apa River in the Pantanal.

153. While the physical problems of the Hidrovía Paraguay-Paraná have been studied in detail, no significant progress has been made in the removal of physical obstructions. The elimination of physical barriers is estimated to cost around US$60 million. The execution of these activities is delayed due to several factors, including lack of political interest (in particular Argentina, Brazil and Uruguay), lack of financial resources, lack of adequate dredging
equipment, and concerns related to the environmental impact on the water regimes in the Pantanal.

Potential challenges for gateway and intermodal hub development in Montevideo

154. **Lack of dredging and signaling in the upriver regions of the Paraguay-Paraná River present currently sever limitations to fluvial transportation.** The lack of dredging restricts the maximum draft for ships and does not ensure stable water depths. Due to its geographical position in the River Plate Delta, Uruguay has a strategic position within the Paraguay-Paraná river system, one of the main arteries for Paraguayan trade: Montevideo for containerized cargo and Rosario, Nuevo Palmira, etc. for bulk cargo. Paraguay’s main export products are bulk cargo and require a transport system based on economies of scale in the trade operations. Lack of dredging and signaling in the upriver regions of the Paraguay-Paraná River present currently sever limitations to fluvial transportation. The lack of dredging restricts the maximum draft for ships and does not ensure stable water depths; the persistent draught in October 2007 reduced the maximum draft to about 6ft in the region of Asunción. The lack of signaling further impedes night navigation on the river. In addition, signaling along the river north of Santa Fe, Argentina, is rudimentary and existing signaling is often removed or misused. Finally, existing regulations require foreign ships to use national pilots of the country in which they navigate and existing cabotage regulations prevent foreign flagged ships to provide cabotage services along the waterway.

155. **The proposed localized dredging and deepening are expected to reduce transport costs on the river by up to 33%.** These savings can vary according to the shipping route and the usage of ports for loading and discharge. Under optimal conditions, savings could reach up to 50% in comparison to the costs today.

156. **The cooperation and active interchange between the different initiatives is at a rather basic stage.** It is basically determined by sending information and reports and sometimes meetings are attended jointly. It has to be said that there is significant scope for exploiting the synergies between the various initiatives. Uruguay is well placed to benefit from any improvements in connectivity to neighboring countries.
Figure 21. Hidrovía Paraguay – Paraná and Ports

Figure 22. IIRSA projects related to Uruguay

- Reacondicionamiento de la ruta Montevideo-Rivera
- Mejora de la conectividad ferroviaria del Puerto Sardo-Rivera
- Estación internacional Rivera-Santana do Livramento
- Adecuación ferroviaria de la ruta Brasilera (Rivera - Santana do Livramento - Casagual (Brasil))
- Ruta N° 26: reacondicionamiento del tramo Rio Branco-Paysandú
- Construcción del puente internacional Jaguariúna-Rio Branco
- Adecuación del tramo Rio Grande-Pelotas (BR-392 / RS)
- Ampliación de los muelles del Puerto de Rio Grande
- Transporte multimodal en sistema Laguna Merín y Laguna de los Patos
- Conexión ferroviaria la Charqueada al ramal Rio Branco
- Paso de Frontera en el corredor Montevideo-Chuy
- Ampliación del Puerto de La Paloma
- Reacondicionamiento ferroviario Sudiers-La Paloma

(*) Dado que el proyecto Ferrovías para la Integración puede incluir los nuevos tramos ferroviarios, Uruguay hará una revisión de qué tramos comprende este proyecto, con el fin de verificar si los nuevos proyectos los sustituyen.
CHAPTER 6: CUSTOMS EFFICIENCY AND TRADE FACILITATION

6.1. Introduction

157. Customs plays a key role in trade facilitation as the efficiency of customs management directly impacts trade costs; lengthy delays in customs clearance of imports, exports and transit trade have a direct impact on a country’s overall competitiveness. Despite great efforts to simplify and harmonize customs procedures, they still represent a crucial barrier to international trade. At the same time, customs procedures remain very important in the context of revenue collection and overall security. An efficient customs framework requires therefore a careful balance between trade facilitation and border protection.

158. Uruguay’s Customs Administration remains fairly outdated in several key aspects, despite substantial modernization efforts in information systems. Key areas in need of reform are: human resources management, auditing and inspection. Inefficiencies in these areas contribute to ineffective border control, high trade costs and a poor performance in trade facilitation; all impacts adversely on Uruguay’s competitiveness. To support Uruguay in establishing itself as a regional hub, an efficient Transit Customs Regime is also required.

Current Situation

159. First initiatives to modernize the Dirección Nacional de Aduanas (DNA) date back to the period 1995-2000. Early modernization efforts, supported by the Inter American Development Bank (IADB), achieved a complete reengineering and computerization of customs procedures and the adoption of the LUCIA customs management system. The LUCIA system is based on best practice and complies with the Kyoto Convention on customs procedures.

160. A second wave of reforms, also supported by the IABD, aimed at strengthening the role of customs as a facilitator for trade. Under IADB financing, Customs has initiated the implementation of 14 customs related projects, which focus on the following three areas: (i) to assign the DNA a role of trade facilitator; (ii) to provide the DNA with the necessary infrastructure to perform its new functions as trade facilitator; and (iii) to identify and design the rules and procedures required by the customs authority in its new role. However, despite their approval in 2006, reform efforts in that area have not yet produced any significant advances.

161. Despite reform efforts, Uruguay still has a long way to go. Uruguay currently ranks 86th out of 150 countries in the Customs dimension of the World Bank’s Logistics Performance Indictor (LPI, 2007). Within the Southern Cone, Uruguay performs below Argentina, Brazil and Chile, but is positioned above Paraguay. Uruguay ranks below the average performance of LAC countries (see Table 19).

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23 The Inter American Development Bank (IADB) is already financing a modernization project which, despite having been approved in 2006, has not produced significant advances yet.

24 Another significant reform achievement was the incorporation of the DNA’s restructuring plan into the framework of the State Reform Act, where both organizational and human resources issues are addressed.

25 A interview with the Customs Director on 18 November 2009 indicated that these initiatives are currently suspended.
Table 19. Logistics Performance Index: Customs Dimension

<table>
<thead>
<tr>
<th>Country</th>
<th>LPI Score</th>
<th>LPI Ranking</th>
<th>Customs Score</th>
<th>Customs Ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chile</td>
<td>3.25</td>
<td>32</td>
<td>3.32</td>
<td>24</td>
</tr>
<tr>
<td>Argentina</td>
<td>2.98</td>
<td>45</td>
<td>2.65</td>
<td>51</td>
</tr>
<tr>
<td>Brazil</td>
<td>2.75</td>
<td>61</td>
<td>2.39</td>
<td>74</td>
</tr>
<tr>
<td>LAC (regional average)</td>
<td>2.57</td>
<td>--</td>
<td>2.38</td>
<td>--</td>
</tr>
<tr>
<td>Uruguay</td>
<td>2.51</td>
<td>79</td>
<td>2.29</td>
<td>86</td>
</tr>
<tr>
<td>Paraguay</td>
<td>2.57</td>
<td>71</td>
<td>2.20</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: World Bank staff based on LPI Ranking for 2007

Box 10: Chilean Customs Considered Best Practice.

Chile, the best performer in LAC in the Customs dimension of the LPI, is an example of best practice. In Chile, it is possible to submit different customs forms in a paperless fashion as all processes have been computerized. The Chilean Customs Code and related regulation permits simplified customs procedures, such as advanced dispatch and electronic processing; *a posteriori* controls by customs authorities and information exchange between different public offices were also endorsed. Chile has regional and national committees for supervision and collection, which bring together representatives of Customs, Treasury and the Tax authority. In Chile, more than 80 percent of imports are processed electronically prior to arrival at final destination. Chile is one of the few countries in LAC that implemented a serious modernization agenda; the main components included: introduction of performance indicators for management, redesign of customs processes, intensification of ITC use, modernization of HR management, adoption of risk management to enhance efficiency of inspections, and increased coordination with other supervisory agencies.

6.2. Main problems: bureaucracy and inefficiency

162. Outdated customs procedures and inefficient human resources management severely restrict efficient and transparent customs operations. Uruguay’s dependence on international trade requires efficient and effective trade facilitation institutions. Although customs information technology systems have become state-of-the-art, outdated customs procedures and inefficient human resources management severely restrict efficient and transparent customs operations. Furthermore, paper-based processing remains widespread; 26 this not only delays customs and raises customs-related costs, it also opens a window to corruption.

26 Uruguay has recently approved an electronic document and signature law that will allow Customs business to become paperless. Legislation needs to be put in place to go ahead with that initiative.
**Complicated and costly procedures**

163. The World Bank’s Doing Business indicators track the costs and procedures involved in importing and exporting a standardized shipment of goods for each country. Every official procedure involved is recorded - starting from the final contractual agreement between the two parties and ending with the delivery of the goods. Procedures are broken down into: document preparation, customs clearance and technical control, ports and terminal handling, and inland transportation, handling. Table 20 provides a cost break-down, both in terms of money spent and time required to comply with export and import proceedings. As an additional day lost in transit is costly, time spent in customs reflects the opportunity cost generated while the merchandise is delayed in customs for clearance.

164. Export proceedings take on average 19 days to complete, at a total cost of US$ 1100, compared to international best practice of 5 days (Denmark) and US$450 (Malaysia). Even though costs associated with different steps in the exporting process are fairly similar, some procedures take significantly longer than others. This is particularly the case for the preparation of customs-related documentation. Out of 19 days needed to comply with export procedures, 9 are spent preparing freight documentation. In Uruguay, customs brokers are the only agents authorized by law (Law Nº 13.925/1970) to perform any customs-related operation. The remaining 9 days are spent on activities related to customs (2 days), port logistics (4 days) and inland transportation and handling (4 days).

165. Import proceedings are even more time consuming and costly, it takes about 22 days and US$ 1330 to comply with import proceedings, while import document preparation roughly takes the same amount as for exports, a greater fraction of time is spent in customs; it takes on average 5 days to clear customs. Singapore tops international best practice for import proceedings; it only takes 3 days at a cost of US$ 439.

**Table 20. Trading Across the Border, Doing Business 2010**

<table>
<thead>
<tr>
<th>Nature of Export Procedures</th>
<th>Nature of Import Procedures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Documents preparation</td>
<td>Duration (days)</td>
</tr>
<tr>
<td>Customs clearance and technical control</td>
<td>9</td>
</tr>
<tr>
<td>Ports and terminal handling</td>
<td>4</td>
</tr>
<tr>
<td>Inland transportation and handling</td>
<td>4</td>
</tr>
<tr>
<td>Totals:</td>
<td>19</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Duration (days)</th>
<th>US$ Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>440</td>
</tr>
<tr>
<td>5</td>
<td>250</td>
</tr>
<tr>
<td>4</td>
<td>390</td>
</tr>
<tr>
<td>3</td>
<td>250</td>
</tr>
</tbody>
</table>

**Table 20. Trading Across the Border (World Bank, Doing Business (2010)):
Cross-country comparisons suggest that about one third of trade costs are associated with customs. In the case of Uruguay, indirect costs related to customs are likely to be significantly higher since about 70 percent of containers are subject to physical inspection. This significantly increases logistics costs as containers have to be unloaded and reloaded to carry out inspections.

Lack of multilateral connectivity between public and private agents operating in the port of Montevideo generates an unnecessary multiplication of transactions. The tendency in the region is to adopt single windows to speed paperwork processing both before and after import/export authorization in the port, independently of the need to optimize interactions between those involved in port operations.

Furthermore, there is a lack of an institutionalized agenda to promote exchange between public agencies and private sector operators. Such an agenda is crucial for a consensus on priorities in border management modernization. As many actors are involved in border management modernization processes - with winners and some losers - a stakeholder analysis should be performed in complement to any modernization strategy.

Sgut (2009) identifies further inefficiencies in port operations related to customs:

- Although the Port of Montevideo has systems in place to manage transaction data, in the majority of cases, processes are bidirectional and, in general, not integrated. As an example, the data exchange between importers and exporters, and consigners and customs, requires the submission of physical documentation, despite the existence of an electronic authorization and processing system. Apart from the tracking of transshipped containers, which is highly computerized, most transactions between shippers and customs, and between shippers and the port terminal, are not computerized.

- The cargo is entirely weighted at entry and exit to the port; this causes substantial delays and provides space for ‘informal’ proceedings.

- Even though TCP has a truck scheduling system, an average wait time of 3 hours for container reception and delivery is normal. Delays are due to the fact that customs often demands paper documents, despite availability of customs related data in electronic form (via the LUCIA system); the high incident of physical container inspection also contributes to delays.

- Imports and exports are subject to inspection by customs or other controlling authorities. As there are no inspection facilities at the port terminals, trucks must move to a different premise (Florida), where, containers are either totally or partially de-consolidated.

- In the proximity of the Florida premise, informal agents act as intermediaries to facilitate documentation-related problems. This causes delays and promotes informal proceedings.
6.3. Control and Auditing

170. The current control strategy is based on a large amount of physical inspection and review of entry documentation regarding shipments and transit, most often with little success. Moreover, the majority of resources destined to control activities are allocated to custody of land transit. Consequently, despite a most favorable legal framework that does not pose obstacles to transit, the existence of these operational practices ends up in more expensive procedures and lack of efficiency of effective controls (i.e. personal custody in land transit, paper forms for all operations, very high fees for storage of transit and imported merchandise with low results as to revenues collection).

171. In terms of control and auditing, current procedures do not meet best practices, as implemented in other countries of the region, such as Chile and Peru. Although Uruguay’s LUCIA computer system contains a risk management platform, it is not in use, as physical inspections remain high (70 percent of all merchandise is reportedly subject to physical inspection). Furthermore, there is no plan to carry out systematic a posteriori controls, which currently only occur in 3 to 10 percent of cases. More frequent physical inspection does not necessarily translate into a greater success rates in fraud detection. Evidence from other countries indicates that a risk management analysis can be very effective in detecting customs irregularities without the need of excessive physical inspections. Since Peru, Chile, El Salvador and Mexico have adopted customs risk management system, the incidence of physical inspection has been reduced to less than 20 percent; at the same time, the identification of customs irregularities has increase by a factor of three in Mexico and by a factor of 15 in the case of the Port of Callao in Peru.

172. Risk management systems can greatly enhance customs efficiency, by: a) enhancing security by focusing efforts on high risk imports and detecting dangerous, banned or restricted

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**Box 11: INTERNATIONAL BEST PRACTICE IN CUSTOMS EFFICIENCY**

The World Customs Organization and the World Trade Organization have recently established guidelines and recommendation for the modernization of customs. In 2006, the council of the World Customs Organization (WCO) council adopted the Revised Kyoto Convention as a blueprint for modern, efficient and effective Customs procedures for the 21st Century.

The revised Kyoto Convention establishes several guiding principles for customs efficiency: transparency and predictability of customs controls; standardization and simplification of the goods declaration and supporting documents; simplified procedures for authorized persons; maximum use of information technology; minimum necessary customs control to ensure compliance with regulations; use of risk management and audit based controls; coordinated interventions with other border agencies; and a partnership with the trade.

The WTO Doha Round also reached a consensus on how to strengthen the role of customs as an effective trade facilitator. Recommendations cover: formalities connected with importation and exportation; the release and clearance of goods; the cooperation of border agencies; and matters related to goods in transit. (see [http://www.unescap.org/tid/publication/swp106.pdf](http://www.unescap.org/tid/publication/swp106.pdf) for a full listing).
goods; b) facilitating international trade by reducing the need for physical inspections and allowing for "fast-track" clearance (green channel) of low-risk imports; c) protecting revenues through focused intervention; d) reducing port congestion by reducing the need for full physical inspection upon arrival; e) contributing to a more effective and efficient allocation of Customs’ resources to accelerate clearance of "low risk" importers, allowing Customs to focus on high risk imports.

173. There is a very weak coordination between the DNA and other supervisory border agencies, particularly those in charge for pest control; the lack of coordination delays imports, exports and transit merchandise, as the same merchandise is often inspected more than ones. At present, DNA and the Dirección General Impositiva (DGI) do not carry out any joined controls. Coordination between the two agencies would important to improve the effectiveness of controls. Furthermore, there is a very weak coordination between the DNA and other supervisory border agencies, particularly those in charge for pest control; the lack of coordination here delays imports, exports and transit merchandise, as the same merchandise is often inspected more than ones. There are neither mechanisms to exchange electronic information on certificates nor a proposal to establish a single international trade window, an initiative where the involvement of the Customs authority is crucial.

Box 12: An Agenda for Customs Modernization.

A Customs modernization agenda for Uruguay in line with WCO and WTO guidelines should focus on the following issues:

- Allow **pre-arrival clearance**. Pre-arrival clearance enables traders to submit clearance data to Customs for advance processing and the release of the goods immediately upon arrival (a practice that is already considered under the current MERCOSUR Customs Code and the Uruguayan Customs Code).
- Implement **post-clearance audits**. Post-clearance audits should be carried out by the importer or the transit agent. Separate reception and delivery circuits from customs verification. To do so, terminal operators and customs should coordinate container verification prior to authorizing delivery. This would cut the average time required to get a container from the arrival of the ship to the port gate to a minimum. This process currently takes 3 to 4 hours in Montevideo, compared to only 15 minutes in Northern Europe or Asia.
- Introduce a **risk management analysis** to identifying physical inspections; physical inspections should be reduced to below 10 percent. Value controls should be carried out after the merchandise has cleared customs; a warranty system should be applied. The Uruguayan Customs code currently already provides this possibility.
- Replace transit custody by **satellite tracking** (CAUCA in Central America is currently developing a project on this).
- Limit inspection of **containers in transit** to third countries. Only detain containers that have been reported or are suspected of transporting illegal merchandise.
- Ensure that adequate **infrastructure for physical inspections** at the terminals are in place and coordinate with different participating agencies to avoid that the same merchandise is not inspected more than once. In new concessions, terminal operators should be obliged to provide the required inspection facilities
- **Coordinate** inspections with other agencies (ports, airports, health departments, pest controls, etc.) to facilitate join supervision, if necessary.
- Introduce the **Authorized Economic Operator** (AEO) system.28 The AEO enables merchandise dispatch with minimum control or even replaces controls with a posteriori audits; fewer documents and fewer physical controls which will result in faster delivery.

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28 An AEO is defined as a party involved in the international movement of goods in whatever function that has been approved by or on behalf of a national customs administration as complying with World Customs Organization (WCO) or equivalent supply-chain security standards.
6.4. Single Window

174. **Adopting a single window can optimize and fasten customs procedures, and is becoming a trend in the region.** A sole computer system can increase productivity and efficiency by decreasing unnecessary supervision and paperwork, and by centralizing and simplifying processes common to more than one agency or office. Implementation of a single window further relates to the recommendation outlined in the previous section, regarding, for example, advances in control coordination and satellite tracking.

175. **Extensive requirements, together with associated compliance costs constitute a serious burden to both governments and the business community; they further present a substantial barrier to international trade.** Under current practice, companies that engage in international trade have to prepare and submit large volumes of information and documents to governmental authorities to comply with import, export and transit-related regulatory requirements (see Figure 23). Such information has to be submitted via several agencies, each with their own specific systems and paper forms, resulting in several bi-directional movements.

176. **The Single Window is a trade facilitation concept that greatly enhances logistics efficiency.** Under a Single Window approach trade related information and/or documents need only be submitted once at a single entry point. This enhances the availability and handling of information, expedites and simplifies information flows between trade and government and promotes greater harmonization and sharing of the relevant data across governmental systems.

177. **A Single Window can also be used for Port Tracking to improve transparency and reduce port delays.** Here, containers are tracked by an electronic system linked to the Single Window within the ports space. This allows port user to know the exact location of the merchandise in the port process. Such as system has been used successfully in Cartagena, Colombia and in some terminals in Buenos Aires. A complementary system to Port Tracking is web-based Camera Tracking. In Puerto Barrios, Guatemala, port users and the general public have access web cameras that track the port movement. This system has greatly improved transparency and since its implementation, the number of cargo “lost” has dramatically reduced.

178. **The use of Single Window facility can result in improved efficiency and effectiveness of official controls and can reduce costs for both governments and traders due to better use of resources.** Uruguayan authorities have recognized the benefits of a single window approach and recognized the need to amend legislation and to establish required computer systems for its establishment.
6.5. A Customs Transit Regime

179. Uruguay’s potential as a regional hub depends on the ability to attract regional cargo, an effective Customs Transit Regime can play a decisive role here. An efficient customs transit regime should allow goods in transit to travel through Uruguay’s customs territory free of import duties or other charges, and without the need for physical inspection en route during transit, other than the checking of the transit document, the seals and the external conditions of the load compartment or container.

180. Uruguay has currently no efficient customs transit regime in place. Although the Manifiesto Internacional de Carga, Documento Unico de Transito Aduanero (MIC-DTA) establishes a common Customs document and a convention for customs documentation for all Southern Cone countries, customs transit procedures in Uruguay require additional, unilateral transit documentation, which results in unnecessary duplication of transit documents.

181. ‘Physical Custody’ makes transit unnecessarily costly and inefficient. The requirement for ‘physical custody’ for every transit, which requires a Customs official to physically accompany goods in transit, makes land transit unnecessarily costly and inefficient. Other Latin-American countries restrict the ‘physical custody’ to the transit of sensitive merchandise (e.g. dangerous materials, cigarettes, alcohol)

6.6. Human Resource issues

182. Staff capabilities and HR practices are an insufficient match for the complex demands of a modern Customs system. Bank studies indicated that outdated HR management practices within Customs represent a key impediment to the overall efficiency and transparency of the customs function. At present, staff capabilities and HR practices are an insufficient match for the complex demands of a modern Customs system.

183. Given the scale of operation at the DNA, the number of customs staff is high. Although employment numbers have declined in recent years - staff has been reduced by 35.3

184. **The age profile of the staff is also of concern.** As of 2008, there was only one employee under the age of 30, 67.8 percent of staff was more than 50 years old. The advanced age profile of a disproportionate portion of the customs workforce raises questions to whether the DNA is adequately staffed to meet the institution’s demands. Moreover, certain inspection tasks requiring physical exertion and age-related physical restrictions could be a problem.
Box 13: An Effective Customs Transit Regime

A Customs transit regime is a trade facilitation tool that simplifies the process of goods crossing the Customs territory of a third country. Operators benefit from standardized procedures and avoid paying taxes and duties on transit goods if guarantees are provided; there is further no need for physical inspection en route during transit, other than the checking of the transit document, the seals and the external conditions of the load compartment or container. Public authorities also benefit from standardized procedures and are able to secure revenues.

An efficient transit regime should consist of the following three components:

Seals. There should be a physically secure mechanism so that goods present at the start of the transit operation will leave the transit country in the same quantities, form and status. The best and easiest way to guarantee this is for customs to seal the container to ensure that goods cannot be removed from or added to the load compartment or container without breaking this seal or leaving any visible marks. Seals and transport modes approved for use in the transit operation must therefore confirm to well-specified criteria that guarantee effective operation and security (e.g. ISO 9001). The next generation of seals, already under study, includes a microchip that activates if broken and transmits any infraction via satellite to the appropriate agency. Also, many Customs authorities are using GPS systems or imposing the use of them, to ensure that trucks are sticking to the authorized route and to control for unauthorized stops.

Guarantees. To cover import duties, taxes and other charges due at importation, Custom authorities should receive a guarantee to recover such fees in case the transit merchandise illegally remains in the transit country. Guarantees can take various forms. For national transit regimes, which only cover transit liabilities in one country, transit guarantees are sold at the border of entry by a national insurance or financial institutions, e.g. the Iranian transit guarantee scheme. In the context of multilateral transit schemes, the transit guarantee is often purchased in advance, but only activated once the transit operation commences; examples are the EU Community guarantee system and the TIR system (see below). Transit guarantees can be comprehensive or only for a single operation. A single operation guarantee usually covers the full amount of duties, taxes and other charges. A comprehensive guarantee is a re-usable and covers multiple transit operations by the same operator up to a specified reference amount. If transit operators fulfill certain operational and financial criteria, e.g. operated as "Authorized Economic Operator", reference amounts can be lowered.

Some countries, e.g. Chile and Guatemala operate a sanction scheme that allows Customs to ban the re-entry of trucks with a record of transit misconduct.

Monitoring System. A monitoring system, ideally electronically, should be in place to control the start and completion of a transit procedure. When transit documentation matches at Customs entry and exit points, the transit operation is completed and the guarantee released. In all other cases, the guarantee is called and in addition to a fine, all payments required for importation apply.

An example: The TIR (Transport Internationaux Routier) System

The TIR Convention is the most widely used international Customs transit system currently available. It establishes that all goods carried under the TIR procedure in approved and sealed road vehicles and containers, are exempt from Customs examination, unless irregularities are suspected. The Convention reduces the regular requirements of national transit procedures, while avoiding the need for physical inspection en route during transit, other than checking of the transit document (TIR Carnet) and checking of seals and the external conditions of the load compartment or container. In addition, it dispenses with the need to operate national guarantees and national systems of documentation as the so-called TIR Carnet provides for an internationally recognized document that includes a guarantee.
The current educational background of Customs staff is not well matched with the complex demands of a modern Customs system. As of 2005, more than half of the staff had not completed high school and only 11.0 percent had any professional or technical qualification.

Discretionary recruitment procedures and outdated staffing profiles further undermine the efficiency and transparency of Customs operations. At present, job profiles are not well developed and staff is often asked to perform work that they are not qualified to do.

Short work schedules, in particular for Customs professionals, are an additional problem. On average, Customs professionals typically work between 4 and 6 hour per day; the average workday for administrative staff is 6 to 8 hours. Short workdays create opportunities as well as an impetus for “moonlighting.” The prevalence of such practices does not only increase the potential conflicts of interests, but also undermines overall efficiency and quality of the services delivered.

DNA offers adequate salaries to attract personnel with the necessary qualifications to meet the demands of a modern Customs administration. It is worth noting that in addition to regular wages, DNA staff receives additional payments pay based on fines collected; these additional payments can make up a substantial portion of total remuneration. Since these payments are directly linked to the amount of fines collected they present a negative incentive to improve the overall efficiency of Customs operations.

Conclusion

After initial progress, customs modernization in Uruguay has come to a standstill. Key areas in need of reform are: human resources management, auditing and inspection, and processes simplification (paperless). Inefficiencies in these areas contribute to ineffective border control, high trade costs and a poor performance in trade facilitation; all impacts adversely Uruguay’s competitiveness and present a bottleneck for Uruguay’s transformation into a logistics hub and regional gateway for trade.

Due to its dual role as trade facilitator and border protection agency, customs needs to strike the right balance to facilitate efficient and secure integrated logistics chains. Increasing human resource capabilities; simplifying release and clearance procedures; adopting of a single window approach and effective risk management analysis; adherence to international standards; and cooperation with other border agencies and the private sector; are essential prerequisites for efficient and flexible customs organization that facilitate cross-border flows. These measures ensure appropriate balance between the need for customs control and an integrated logistics chain, which requires a business-friendly operational and regulatory environment.
CHAPTER 7: TRADE POLICY AND LOGISTICS SERVICES

7.1. Introduction

191. This chapter examines logistics services from the viewpoint of domestic and international regulation. More specifically, this chapter addresses implications of the General Agreement on Trade in Services (GATS) and of MERCOSUR’s Montevideo Protocol on Trade in Services on the development of logistics services in Uruguay. More details on Uruguay’s trade policy is provided in Annex II.

192. Uruguay’s trade policy has been instrumental for developing the logistic services sector into a world class service sector, particularly benefiting activity in the free trade zones. Uruguay’s logistic services sector has developed significantly thanks to domestic policies. In particular trade policy, investment policy and trade in services policies enabled local and foreign firms to provide logistic services. Logistics services providers have established themselves under two special regimes: the free port and the free zone legislation. The free port legislation allowed services providers to handle goods in transits, while the free zone legislation enabled services providers to add value to traded goods without preserving the nature of the goods.29

7.2. Uruguay’s Trade Regime and Logistics Services

193. Trade in logistics services is affected by a wide range of trade-related laws and regulations, including trade policy. Uruguay’s trade policy is subject to domestic, international, regional laws and regulations. Trade policy measures are not only shaped by domestic government objectives but also need to be consistent with international obligations, including WTO and MERCOSUR agreements. Finally, as a MERCOSUR member, Uruguay's trade policy is influenced by common policies adopted by MERCOSUR (WTO, 2006). MERCOSUR has been actively agreeing on basic instruments (protocol of understanding) to regulate trade at the regional level, although not all of these instruments are currently in force30 (Annex II).

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29 In the port, goods may be subject to certain transformations as long as they do not modify their nature. Permitted activities are limited to warehousing, repackaging, assembly, consolidation, handling and fractionation. See Annex

30 According to article 40 of Ouro Preto Protocol, countries have to ratify the rules adopted by MERCOSUR’s bodies internally and then communicate this to the MERCOSUR Secretariat for them to be entered into force.
Box 14: Constraints to Logistics Services Providers

From a regulatory perspective, logistics service providers face four main constraints. Some of the constraints are common to other service activities, but others are specific to logistics.

The first group of constraints is related to market access and national treatment. Joint venture requirements for foreign investment; prescriptions on specific types of legal entity which are allowed to provide services; and limitations on foreign ownership affect certain logistics activities such transportation services. In addition, restrictions on movements of persons and requirements to employ nationals in certain services further affect the provision of logistics services.

The second group of constraints is related to access and use of infrastructure. Broadly speaking, there are two types of firms: asset-based and non asset-based firms. The former use own transport equipment, while the latter act as intermediaries between the final client and asset-based transportation firms (USITC, 2005). In both cases, logistics services providers require access to available infrastructure in order to operate. More specifically, providers of logistics services require access to ports, airports and roads which are generally managed by public entities or are licensed to a private firm in nondiscriminatory basis (national treatment and most favored nation treatment).

In some cases, conflict of interest or lack of competition restricts the operations of logistics providers. Owners or administrators of infrastructure may themselves be providers of logistics services or they may establish certain conditions for access to and provision of services. In this case, the terms and conditions under which infrastructure can be used and accessed (e.g. preference of domestic suppliers over foreigners, authorization procedures, and competition rules) are critical for the effective provision of logistics services. IT & communications service providers faced a similar problem, as they require access to basic telecommunication infrastructure. To overcome this limitation there, WTO members negotiated rules to ensure access and interconnection to the basic infrastructure in the context of the WTO telecommunication negotiations (concluded in 1997). In the case of logistics services, nondiscriminatory principles for access and use of the required infrastructure should be implemented to ensure that both national and international asset and non asset-based firms are not constrained in providing logistics services.

The third group of constraints relates to government regulations. Logistics services are part of an integrated chain that requires the close integration and synchronization of several different services. To illustrate, consulting services and transportation management services are at the beginning of the chain; they define network design and distribution strategies as well as identify storage and transportation needs. These services include warehousing services, cargo handling, and customs brokerage. At a later stage, third-party logistics services firms (3PLs) come into the supply chain via the provision of transportation and transport related services. Finally, services that support logistics management such as courier services, distribution, and maintenance form also part of an integrated logistics chain (USITC, 2005).

Government regulations that disrupt an integrated logistics chain present a severe constraint; they can affect the simultaneity and synchronicity that an efficient logistics chain requires. For instance, in certain countries, providers are not allowed to own and operate ground transportation fleets and equipment. In others, foreign 3PLs may not be able to obtain a tractor-trailer operating license to carry out inter-city deliveries and are hence forced to either use multiple vans to complete a trip or to use a domestic supplier (USITC, 2005).

The fourth group of constraints is related to border procedures. According to USITC, customs procedures and inspections pose the most significant obstacle for 3PL logistics providers; most pressing are restrictions for weight and value of shipments; time consuming documentation requirements, partly due to lack of electronic data interchange (EDI) systems; burdensome inspection requirements; and regulations that limit foreign firms’ ability to provide brokerage services (USITC, 2004 and 2005).
Regulations for Trade in Goods

**Tariff and Non-tariff barriers**

194. In the mid 70s, Uruguay adopted an outward-looking development strategy as evidenced by low tariffs, especially with respect to historic levels, and relatively few non-tariff barriers. Tariffs are Uruguay’s main trade policy instrument. As a member of MERCOSUR, Uruguay applies a Common External Tariff (CET) in the range of 0 to 20 percent. In 2008, the MFN-applied simple average tariff was 10.5 percent (see Annex III). Uruguay’s tariffs are bound at an average level of 31.6 percent at the World Trade Organization (WTO). All tariffs are ad valorem and are levied on the c.i.f. value of imported goods. Uruguay does not apply any seasonal, temporary or variable import duties.

195. Uruguay, like other MERCOSUR members, has established exceptions to the CET for capital goods (BK list), for information technology and telecommunication products (BIT), and for other products included in the list of national exemptions. Furthermore, Uruguay has special import regimes for the automotive sector and for sugar.

<table>
<thead>
<tr>
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<tbody>
<tr>
<td><strong>TTRI (MFN applied tariff) - All Goods</strong></td>
</tr>
<tr>
<td>Latin America and Caribbean</td>
</tr>
<tr>
<td>Chile</td>
</tr>
<tr>
<td>Colombia</td>
</tr>
<tr>
<td>Peru</td>
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<tr>
<td>Uruguay</td>
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<tr>
<td>East Asia- Pacific Average</td>
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<tr>
<td>High income OECDs</td>
</tr>
<tr>
<td>Middle East and North Africa</td>
</tr>
<tr>
<td>South Asia</td>
</tr>
</tbody>
</table>

Source: World Bank, World Trade Indicators.

TTRI - All Goods - This index summarizes the impact of each country’s non-discriminatory trade policies on its aggregate imports. It is the uniform equivalent tariff that would maintain the country’s aggregate import volume at its current level.

OTRI - All Goods - This index summarizes the impact of each country’s non-discriminatory trade policies on its aggregate imports, including non tariff measures (NTMs). It is the uniform equivalent tariff that would maintain the country’s aggregate import volume at its current level.

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31 Uruguay has applied the MERCOSUR Common External Tariff (CET) since 1995 with a list of exceptions. Under the Ouro Preto Protocol signed in 1994, it was agreed that Uruguay’s tariff rates would reach parity with the MERCOSUR CET in 2006 without exceptions. However, in 2003, under MERCOSUR Decisions Nº 31/03 and 34/03, Uruguay and Paraguay were given an extension to apply for exceptions until 2010.

32 In the case of automobiles, until the entry into force of the MERCOSUR common regime, imports from Argentina and Brazil receive preferential tariff rates under existing bilateral agreements. For sugar, Uruguay applies tariffs of 5 percent (raw sugar) or 35 percent on imports of sugar (HS1701), irrespective of their origin; raw sugar from the region is duty free.
196. The frequency ratio for Uruguay’s non-tariff barriers is 48.3 percent, which is higher than in other LAC countries (39.1 percent) but similar to other MERCOSUR countries (47.6 percent).

197. Overall, Uruguay’s commercial policy has a reasonable level of openness (see Table 21). Uruguay’s tariff restrictiveness index (TTRI) is below the average for Latin America and the Caribbean. If preferential trade agreements are also accounted for, Uruguay TTRI ranks fairly close to the OECD average. When non-tariff barriers are also considered, as in the case of the OTRI, Uruguay’s ranks similar to the average for Latin America and the Caribbean countries, but above developed countries and East Asia-Pacific countries. Again, when preferential agreements are considered, Uruguay’s trade policy continues to be relatively open.

Regional Trade agreements

198. As a MERCOSUR member, Uruguay participates in a network of trade agreements. Within the Latin American Integration Association (LAIA), MERCOSUR has signed several agreements that accelerated trade liberalization with several countries in the region: Bolivia, Chile, Peru, Colombia, Ecuador, Venezuela and Cuba. MERCOSUR has also added provisions to bilateral agreements on trade-related matters, previously signed by individual MERCOSUR countries. In future, these agreements may provide an enabling context for the provisions of logistics services in Uruguay, once trade in services is fully liberalized (Table 22).

<table>
<thead>
<tr>
<th>Agreement</th>
<th>Date of signature/ entry into force by Uruguay</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>MERCOSUR-Chile ECA Nº 35</td>
<td>25 June 1996/ 1 October 1996</td>
<td>Elimination of duties for at least three quarters of tariff lines before January 2004 and for all tariff lines by 2014</td>
</tr>
<tr>
<td>MERCOSUR-Bolivia ECA Nº 36</td>
<td>17 December 1996/ 28 February 1997</td>
<td>Creation of a free-trade zone by 1 January 2006</td>
</tr>
<tr>
<td>MERCOSUR-Peru ECA Nº 58</td>
<td>25 August 2003/ 16 December 2005</td>
<td>Gradual creation of a free-trade zone for a list of products before 1 January 2017</td>
</tr>
<tr>
<td>MERCOSUR-Colombia, Ecuador and Venezuela ECA Nº 59</td>
<td>16 December 2003/ 5 January 2005</td>
<td>Gradual creation of a free-trade zone for a list of products before 1 January 2018.</td>
</tr>
<tr>
<td>MERCOSUR-Cuba ECA Nº 62</td>
<td>21 July 2006/ 3 September 2008</td>
<td>Tariff preferences for a list of products.</td>
</tr>
</tbody>
</table>

Source: Based on LAIA data

199. Commitments on trade in services liberalization are still under negotiation. More recently, and also within the framework of the LAIA agreements, Uruguay has signed a

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33 Non-tariff information for Uruguay is from 2001 and may hence not reflect the current situation.
34 In addition, MERCOSUR has signed framework agreements with countries outside the region: India, the South African Customs Union, Lesotho, Namibia, Swaziland, Botswana and Egypt; MERCOSUR also signed a free trade agreement with Israel in 2007.

78
A comprehensive free-trade agreement with Mexico, which entered into force in July 2004. This agreement extends beyond the traditional area of trade in goods and includes provisions on competition policy, monopolies, State Enterprises, intellectual property rights, trade in services and investment. Commitments on trade in services liberalization are still under negotiations. A services agreement with Chile under the MERCOSUR framework has also been concluded in 2009, but it has not yet entered into force.

200. To date, trade agreements have not play a significant role in the development of trade in logistics services. Trade agreements have so far mainly focused on trade in goods. Only recently, services have been incorporated in Uruguay’s trade agreements, including in MERCOSUR since 2005.

7.3. MERCOSUR Agreement and GATS

201. At the international level, trade policies are affected by international obligations. Multilateral obligations are contained in the agreements administered by the World Trade Organization. In addition, for Uruguay, MERCOSUR is of particular importance.

202. MERCOSUR’s Protocol on Trade in Services (Montevideo Protocol) is based on GATS provisions, but important differences exist. First, all service sectors are included. Second, the Protocol aims for the full liberalization of the entire services activities program over the course of 10 years (Article XIX). Finally, negotiations on complementary agreements are considered relevant if they affect the provision of trade in services, e.g. visa requirements to facilitate trade in services within the region.

203. Other difference between GATS and the Montevideo Protocol are: (i) immediate and unconditional application of MFN treatment, without exemptions; (ii) domestic regulation provisions are applied to all services and not only to services included in members’ schedules; and (iii) services will be subjects to MERCOSUR rules on competition policy, subsidy Measures and government procurement. Although MERCOSUR members reached an agreement on competition policy and government procurement, they are not in yet force.

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35 An analysis of the services provisions of MERCOSUR can be found in Gari (2006), WTO (2008) the section follows information contained in this report.

36 The Montevideo Protocol, agreed in December 1997 and in force since December 7, 2005, establishes MERCOSUR provisions for trade in services (Decision CMC 13/97). The Montevideo Protocol has been ratified by Argentina, Brazil and Uruguay, but not yet by Paraguay.

37 Initially, members have agreed to bind the status quo as a general principle (WTO, 2008).
The Montevideo Protocol has four annexes. These annexes deal with the movement of natural persons, financial services, land and water transportation, and air transportation services. Unlike GATS, the Montevideo Protocol has no telecommunication annex. But Argentina, Brazil and Uruguay have included the Reference Papers on telecommunication services of 1997 in their schedules.

The Annex on Natural Persons is similar to the GATS annex. Other agreements relevant to the provisions of services by natural persons exist, but not all are in force. In particular, MERCOSUR members negotiated an agreement on a MERCOSUR Visa (Dec. CMC 16/03); an “Agreement on the Internal Immigration Normalization of MERCOSUR Citizens” (CCM Dec. 28/02, adopted in December 2002); an “Agreement on Residence Status for Nationals of the MERCOSUR State parties” (CCM Dec. 28/02, adopted in December 2002), a “Mechanism for Temporary Professional Practice” (Dec. CMC 25/03) and an “Agreement for the Facilitation of Business Activities”. This agreement has been in force for Argentina, Brazil and Uruguay since 27 November 2007 (Dec. CMC 32/04).

The Annex on Transportation Services is particularly important for logistics services. The annex on land and water transportation temporarily exempts any relevant multilateral and bilateral agreement that predates the Montevideo Protocol. As such, the Protocol does not affect the rights and obligations of multilateral agreements signed prior to adoption of the Protocol. The aim is to harmonize and monitor competition among transport enterprises, provided they respect the priority to liberalize intra-MERCOSUR services. Moreover, the Protocol’s provisions do not apply to bilateral transport agreements signed or enforced prior to the adoption of the Montevideo Protocol. (WTO, 2008)

The Annex on Air Transport Services exempts bilateral, plurilateral or multilateral agreements among MERCOSUR parties in force at the time of entry from the Protocol’s disciplines. In addition, measures affecting commercial traffic rights agreed upon in bilateral air services agreements (cabotage traffic is excluded) are also exempted. Finally, for sub-regional scheduled and exploratory air services, the applicable disciplines are those of the Sub-regional Air Services Agreement (the “Fortaleza Agreement”) of 17 December 1996, as well as any additional specific commitments included in the Parties’ Schedules to the Montevideo Protocol. (WTO, 2008).
Box 16: The Treatment of Free Zones in Uruguay Trade Policy with Third Countries

Decision Nº 08/94 of the Common Market Council (CMC) addresses the treatment of free zones, industrial zones, export processing zones and special customs areas within MERCOSUR. Under this Decision goods from such regimes are subject to the payment of the common external tariff (CET) or the national customs tariff, as appropriate. This Decision also implies that goods processed in free zones must pay CET even if they comply with rules of origin.

Due to their geographic location, the special customs area of Manaos in Brazil and Tierra de Fuego in Argentina are not included in these provisions until 2013. The exception for Manaos allows goods from that free zone enter the territory of Brazil free of CET.

In addition, three Decisions adopted by the CMC of MERCOSUR allow exceptions for bilateral trade between certain free zones. Decision Nº 09/01 allows that certain products can be exchanged between Colonia and Manaos without payment of CET. The exemption is however subject to a quota of five hundred million units for the exports of carboys, bottles, flasks and similar articles from Colonia to Manaos and of twenty million dollars for products in the reverse direction.

Decision Nº 01/03 also exonerates a quota of two thousand tons of syrup for beverages exported from Colonia to Tierra del Fuego and twenty million dollars worth of exports of listed products from Tierra del Fuego to Colonia from the payment of CET. In 2007, through the Decision Nº 60/07, free access was granted to additional products in the bilateral trade between Colonia, Nueva Palmira and Manaos, subject to quotas, until December 2012.

As a result, FZs today operate basically two types of products regarding their origin and destination: goods from outside MERCOSUR to be distributed regionally or MERCOSUR goods destined only for markets outside the region.

In negotiations with third countries, the initial position of MERCOSUR sought to exclude these special regimes from the agreements. Agreements negotiated with Chile (ECA Nº 35) and Bolivia (ECA Nº 36) provided that goods from free zones have to pay the MFN. But in its negotiations with Peru (ECA Nº 58) and Colombia, Ecuador and Venezuela (ECA Nº 59), articles 48 and 39 respectively provided for the continuation of the dialogue between the parties on the topic of free zones and special customs areas. This has been interpreted as to mean that goods from free zones that classified as original enjoy the tariff preferences of the agreements unless otherwise established.

In the negotiations between MERCOSUR and EU - currently delayed - free zones were excluded from any agreement in principle.

The bilateral free trade agreement between Mexico and Uruguay (ECA Nº 60) includes free zones in its definition of territory. As such, FZ goods benefit of the agreements, including tariff preferences. In December 2007, the CMC agreed to allow MERCOSUR members to start bilateral negotiations with Chile to include free zones into their current agreement (ECA Nº 35). Uruguay began negotiations with Chile to sign an understanding on this matter, but these negotiations have not yet been concluded.

7.4. Comparing GATS and MERCOSUR Commitments in Logistics Services

204. **Argentina, Brazil and Uruguay included only few commitments on logistics services in their GATS lists.** Furthermore, in those cases where commitments were adopted, the extent of liberalization has been limited.

205. **In terms of logistics services, Uruguay’s GATS commitments include only storage and warehousing services (as part of the core freight logistics services), couriers services (as part of the related freight logistics services), and commitments on non-core freight logistics services).** Uruguay’s list of commitments contains horizontal (general) limitations only for movements of natural persons in the following categories: managers, executives and specialists.

206. **Argentina and Brazil have also adopted a limited number of logistics services’ commitments**. Argentina’s GATS commitments do not cover core freight logistics services. In terms of related freight logistics services, Argentina’s list of commitments covers mainly couriers and distributions services. In the case of Brazil, commitments include some core logistics services and some related freight logistics services. Argentina and Brazil both have commitments on non-core logistics services.

207. **In the MERCOSUR framework, members maintain different levels of liberalization.** According to the WTO, Argentina’s current services commitments within MERCOSUR include specific commitments in seven of the 11 sector groups listed in the Services Sectoral Classification List (SSCL). This represents about 40% of all listed services sub-sectors. Moreover, Argentina’s commitments tend to replicate, with a few exceptions, existing commitments under the GATS (WTO, 2008 par. 39).

208. **Brazil’s MERCOSUR commitments include seven out of the 11 sector groups of the SSCL.** They cover almost 30% of all services sub-sectors in the List. Brazil’s horizontal commitments in the MERCOSUR Protocol, which relate to modes 3 and 4, are almost identical to those under GATS (WTO, 2008 par. 47-48).

209. **Uruguay adopted specific commitments in eight out of the 11 sector groups of the SSCL, which cover more than a third of all the services sub-sectors identified therein.** According to the WTO, sectors committed include computer, courier, financial, tourism, and recreational services – which feature in Uruguay's GATS schedule of commitments. In addition, telecommunications, construction, professional and distribution services, not included in GATS commitments, are part Uruguay’s MERCOSUR list of commitments. Horizontal commitments include similar commitments under mode 4. As under GATS, they cover three categories: managers, executives and specialists.

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38 Table A1 in Annex 2 provides further details on GATS and MERCOSUR commitments.
39 Commitment refers to a legally binding undertaking specific to a country under one of the agreements administered by the WTO. (Goode, 2007).
40 The classification of logistics services into core freight logistics, related freight logistics and non-core freight logistics follows the WTO Logistics Services Checklist. See section 2.1 of this report for more details.
41 Paraguay’s current commitments are limited to financial services and tourism.
210. Paraguay's commitments under the MERCOSUR Protocol include financial services, tourism and telecommunications services. The first two sectors were also included in the GATS schedules. Paraguay has not ratified any of its MERCOSUR commitments.

211. A comparison of GATS and Montevideo Protocol commitments reveals that MERCOSUR members introduced few new activities related to logistics services compared to their GATS commitments. Current MERCOSUR commitments largely represent the status of negotiations concluded in 1998. Since then, several rounds of negotiations have taken place, but results are still in the ratification process. Paraguay has not ratified any commitment.

212. When analyzing the sector under the proposed classification the absence of commitments with respect to core logistics services becomes apparent. Only Brazil has adopted very limited commitments on transport services, but even there, more commitments on services related to logistics services are found (couriers, business and distribution services). Finally, relatively more commitments have been adopted for non-core logistics services, but significant gaps remain among MERCOSUR members. The analysis of existing commitments shows that currently MERCOSUR is not playing a significant role in the field of logistics services. This could change in the future if the liberalization process among MERCOSUR members strengthens.

213. Paraguay’s engagement in services liberalization is also important. While Paraguay continuously participated in services negotiations as a member of MERCOSUR, it has so far not ratified any of its commitments. Given its geographical location, Paraguay’s participation in MERCOSUR’s services agreement is important for Uruguay’s strategy to expand the reach of its logistics services to other South American countries. It is also relevant for Paraguay’s closer integration in the world economy.

214. Significant improvements in latest round of negotiations. The sixth and last round of negotiations among MERCOSUR members concluded in July 2006. The results of these negotiations which are currently under ratification in each country contain a number of significant improvements compared with the commitments currently in force.

215. The results of the sixth round of negotiations can be summarized as follows (see Table A2 in Annex 2): (1) there is a significant increase in the sectors and subsectors that are included in the list of commitments; (2) improvements in horizontal commitments, especially regarding labor mobility have been introduced by all members, except Paraguay. (3) Moreover, Paraguay’s commitments list maintains a significant number of sector and modes of supply “unbound”; (4) in terms of logistics services, specifically, there is an increase in the services included in the lists of members, especially for transport services. However, these commitments represent the status quo. This implies that, in practice, several limitations on the provisions of transportation and auxiliary services by foreign services providers are maintained.

7.5. Regional Transit Regime

216. Uruguay’s transformation into a regional logistics hub requires an efficient regional transit regime. A number of operational problems exist mainly with respect to border crossing, where most delays occur. For example, at the Brazil-Argentina border, a truck in transit is held
up for about 18 hours on average. If customs clearance is required, delays may take 1 to 3 days. At the Chile-Argentina border, delays take on average 14 hours, or 1 to 2 days if completing customs. Crossing the border to Brazil and Argentina from Paraguay takes between 12 hours and two days (Barbero, 2008).

**Land Transportation**

217. **The International Surface Transportation Agreement (ATIT) currently prohibits road cabotage.** In addition, there are further limitations that constrain the growth of the logistics industry in Uruguay and other countries in the region. Since the early 1990s there is in place a transit regime in South America signed in the framework of the ALADI. ATIT has been adopted by Argentina, Brazil, Bolivia, Uruguay, Chile, Paraguay, and Peru. The agreement regulates all administrative aspects related to land transportation, including transit trade. ATIT currently prohibits road cabotage (see Box 17).

218. **The delays are explained mainly by public entity problems such as short hours of operation, lack of adequate computer systems (frequently out of service), insufficient infrastructure, or lack of trained personnel.** Private operators also contribute to delays as they often provide inadequate or missing information and due to relatively low level of professionalization in most transport companies.

219. **In certain countries, delays are due to excessive road control (in particular for transits between Paraguay and Argentina).** In some cases, controls are a response to transit violations, but they may be also a source of corruption-related bribes or the result of authorities’ unawareness of international transit rules. Delays often further occur due to social unrest and weather conditions. In addition, inadequate infrastructure prevents efficiency gains that would otherwise result from the application of transit regimes. Barbero (2008) identifies insufficient cargo exchange platforms and warehouses, as well as small customs offices and deteriorated access roads (Barbero, 2008).

220. **Uruguay’s structural disadvantage in the operation of road transport in the transit market has been somewhat reduced with the Ro-Ro operation.** Uruguay’s position regarding international road transport, both in relation to bilateral trade with Argentina and for transits, has been somewhat improved by the increasing use of the Ro-Ro transport in the River Plate. Ro-Ro transportation from the Juan Lacaze port substantially relived backlogs from the Gualeguaychu-Fray Bentos bridge blockade (Sgut, 2009).

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42 The following is based on Barbero (2008).
43 Acuerdo de Transporte Internacional Terrestre (ATIT).
44 Roll-on/roll-off (RORO or Ro-Ro) is a cargo handling method whereby vessels are loaded via one or more ramps that are lowered on the quay [http://go.worldbank.org/1CN4CR6GH0](http://go.worldbank.org/1CN4CR6GH0).
Box 17: CABOTAGE AS A MEANS TO REDUCE TRANSPORT COSTS

A regional approach to lifting restrictions on cabotage operations offers great potential to lower transport costs. Available evidence suggests that listing such restrictions would lower freight rates, lead to better use of spare capacity, result in more frequent services, minimize the need for waivers, encourage greater competition in the market, and increase trade volumes especially of water-borne cargo. However, such liberalization would have to be tackled gradually, which is sensitive to the operators in each country and ideally after harmonization of the regulatory regimes.

Freeing cabotage restrictions has been suggested as one of the ways to reduce road transport costs in Uruguay. The region has some positive experiences with cabotage operations particularly in Chile where such services were allowed in coastal shipping and brought about a reduction in costs. Using the Chilean example, UNCTAD identified several advantages that could be obtained from allowing cabotage:

<table>
<thead>
<tr>
<th>Advantage</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Lower freight rates:</strong></td>
<td>The geographical configuration of the Southern cone and also of the inland waterways would enable shipping companies to offer regular services leading to lower rates;</td>
</tr>
<tr>
<td><strong>Greater use of spare capacity:</strong></td>
<td>At the moment ships serving adjacent ports are prohibited from providing a coastal shipping service even when they have capacity. The marginal cost of picking up cargo is relatively small, so cabotage would lead to lower costs.</td>
</tr>
<tr>
<td><strong>Improved frequency of service:</strong></td>
<td>Allowing more vessels to pickup cargo would increase the frequency of service.</td>
</tr>
<tr>
<td><strong>Greater competition:</strong></td>
<td>Cabotage would allow more operators to offer services unlike the current restricted environment.</td>
</tr>
<tr>
<td><strong>Unnecessary waivers:</strong></td>
<td>To date, cabotage operations are by waiver which introduces bureaucratic obstacles.</td>
</tr>
<tr>
<td><strong>More sea-borne cargo:</strong></td>
<td>If efforts to promote cabotage and to improve the integration of domestic and international transport services are successful, two developments are likely that would help increase the volume of sea-borne cargo carried by the shipping lines of Latin America and the Caribbean. First, foreign trade would receive a boost. Second, coastal shipping would become more competitive with overland transport.</td>
</tr>
</tbody>
</table>

Cabotage therefore offers great potential for reducing transport costs in road as well as coastal shipping services. However, unless there is harmonization of the operating rules in the different countries it may be difficult from a political economy perspective, to justify the removal of cabotage restrictions unless this is done in a phased manner.

Water Transportation

221. **MERCOSUR does not have a harmonized regulatory regime for shipping.** For one, where a vessel is registered has significant implications on the amount of taxes paid. In addition, different taxes apply to the shipping industry in Uruguay, Brazil and Argentina. Furthermore, Uruguay has higher crew costs due to unionized labor whereas Paraguay has lower costs. All these factors render Uruguayan shipping uncompetitive and as a result the shipping industry in the country is not as developed as in neighboring states. Within MERCOSUR the various agreements between countries influence the relative competitiveness of the ports and shipping services in the region. In particular the agreements affect feeder transit services and ultimately the possibility to grow transshipment services (see Table 23).

<table>
<thead>
<tr>
<th>Country</th>
<th>Port</th>
<th>Observations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>Buenos Aires</td>
<td>There is high competitiveness, both in the Ro-Ro land connection through Juan Lacaze and in the direct river connection.</td>
</tr>
<tr>
<td></td>
<td>Bahía Blanca – Puerto Madryn</td>
<td>There is high competitiveness in water transport services, services to Brazil are the most competitive due to the freedom in the flag used.</td>
</tr>
<tr>
<td>Bolivia</td>
<td>Santa Cruz de la Sierra</td>
<td>There is great potential to develop river transport but this has not yet been developed due to an infrastructure deficit and an undeveloped market.</td>
</tr>
<tr>
<td>Brazil</td>
<td>Santos-San Paulo</td>
<td>Uruguay has is no comparative advantage due to restrictions in the use of flag. Land transport alternative is also not competitive due to distance.</td>
</tr>
<tr>
<td></td>
<td>Rio Grande</td>
<td>Similar to Santos there is no comparative advantage due to restrictions in the use of flag. As for the land transport alternative, it is somewhat competitive. It could be more competitive still if no delays existed at the Chuy border crossing point.</td>
</tr>
<tr>
<td>Chile</td>
<td>Santiago</td>
<td>Neither land nor maritime transports are considered competitive.</td>
</tr>
<tr>
<td>Paraguay</td>
<td>Asunción</td>
<td>River transport to Montevideo is competitive. However, this is not the case with land transport except for high-value merchandise going to Ciudad del Este. Both options are affected by the Paraguayan import inspection policies of Uruguay customs. As a result 85% of these transits are made from Buenos Aires.</td>
</tr>
</tbody>
</table>
222. Current proposals on a future MERCOSUR ‘Water Transport Agreement’ may adversely impact Uruguay’s logistics services sector. The proposal seeks to establish a cargo reservation for all trade to and from MERCOSUR countries. If the agreement were to go ahead, cargo originating from Argentina and transshipped in Uruguay will need to be exclusively carried by vessels holding flags of associated countries. This would reduce the competitive advantage of the Port of Montevideo. Private sector representatives in Uruguay expressed that this regime would favor the maritime industry and services of other MERCOSUR countries. There is concern that the agreement would reduce operation volumes and consequently increase costs. Such an agreement is not consistent with the general tendency towards global water transport liberalization and would likely trigger retaliations by other trading partners.

223. Besides, lack of dredging and signaling in the upriver regions of the Paraguay-Paraná River, fluvial transportation is also limited by the absence of a transit regime. Existing regulations require foreign ships to use national pilots of the country in which they navigate and existing cabotage regulations prevent foreign flagged ships to provide cabotage services along the waterway.

7.6. Conclusion

224. Uruguay’s regulatory framework for logistics has been quite progressive and instrumental for the growth of the sector, a complementary regulatory framework is however needed to establish a more secure business environment. Uruguay’s success as a regional hub further depends on the ability of Uruguayan authorities to gather support among its trading partners to develop and enforce all the necessarily rules for an integrated logistics chain.

225. It is important to redesign the regulatory framework by introducing non-discriminatory access to and use of infrastructure and pro-competition safeguards. Logistics services providers, both asset-based and non-asset based, require access to available infrastructure to operate. The current regulatory environment could be improved by introducing legislation that ensures nondiscriminatory access to, and use of, infrastructure and pro-competition safeguards that ensure that owners or managers of the infrastructure will not prevent other operators from providing services. Pro-competition safeguards would also help avoid possible conflicts of interest due to the double role as owner/regulator of infrastructure and service providers, as is currently the case with ANP who currently not only regulates port but also is minority share holder in the TCP container terminal. A complementary regulatory framework will be important for the provision of a more certain business environment. Such a pro-competition framework should also be implemented in the context of MERCOSUR.

226. The MERCOSUR services agreement has played a minor role so far. Although a services agreement is in force and commitments have been negotiated through periodic rounds of negotiations, the current commitments are more than ten years old. This could change in the

45 MERCOSUR’s sub group 5, based on a Brazilian-Argentine initiative, has been discussing the possibility of a “MERCOSUR Water Transport Agreement” (Acuerdo Multilateral de Transporte Marítimo) for some time. In particular, Brazil and Argentina have promoted the agreement with the support of Paraguay, Bolivia, and Venezuela. Uruguay has a different position. While Argentina and Brazil want to include all transit cargo, Uruguay seeks to limit the scope of the agreement. Uruguay perceives the multilateral water transport agreement between MERCOSUR countries as a threat to the participation of Uruguayan registered vessels.

46 Information provided by the private sector during the elaboration of this study.
future if the liberalization process among MERCOSUR members is strengthened. New and improved commitments have yet to be implemented.

227. **Need to Address Border Controls and Improve Transit Regime.** There is an urgent need to address other areas of cooperation among MERCOSUR countries and associated countries (Bolivia, Chile, Colombia, Ecuador, Peru and Venezuela). In particular, border controls need to be improved to reduce delays and to improve service quality. Moreover, land transportation is the main mode of delivery of transit goods. Although a well developed, land transportation regime exist, its operation is impaired by inadequate computer systems, insufficient infrastructure, and the absence of trained personnel in neighboring countries that require investment decisions by the incumbent country. The development of Ro-Ro modes of transportation will also require future coordination and collaboration with Argentina and Paraguay.
Table 24: Summary of Uruguay Trade and Investment Policy

<table>
<thead>
<tr>
<th>Agenda/Sphere</th>
<th>Unilateral</th>
<th>Regional MERCOSUR</th>
<th>Bilateralism</th>
<th>Multilateralism GATT/ WTO</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>Goods</td>
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<td></td>
<td></td>
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<tr>
<td>Sanitary and Phytosanitary</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Contingency measures</td>
<td>MERCOSUR</td>
<td>GATT/ WTO</td>
<td></td>
<td></td>
</tr>
<tr>
<td>----------------------</td>
<td>----------</td>
<td>-----------</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>From MERCOSUR</td>
<td>Mexico</td>
<td>USA</td>
<td></td>
</tr>
<tr>
<td><strong>Safeguards</strong></td>
<td>Decree No. 2/99 implementing WTO agreement since 1999</td>
<td>Not allowed intra-zone trade. Allowed with 3rd country. Not in force</td>
<td>Chile and Bolivia: may be applied up to 2014 Others: Bilateral safeguards Allowed</td>
<td>Bilateral and global Safeguards</td>
</tr>
<tr>
<td><strong>Antidumping</strong></td>
<td>Decree No. 142/996 implementing WTO agreement since 1996</td>
<td>WTO Agr.on AD for intra trade (2002). Not common regulations for 3rd parties</td>
<td>Not included</td>
<td>Rules based on WTO agreement</td>
</tr>
<tr>
<td><strong>Countervailing</strong></td>
<td>No regulations have been adopted for implementing WTO Agreement.</td>
<td>WTO Agr.on SCM for intra trade (2002). Not common regulations for 3rd parties</td>
<td>Not included</td>
<td>Rules based on WTO agreement</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Services</th>
<th>MERCOSUR</th>
<th>GATT/ WTO</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sectors</strong></td>
<td>Open with some regulations on fixed telecommunication, transportation services, port services, financial services</td>
<td>Progressive liberalization of all sectors over 10 years</td>
</tr>
<tr>
<td>Agenda/Sphere</td>
<td>Unilateral</td>
<td>Regional MERCOSUR</td>
</tr>
<tr>
<td>--------------</td>
<td>------------</td>
<td>------------------</td>
</tr>
<tr>
<td>Domestic Disciplines</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Competition Policy</td>
<td>Promotion and Protection of Competition Law No 18.159 (2007)</td>
<td>Two Understandings on Cooperation (2004 and 2006) Ratified by Paraguay and Uruguay</td>
</tr>
<tr>
<td>• Labor Standards and Social Clause</td>
<td>Member of ILO and others</td>
<td>Social-Labor Declaration (1998)</td>
</tr>
</tbody>
</table>
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WTO notifications (Various)
ANNEX I: MODAL SPLIT AND INTERNATIONAL TRADE STRUCTURE

The modal split of Uruguay’s trade profile shows a clear distinction between LAC internal trade and extra-regional trade, both in terms of value and volume of trade. Extra-regional trade is dominated by waterborne transport, in particular maritime shipping, and regional trade is dominated by road transport. The distinction between value and volume is insightful. While imbalances in the value of exports and imports matter for a country’s external balance, imbalances in the modal split of exports and imports by volume pose challenges for a country’s transportation system, as transport flows are unmatched.

Uruguay’s international trade outside of Latin America is dominated by waterborne transport, both in terms of volume and value (see Tables AI.1 to AI.4 below). For exports, waterborne transport accounts for 98 percent of volume and 75 percent of value. While insignificant in terms of volume, air transport amounts for almost 20 percent in terms value for total extra-regional exports.

<table>
<thead>
<tr>
<th>Source</th>
</tr>
</thead>
</table>

Table AI.1: Uruguay: Modal split for exports to Outside Latin America, 2006

<table>
<thead>
<tr>
<th></th>
<th>Value (FOB)</th>
<th>Volume (Metric Tons)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(current USD)</td>
<td>(Percent)</td>
</tr>
<tr>
<td>Airborne</td>
<td>26 143 922 323</td>
<td>19.92%</td>
</tr>
<tr>
<td>Deep Draft Vessel</td>
<td>1 063 804 128</td>
<td>75.29%</td>
</tr>
<tr>
<td>Other</td>
<td>15 722 990</td>
<td>1.11%</td>
</tr>
<tr>
<td>Pipeline</td>
<td>19 772</td>
<td>0.00%</td>
</tr>
<tr>
<td>Postal</td>
<td>352 003</td>
<td>0.02%</td>
</tr>
<tr>
<td>Shallow Draft Vessel Lake</td>
<td>868</td>
<td>0.00%</td>
</tr>
<tr>
<td>Shallow Draft Vessel River</td>
<td>1 947 549</td>
<td>0.14%</td>
</tr>
<tr>
<td>Truck</td>
<td>49 588 193</td>
<td>3.51%</td>
</tr>
<tr>
<td>Total</td>
<td>1 412 075 320</td>
<td>100%</td>
</tr>
</tbody>
</table>

Waterborne transport also dominates extra-regional imports, but, unlike exports, air transportation is marginal. Road transportation accounts for 14 percent of volume and 7 percent of the value of imports.
Uruguay’s intra-regional trade, and in particular imports, are dominated by road transportation. In terms of volume, 51 percent of intra-regional exports are transported by road, 33 percent by sea, 13 percent by rail and 3 percent by internal waterways. The modal split by value reveals a similar ranking. Imports from LAC countries are clearly dominated by road transport (76.4 percent in terms of value and 64.9 percent in terms of volume). Maritime transport only accounts for 11.1 percent of value and 29.7 percent of volume. Inland shipping comes third by volume (4.6 percent), but airborne transportation is third by value (7.1 percent).

Table AI.3: Uruguay: Modal split for exports to Latin America Latin countries, 2006

<table>
<thead>
<tr>
<th>Mode</th>
<th>Value (FOB)</th>
<th>Volume (Metric Tons)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(current USD)</td>
<td>(Percent)</td>
</tr>
<tr>
<td>Airborne</td>
<td>04 911 507</td>
<td>5.00%</td>
</tr>
<tr>
<td>Deep Draft Vessel</td>
<td>575 037 673</td>
<td>39.26%</td>
</tr>
<tr>
<td>Other</td>
<td>3 701 507</td>
<td>0.25%</td>
</tr>
<tr>
<td>Postal</td>
<td>3 074</td>
<td>0.00%</td>
</tr>
<tr>
<td>Rail</td>
<td>75 135 595</td>
<td>5.13%</td>
</tr>
<tr>
<td>Shallow Draft Vessel River</td>
<td>59 353 342</td>
<td>4.05%</td>
</tr>
<tr>
<td>Truck</td>
<td>666 363 654</td>
<td>45.50%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>1 464 508 412</td>
<td>100%</td>
</tr>
</tbody>
</table>


Even though intra-regional trade is more balanced than extra-regional trade in terms of volume, imbalances in the modal split for imports and exports pose significant challenges for Uruguay's transport system as it implies empty movements due to unmatched transport flows, in particular for rail, internal waterways and trucking.
Table AI.4: Uruguay: Modal split for imports from Latin American countries, 2006

<table>
<thead>
<tr>
<th>Mode</th>
<th>Value (FOB) (current USD)</th>
<th>Value (Percent)</th>
<th>Volume (Metric Tons)</th>
<th>Volume (Percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Airborne</td>
<td>131,251,352</td>
<td>7.08%</td>
<td>2,520</td>
<td>0.12%</td>
</tr>
<tr>
<td>Deep Draft Vessel</td>
<td>205,080,555</td>
<td>11.07%</td>
<td>605,744</td>
<td>29.74%</td>
</tr>
<tr>
<td>Other</td>
<td>115,972,14</td>
<td>0.63%</td>
<td>5,428</td>
<td>0.27%</td>
</tr>
<tr>
<td>Pipeline</td>
<td>4,570</td>
<td>0.00%</td>
<td>14</td>
<td>0.00%</td>
</tr>
<tr>
<td>Postal</td>
<td>107,808</td>
<td>0.01%</td>
<td>14</td>
<td>0.00%</td>
</tr>
<tr>
<td>Rail</td>
<td>899,055</td>
<td>0.05%</td>
<td>7,159</td>
<td>0.35%</td>
</tr>
<tr>
<td>Shallow Draft Vessel Lake</td>
<td>864,929</td>
<td>0.05%</td>
<td>335</td>
<td>0.02%</td>
</tr>
<tr>
<td>Shallow Draft Vessel River</td>
<td>87,651,440</td>
<td>4.73%</td>
<td>93,584</td>
<td>4.59%</td>
</tr>
<tr>
<td>Truck</td>
<td>1,415,031,081</td>
<td>76.38%</td>
<td>1,322,215</td>
<td>64.91%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1,882,588,782</strong></td>
<td><strong>100%</strong></td>
<td><strong>2,037,002</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>


A number of issues become evident when findings of the modal split figures are set into Uruguay’s geographical context: The relative significance of inland shipping obviously arises from Uruguay’s role as a hub for Paraguayan external trade. For Paraguay, Uruguay acts as the intermodal hub in external trade, either between waterborne modes (inland and deep sea) or between road and deep sea shipping. The role as a hub for Paraguayan trade also contributes positively to the demand in deep sea shipping services. Rail transport appears to plays only a role for exports to the region. This creates unmatched transport flows. It is critical to investigate further why rail is not used for import needs.

In the following, Uruguay’s modal split in bilateral trade with its neighboring countries is analyzed.

Road transport is the dominant transport mode in bilateral trade with Argentina in terms of value and volume. But 33 percent of trade between these two countries in terms of volume is transported by maritime transport and 4 percent by inland shipping respectively. Interestingly, the role of inland shipping in terms of value is almost similar to that of maritime transport.
The same analysis for bilateral trade with Brazil depicts significantly different results. Trade is almost completely dominated by road transport and, despite the size of Brazil and its long coastline, maritime transport moves just 11 percent in terms of volume and only 7 percent in terms of value. Yet, airborne transport accounts for 7 percent in terms of value. River transport plays a marginal role, moving only 2 percent in terms of value.

Source: BTI
ANNEX II: TRADE POLICY

The development of logistics services depends on the domestic regulatory environment and on Uruguay’s international agreements. This section describes the current domestic regulatory environment for logistics services, while international agreements are covered further below.

Foreign direct investment regime

Trade in services may take place under four modes of supply: cross-border supply, consumption abroad, commercial presence (investment), and the presence of natural persons (movement of persons). Commercial presence is the most relevant mode of supply for almost all services activities. Logistics services require a commercial presence for provision of integrated logistics services. Restrictions to commercial presence affect a firm’s ability to provide such services (USITC, 2005).

Uruguay has an open investment regime, which allows both national and foreign investment in a wide range of economic activities and excludes only those sectors of national public interest where the State retains control47. These include: fixed telecommunications, water and sanitation services, and specific areas such specialized insurances (e.g., occupational accidents and illnesses) and certain types of transportation services.

Foreign investors are excluded from the operation of radio and television stations and from cabotage. Although the majority of maritime transportation uses foreign-registered ships, the law confines cabotage navigation and trade to Uruguayan-registered vessels. Preferences may be given based on the principle of reciprocity, but in practice Uruguay only applies cargo preferences with Brazil and passenger transport preferences with Argentina. In a similar fashion, domestic air services are restricted to Uruguayan companies, which may only operate Uruguayan-registered aircrafts. To register an aircraft, owners must be domiciled in Uruguay. In the case of joint ownership, the majority share owner must meet domicile requirements.

Logistics services require movement and/or employment of key personnel. Uruguay has no restrictions on the employment of foreign personnel, except in certain sectors such as fishing and the operation of Uruguayan aircraft where only Uruguayan citizens are authorized to work, unless the regulatory authority states otherwise. Restrictions also apply to the nationality of crews on Uruguayan merchant ships. If the vessel is engaged in traffic which requires authorization, at least 50 percent of the crew and the captain must be Uruguayan citizens, either by birth or by naturalization. If no authorization is required, only the captain, the chief engineer, and the radio operator or the chief steward must be Uruguayan citizens. Finally, in free zones, three-quarters of the labor force must be Uruguayan residents.

47 As a result of Law No. 16.211 of 1 October 1991 (Law on State-owned Enterprises), subsequently partly repealed, some sectors were transferred to the private sector under contracts or concessions, or may be entrusted to the private sector.
The Investment Law

Investment in Uruguay, including investment under the foreign investment regime, is governed by Law N° 16.906, dated 7 January 1998, and other decrees. The regime contains a number of general investment incentives which mainly take the form of tax exemption. Decree N° 455/2007 updated the existing investment regime to comply with the new Tax Regime (adopted in 2007) and to extend benefits to a wider range of economic activities.

Initially, only industrial (manufacturing and mining) and agricultural activities benefitted from the investment regime. Services, other than those related to tourism, agriculture and industry, were not generally eligible for incentives. Under the new regime, services and trade-related activities can be eligible for the investment incentives.

The foreign investment regime defines a system of tax exonerations and tariff concessions. The government can grant additional promotional concessions if companies contribute to specific objectives (export expansion and diversification; establishment of new enterprises or strengthening of existing ones; encouragement of technological development and support services for industry; employment generation, integration of activities, promotion of small and medium-sized enterprises; geographical decentralization).

Special incentives for FDI

There are no special incentives for foreign investment and there is no discrimination between Uruguayan and foreign investors, apart from the exceptions mentioned before. Uruguay has signed Investment Promotion and Protection Agreements with 27 countries and it has ratified two additional investment agreements: a BIT with the United States, and, an Investment Chapter included in the FTA with Mexico.

Within the framework of MERCOSUR, Uruguay negotiated two investment protocols: the Buenos Aires Protocol on the Promotion and Protection of Investment Proceeding from Non-Member Countries of the MERCOSUR (Decision N°11/94); and the Protocol of Colonia for the Promotion and Reciprocal Protection of Investments (Decision N°11/93) for investment by MERCOSUR members. None of these agreements are in force. Uruguay further signed double taxation agreements with Germany and Hungary.

Uruguay's Constitution establishes the right to compensation in the case of expropriation. In case of a dispute between an investor and the Uruguayan State, the matter can be referred to international arbitration such as the International Centre for Settlement of Investment Disputes. There has been no case of expropriation since the new Constitution was adopted in 1996.
Table AII.1: Uruguay's Foreign Investment Restrictions.

<table>
<thead>
<tr>
<th>Sector</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fisheries</strong></td>
<td>Commercial fishing, including marine hunting activities, performed in internal waters and in the territorial sea within a distance of 12 miles, measured from the base lines, is reserved exclusively to licensed Uruguayan-flagged vessels. Such vessels must be commanded by captains, merchant marine officials, or fishing masters that are Uruguayan nationals, and at least 50 percent of the crew of such vessels must be Uruguayan nationals. Commercial foreign-flagged vessels are only allowed to fish and hunt between the 12-mile area referred to above and 200 miles, subject to authorization of the Executive branch, as recorded in the register maintained by the Dirección Nacional de Recursos Acúticos. The processing and marketing of fish may be subject to a requirement that the fish be totally or partially processed in Uruguay.</td>
</tr>
<tr>
<td><strong>Printed Media</strong></td>
<td>Only a Uruguayan national may be the editor of a newspaper, magazine, or periodical published in Uruguay.</td>
</tr>
<tr>
<td><strong>Radio &amp; Television</strong></td>
<td>Free over-the-air television and AM/FM radio broadcasting services may only be supplied by Uruguayan nationals. All stockholders or partners in broadcasting enterprises supplying such broadcasting services in Uruguay or established in Uruguay must be Uruguayan nationals domiciled in Uruguay. Senior management, members of the boards of directors, and the editor or manager of broadcasting enterprises must be Uruguayan nationals. The manager of a subscriber (cable, satellite, MMDS) television enterprise must be a Uruguayan national.</td>
</tr>
<tr>
<td><strong>Railway transportation services</strong></td>
<td>In order to provide railway passenger and cargo transportation services, a railway operator must obtain a license from the Dirección Nacional de Transporte, which issues a resolution granting the license. Among the requirements for obtaining the license are: (a) at least 51 percent of the paid-in capital of the railway operator must be owned by Uruguayan nationals domiciled in Uruguay or by Uruguayan enterprises that meet the same requirement for paid-in capital; and (b) at least 51 percent of the railway operator's board of directors or managing board must be composed of Uruguayan nationals domiciled in Uruguay. Under the Acuerdo sobre Transporte Internacional Terrestre (ATIT) among the Southern Cone countries, access to international railway cargo transportation services is accorded, on the basis of reciprocity, to railway operators of Uruguay.</td>
</tr>
<tr>
<td><strong>Road Transportation Services</strong></td>
<td><strong>Passenger Transportation</strong> – The State reserves to itself the provision of public regular national and international passenger transportation services (both regularly scheduled and non-regularly scheduled). Only Uruguayan nationals or enterprises may be granted concessions and permits. Uruguayan enterprises are those (i) managed, (ii) controlled, and (iii) in which more than 50 percent of the capital is owned by Uruguayan nationals domiciled in Uruguay. <strong>Domestic Cargo Transportation</strong> – There are no restrictions on domestic (point-to-point) cargo road transportation services. International Passenger and Cargo Transportation – Only enterprises with more than 50 percent of their share capital owned and effectively controlled by Uruguayan nationals may provide international cargo and passenger transportation.</td>
</tr>
<tr>
<td><strong>Maritime Transportation Services and Ancillary Services</strong></td>
<td>Cabotage trade, shall be reserved to Uruguayan-flagged vessels. Such vessels are exempt from designated taxes, such as those on equipment, sales, and income of fleets. Waivers permitting foreign-flagged vessels to perform cabotage services may be granted by the Executive branch when Uruguayan-flagged vessels are not available. Vessels providing cabotage transportation services within Uruguay are subject to the following requirements: (a) if owned by natural persons, vessels must be owned by Uruguayan nationals domiciled in Uruguay; and (b) if owned by an enterprise: (i) 51 percent of the owners of such enterprise must be Uruguayan nationals; (ii) 51 percent of the voting shares must be owned by Uruguayan nationals; and (iii) the enterprise must be controlled and managed by Uruguayan nationals. Uruguayan-flagged vessels shall be qualified to perform cabotage transportation services if the owners of such vessels are Uruguayan nationals, and their crews (including the captain) are composed of at least 50 percent Uruguayan nationals. Half of all cargo transportation of Uruguayan foreign trade (imports and exports) is reserved for Uruguayan-flagged vessels, however, waivers are granted to foreign-flagged vessels to carry the reserved portion of the foreign trade. Uruguay may impose restrictions on access to cargo transportation of Uruguayan foreign trade on the basis of reciprocity. Uruguayan-flagged merchant vessels are entitled to designated tax exemptions, if: (a) owned by natural persons, vessels must be owned by Uruguayan nationals domiciled in Uruguay; and (b) owned by an enterprise, vessels must be under the control and direction of Uruguayan nationals. The crew of Uruguayan merchant vessels must meet the following requirements: (a) 50 percent of the crew (including the captain) of vessels operating under traffic authorized by the competent authority must be Uruguayan nationals; and (b) vessels not operating under traffic authorized by the competent authority, their Captain, Chief Engineer, and the Radio Operator or the Chief Steward must be Uruguayan nationals.</td>
</tr>
<tr>
<td><strong>Air transportation services</strong></td>
<td>Only a national air transportation enterprise may operate aircraft in domestic air transportation service (cabotage) and may provide international scheduled and non-scheduled air transportation services as an Uruguayan air carrier. Only a national air transportation enterprise may operate aircraft in domestic non-transportation air services. An enterprise must be 51 percent owned by Uruguayan nationals domiciled in Uruguay. All crew and other personnel, including management must be Uruguayan nationals, unless otherwise authorized by the Dirección Nacional de Aviación Civil e Infraestructura Aeronáutica.</td>
</tr>
</tbody>
</table>

Table AII.2: Uruguay: Foreign Investment Future (Possible) Restrictions.

<table>
<thead>
<tr>
<th>Sector</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Sectors</td>
<td>Uruguay reserves the right to adopt or maintain any measure that accords rights or preferences to minorities due to social or economic reasons.</td>
</tr>
<tr>
<td>All Sectors</td>
<td>Uruguay reserves the right to adopt or maintain any measure that limits the transfer or disposal of any interest held in an existing state enterprise, such that only a Uruguayan national may obtain such interest. The limitation in the preceding sentence, however, pertains only to the initial transfer or disposal of such interest, and not to subsequent transfers or disposals. Uruguay reserves the right to adopt or maintain any measure that limits control of, or imposes requirements on, any new enterprise created by the transfer or disposal of any interest as described in the preceding paragraph, such as through measures relating to the structure of the board of directors, but not through limitations on the ownership of the interest transferred. Uruguay also reserves the right to adopt or maintain any measure related to the nationality of senior management and members of the board of directors in such a new enterprise. The current sub-sectors in which there are state monopolies are: Oil refining and importation — Administración Nacional de Combustibles, Alcohol y Portland (ANCAP) Basic Telecommunications — Administración Nacional de Telecomunicaciones (ANTEL) Electricity Distribution — Administración Nacional de Usinas y Transmisiones Electricas (UTE) Water Distribution — Administración de las Obras Sanitarias del Estado (OSE)</td>
</tr>
<tr>
<td>All Sectors</td>
<td>Uruguay reserves the right to adopt or maintain any measure that accords differential treatment to countries under any bilateral or multilateral international agreement in force or signed prior to the date of entry into force of this Treaty, or after the date of entry into force of this Treaty, involving: (a) aviation; (b) fisheries; (c) maritime matters, including salvage; or (d) telecommunications.</td>
</tr>
<tr>
<td>Road, Railway, Airport, and Port Services and Infrastructure</td>
<td>Uruguay reserves the right to adopt or maintain any measure with respect to the renewal or re-negotiation of existing concessions relating to road, railway, airport, port services and infrastructure.</td>
</tr>
<tr>
<td>Postal Services</td>
<td>Uruguay reserves the right to adopt or maintain any measure that restricts the receipt, processing, transport, or delivery of periodic invoices provided by state enterprises, including ANTEL (basic telecommunications), UTE (electricity distribution), and OSE (water distribution).</td>
</tr>
<tr>
<td>Social Services</td>
<td>Uruguay reserves the right to adopt or maintain any measure with respect to the provision of law enforcement services, and the following services to the extent they are social services established or maintained for a public purpose: rehabilitation and social re-adaptation services, social security or unemployment benefits, social welfare, public education, public training, health, child care, public sewage services, and water supply services.</td>
</tr>
<tr>
<td>Traditional Events and Festivals</td>
<td>Uruguay reserves the right to adopt or maintain any measure with respect to the organization and development of events relating to popular national traditions, such as parades and Carnaval.</td>
</tr>
<tr>
<td>Railway Transportation Services and Ancillary Services</td>
<td>Uruguay reserves the right for the Ministerio de Transporte y Obras Publicas to adopt or maintain performance requirements, provided that they are &quot;adequate, transparent, and nondiscriminatory&quot; under Uruguayan law.</td>
</tr>
</tbody>
</table>

Other regulation related to logistics services

Uruguay has adopted a series of domestic regulatory reforms which have addressed sector-specific issues on competition, custom reform, and government procurement. These reforms had a direct impact on the provision of logistics services.

**Competition Law**

In 2007, Uruguay adopted a competition law (Law on the Promotion and Protection of Competition, N° 18.159 and its decree N° 404/007). The law seeks to promote competition and to correct anti-competitive practices in a small and highly concentrated economy where the State owns natural monopolies.\(^{48}\)

State monopolies continue to exist in distribution and transmission of electricity (UTE); fixed telephony (ANTEL); and drinking water and sanitation services (OSE). The government is also legally responsible for controlling rail freight transportation (AFE) and port management (ANP), although these services may be entrusted to the private sector under a concessionary regime. Decree N° 71/008 permits a partnership between AFE and private firms for rail freight transportation; it also allows national or foreign investors to own up to 51 percent of shares. Similarly, Law No. 16.246 of 8 April 1992 (Free Port Law) allows private companies to provide port services. Private companies may obtain concessions and permits to perform operations such as loading and unloading, movement of goods within ports, general docking services and the use of container zones. Ports facilities remain in State ownership.

**Government Procurement**

The transparency in government procurement has been enhanced since 2002\(^{49}\). Although legislation provides that government procurement should occur via an open public bidding process with the price as the main evaluation criterion, national bidders are given preferences if up to 10 percent of the value added is locally produced.

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\(^{48}\) The State monopolies do not have jurisdiction in the free trade zones. It is therefore possible to develop telecommunication systems that are independent from ANTEL (State telephone company), and also to purchase fuel from any source. This allows tenants to benefit from a free competition regime.

\(^{49}\) Uruguay is not a party to the WTO Plurilateral Agreement on Government Procurement.
Regulation for Air Transportation, Maritime and Fluvial Transportation

Air Transportation

In reference to air transportation services, Uruguay participates in several international agreements and conventions on air transportation, including the 1944 Chicago Convention. The Protocol amending Article 56 of the International Civil Aviation Convention, signed in Montreal on 6 October 1989, was ratified by Uruguay in 1992 and entered into force in 2005. Law No. 17.093 from 28 May 1999 ratified the Agreement on Sub-regional Air Services (Fortaleza Agreement) among MERCOSUR member countries and Bolivia, Chile and Peru. The aim of this agreement is to enable sub-regional air service on routes not subject to bilateral agreements.\(^{50}\)

Maritime and Fluvial Transportation

Regarding maritime transport, Uruguay is part of a number of international agreements on maritime navigation. It ratified the International Convention for the Safety of Life at Sea (SOLAS) 1974 and incorporated it into its domestic legislation under Law No. 17.504 dated 25 June 2002. Uruguay is on the "White List" of the International Maritime Organization. The Uruguayan Navy is responsible for implementing international conventions on navigation, safety at sea, prevention of pollution and safety of human life at sea. The Ministry of Transport (MTOP) is responsible for international transport agreements.

Uruguay has also signed the Inter-American Convention on Facilitation of International Waterborne Transportation (Mar del Plata Convention) dated 7 June 1963 and the Paraguay-Paraná River Waterway Treaty, including the six additional Protocols. Uruguay and Argentina have incorporated part of the Uruguay River Treaty into the Waterway regime through an exchange of letters between the two countries in February 1997. In addition, Uruguay takes part in MERCOSUR's Sub-Working Group 5 on transport.

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\(^{50}\) Uruguay has bilateral air transport agreements with Argentina, Austria, Bolivia, Brazil, Chile, Colombia, Cuba, Denmark, France, Germany, Israel, Jordan, Morocco, the Netherlands Antilles, the Netherlands, Norway, Panama, Paraguay, Peru, Portugal, Romania, Spain, Sweden, Switzerland, the Russian Federation, the United Kingdom, the United States of America and Venezuela. In October 2004, Uruguay signed an open skies agreement with the United States of America, having already signed one with Chile; it also has an open skies agreement with Panama.
Regulation of Transportation and Logistics Services in Uruguay

Domestic legislation for transport and logistics consists of three pillars: (1) the Free Port regime (2) the Bonded Warehousing regime, and (3) the Free Zones legislation. The Free Port legislation applies to customs port authorized to operate under that regime, customs warehouses are applicable to the rest of the customs territory, and free zones are customs enclaves.

Free Port Regime

The Free Port regime was established by Law No. 16,246 "Law on Ports" of April 8, 1992. This law applies to the Port of Montevideo, but can be extended to other ports and terminals, where the customs and port area is legally defined.

The legislation sets out four principles. First, the law sets out the provision of efficient and competitive port services as a priority for development. The law establishes that services will be provided, if required, twenty-four hours per day and on every day of the year. Efficiency and competitiveness are to be achieved via: a) the promotion of free competition; b) the prevention of unfair competition; c) the prevention, or, at least control, of de facto monopolies; d) pursuit of technological excellence; and e) adequate publicity, transparency and impartiality in proceedings.

A second principle sets out the free movement of goods within the port. This implies that neither permits nor formal procedures are required to move goods within the port. The transfer of goods from the port to the national customs territory is considered an import, while the introduction of national or nationalized goods into the port must comply with the rules for export.

Third, while within the port customs precinct, goods are exempt from all taxes and import surcharges. Goods may be subject to certain transformations as long as they do not modify their nature. Permitted activities are limited to warehousing, repackaging, assembly, consolidation, handling and fractionation. The final destination of goods that enter the port can be changed without limitations.

Finally, the law provides, with approval of the Executive Branch, flexibility to the National Ports Administration (ANP) in handling concessions, contracts and partnerships. ANP can grant concessions, permits and authorizations to individuals or legal entities, whether public or private to:

- provide ports services both maritime and auxiliary services;
- use open or closed (warehouse) spaces within the port customs precinct to store, review, classify, clustering or divided, goods, and
- build facilities required for the development of their activities;
- contract the provision of port services to third parties, and
- partner with private capital for the provision of port services, through participation in legal entities with the integration of NPA in the board and capital.
Concessions within the port can only be granted if the licensee assumes the costs of any additional work required for the provision of new services or to expand existing ones.

A critical aspect in relation to the regulatory framework and development of port activities is the State's participation in private companies. The national port authority, ANP, participates in the TCP container terminal in the Port of Montevideo. Article 20 of Law No. 17,243 authorized ANP partnership - in conformity with the third paragraph of Article 188 of the Constitution of the Republic - with private capital in the administration, construction, maintenance and operation of a terminal container at the Port of Montevideo. It ruled that the State should have two representatives on the Board and that the regulation should provide for, among others, a period to use facilities for 30 years. It further established a maximum rate and a user fee to be paid to ANP, and the requirement to make necessary investments in a given period. The constitutional provision establishes that the law must authorize in a case by case basis the State’s participation in industrial, agricultural or commercial enterprises formed by private capital, ensuring the State intervention in the management of the company.

**Bonded Warehousing**

Another regime directly related to the logistics activities are the bonded warehousing (BW), which are currently governed by Decree No. 216/006 of 10 July 2006, its main features are:

i. **Definition:** BW are private precincts that pursuant to the Uruguayan’s Customs Code (UCC) rules have been duly authorized for the storage of goods in transit. In this regard, the UCC defines BW as are enclosed spaces, open or covered, where goods are stored with the permission of Customs. The storage of goods in warehouses and ports authorized to operate under the Freeport regime, are excluded from the provisions of this decree.

ii. **Goods of foreign origin** are considered in transit and can be landed or re-landed at any time - free of import, export or any internal taxes. Stored goods are placed in a duty-free customs territory referred to as "customs warehousing". Goods cannot remain in this regime for more than one year, even if moved to another warehouse by the same or different owner.\(^{51}\)

iii. **Authorized operations.** While in a BW goods, may be subject to the operations authorized by the CCU regime. In this regards BW can be special, trademarks, francs, industrial or temporary.\(^{52}\)

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\(^{51}\) After this period, the storage system automatically expires and goods are considered abandoned. Exceptions are applicable to equipment and supplies for shipping, safe and secure sailing, fishing and property for repair of ships and aircraft, own by the sender.

\(^{52}\) Authorized operations, commercial WB, the goods may only be subject to operations to ensure their conservation, prevent deterioration and to facilitate their release, such as review, weighing and sampling, repair, replace and highlight packages and other similar operation that does not increase the value or change the nature of them were also allows the fractionation of remittances but not the splitting of packages (Article 98 of CAU). Article 96 of the UCC provides for special PWB for splitting parcels. In warehouses
iv. Authorization and control. The NCA is responsible for the authorization, supervision, control and surveillance of customs warehouses and any goods entering and leaving them. The entry or exit of a good in a customs warehouse or cancellation requires the prior NCA approval. BW administration requires a permit, which is discretionary and non-transferable, and its term cannot exceed five years (but may be renewed). Transit goods can be stored in BW if the owner or custodian is the authorized BW operator.

BW can be authorized to operate anywhere in the national customs territory, excluding customs port. Unlike deposits in the Freeport, BW may include industrial operations that change the nature of the goods.

Free Zones

The Free Zones legislation (FZ) is governed by Law No. 15921 of 17 December 1987 and related amendments. Its main provisions with respect to transport and logistics include:

i. Definition of authorized activities and FZ. FZ are areas of the national territory of public or private property, fenced and isolated efficiently, as determined by the Executive, in order to develop - under special tax exemptions and subject to benefits detailed in the law - any class of industrial, commercial or service activities.

ii. Management, control and exploitation. The administration, supervision and control of the FZ are the responsibility of the Ministry of Economy & Finance through the Directorate of Free Zones. Each FZ can be operated by the state or by the private sector, if duly authorized (authorization is expensive). Private operators are not allowed to operate under the exemptions and benefits granted to FZ users. Users are individuals or entities authorized to develop any of the above activities (firms in FZ cannot develop industrial, commercial and service activities outside of the FZ).

iii. Goods regime. Foreign goods within the FZ are located in a territorial franchise (Article 91 of the CAU). Goods introduced to FZ - whatever their origin - are exempt from all taxes or other instruments of equivalent effect, even those that by law require specific exemptions, and regardless of their nature.

...
iv. The same treatment applies to the exit of goods previously introduced to, or produced in, the FZ. The introduction of goods from the national custom territory to the FZ must conform to existing norms for export. The introduction of goods from the FZ to the national territory is considered a non-free import, as such taxes, and fees apply as for any other imported good. Goods of foreign origin for FZ must immediately comply with that destination, and may not remain in any warehouse, except those located within the customs and for the maximum period allowed before their introduction to their FZ.

v. Other exemptions and tax benefits. Users of FZ are exempt from national taxation, current or future, including those specific exemption required by law with respect to the activities developed in the Zone. Not exempted are contributions to social security and any legal financial benefits related to social security.

vi. FZ users must employ a minimum of 75% of Uruguayan staff in order to maintain their FZ status.

vii. The State monopolies do not apply within FZ.

Like BW, FZ does not restrict the operations that can be performed with. Unlike BW, it provides certain tax benefits. Customs controls the entry and exit of goods to and from FZ, but unlike BW and Free Port, there are no customs controls within the FZ (they are a customs enclave).
Table AII.3: Logistics Services: Comparing GATS and MERCOSUR commitments

<table>
<thead>
<tr>
<th></th>
<th>ARGENTINA Market Access</th>
<th>ARGENTINA National Treatment</th>
<th>BRAZIL Market Access</th>
<th>BRAZIL National Treatment</th>
<th>URUGUAY Market Access</th>
<th>URUGUAY National Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td>M</td>
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<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

**CORE FREIGHT LOGISTICS SERVICES**

H. Auxiliary services to all modes of transport
   a. Cargo handling
   b. Storage and Warehousing

**RELATED FREIGHT LOGISTICS SERVICES**

11. Transport services
   A. Maritime Transport Services
   B. Internal Waterways Transport
   C. Air Transport Services
   E. Rail Transport Services: b. rail freight
   F. Road Transport Services: b. road freight

1. Business services
   A. Professional services:
      e. Engineering services
      f. Integrated engineering services
   F. Other Business Services:
      e. Technical testing and analysis serv.

2. Communications services
   B. Courier services
### 4. Distribution services

**A. Commission agents' services**

**B. Wholesale trade excluding wholesale trade services for solid, liquid and gaseous fuels and related production**

**C. Retailing services**

**NON-CORE FREIGHT LOGISTICS SERVICES**

**B. Computer and related services**

**c. Management consulting services**

**d. Services related to Management Consulting**

Source: Based on WTO (2006, 2007, and 2009), Table AIV.2 Summary of Uruguay’s specific commitments under the GATS, Table AIV.2 Summary of Argentina’s specific commitments under the GATS and Table AIV.1 Summary of Brazil specific commitments under the GATS, and Protocolo de Montevideo sobre el Comercio de Servicios del MERCOSUR - Anexos con Disposiciones Específicas Sectoriales y Listas De Compromisos Específicos Iniciales, http://www.MERCOSUR.int/msweb/Portal%20Intermediario/ES/index.htm

**Notes:**

- For GATS **Commitments** (■ full; □ partial; □ no commitment; - does not appear in the Schedule)

- For MERCOSUR **Commitments** (■ full; □ partial; □ no commitment; - does not appear in the Schedule)

- The results in the table must be interpreted with caution. A partial commitment implies that a condition(s) is included under market access and/or national treatment. This does not say anything about the degree of restrictiveness that the condition entails. In addition, horizontal terms and conditions included in the schedules must be taken into consideration. Moreover, full does not necessarily mean that all the services relevant to logistics services are included in the commitments adopted. For instance, in the case of Brazil computer services do not include time-stamping and digital certification.
Table AII.4: MERCOSUR Sixth Round of Negotiations: Results not ratified.  

<table>
<thead>
<tr>
<th>CORE FREIGHT LOGISTICS SERVICES</th>
<th>ARGENTINA</th>
<th>BRAZIL</th>
<th>URUGUAY</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Market Access</td>
<td>National Treatment</td>
<td>Market Access</td>
</tr>
<tr>
<td></td>
<td>M M M</td>
<td>M M M</td>
<td>M M M</td>
</tr>
<tr>
<td>H. Auxiliary services to all modes of transport</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a Cargo handling (741)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b Storage and Warehousing (742)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c Transport agency services (748)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. Other auxiliary services (749)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RELATED FREIGHT LOGISTICS SERVICES</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Transport services</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a Maritime Transport</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Internal Waterways</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E. Rail Transport:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Rail freight</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F. Road Transport:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Road freight</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Business services</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Professional services:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e. Engineering services</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>f. Integrated engineering services</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The results in the table must be interpreted with caution. A partial commitment implies that a condition(s) is included under market access and/or national treatment. This does not say anything about the degree of restrictiveness that the condition entails. In addition, horizontal terms and conditions included in the schedules must be taken into consideration. In addition, full does not necessarily mean that all the services relevant to logistics services are included in the commitments adopted. For instance, a country may have included maritime cargo services (7212), but may have excluded rental or lease services of vessel with operator.
**F. Other Business Services:**

- Technical testing and analysis services

**2. Communications services**

- B. Courier services

**4. Distribution services**

- Commission agents
- Wholesale trade
- Retailing services

**NON-CORE FREIGHT LOGISTICS SERVICES**

- B. Computer and related services
- c. Management consulting services
- d. Services related to Management Consulting

*Source: MERCOSUR/CMC/Dec. N° 01/06 Sexta Ronda de Negociación de Compromisos Específicos en materia de servicios.*

**Note:** Commitments (■ full; □ partial; □ no commitment; - does not appear in the Schedule)

- a) Brazil original commitments did not include any limitations under market access for mode 3. In the current schedule under ratification there are qualifications for the provision of auxiliary services for air transportation services.
- b) Excluded from the Montevideo Protocol.
- c) Excludes international freight transport.
- d) Excludes cabotage.
- e) Does not include commitment on all categories.
- f) Excludes wholesale trade services of solid, liquid, gaseous fuels and related products.
- g) Retail sales of fuel oil, bottled gas, and wood
# Annex III: Tariffs Applied in Preferential Trade Agreements Concluded by Uruguay

In percentage, 2008

<table>
<thead>
<tr>
<th>HS section</th>
<th>Description</th>
<th>Number of lines (MFN applied)</th>
<th>MFN (applied)</th>
<th>Bolivia</th>
<th>Colombia</th>
<th>Argentina</th>
<th>Brazil</th>
<th>Paraguay</th>
<th>MERCOSUR</th>
<th>Venezuela</th>
<th>Ecuador</th>
<th>Mexico</th>
<th>Chile</th>
<th>Peru</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>Live animals and animal products</td>
<td>664</td>
<td>8.5</td>
<td>0.0</td>
<td>3.4</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>3.3</td>
<td>1.5</td>
<td>4.0</td>
<td>0.0</td>
<td>0.2</td>
</tr>
<tr>
<td>02</td>
<td>Plant products</td>
<td>388</td>
<td>7.4</td>
<td>0.0</td>
<td>2.7</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>3.0</td>
<td>1.1</td>
<td>2.3</td>
<td>0.3</td>
<td>0.5</td>
</tr>
<tr>
<td>03</td>
<td>Fats and oils</td>
<td>84</td>
<td>10.0</td>
<td>0.1</td>
<td>4.6</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>5.1</td>
<td>1.7</td>
<td>3.1</td>
<td>0.0</td>
<td>0.7</td>
</tr>
<tr>
<td>04</td>
<td>Food preparations, etc.</td>
<td>357</td>
<td>14.7</td>
<td>0.1</td>
<td>7.5</td>
<td>0.3</td>
<td>0.3</td>
<td>0.2</td>
<td>0.2</td>
<td>7.6</td>
<td>3.5</td>
<td>4.8</td>
<td>1.0</td>
<td>1.3</td>
</tr>
<tr>
<td>05</td>
<td>Mineral products</td>
<td>208</td>
<td>2.4</td>
<td>0.0</td>
<td>0.7</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>1.5</td>
<td>0.5</td>
<td>0.0</td>
<td>0.0</td>
<td>0.1</td>
</tr>
<tr>
<td>06</td>
<td>Products of the chemical and related industries</td>
<td>3,001</td>
<td>9.5</td>
<td>0.1</td>
<td>3.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>4.0</td>
<td>1.8</td>
<td>0.0</td>
<td>0.0</td>
<td>0.6</td>
</tr>
<tr>
<td>07</td>
<td>Plastics and rubber</td>
<td>455</td>
<td>11.9</td>
<td>0.7</td>
<td>5.2</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>5.2</td>
<td>2.8</td>
<td>0.0</td>
<td>0.4</td>
<td>3.3</td>
</tr>
<tr>
<td>08</td>
<td>Hides and skins</td>
<td>322</td>
<td>13.9</td>
<td>0.0</td>
<td>6.3</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>6.7</td>
<td>2.2</td>
<td>0.0</td>
<td>0.0</td>
<td>0.9</td>
</tr>
<tr>
<td>09</td>
<td>Wood and articles of wood</td>
<td>136</td>
<td>7.9</td>
<td>0.0</td>
<td>3.8</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>3.9</td>
<td>1.1</td>
<td>0.0</td>
<td>0.0</td>
<td>0.5</td>
</tr>
<tr>
<td>10</td>
<td>Wood pulp, paper, etc.</td>
<td>253</td>
<td>7.7</td>
<td>0.1</td>
<td>3.5</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>3.8</td>
<td>1.9</td>
<td>0.0</td>
<td>0.4</td>
<td>1.8</td>
</tr>
<tr>
<td>11</td>
<td>Textiles and textile articles</td>
<td>1,210</td>
<td>16.6</td>
<td>0.3</td>
<td>6.8</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>7.5</td>
<td>4.1</td>
<td>0.1</td>
<td>0.0</td>
<td>1.3</td>
</tr>
<tr>
<td>12</td>
<td>Footwear, hats and other headgear</td>
<td>98</td>
<td>21.1</td>
<td>1.3</td>
<td>11.1</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>11.5</td>
<td>6.0</td>
<td>4.3</td>
<td>0.0</td>
<td>1.6</td>
</tr>
<tr>
<td>13</td>
<td>Articles of stone</td>
<td>257</td>
<td>11.5</td>
<td>0.2</td>
<td>5.1</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>6.0</td>
<td>2.7</td>
<td>0.1</td>
<td>0.0</td>
<td>1.6</td>
</tr>
<tr>
<td>14</td>
<td>Precious stones, etc.</td>
<td>72</td>
<td>9.8</td>
<td>0.0</td>
<td>5.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>5.1</td>
<td>1.7</td>
<td>0.0</td>
<td>0.0</td>
<td>2.5</td>
</tr>
<tr>
<td>15</td>
<td>Base metals and articles of base metal</td>
<td>767</td>
<td>10.5</td>
<td>0.0</td>
<td>4.7</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>5.2</td>
<td>2.2</td>
<td>0.0</td>
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<td>0.7</td>
</tr>
<tr>
<td>16</td>
<td>Machinery and mechanical appliances</td>
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<td>7.2</td>
<td>1.2</td>
<td>3.6</td>
<td>0.0</td>
<td>0.0</td>
<td>0.1</td>
<td>0.0</td>
<td>4.8</td>
<td>1.9</td>
<td>0.0</td>
<td>0.6</td>
<td>1.3</td>
</tr>
<tr>
<td>17</td>
<td>Transport equipment</td>
<td>234</td>
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<td>0.7</td>
<td>5.0</td>
<td>0.1</td>
<td>0.1</td>
<td>0.8</td>
<td>0.3</td>
<td>5.2</td>
<td>3.4</td>
<td>0.2</td>
<td>0.8</td>
<td>0.2</td>
</tr>
<tr>
<td>18</td>
<td>Precision instruments</td>
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<td>0.0</td>
<td>0.0</td>
<td>7.6</td>
<td>2.4</td>
<td>0.0</td>
<td>0.0</td>
<td>0.9</td>
</tr>
<tr>
<td>19</td>
<td>Arms and ammunition</td>
<td>20</td>
<td>20.0</td>
<td>0.0</td>
<td>9.6</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>9.6</td>
<td>3.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>20</td>
<td>Miscellaneous manufactured articles and products</td>
<td>180</td>
<td>18.2</td>
<td>0.1</td>
<td>7.8</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>6.4</td>
<td>4.3</td>
<td>0.0</td>
<td>0.4</td>
<td>1.9</td>
</tr>
<tr>
<td>21</td>
<td>Works of art, etc.</td>
<td>9</td>
<td>4.0</td>
<td>0.0</td>
<td>0.3</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.3</td>
<td>0.1</td>
<td>0.0</td>
<td>0.0</td>
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</tr>
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Source: Trains - WITS
## ANNEX IV: TRADE FACILITATION REFORM

### Table AIV.1: Regression Results of Trade Facilitation Gravity Model

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Heckman OLS</td>
<td></td>
</tr>
<tr>
<td>Customs efficiency:</td>
<td>0.129 [0.043]***</td>
<td>0.187 [0.041]***</td>
</tr>
<tr>
<td>Business environment</td>
<td>0.154 [0.032]***</td>
<td>0.106 [0.030]***</td>
</tr>
<tr>
<td>ICT</td>
<td>0.017 [0.040]</td>
<td>0.073 [0.036]**</td>
</tr>
<tr>
<td>Infrastructure</td>
<td>0.562 [0.047]***</td>
<td>0.614 [0.045]***</td>
</tr>
<tr>
<td>Tariff</td>
<td>-1.398 [0.227]***</td>
<td>-1.325 [0.222]***</td>
</tr>
<tr>
<td>Distance between countries</td>
<td>-0.978 [0.019]***</td>
<td>-1.042 [0.018]***</td>
</tr>
<tr>
<td>GDP</td>
<td>0.951 [0.015]***</td>
<td>1.013 [0.013]***</td>
</tr>
<tr>
<td>Population</td>
<td>0.194 [0.015]***</td>
<td>0.213 [0.014]***</td>
</tr>
<tr>
<td>Regional Trade Agreement, Dummy</td>
<td>0.481 [0.039]***</td>
<td>0.455 [0.037]***</td>
</tr>
<tr>
<td>Landlocked</td>
<td>-0.154 [0.036]***</td>
<td>-0.214 [0.034]***</td>
</tr>
<tr>
<td>Common border</td>
<td>1.197 [0.070]***</td>
<td>1.173 [0.074]***</td>
</tr>
<tr>
<td>Common language</td>
<td>0.533 [0.042]***</td>
<td>0.736 [0.037]***</td>
</tr>
<tr>
<td>Colonial relationship</td>
<td>0.393 [0.057]***</td>
<td>0.329 [0.059]***</td>
</tr>
<tr>
<td>Common colonizer post 1945</td>
<td>0.955 [0.059]***</td>
<td>0.990 [0.057]***</td>
</tr>
<tr>
<td>Constant</td>
<td>-3.302 [0.426]***</td>
<td>-6.288 [0.331]***</td>
</tr>
<tr>
<td>Observations</td>
<td>40400</td>
<td>35762</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.75</td>
<td></td>
</tr>
</tbody>
</table>

*Source: Portugal-Perez and Wilson (2009b)*
## Table AIV.2: Exports growth and ad-valorem equivalent of improvement half the way to the level of the US

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Chile</td>
<td>6.3%</td>
<td>8.8%</td>
<td>0.1%</td>
<td>0.2%</td>
<td>1.2%</td>
<td>1.7%</td>
<td>-0.9%</td>
<td>-1.2%</td>
</tr>
<tr>
<td>Panama</td>
<td>7.8%</td>
<td>11.0%</td>
<td>0.3%</td>
<td>0.5%</td>
<td>-0.1%</td>
<td>-0.2%</td>
<td>3.9%</td>
<td>5.4%</td>
</tr>
<tr>
<td>Jamaica</td>
<td>11.8%</td>
<td>16.4%</td>
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*Source: Portugal-Perez and Wilson (2009b)*
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